George Osborne: [00:00:00] Mr. Deputy Speaker, I'm not prepared to look back at my time here in this parliament doing this job and say to my children's generation, I'm sorry. We knew there was a problem with sugary drinks. We knew it caused disease, but we ducked the difficult decisions and we did nothing. So today I can announce that we will introduce a new sugar levy on the soft drinks industry,

GILES: that is the [00:00:30] voice of George Osborne, announcing part of his 2016 budget in parliament.

GILES: A brand new policy targeting the obesity crisis in children here in the uk, but where did the policy come from? Who's behind a policy like that? That is the focus of our episode. Welcome to Next Generation Research, where we bring you to the heart of the most important and exciting research happening at the moment.

GILES: I'm Professor Giles Yeo, [00:01:00] a scientist at the University of Cambridge. And in each episode, I have the pleasure of introducing you to one of the best researchers working in the UK right now. All of them are part of the Future Leaders Fellowship, a scheme that supports their research. They are all working to solve problems and improve our lives as we know them.

GILES: In this, the final episode of our first series, we're going to lift the curtain on who and what influences government policy [00:01:30] and whether it ever sees the light of day. Dr. Oliver Mytton is an associate professor at the Institute of Child Health at University College London. He trained as a doctor and then moved into policy after feeling like he wanted to do more to help prevent illnesses caused by obesity.

GILES: His main focus is now doing research to develop the evidence base, which can inform policies to prevent childhood obesity.[00:02:00]

Oliver: Most people tend to focus on how we treat or help people who already have obesity or excess weight, whereas my focus is how we stop children getting
into that position in the first place. And rather than thinking about working with individuals, individual kids, or or families, my focus is really looking at some of the bigger environmental influences.

Oliver: Like what influences what we eat, what influences how physically active we are, how we sleep, and really think about what policies then play [00:02:30] into. How active we are and the type of food we eat.

Oliver: I'm interested in what governments can do working at a collective or societal level rather than how they might work with individuals. I think of research in two domains. One, developing an evidence base to inform an interventional policy. That hasn't yet happened and that's always quite a challenge.

Oliver: And then secondly, often where you can get much stronger evidence is actually [00:03:00] when a policy's been implemented and you actually evaluate and study the policy after implementation.

Oliver: so I sit in the obesity policy research unit here, which is really interesting because you get a different, perspective on things. You're much more working in the areas that government thinks they wanna make decisions in because they have wider implications, not just for people's health but society at large and influence people's lives in other ways and [00:03:30] potentially influence business. By necessity the things that hit the media and the things that people talk about and when politicians get involved is because it's more difficult, because there are tradeoffs. Be those financial tradeoffs or be those tradeoffs in terms of the benefits gains to one's group versus another group. And when there's uncertainty about what will happen and some of these decisions aren't just about the evidence base as such, but they're about values. Feels to me I think when it comes back to values, those are political decisions ultimately.[00:04:00]

Oliver: Sometimes it can feel exciting and interesting cuz you're doing something. It feels very kind of relevant and immediate. I think sometimes it can feel uncomfortable because you're working in a space where there's different and quite strongly contested and held views. It certainly makes for an interesting time.
Oliver: As I've matured in the field, I developed a different perspective on what. Success of what good looks like, because there's always a sense you need to deliver impact. That's a really, really hard thing to do. A lot of things are aren't in your control, and what increasingly interests me, or I try and focus much more on is getting the science and that research right, and communicating that clearly, honestly to policy makers and the public. That's where I see my focus and my job.

GILES: There are quite a few challenges to working in this field.

Oliver: Number one, it's a really messy, complex space to work. It's not simple to explain why we have higher rates of obesity now than we did 30 or 40 years ago, and so that makes the research challenging, but it also makes it interesting.

Oliver: Increasingly, we tend to think of things as operating in complex systems rather than thinking about simple linear models for how things work. And complex systems are inherently unpredictable. Doesn't mean there isn't a role for research there absolutely is. Doesn't mean there aren't things we can do there absolutely are, but it's not as predictable or straightforward as we might like it to be.

Oliver: The second big challenge is this is an area that's heavily influenced by ideology and political opinions and values, and I think it was a challenge for research from somewhat disconnecting yourself from those, but while still respecting them and trying to keep a focus on what's the evidence telling us.

