Transcript

Danny Lennon: Welcome to the podcast, Professor Emma Boyland. How are you? I'm good, thank you. Before I get to any of my specific questions, let people listening know a bit about your background, your current work in academia, where your interests lie, etc?

Emma Boyland: I work at the University of Liverpool in the UK in the Department of Psychology. I lead the Appetite and Obesity Research group. So we study eating My interest really lies around how the food environment drives our eating behavior and in particular food marketing. So how does seeing food cues, how do brands influence how we feel about foods, how we purchase foods, how often we consume them, and so on. And the implications of that, of course for health and obesity and so on.

Danny Lennon: Yeah, and this is interesting cause it ties. , many overlapping different fields related to nutrition, psychology, public health policy, et cetera. Can you maybe walk us through how you see that interdiscipline side of this topic?

Emma Boyland: Yeah. I think it's changed over the years. We talk about commercial determinants of health now, although I've been speaking to Boyd Swinburn while I've been here (in Melbourne) as well, who's been

saying it really should be "commercial drivers of disease and death" because "commercial determinants of health" sounds too healthy for what we're talking about here. But there's a lot of work now to draw people together instead of operating in silos. Like I'm looking at the psychology of what marketing does to behavior, and somebody else is thinking about what this means for public health policy and somebody else is thinking about what this means for planning policies and things like that.

Around fast food outlets, for example. There's a lot more working together; both between disciplines, but also between kind of the harmful commodities. So there are so many parallels between tobacco, alcohol, and healthy foods and so on that we're actually starting to see. value in drawing people together who have experience from those fields as well.

So it's not always just about the specific commodity or the specific kind of discipline that you're in, but when we work together, there's a lot more power in what we can achieve on our

Danny Lennon: podcast. Previously, we had discussion on some of these topics. And my co-host Alan Flanagan raised this point about one of these almost laughable, ironic things that you hear from some segments of the food industry when they push back against any degree of regulation, which is a topic we'll get to later on, is this notion "well, look, we don't need regulation because advertising doesn't really influence people's choice", which again, is laughable given that they're pumping this money into it.

But nevertheless, from an overview perspective, before we get into any specifics, How strong of an evidence space do we have now in relation to marketing and advertising around food actually ends up ultimately shifting people's choices and purchases around food.

Emma Boyland: There's a ton of research on this. I think the first study started coming out in like the late 1970s to show that TV advertising was really their dominant thing. Then influences particularly children. Choice their preference for different foods and their actual consumption so they will snack more. But that's just developed over the years.

So we've got, more than 40 years worth 50 years worth now coming close of research across all different media or different settings or different

populations, and it consistently pulls in this direction to say that it has an impact on these behaviors that are relevant for our dietary and the argument I think, usually from the food industry is that they're spending all of that money to keep hold of and grow their market share relative to their competitors. So they want you to buy their brand of soft drink and not the other brand. Mm. But they're not trying to create new consumers or increase the amount that each person is consuming and so on.

So this is what we have to fight against. Very difficult to create evidence that's completely water tight studies. There are always limitations to any experimental work, even when you've designed a really robust trial it's very difficult to really have something for every single step of this pathway from exposure to the food marketing right the way through to obesity when we know there are so many.

So it's about piecing together the puzzle. And we're doing, I think, globally really good work now to say where are the gaps? What do we need to explore to make sure that we are really designing policies that, are doing the right thing to improve dietary health.

Danny Lennon: One of the things you raise in relation to some pushback that comes from industry is quite interesting and I'd love to get your thoughts on it.

Particularly given your background in psychology as well. One of those push backs is, and this big comes beyond just industry, other people say this as well of: "Look, we don't want regulation or we don't want interventions from government or public policy because that is infringing on people's freedom to do what they want. They should be free to choose whatever foods they want to consume and any of this, is essentially infringing on that freedom" which seems to me like a strange concept because that would seem to indicate by being advertised and marketed to that doesn't influence your freedom to choose and that you're being totally free and you are not being influenced by this.

Can you maybe just speak to that component of how we can feel like we are making free choices, but essentially the way our food environment is set up, including marketing advertising that is essentially shifting how we make choices.

Emma Boyland: Exactly. Yeah. This is what I always say. There's this argument that if we regulate the food industry, so you know, all across the food environment from retailing, marketing and so on, that's "a nanny state" thing, and it's taking away choice from people. But actually I would argue that's increasing choice because it's putting the emphasis back on consumers. When we think about parent choosing for a child that they would be able to choose without their child kind of demanding certain things because it's been marketed to them because they'll get a toy or and so on. And so nobody says that the food industry is acting like a nanny when they're driving these choices. And from trials, some of that nudging literature around quite how kind of predictable we are in as human behavior.

You If you go to a buffet, and you put the vegetables at the beginning, people will consume more ve than if it's at the end because you know their plate is already full and so on. And so it's very small differences, removing unhealthy things from the ends of aisles in stores or putting the price promotion on the healthier item and not the unhealthy one and so on.

