



Episode Transcript

Danny Lennon: And here we are! A big welcome to the podcast to Dr. Katherine Backholer. How are you doing today?

Kathryn Backholer: I'm good, thanks. Thanks for inviting me on.

Danny Lennon: The pleasure is mine and I'm very much looking forward to talking to you about some of the topics we've lined up and then some of your work in this particular area, and maybe as a nice way to introduce people to that, can you maybe give us an idea of your academic background and then also the work that you're currently involved in?

Kathryn Backholer: Yeah, sure. I'm part of a larger center at Deakin University in Australia. So we're the Global Center for Preventive Health and Nutrition. And my work is really focused on population level prevention with a focus on equity.

So that is how to implement/ adopt population policies that bring everyone along. And because we have that equity focus, we either focus squarely on equity; so how do we really understand the social determinants of health among disadvantaged groups. Or we focus on policies that are likely to be pro-equity.

So because of that, we have a really strong focus on food pricing and affordability, and also food marketing. Yeah, it's a big program of work. We also do a bit extra work in the area of alcohol, tobacco, e-cigarettes, and gambling as well.

Danny Lennon: Fantastic. So you mentioned there are "social determinants of health" and we also have other terms like "commercial determinants of health" which crop up in the literature. Can you maybe just explain some of those terms for people listening? If they're just coming across it now, what's the best way to understand these concepts?

Kathryn Backholer: Yeah, sure. So these are the conditions which shape the decisions we make in life. So they're the conditions in which we work, live, play, age. And the social determinants of health are really around how much money one has, how much wealth, how much access you have to education, your educational attainment, etc. They're really the real upstream drivers of health. And we know that there are certain groups in the population that have less social and economic resources than others. And all of those things shape who you are, the decisions you make and shape your health.

And then the "commercial determinants of health" are really the activities taken by typically large corporations that shape health. So that could be the way they market their products. So from a food perspective: junk food marketing. It may be supply chain; so in Australia we have really remote areas of Australia, our Aboriginal Torres Strait Islander people are in higher prevalence in remote areas of Australia. And it's really hard to get food out to those areas. So food costs go up. So we're talking about supply chains there.

Lobbying: so these big transnational food corporations that lobby governments to relax the regulatory environment so they're free to do what they want. They're all those kinds of activities are called the commercial determinants of health.

Danny Lennon: So when we think of things at a public health policy level, one of the things that has been noted on the podcast previously is that by and large, when you look at the role of industry, you've mention. , first of all, their role in lobbying, but even beyond that, ideas around self-regulation tend to be quite ineffective, probably for obvious reasons.

And so when we start looking at what other policies or interventions we can come up with, there's a whole list that could have some benefit. One that I wanted to focus in on particular is around taxation policies, taxation interventions, because there does seem to be quite a bit of misconception in this area, maybe when people first hear about this. And a taxation policy or intervention isn't one thing. This is a group of things we're talking about. So maybe as a starting point, can you maybe walk us through what different types of options do we have for taxation interventions or policies and what exactly are we talking about when we talk about a taxation policy?

Kathryn Backholer: Yep. Firstly I'd say we like to call it a "health levy" because this is about recouping the true price of the foods we eat. So we know that unhealthy diets are a leading cause of disease and death right across the globe. And they cost huge amounts of money to our healthcare system through, increased risk of diabetes, heart disease, various other conditions.

So we often use the term a health levy because it's recouping that cost of the true price of foods and beverages. And a tax or a health levy on whether it be sugary drinks or unhealthy foods has been adopted by more than 50 different countries now across the world. And there's four key reasons why a health levy or a tax is usually introduced.

The first is the obvious one: to reduce consumption of a product and therefore improve health. . The next one is to raise revenue. So often around the world, these taxes have been implemented by more right-leaning governments, which is quite surprising in the public health space because it's about raising revenue in times of economic downturn. And then that money can be reinvested back into public health.

The third is that there's no more powerful way to send a message to the population than to tax something. And taxing sends a really powerful educational message that these foods that are being taxed or the drinks that are being taxed shouldn't be part of a healthy diet.