Oliver: I think that's quite hard for a researcher because you get pulled into playing a different game and the game as a researcher should be, I'm trying to honestly describe my findings and their relevance to the best of my ability. Perhaps one of the most famous policies, if you like, and a policy I've been quite involved with in terms of both developing the evidence base and evaluating the effect of the policy is the decision in 2016 by government to introduce a levy on the sugar in soft drinks. What was colloquially called the Sugar tax
**GILES:** back to George Osborne [00:06:30] explaining how the sugar tax would work.

**George Osborne:** It will be levied on the companies. It will be introduced in two years time to give companies plenty of space to change their product mix. It will be assessed on the volume of the sugar sweetened drinks they produce or import.

**George Osborne:** We will of course, consult on implementation. We are introducing the levy on the industry, which means they can reduce the sugar content of their products as many already do. It means they can promote low sugar or no sugar brands [00:07:00] as many already are. They can take these perfectly reasonable steps to help with children's health. Of course, some may choose to pass the price onto consumers and that will be their decision, and this would have an impact on consumption too.

**GILES:** So that was the introduction of the policy. But we are going to have to wind back a few years because many other people had to be involved and processes undertaken to get to that point.

**Oliver:** [00:07:30] During the time when there was a lot of conversation around the government's approach to childhood obesity. Sarah Wollaston was an MP and she was chair of the Health Select committee. I think Sarah was one of the big champions for their sugar tax in Parliament saying we needed this and it was the right thing to do.

**Sarah w:** We overall held three hearings into childhood obesity. It's a very serious issue, and when you look at the evidence from the child measurement program, [00:08:00] just over 22% of children in reception were either overweight or obese. By the time they left primary school in year six, we were seeing those figures jump to being 33% of children being overweight or obese.

**Sarah w:** So we felt there was a very clear need to look at the evidence and to see how policy could be put into place, evidence-based policy that could make a difference for those children. [00:08:30]
GILES: Sarah Wollaston was an MP from 2010 until 2019. She was the chair of the Cross Party Commons Health and Social Care select committee. Select committees are small cross-party groups of MPs or members of the House of Lords that are set up to investigate a specific issue in detail. Sarah and her colleagues put out a call for evidence to take into consideration in order to advise the government on policies to tackle childhood obesity.

GILES: Select committees publish their findings in a report, and the government is expected to respond to any recommendations that are made. Part of which you heard George Osborne doing just now. The evidence that was collected came from a wide range of sources who were sharing relevant research experiences and possible solutions.

Sarah w: Evidence is extraordinarily important. That's not just from individual academics, but that'll be a number of research bodies or organisations, for example, like the Nuffield Trust or voluntary sector partners such as Diabetes UK, for example, gave us some very helpful evidence and arms length bodies such as Public Health England.

Sarah w: So the research and evidence that we receive comes from an enormous range of different individuals and organisations and of course opposing views as well. We also wanted to hear from industry. So we did hear from the Food and Drink Federation for example, because I think if the accusation is that we only ever hear the evidence that we think supports our view. That's no good to anybody.

GILES: Some of the contributors were asked to deliver their testimony to the committee in person.

Sarah w: One of the most memorable select committee witnesses we ever had was Jamie Oliver, because he just makes such a powerful, compelling case for change in very accessible language. But then there are also a number of very key witnesses from public health England being very clear in the research base and the evidence base for policy change.
Sarah w: Select committees are able to draw on specialist advisors, people with clear research backgrounds who will provide specialist advice to select committees. So for example, Oliver Mytton was a specialist advisor to the committee. MPs are not specialists. Very few of them have a scientific background and are able to analyse original research.

Sarah w: So it is very important that we have specialists who can draw attention to areas of research that really are particularly valuable to an inquiry.

Sarah w: We felt that there should be a sugar tax of some description, but we didn't just come up with a recommendation for a sugar tax. There were many other policies that we suggested, be that are multi-buys for like buy one, get one free’s. Having them. On healthy foods rather than foods with no nutritional value whatsoever.

Sarah w: We wanted to see greater curbs on advertising to children. We wanted to see greater powers for local authorities to be able to restrict unhealthy, fast food outlets in areas where there were high levels of childhood obesity, for example. And we wanted to have a similar restriction on say, portion sizes.

Sarah w: So a whole host of measures that we wanted to see, that we felt all working together could have made a difference.

GILES: Once the committee's report was published, there were certain groups who did not like the idea of a tax on sugary drinks.