Sometimes people don't even notice that's happened, but it changes their purchasing behavior and therefore their consumption. So actually I do think it's about taking back some of. Freedom for consumers not being in a world where we're manipulated at every turn in terms of what we're being led to buy.

Danny Lennon: Yeah, I remember seeing I think Alan may have showed me, it's like a viral video, I can't remember who produced it, it was in the UK though. And I'm sure you're familiar with it, where they essentially took a group of people and they were bringing them to a certain restaurant.

Emma Boyland: Bite back. So, Bite Back 2030 is a Jamie Oliver Charity in the UK and they have youth boards of young people, kind of adolescents who are activists essentially, and they're very very concerned about the food environment and the way they're, manipulated by the food industry.

And they want to have their voices heard quite rightly and say, we, we shouldn't be bombarded with advertising. We shouldn't have our diets affected to this extent and it's damaging our health. The video that they prepared was a group of young people being brought to a restaurant and

every turn on their journey to this restaurant, there was some marketing happening.

So in the back of the cab, there was marketing on the seat in front of them. They were walking along the street, there were billboards, there was marketing to them, this particular product on their phones that was coming up with social media advertising with an influencer eating this particular product.

Then they took them to the restaurant and had them select an item off this menu and it wasn't statistical, it was illustrative, but from what they portrayed, a good number of people who'd come to the restaurant shows this item that had been advertised and all the way along. And they just selected the thing that they had seen.

But when asked about it, didn't recall having seen any of that marketing on the way there. So it influenced their choice and they were absolutely stunned when they were shown that footage back of this is what's been happening to you today. And it is, it's a really powerful illustration of how it happens in real life.

Danny Lennon: Yeah. And it is a great illustration and a very easy way for people to consume. But this is not just this piece of "evidence", we actually have a good evidence base, which we're going to explore behind this that explains why this is happening. One of the publications of yours that I was reading was a 2021 piece that appeared in Obesity Reviews. It's titled "Rising to the Challenge, Introducing Protocols to Monitor Food Marketing to Children from the World Health Organization, Regional Office for Europe". I'll link to that in the show notes for people listening. But first of all, could you talk a bit about this initiative to look at different food marketing in children and how we might monitor that?

Emma Boyland: So it's not enough, I don't think, for policy makers to just be told there's a lot of food marketing, there is, you've seen it. We really need good evidence to demonstrate how much there is. We talk about these two ideas of exposure and power. So exposure is how much food marketing we see, the frequency, the types of foods that are promoted and so on.

And then the power of the marketing is the creative content, like how it's wrapped up, what features of advertising they're using, what techniques, and that might be something like a promotional character or a celebrity doer, but it might also be the emotional. That are used to show, consume this with your friends and with your family, and it'll make you feel happy and so on.

And so it's really important that we look at both of those things because they're both part of what drives the effect of advertising. And so we've done monitoring studies all across the world, and if they can be done in a systematic and robust way, then it's easy to compare what's happening in the UK and what's happening in Australia.

We can compare it to the States, you can compare it to all of the countries that we've looked at in Asia and Africa and South America and so on. And we can all come together and say, these are the, the rates of advertising. These are the types of products. These are where we need to be looking for for policies to intervene.

And with TV it's relatively easy to monitor because everybody sees the same thing. You switch, you can switch on the tv, you can go to. If maybe the ones that you know, kids are watching the most and you can look what's the advertising like there? What foods are coming up and what's the messaging there?

But for digital, it's much more challenging of course, because what we see on our phones and our digital devices is not the same as what young people see. And it's based on our demographic profile and our behavior online and our digital footprint and so on. And so we've done a lot of work to consider what methods might be appropriate for monitoring digital food marketing and trying to understand what people are seeing there. And do it in a systematic way, as I say. So we can compare across countries, but across time as well. So it might feed into evaluating a policy. For example, we'd be able to do the same thing twice before and after a policy, and look, has it achieved any meaningful reduction or do we need to look again at how that policy works?

Danny Lennon: That alone is such an interesting, but very difficult challenge it seems because as much as there's difficulties in overcoming around TV marketing, when we look at young people now, by and large, I would assume, and I'm not sure how accurate this, but my guess would be that for most

children, a lot of their consumption ends up being more so things like YouTube or Instagram and TikTok than maybe traditional TV in many ways. Certainly going into adolescence.

And so now we not only have this regulation. Ads that typically come on television. But with digital, you have, a twofold problem of ads that appear in someone's feed on social media or in between YouTube videos. But then because of the nature of influencer marketing, you now have this added layer of it's not just a random ad that's coming up, it's someone.

These people know and trust and consume and hang on every word now being seen with a certain product. And of course this happens with sports stars, advertising certain drinks, but this seems to be like another level of hell that's difficult to say what do we do about it? How do we approach this both e ethically, but then even legally to get around?

What are those biggest challenges that have been emerging? Some of the work that people have been looking at?

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Emma Boyland: I mean, looking at... you've hit on one of them there, that the marketing and digital media is much more embedded in the entertainment content. So previously, on TV advertising is quite distinct from the programming. There will be an ad break, it might flash up a kind of program sponsor message. Then you go into an ad break, you have a series of ads, and then you go back to the program. Whereas in digital media, you still get some of that kind of traditional format of advertising, like scrolling through a newsfeed or on YouTube or something.