And then the fourth one, if the tax is tied to the level of sugar, for each increase amount of sugar. So in the UK there's a tax on drinks for every eight grams of sugar per 100ml. And then it goes up to higher levels of sugar. You

have a higher tax that encourages industry to reformulate their drinks to a lower tax level basically; to bring the sugar down, pay less tax.

So they're the reasons why a tax on sugar drinks or foods is seen as an effective population measure to address unhealthy diets.

Danny Lennon: You touched on there that we have one example of, in the case of a sugar tax, where we have a certain number of pounds (£) of a tax, let's say, based on the grams of sugar that's going to be in a certain product. What other types of tax might there be that would be different to that, just as a way for people to compare and contrast different options that they might have.

Kathryn Backholer: Yeah, so the first the first sort of country to really make a splash in this space was Mexico back in 2014. And the way they tax their drinks is just a percent price increase. It's a 10% price increase off the existing price. So all prices got by 10%. So that's just a standard flat rate tax. You can also tie it to the volume of the beverage. And then more recently, the most prominent way in which countries and jurisdictions are taxing is to the level of sugar because you have the added benefit then of the reformulation as well.

So if you only increase the price, the effect you're really looking for is for people to see a price increase at the shelf and to buy less. Whereas when you tie the tax to the amount of sugar, You've also got that impact and the price goes up and people buy less. But you've also got industry that will reformulate reduce the amount of sugar in their drinks it reduces the sugar across the whole food supply. And so the food supply in a given country is, the sugar amount in the food supply has been re reduced. So that's a population health benefit as well.

Danny Lennon: So when we start thinking of some examples, and we'll maybe get to the specifics of each a bit later on, but so far you've noted that, for example, in the UK and in Mexico, when we think of the types of policies that have been brought in there, a lot of the focus often ends up being either on sugar or even probably more commonly sugar sweetened beverages in particular.

But there are examples of other nutrients or other types of foods being targeted or included within certain policies. Could you maybe touch on some examples of those beyond sugar sweetened beverages?

Kathryn Backholer: Yeah, I'll say first why countries have started with sugary drinks, and I think it's because it's essentially low hanging fruit. It's an easily contained category. Whereas food, There's so many different foods and there's, it's really difficult to decide which foods should be taxed and which shouldn't be taxed. So sugary drinks is just a easily contained category. Designing a policy is relatively straightforward, and then foods that starts to get tricky.

There are some examples of countries that have taxed foods. So again, Mexico is a notable example. They put a 10% tax on non-essential foods essentially. And a number of other countries have done various taxes. So Hungary has a tax, a certain tax on foods. Denmark tried it a while ago on (saturated) fats in particular, but then repealed it after industry pressure. But a lot less countries are doing taxes on foods because of the difficulties in how you go about defining taxing foods.

Danny Lennon: And particularly I suppose when you're going to try and put in place a policy, the request for a level of evidence can be quite difficult to reach and or to show at least a direct correlation. Whereas with sugar sweetened beverages, presumably we have such an overwhelming literature base here, it's probably much more easier to demonstrate than with some of these other nutrients or foods?

Kathryn Backholer: Yeah, I mean we certainly have a good evidence base that certain foods lead to harmful health outcomes. So I think the evidence is really strong there and we have a really strong evidence base that sugary drinks lead to adverse health outcomes as well. When you look at the effectiveness of policy, we have really good evidence now that a tax on sugary drinks leads to reduced purchasing and consumption in a population.

The evidence for taxing foods is, as you say, much less clear, and I think part of that is because no country's done it really well. Mexico, as I said, has done it and there is some evidence that one year post-implementation, there was a 5% reduction in the the foods that were taxed. But they implemented a number of different strategies at once, so it's really hard to disentangle.

How do you evaluate a policy when it was implemented alongside a number of different changes? How do you really draw out that single policy effect? So there just hasn't been many countries I think, that have really gone through with a more broad based tax on foods.

Another way to look at taxes... here in Australia, we have goods and services tax. Whereas fruit and veg are exempt from that, which means that the goods and service tax applies to all foods except fruit and vegetables because it's exempt from that. So that's another way of looking at taxes as well.