Sarah w: There are a number of very powerful industry lobby groups who don't want to see any controls on advertising, who are fundamentally opposed to anything that looks like additional taxes on alcohol, salty, fatty, sugary foods. You will regularly hear people coming to select committees and directly lobbying ministers and MPs to oppose it. Their view is that it's harmful, so their interests, and they also will make the case that they don't think it's effective, so you are up against it.
**GILES:** We will come back to this process a little later in the episode, but first back to Oliver to explain how hard it is to collect evidence in this area of research.

**Oliver:** So I trained in medicine initially and in medicine is quite a sort of tried and tested pathway to introduce drugs and other interventions to help individuals on a one-to-one basis. And so there's a lot of work that goes into prior to trialling that intervention and studying how it might work. There's like a clinical pathway and it's quite a linear and predictable pathway before you actually offer the intervention to people at, at scale. You have really good evidence that that works and you can often test most of these things in the randomised control trial, which is the perfect paradigm for saying whether something works and how well it works.

**Oliver:** And one of the big challenges when we're looking at policies is we can't follow such a linear, perfect pathway. We can't do randomised control trials. We can't give half a country a sugar tax and half a country not a sugar tax. We need to think about how we generate the evidence to inform the implementation of these interventions in a very different way from how we would in a traditional medical sense.

**Oliver:** And that for me, is one of the really big challenges and really interesting parts of working in this space.

**Oliver:** We draw on lots of different methods, so epidemiology studies, a lot of kind of understanding environmental risk factors and their links with particular behaviours or with obesity itself. And then there's pieces of work that are much more around trying to understand people's perceptions, policymakers understanding sort of qualitative work, understanding the policy process.

**Oliver:** Then there are studies where we actually try and estimate the impact of an interventional policy where we can pulling on actual empirical data that tells us how we might expect these things to work. And then once a policy's actually been implemented, you might be drawing on many of the same kind of tools.
Oliver: To think about this, with the sugar drinks tags, we look at historical data. So what's happening to people's sugar consumption over time? Then at a particular point in time, sugar drinks tax is introduced. And so it's really trying to see if we see a change in that trend before and after [00:15:30] the intervention. And if we do see that change, and that's suggestive that the interventional policies had an effect.

Oliver: In a theoretical or ideal world, there would be a recognized need to address a particular issue. And I think everyone's on board with, we need to do more to prevent childhood obesity, as there may be a process of understanding what [00:16:00] works. And that's a challenge here because the real way you answer what works is you actually go ahead and do things.

Oliver: And you know, the challenge here we're sometimes stuck in a catch 22. We can't do anything cause there's any evidence about what works well. The only way we're gonna find out what works is to do some things.

GILES: Another key part of developing this policy was the evidence given by Public Health England within the Department of Health and Social Care.

Alison: [00:16:30] So on average, diets in the UK are pretty poor. Most people are consuming too much sugar, too much saturated fat, too much energy, and that's why we have an obesity problem. Over 60% of us are obese or overweight.

GILES: Dr. Allison Tedstone was the former chief nutritionist at Public Health England and the Department of Health. She worked for many years feeding science into obesity and nutrition policies.

Alison: The chief nutritionist's role is [00:17:00] to oversee the scientific evidence that is being considered by government in the formulation of nutrition and obesity policies, and also to oversee the monitoring of the nation's diet and the monitoring of some policies that are in place.

Alison: The scientific advisory committee on nutrition were reviewing all the evidence around the effect sugars may have on the population's health, and they
[00:17:30] also reviewed the state of the nation's diet with regard to sugars, and they saw people were eating a large amount of sugar, much more than recommendations that then existed.

**GILES:** This was some of the key evidence given to Sarah Wollaston and her colleagues as part of the committee.

**Alison:** In the case of sugary drinks, we had evidence that linked sugary drink consumption to increased risk of type two diabetes in adults from [00:18:00] prospective studies. And we also had randomised control trials, a number of them, that linked sugary drink consumption to increased risk of weight gain in adolescents and children.

**Alison:** Sugary drinks could count for up to a third of sugars. Being consumed by children, and that's an awful lot. So that's actually quite a strong evidence base. And the committee said that sugary drinks consumption should be minimised for children. [00:18:30] That was actually a pretty strong message and it enabled government to think about options for minimising sugary drink consumption. And one of those was sugary drinks taxes.

**GILES:** The government also wants to see evidence about the economic impact of any policy it might enact.

**Alison:** Modelling coming out of universities on the effect of a sugary drinks tax was important for feeding into those [00:19:00] economic considerations about what would be the net benefit, the net saving for the NHS of any sugary drinks tax. And the work Oliver was involved in was part of that consideration.