There'll be ads and then there'll be the content. But that's really paid for ads. And particular ads that where brands have placed them there. But then you have all of this other owned media as well. So that's, the Facebook page for all of the major food brands. They have their own YouTube channels of course.

So that's perpetrating out through the web as well. And then earned media. So where, an influencer might spontaneously mention food brands. A video

that's covering a lot of other topics. So we have a lot of influences that, are doing things like talking about makeup or talking about sports or whatever.

And then there will be a food brand shown on screen, talked about know, and endorsed and it's very difficult. To know whether that's a genuinely organic thing, that they consume that product , which they have a right to do or whether they've been sent that product. And there, there's a kind of relationship, financial or otherwise with the company.

And so particularly with children, there's this argument that if they don't even know they're being advertised to, then it's really particularly exploitative because. They're not even aware that marketing is happening. And in digital media, that's much more likely because it's not distinct.

There's not a jingle, there's not a way to distinguish it from the entertainment content. And so there are real implications and for policy. Particularly for the UK, they were looking at just regulating paid for marketing. So anything that been placed there deliberately by a brand. But then even if you take that away, there's still unhealthy digital food environment that children are going to be exposed to and adults. So there are some, yeah, real questions raised about where do you draw the line about what's free speech and what people are allowed to post about, in the same way that you and I can sit here and talk about food marketing, and influence. So it could talk about food brands, they have that, right? So where do you draw the line? Appropriate and what's not.

Danny Lennon: Very tricky questions. And I think when we get to maybe some strategies later on, we can discuss more in that. But if we turn to maybe some of the data that we do have on how marketing and advertising impacts food intake, particularly in children, one of the RCTs that you publish that I was reading, I think it was a 2018 was looking at this impact of TV and online food advertising on children's dietary intake, because this ends up being another question or at least people push back of look how people view certain foods might be influenced by marketing, but does that actually have an end impact on dietary intake?

They might think of them differently, but it might not change. All much is one of these kind of pushbacks. So this is quite useful when we can look at data actually, The end outcome of dietary intake.

Emma Boyland: Yeah, so there are so many studies. These are really the ones that came out. I was saying that start in the 1970s, there were studies in summer camps in the US where they would be able to manipulate the advertising that people saw.

And the studies have maintained quite a similar experimental design over time. So effectively you expose children to some food advertising, whether that's a food, TV ads, and then they watch a cartoon or exposing them to say an Instagram influencer with some food marketing in that content.

And then they're offered a selection of snack foods. And then you repeat that process with non-food advertising or no advertising at all. And you compare again, how much they ate at the snack to how much they ate after. Seeing the food advertising and we see a really consistent effect that children will consume more calories and that they'll be more driven towards the unhealthy.

Particularly so that they'll consume more of the kind of high fat sugar, salt offerings after food advertising. And that's been demonstrated in studies all over the world with different ages. Largely the, these sorts of studies are run in children, kind of seven, maybe six, seven to 12, 13. Because then they're able to complete other questionnaires as well, And so it's it adds a layer to the experimental design.

You're able to look at some other factors as well. But it's pretty consistent that they will just consume more calories. And, there's evidence from epidemiological research that children only need to be consuming an extra kind of 60, 70 calories a day above needed in order to gain weight over time.

And we're seeing differences with food advertising of 50 calories, say that they'll consume 50 calories more after food ads compared to non food ads. So it could be contributing, a majority of that additional caloric intake that's driving weight gain over time. And that's just one element of how food advertising works.

Of course it triggers consumption and we see the way that marketers. Present food cues to be particularly palatable. You see the chocolate cake being cut open and all the kind of inside oozing out, and you see the burger that's really plumped up or this shiny pizza, and then you go and buy the

product and it doesn't look like they've sprayed it with oil and they've made it look really good. And it creates a hunger and a motivation and a desire to eat that maybe if food is then available, that will be consumed. But it also does a number of other things as well around making us feel like you should never be hungry. You should use food as a reward.

Other people are taking their kids to fast food outlets. Why shouldn't you? And all these, this other messaging around food that may not be measurable in kind of calorie terms, but it's also making us eat in a less healthy way than in the past.

Danny Lennon: Yeah. Because I think that is very rarely thought of when this conversation is had. Broadly ends up being a discussion of are these things making people want these unhealthy foods instead of a healthy. Like you said, that is one element to it of which foods people end up picking. But there's all these other messages that are implicit in how that ad is given. So as you said of what that means for you as a person or a parent or what it means to enjoy yourself is put in the context of these types of foods versus not having them. Or if you're hungry, have a certain type of chocolate bar, for example. Like all. Elements that are very hard to, I'm sure detect, but are all playing some degree of role of our relationship with food that isn't going beyond should I have this food or this food in a kind of rational manner.

Emma Boyland: Absolutely. So it's changing things like the cultural values that underpin food. It's putting food in a different place in our society. It's changing social norms around food. So it's having us believe that other people are eating this way. You know that it's normal for somebody who's like me to be consuming these foods or in a case of parents, other parents are taking their kids to these places and so should you.

And it's creating this idea that, snacking is normal. Snacking between meals that you should never be hungry, never allow yourself to get hungry. Reward yourself, and as you say, they're selling. The answer to an emotional state, so we know that they can tweak things like digital marketing very easily.

So you'll see more ice cream ads in the summer. And maybe like hot chocolate ads in the winter, for example. There's a crude example of, and how it's tweaked based on context, but also can respond to you as an

individual. So if somebody is posting kind of negative emotional states online I've just, my relationship's just ended or something.

You'll be told, grab some ice cream, get your girlfriends around and this is the way that food can contribute towards making you feel better again. Yeah. So it's all of that as well. That's not, it hasn't got a calorie value to it, but it's powerful.

Danny Lennon: One of the other things related to your previous answer was that with some of these trials where we have like really good control over and we have children brought in and we can give them exposure to advertising messages or not, and then look at that acute response to what they consume as a snack or even later on in that day. For example, we have this kind of acute exposure where we can see as you noted, quite reliably, increased intake, something around 50 calories, let's say over that time course.

One of the challenges then is how does that stack up over the long term? Which is where we might turn to epidemiology. And so overall, how much agreement do you think there is between the epidemiology in this area and then those tighter control trials?

Emma Boyland: The evidence matches up in the sense that, say cross-sectional studies show that kids who have greater habitual exposure to food advertising, so maybe they watch more commercial tv or they spend more time online in commercial spaces tend to have higher body mass index or greater risk of having overweight or obesity, for example. But where there's more to be done still to connect those two things.

Although I'm of the argument that we shouldn't have to demonstrate that food marketing has a direct impact on obesity in order for us to do something about it. Just knowing that it impacts on dietary quality should be enough, I think because, diet quality and consumption of unhealthy foods is in itself a risk factor for cancer and so on.

It shouldn't have to be, whether you tip over into the overweight category and you gain that weight over time, or whether you stay a healthy weight but are consuming, poorer quality foods, then that's still a risk factor for your health, right? So I don't think we should beholden to this argument that you have to demonstrate that it's driving obesity for it to be a problem, because

again, I think that's part of what the food industry does because they know it's so challenging to demonstrate that. So it's a way of pushing back and saying "the evidence isn't good enough for us to act, we need..." and so on. But what we have been able to do is say, okay, I described that experimental design before where we're measuring how much children eat from a snack before after food advertising compared to after non-food advertising.

And that's an immediate consumption. They would be given those snacks pretty soon after they've seen the advertising. What we have been able to do as well is then say, okay, how does their lunch intake compare? So say we've measured their snack intake mid-morning, what do they do at lunchtime?

If they've over consumed because of food advertising? Do they pull back then at lunch and consume less in order to balance out their caloric load across the day? So we've been able to demonstrate that no, they don't do that. They don't compensate. So therefore that they would be consuming those extra 50 calories on top of what they would've had the rest of the day.

So in a way that's supporting that epidemiological stuff that it's adding to what would be a chronic over consumption because we've just shown them a bit of advertising and an experimental setup. But of course then they go home and they see a tonne more. A nd food is available all the time as well. In these instances, yes, we have given them snacks and we've measured what they've eaten, most of the time foods are available to them to snack on in the real world as well. So it's rarely the case that they would be exposed to food advertising and then not be able to acquire a snack in order to fulfill a craving or desire.

Danny Lennon: Yeah. So it's not even like they're getting this one exposure and then this one additional snack, and that's leading to extra 50 calories. It' a cumulative exposure all day, every day, across all time points. Where food is available, which is nowadays essentially everywhere. And yeah, it becomes almost impossible to think how that couldn't be having some degree of important impact on health.

One of the things to look at what to do about this, you are lead author on a systematic review from earlier this year on effects of policies to restrict marketing of foods and beverages to. First of all with regard to these policies, how do those impact children's exposure to messages? Because I suppose

there's really two parts to this. How does it affect their exposure? And then second, we can look at does that impact in intake? Can you maybe talk about how policies could do that? Are we able to see. Any of them have a measurable impact on exposure. What is the extent of that exposure change? And then after that we can maybe dive into differences between policies.

Emma Boyland: Yeah, sure. So that was a review that I did for the World Health Organization because they're currently trying to revise their guidelines for how member states should restrict food marketing or food and beverage marketing. Food just to be simpler. And so they wanted really the up to date evidence.

So we, we systematically reviewed the evidence that food marketing impacts on behavior in children. And then we also looked at what are the policies that have already been implemented around the world. So not just ones that have been proposed or examples of what could happen, but actual implemented policies from all different countries. And we looked at is there any evidence that food marketing changed?

We were looking at a number of outcomes how much marketing there is, or the exposure was one of them. And we looked at self-regulatory policies as well. So that's where the food industry has. , we will regulate ourselves. We pledge to not advertise to children under 12 or so on as well as mandatory government policies.