**Oliver:** I led some of this work actually trying to pull these different bits of evidence together and do a what if scenario. If we do this, what's that likely to mean in terms of the impact it would have on people's purchases, and then how much their drinking and what [00:19:30] that means in terms of calorie consumption and what that might turn mean for children's health.
Oliver: And actually trying to simulate or model that whole thing. And that to me felt a much better place to have a discussion. And because industry's very good and quick to get their argument together and commission their bits of research to say, this is gonna be the negative impact on us in terms of employment or profitability and what we can subsequently invest in.

Oliver: And doing those pieces of work, it gives an opposing piece of a similar kind of [00:20:00] level for I think, government to make a more informed decision and to really ensure that they're thinking about health in the round rather than just looking at commercial interests.

GILES: So what was the outcome of all the research, the analysis of the evidence and the suggested policies?

GILES: Cast your mind back to George Osborne's announcement...

Alison: In the uk rather uniquely, a decision was made to tax the [00:20:30] company to put a levy on the company according to the amount of sugary drinks they were selling. And so that encouraged the company to take sugar outta the drinks to avoid paying the levee. The food industry was pretty anti the tax in the run up to it.

Alison: There was extensive lobbying by some of the sugar drinks companies against the tax. We didn't have legal challenge in the uk, but we [00:21:00] did have a lot of companies being very upset. Indeed, we had one very big company run adverts in newspapers to say that many thousands of people would be made redundant because of the taxes.

Alison: I'm fairly sure that nobody has been made redundant because of the sugary drinks taxes. So in a way, it's proved to be really very, very effective. The majority of companies have taken [00:21:30] sugar out of drinks, and actually since the sugary drink levy was introduced, we've seen a 46% reduction in the sugar coming from sugary drinks, which is massive.
Alison: It's the biggest change in a nutrient that I've seen throughout my career and that speaks to the power of a levy or a tax to change, in this case, the behaviour of companies. [00:22:00] I would like children to drink water. That's would be my ideal, but an unsweetened drink is a better choice than a sweetened drink.

Alison: Actions to improve the diet take many years to come into force. We've seen the sugary drinks tax introduced in 2017, it was announced in 2016, and there was many years [00:22:30] of work leading up to that from the Scientific Advisory Committee on nutrition from Public Health England, from the Department of Health.

Alison: And all of that work, which may seem very slow and tedious on the outside is incredibly important, and it's incredibly important because of legal challenge. Some things take far too long to enact, but. There is a balance between rush and risking things being poorly [00:23:00] implemented or turned over in the courts and actually getting things right.

Oliver: Once a policy has been introduced. And again, I've been involved in this smaller part, but part of the team evaluating the impact and that's been trying to understand multiple dimensions of how that policy has played out and influenced the system around sugary food and sugary drinks.

Alison: You want to learn what has worked, what hasn't worked, an independent assessment[00:23:30] by academics is part of that. The sugar levy has been assessed by a number of academic groups and or seen it to be successful.

Oliver: And even tracing that as far through into what we've seen in terms of changes in childhood obesity and dental carers. So trying to take quite a holistic approach and looking at things not just in isolation, but seeing things embedded within a system.

Alison: There are still people that would argue that the tax should go away and. These things are [00:24:00] never set in stone. They can always be changed. So being able to say from multiple sources, look, there are all these studies that say
the same. So if you take this away, that is a big risk, is very important. So the academic evaluations are impartial and important.

GILES: So did the tax work?

Alison: Public Health England said back in 2015 that there needed to be a whole series of actions if you wanted to reduce the nation's sugar consumption, and that's true for improving the nation's diets overall. We have seen since then, a continued expansion of the food chain. And actually we have 8% more sugar now in our shopping baskets than we did back in 2015.

Alison: And that's because we've seen continued expansion of sales from some companies, confectionary companies, for example, chocolate companies for example. And that's happening because of extensive advertising, extensive promotion. Lots of things that nudge us all towards unhealthy purchases. And if we want to truly improve the nation's diet, we have to balance the economic benefit to companies of growing versus the health of the nation.

Alison: And we are just not doing enough to do that at the moment. We won't improve people's diets unless we unpick the incentives of companies to expand all the time, and they expand by selling more to us and that doesn't do our waistlines any good.

GILES: That is slightly depressing. However, Oliver has recently shifted some of his research focus to local government in order to see what can be changed there.