What we found was that it's absolutely possible to reduce the exposure of children to unhealthy food marketing. But the policies that are mandatory and government-led are far more likely to show positive results in that regard than self-regulatory policies, which might be what you would expect.

But we need to demonstrate that because otherwise the food industry in the markets will just say, We don't need government intervention. We can organize ourselves, we can get our own house in order and. But this review supports previous reviews from, previous years. Time and time again, it's been demonstrated that self-regulation doesn't have a meaningful impact.

It's a good PR exercise for the companies, but it doesn't result in actual reductions in exposure for the most part. It's a challenging review to do and

it's challenging to then map that to changes in behavior for the same reasons it's challenging to demonst. That food marketing directly impacts obesity.

There are a number of things that might have changed over the course of time when you're evaluating, are people buying fewer unhealthy foods, for example, following a policy compared to before? There might be a number of other things that have happened in that time that mean, you might have different data sets that each have certain limitations on what they pick up. You've got a cohort that have been scanning their shopping and you might have a different population the second time. So then you are trying to compare them and say, Is this evidence that the policy's done something rather, that has a factors at play here.

So it's challenging to demonstrate that it. Impacts on behavior. But again, with these policies, they rarely will work in isolation. It's true of any policy, I think. And it reminds me a little bit of things like treatment for kind of hazardous drinking of alcohol. If you. Are able to restrict the alcohol cues in the environment. Great, because otherwise you are helping people learn how to resist and then sending them right back into that same environment where all the cues are there. With food marketing, if you're able to reduce the amount of food marketing there is. On, tv, maybe on digital, but then you're sending them back out into a world where they go into the supermarket and all of the stuff that's confronting them is all those same multinational food brands with very bright packaging and so on.

And then, you're going to see a limited impact of that policy because it's not joined up thinking across the full food environment. I. Government should bring in food marketing policies because there's all of this evidence, you this should be by now agreement that it's a harmful thing.

It's not helping us drive healthier diets. But also they can't of stop there and say we're done. Now we've restrict restricted food marketing on TV or wherever. Everything else is fine. It's, we know that it works in a kind of integrated way across, billboards in the background of sports activities and in the retail environment and so on.

And to have a meaningful impact on things like purchasing and certainly on something like population level bmi, you really would need to be acting across a number of different intervention point.

Danny Lennon: Just to recap some of that, you said that we have evidence for effective policies being the ones that are mandatory, ones from government, we don't really see much benefit to self-regulation by industry and those policies, the mandatory ones in general, we can say are effective for reducing exposure.

Then you made the really important point that reducing exposure is just one part of an overall puzzle that we need to solve. There's no point in just reducing exposure and doing nothing. Within those different mandatory policies that a government could take. And there's examples where in different parts of the world, some different policies have gone in, some have been proposed, but have been pushed back on.

Do we have any clear hierarchy of which ones are most likely to give us biggest bang for the buck in terms of either changing exposure or even dietary behaviors of ones you. The best evidence that if these were implemented in the way that's being proposed, they would have the most meaningful impact.

Emma Boyland: There's some conclusions we can draw from those data. So when we are reviewing the the implemented policies, obviously the conclusions we can draw are dependent on what the evidence based looks like and what we know about how policies were different. So we were able to look at "policy design elements", we called them.

So what is it about the ones that have worked? What? What kind of features do they have that from that we might be able to say, this is something you need to do in a policy if you want it to work. So one thing was the mandatory government-led approach is the best way to go about it, that all the evidence suggests that's more likely to be effective than taking a self regulatory approach.

Using a government-led nutrient profile model as well was a feature of policies that tended to be more likely to be effective. And so that's the way that we look at how to classify which foods and beverages should be restric. So sometimes particularly in self regulatory policies, industry may set particular threshold for particular nutrients and say, if a drink contains more than X amount of sugar then we will restrict it.

But they tend to set more permissive thresholds, shall we say. And sometimes they're category specific. So the soft drink industry will set nice and permissive sugar thresholds because, Kind of the, their bread and butter as it were. And cereals will, the cereal industry will also have quite permissive sugar thresholds.

And then other industries might have quite permissive fat thresholds because they tend to sell a lot of fatty products, right? So what we really need are evidence based nutrient profile models that take into account all of those nutrients of concern. Some of them also take into account healthy components as well, so that UK nutrient profile model balances the unhealthy nutrients against the healthy ones and comes up with a score. But just generally using a kind of evidence-based nutrient profile model. And there are many from WHO as well, World Health Organization, that can be used is better than having these kind of like industry set thresholds for different nutrients.

We also found that policies that were aiming to restrict marketing to children to the full age range of children; so children above 12 years as well, were more likely to be effective than those that were very specifically focused on trying to protect children under 12 only. And then also policies for TV advertising so far have tended to be more effective than policies that have tried to do other things.

But that's largely because there are, most of the policies were tackling TV and there's a few that have tried to do other things as well. And so that's probably just an artifact of what the evidence looks like because there are so many TV policies rather than to say it's not possible to regulate those other spaces. But even within those, there's a lot of challenges. For example, regulating TV advertising. As we've talked about, you can look at what programming is particularly popular with children, and you can say there shouldn't be any adverts for unhealthy foods around those programs.

But there are issues with that because children will also watch programming that adults watch. So there'll be big entertainment shows that lots of adults are watching as. And more kids actually, in number terms will be watching those than we'll be watching the kind of kid programming. So if you're talking about trying to reduce exposure, it doesn't make much sense to only regulate the kind of child-dedicated stuff and not regulate the stuff that kids

are watching in big numbers, even if it's not for them per se. But also there are unintended consequences to these things as well. So if you really focus just on young children, then the marketing kind of goes somewhere and it goes then to advertising towards teenagers and towards adults.

So then you have to... what, if you're regulating tv, where do you draw the line again with that? And maybe the way we've proposed it in the UK at least, is for the watershed. So it really pushes back any healthy food advertising to, after most children, Wouldn have gone to bed, rather than focusing on programming made for them.

Danny Lennon: One of the interesting things around different interventions that could be put in place is looking at first of all, which are effective and which are not. And then some of the, again, counterpoints can be look, we have examples where policies or interventions were put in place. We don't really know if it's doing anything, so what's the point in continuing? And I think that tends to ignore the fact that certain it's possible for us to put in place an intervention or a policy. That is ineffective. And just because we continue to pump money into it doesn't therefore give evidence that will, no policy would work.

It just means that this one is not useful. Do you think there's kind of examples of where that has happened, where there's been a degree of wheel spinning where we start doing something we. Think it will help. And then we'll look and say, Oh look, it didn't really do much.

Emma Boyland: I try not to be too critical of these things in a way, because it's important that we do something and nobody has all of the answers. And especially when you're looking at regulating digital, there's no nice kind of template for this is how to do it and how to do it well. So we have to. Feel our way into it. And I think part of just getting a policy implemented is saying there's an acknowledgement from government that this is a problem and something needs to be done about it.

Even if the policy and in its first iteration is not ideal, it's you've moved the field on then because you've said we need to be doing something about this. And you have a chance to evaluate and say, Okay, where could it be made better? What, what's the issue with it? How it is there a way to, to tweak it?

And I think we saw that with the UK. For example, that it was quite effective at tackling the advertising around child dedicated tv. But the advertising increased around other TV to the extent that children's exposure actually went up because it moved to the stuff that they're actually watching in bigger numbers.

So the policy was good at what it said on the tin. It did reduce the amount of unhealthy stuff around child dedicated programming. So it was effective in that sense. But what if your overall indicator of whether the policy worked or not is children's exposure? Then it would've shown that it didn't work that well because their exposure had stayed the same or increased.

So it's an example of, trying to do the right thing. And yet, if you measure it just with one particular. Then it makes the whole policy look weak. So you don't need to conclude then. There's no point regulating t TV advertising. Let's just get rid of it, our money's been wasted.

You say why isn't it working? And that's because we are using this particular system of looking at very child focused stuff, and we need to broaden our thinking and capture that other programming as well. And think about different ways of doing that. So it's a useful exercise to see. And we, you can't predict the I guess the response of the food marketers is to a policy either. Will they withdraw it all together from TV and move it somewhere else? Will they move it to after a watershed or how are they going to respond? Are they going to do more brand advertising or. The major, for example, fast food runs start advertising the healthier components of their range, for example.

Sometimes it is a kind of test and learn thing that, that countries need to act on the very best possible evidence they have and design a policy that they think it's going to be effective. But then just do really robust monitoring and evaluation and come back to that to say, do we need to tweak it now to make it work better?

Danny Lennon: Yeah. Cause that's a thing. It's in this ironic position where in order to be able to say if an intervention is truly effective, we actually need to test it in the real world. But then you have people asking before we do this, do you have evidence that works? And then until it's actually tested, how can we have that full set of evidence?

And so I'm sure there's plenty of cases, experts in this area based on all the literature we have right now, could feasibly come up with many different hypothetical interventions that could be really effective if implemented in a very specific way, but yet there is many challenges of getting them actually rolled out in that way.

Like you said, it's typically end up going to be, at best, maybe a watered down version of it, maybe, and even not at all. A lot of that maybe comes from a lack of political will or other reasons that we might get into, but it's very difficult then of saying we, we don't really know, because we could have an idea of what would probably be the best way to go about it, or what you or your colleagues could hypothesise "this would be great in an ideal world if we could put this in place", but we then we can't test that in the real world until we have people willing to do that.

Emma Boyland: And the real world is messy eh? It's not the same as a randomized controlled trial where you can really control every aspect of it. And sometimes people are not aware that a policy is going to be enacted or not aware enough of the specific timeframe involved, or aren't able to leverage funds in time to conduct really well controlled good evaluations of policies. So in some cases some of the policy evaluations that we included in that review were based on, say, the Quebec policy in Canada that came into force in 1980. And this was people reviewing it like 30 years later and saying, Let's look at companies that have signed up to particular policies and compare Quebec to the rest of Canada where that policy isn't in place and so on. But you're doing it after the fact and you're doing it you're having to make concessions in how you design an evaluation because you can't control the fact that when it happened. But we've seen some really interesting stuff come out with Chile because they've had a very, like a massive change in their food marketing and their food labeling regulations recently.