Oliver: The sugar tax is something I've been working on and off for over 15 years now. And you know, that will probably continue in some form or other. What the FLF is enabling me to do is open up, another approach, and that's starting to look at what local government can do as opposed to focusing on the role of national government.

Oliver: The political makeup of local government is very different in different parts of the country, and that presents the opportunity for a lot of different approaches and innovation. I'm actually working in local government two days a week, and
that gives you a very different understanding of how it works and building relationships and seeing things from the inside.

**Oliver:** Recently, Transport For London have introduced restrictions on the advertising of unhealthy food across the entire transport network. So that's taken out a lot of junk food advertising, which kids would otherwise have been exposed to, and that appears to have been quite a successful intervention in terms of reducing people's exposure to that advertising. It hasn't seemed to have had a detrimental impact on the revenue that TFL get from advertising.

**Oliver:** And there's even some research suggesting that may have had an influence on people's eating behaviours and habits in terms of how much confectionery and sugary food they've been consuming. So, is there a scope to do that in local authority setting? How many shops do the local authorities own? What sort of financial trade-offs might you be looking at?

**Oliver:** So these sort of like hidden things, and I'm sure there will be more hidden things that I want to try and uncover, but then also kind of get a sense as to the size and scale of those opportunities.

**GILES:** Targeting smaller places in order to build up evidence seems like it has real potential for Oliver and researchers like him. It can be hard to deal with a lack of appreciation for strong evidence in Oliver's role as a researcher.

**Oliver:** I mean, one thing that always strikes me in this space is as soon as you tell people what you do, they have an opinion, and I'm not that interested in opinions. I've heard so many opinions I'm really interested in, in the evidence, and I think what's really hard to communicate is just the volume and thought that goes into some of this work. And it is complicated. People boil it down because they think it's simple or they're simple policies, but that doesn't mean research behind them is simple. And sometimes, actually, I don't think the policies and how they play out is simple either.

**Oliver:** I would just love policy to be more evidence based. It's been so great to see people like Patrick Valance and Chris Witty operating in the pandemic, and they
are great communicators of science and [00:28:30] scientific findings, but also its limitations and what it can and cannot say. I think it's interesting to see how highly respected they've been because they haven't tried to push the evidence or sugarcoat it in a particular way.

**Oliver:** I would love it if we had a group of politicians, MPs, and councillors who were more understanding and appreciative of evidence in its role. They should be equally critical or curious about evidence that aligns with what they think as, as well as stuff that doesn't [00:29:00] align with what they think. I think we would see better public policies.

**Oliver:** It'd be better for people's health and wellbeing. I think in the long run, it'd be better for industry and the productivity and financial wellbeing, as well as the health and social wellbeing of the country. And we as scientists probably need to get better at going and talking to some of these people and communicating our findings.

**Oliver:** That's the nice thing about working in this space, almost having one foot in both camps is I like to think I'm in a good position to do that. It's still a challenge to do.[00:29:30]

**GILES:** So this entire episode sits right within my wheelhouse of interest, shall we say. I study childhood obesity, but not at the policy level. But what listening to Oliver and his colleagues have said, I guess it drives home a number of different points. Let's have the positive news. I think it is possible to affect societal change through government [00:30:00] policy.

**GILES:** Now, this sugar tax did reduce our consumption of sugar within sugary drinks. It wasn't what they planned, but it did work. And so what that shows is that it is possible, but is the political will there because there was many bits of other advice that was ignored, not put into place. And really the only thing that survived was this sugar tax.

**GILES:** We need to tackle the [00:30:30] whole food system if we're gonna try and fix obesity and other diet related illnesses.
Thank you so much to Oliver and also Allison and Sarah for being part of this episode and explaining a complicated process, which impacts each and every one of us. There is more information about Oliver's research linked in our episode description, we've come to the end of the first series of Next Generation research.

Thank you [00:31:00] so much for listening. I really hope you have a better picture of the sort of varied and interesting research happening right now. If you enjoyed this episode and series, please share it with someone, anyone else who you think might find it interesting, if you can give us a review or rating wherever you're listening we'd be very, very appreciative.

This podcast is supported by the Future Leaders Fellows Development Network. You can find out more about the Future Leaders Fellowship by following @FLFDevNetwork on Twitter, and we will link to their website in our episode description.

**GILES:** I'm Giles Yeo. And you can follow me on Twitter and Instagram @GilesYeo. The producer is Hester Cant. The executive producer is Freya Hellier, the sound engineer is Morgan Roberts. And thanks to Oliver Mytton and Laura Carter for their additional support.[00:32:00]