And the research has been really well designed to do before and after studies so that they're really in a good position. If, you know that policy's coming to. Do some kind of baseline measurements and some post implementation measurements and look at how well it's worked, but the emphasis always has to be then going back to the policy design and thinking. If it hasn't worked, let's not dismiss it altogether. Let's think. Is there a way to tweak there?

Danny Lennon: Obviously we've had much of a focus on exposure of these messages to children and then impact on dietary intake with the presumption that then ends up impacting health when it comes to food advertising and marketing, and impact on choices in adults and dietary intake. Do we see much of a difference between the adult demographic versus in children? And if so, what differences in literature, if any, do we see?

Emma Boyland: With adults, there's not a consistent evidence base to show that snacking, that kind of acute change in intake happens. So when you run that same experimental design and show adults food advertising compared to non-food advertising and measure intake, there's not consistent increased intake.

And there might be a number of different reasons for that. One might be, adults have had a lifetime of exposure. to food advertising, whereas some of these studies in kind of children age six or seven, the experimental exposure that we do is a bigger proportion of their exposure if you get what I mean. Whereas adults have it's a drop in the ocean compared to what they've seen. So that's one thing. But also adults might be aware that it's an experiment more than a child. They may we have to be very clear with children about this is what we're going to be asking you to do.

But they might not think about the fact that my food intake is being measured here, whereas an adult will, and there's social biases that come into play there. Like females don't want to be seen to be over consuming, for example, whereas a child doesn't care.

A child does the same regardless. And so it might be, that there's a lot more they can, they're more able to guess, Okay, I saw non-food advertising last time and now they're showing me food ads. Or maybe they're interested in what I'm eating after the food ads or whatever. And so then if they have awareness of the study aims, then that affects behavior.

So there might be a number of reasons, not necessarily that food advertising isn't impactful on immediate consumption, but that, why the effects might be different in adults than in children, but there's evidence from parallel literatures of alcohol and tobacco to show, for example, that those who have been exposed to alcohol advertising are more likely to initiate drinking

earlier and are more likely to drink in a kind of hazardous or binge way than it was with less exposure and so on.

So we can infer that we might accept the same, might expect the same effects to happen with food. . And also, as we said before, there all those effects on kind of social norms and cultural values as well that are likely to be drivers of changes in purchases in adults. But it's a challenge in the field because the way policy works and certainly my experience in the UK is that there needs to be that calorie value because they want to know if we bring in a policy, this is how much less people are going to consume. This is how much then that would affect the population level BMI. And then this is how much that would affect healthcare costs. So they need to kind of balance out the economics of the policy. So even if ideologically they think it's the right thing to do, to get it through governments, often it's the case that they have to show that it's going to save money. , and save, in our case the National Health Service money. So you need to have that kind of trail of effect. That's very challenging because that isn't the only way advertising works. But that's the kind of easiest way to demonstrate.

Danny Lennon: The game that has to be played to some degree to get some of these things through. And then I suppose there's another element. Where there's policies and interventions put in place aimed at adults are most likely going to have some trigger down effect, I would imagine, on kids, because a lot of food decisions are made by what is bought for them, for example have we seen that born out in things like data that's came through since the UK sugar tax, where we see impacts on consumption or at least purchasing?

Emma Boyland: I'm not aware of the data for children specifically. I know that we talk about changes in purchasing kind of a household level.

So some of that consumption will be children, of course. And also there have been measure. Like how many tons of sugar have been taken out of the population diet following the sugar tax. So yeah, children have independent spending power and particularly adolescents and they have the free money to spend and often that is spent on things like snacks and confectionary.

Yes. But also they have that impact on family spending as well. So that they can drive. Purchase decisions by the household. The classic toddler on the

floor of the supermarket kind of demanding a particular breakfast cereal, for example. But then we know that, social modeling works as well.

So if parents are consuming fewer, unhealthy foods, then that will play out in kind of young people observing that as the appropriate way for their eating behavior to go. There would be. Knock on effects, but some of these are generational, aren't they? You're not going to see that within a year of the policy.

And no one's going to forget the major brands overnight or anything, but it's about drawing back and making incremental gains in the kind of typical norms and values around food. . And so yeah, it's challenging when evaluating things like that Yeah. To capture some of those effects.

Danny Lennon: So if we were to step away for a moment, from the need for the level of evidence that might be needed to push things through. And we go into a kind of "speculation mode" for a moment. And if I were to say to you, based on what you think right now, if we take, say a specific population, say like in the UK, if there was a policy that has not been implemented yet that in an ideal world you think, would be the one you'd like to see put in place to at least see what it does, but that you suspect would have a big impact? What would that policy look like?

Emma Boyland: I think, we have to be tackling the digital environment that really is where everything is now. And as I said, the UK proposal was to look at paid for advertising online. And I don't want to be critical because there really isn't a blueprint for this dealing with paid for advertising on any level would be a step forward from where we are now. But I think there's a massive gap around brand advertising and allowing brands to continue to advertise their logo and their brand imagery just because it doesn't show a food.

So I think that unfortunately what's being proposed in the UK, even though I'm very much in favor of it as an incremental step forward, I think is incomplete because it doesn't tackle this issue of brand marketing. But again, thats another whole can of worms. What's an unhealthy brand? How many of their products need to be unhealthy for us to think that brand is "unhealthy"? Or what does it mean for how we might restrict certain brands and not others? A supermarket has a multitude of products can a supermarket advertise its own brand? Is that inherently unhealthy and so on?

So a lot of questions that we need to deal with before we're in a position to do that effectively.

But I think a policy that dealt with, paid for advertising and incorporated brand advertising would be a real step forward. But even that, not dealing with the owned and earned media that we talked about before. So it's not water tight, but I think that's probably the conversations we're going to be having in the next few years.

And there are a number of other spaces as well that need attention. I think sports-based marketing is huge but even just sticking with digital things like game streaming e-sports. And the kind of tie-ins between those two things, I think are really powerful. And that's before we get into the metaverse and living in a virtual world where the brands are ever present and interacting with you in real time and so on.

So yeah, , we're going to be busy and trying to figure all of this stuff out.

Danny Lennon: Yeah. Given the complexity of all these issues that, these multitude of different factors that are interacting, each one in itself is very complex to deal with and even if we were to come up with a great solution to each one of these, actually implementing that is very difficult there.

There's barriers around political will, ideology of decision makers, the power of the food industry, et cetera, that make it difficult. So when we add up all these things together, I think at least on this podcast, people could rightly accuse me and my co-host of maybe being a bit nihilistic about many things, including the path forward.

In this respect, do you think there is cause for optimism and if so, could you maybe give us an idea of where on that optimism to pessimism end of the spectrum? Are you of that we can actually put in place things that would have a meaningful change going forward despite all these complexities and barriers to that?

Emma Boyland: I think I'm relatively optimistic from the point of view, as I said, I think we're operating more globally now, So I think as a kind of academic community and an advocacy community, we're being more smart

in how we collect, really good data, how we do that at global scale and how we recognize the commonalities of the challenges that we're facing.

And I think that increasingly, the case has been made that something needs to be done about this. Whether you're talking about the harm to, effect on diet as we've talked about, whether you're talking about things like child rights, children have a right to health. They have a right to privacy.

They have a right to access the internet and all the educational offerings without that then affecting their health and so on. I think increasingly governments are recognizing that's the case. When. Started working in this field, we still had to convince people that it's food marketing is doing something.

It was very much like where, where's the data to say it's doing something. . Whereas now it's moved on a bit and it's a bit like, okay, how do we do this? What do we go out? So it is moved on is slow. , of course. And the pace of change of, academic evidence and of policy is always so much slower than tech.

So that, those companies will be ahead of us. So it's frustrating in that regard, but I think there's optimism in terms of having make those principles, having been relatively well established and the fact that people are operating globally. And I think over time the platforms are going to come under pressure.

So those big kind of tech platforms, Google and and Facebook/ Meta and all those sorts of groups, I think we've seen them come under pressure in terms of kind of advertising guns for example, and other kind of products and categories that we would be concerned about. So I think the technical expertise is there. They already can say "we won't advertise guns to children under 18", for example. So it can be switched off and on. And I think that they will come under pressure over time to not be seen, to be contributing to, heart disease and diabetes and premature mortality in young people and so on.

And I think that they will ultimately, from a PR point of view, whether they truly ever believe it's a problem or not, I think that they will be, they will feel

the pressure to be seen to be doing something about it, and that buy-in will be needed.

Danny Lennon: An interesting road ahead if nothing else. Emma, before I get to the very final question for people listening that want to maybe find you somewhere on the internet where can they go?

Emma Boyland: Sure. So I have a university staff page. So if you I mean you can just Google Emma Boyland and look for the University of Liverpool page, the Institute of Population Health.

I'm also on Twitter: @EmmaBoyland as well, and I tend to publish commentary there and, release new papers and new data and talk about my presentations and things on there as well. So it's a way to keep up with what's happening and my research, but also in the field.

Danny Lennon: And with that, that brings us to the final question I always and the podcast on, which can be to do with something even outside of what we've discussed today. If you could advise people to do one thing each day that would have a positive impact on any area of their life, what might that one thing be?

Emma Boyland: Amazing... I'm going to switch because we've talked a lot about food intake and I'm going to switch and say, move your body. I see a massive difference in my mental and physical health when I go for a run or even a walk or, just get outside and move yourself. Get away from a screen Yeah. Which is related to what we've been talking about.

Yeah. And just try to move your body a bit.

Danny Lennon: Professor Emma Boyland, thank you so much for taking the time to talk to me and for all the work that you do. It's very much appreciated and I've enjoyed reading it and more so been able to enjoy talking to you about it. So thanks very much.

Emma Boyland: Thanks.