Danny Lennon: So when we start looking at the evidence to date there's, I suppose a number of levels we can maybe touch on. One would be this impact on certain policies, on their actual consumption of these foods. And then beyond that, we can then start looking at other actual health outcomes as endpoints. But if we start with the first part of does it actually change consumption? You've touched on there that we do have evidence that shows that when you change price of certain products, you're going to get this change in consumption. And obviously there's going to be huge variance here, but just to give people some perspective of this, what type of magnitude of change are we typically seeing with some of these interventions?

Kathryn Backholer: So with, if we go to sugary drinks where the evidence is the strongest we are looking at a 10% tax in Mexico, for example, two years post-implementation resulted in a 10% decline. So we are almost looking for a one for one. If you increase by a certain amount, you are usually looking at a reduction in the purchasing, which you think leads through to consumption of around the same amount. So Mexico, 10% tax led to a 10% reduction in purchase. But as you say, when you look beyond purchasing it, it starts to get really tricky.

Danny Lennon: So if we stick with the purchasing for a moment, even within those average figures, we might even see within one population there seems to be differences when we start looking at subgroups of that and there's of course going to be differences at a socioeconomic level. Can you maybe speak to some of those differences we might see in different groups and demographics?

Kathryn Backholer: Yeah. One of the first things that the food industry will say with a sugary drinks tax is: "you can't implement a sugary drinks tax, it's going to hit the poor the hardest". That's one of their classic arguments.

And the evidence shows really clearly that it's actually those with social and economic resources that benefit most. So when I talked about Mexico, a 10% tax led to a 10% reduction in purchase. That was a 17% reduction for low socioeconomic households, so low SES households. So we are seeing quite consistently across the world that the effect size is greater for those with lower income or a lower socioeconomic position because they're more sensitive to price changes.

So I think when we when industry says that you shouldn't have a tax because it hits the poor, the hardest, actually it's those with lower socioeconomic resources that benefit the most, have the most health benefits. And then we've shown that if you consider the healthcare savings across the life course, it's even more benefit for those with lower incomes.

Danny Lennon: Yeah, the great irony there I suppose is that the role of food industry and marketing and placement of different products and shops disproportionately affects those lower socioeconomic groups that they then claim to be caring about when they're trying to avoid certain policies.

Kathryn Backholer: Yeah, exactly. Our research has shown that marketing is higher in lower socioeconomic neighborhoods, in areas where there's ethnic minority neighborhoods and those with lower income. They market their products in certain ways and target lower socioeconomic groups. But then when there's a policy coming out, the first thing they'll say is "you can't do that. It will hit the poor the hardest". And I think that we can show that the evidence really has busted that myth now.

Danny Lennon: So let's stick with sugar sweetened beverages for the moment. And we've talked about this impact potentially on changing consumption. The next following question then is logically, okay, if consumption drops, what do people end up replacing that with? And does that end up improving the overall quality of the diet? What does that substitution end up being? Do we have any data that is suggestive of what actually occurs when these products are reduced and where does the replacement come from?

Kathryn Backholer: Yeah, we do have some data that shows that people do small amount shifts to artificially sweetened beverages. Or milks as well. But really most of the evidence shows that consumption of water goes up. So in Mexico bottled water went up and that's got all sorts of environmental impacts as well.

But bottled water went up after the sugary drinks tax and other jurisdictions artificially sweetened beverages has gone up, which is an issue in and of itself as well. Cause there is evidence emerging that artificially sweetened drinks have adverse health consequences increase your preference for sweet tasting products.

So there are consequences there that need to still be addressed. But the substitution for drinks at least, is going to artificially sweetened beverages. Your smoothies. There was a study in the US that showed that it went to more milk. Beverages water in the food space. It's, there's so many different foods to choose from compared to drinks.

So there is a lot of substitution and I don't think that's really fully understood, how a tax on foods affects the entire diet. So what's happening with substitution, because it's really hard from a academic perspective, from a research perspective to capture whole diets especially when you're evaluating a policy at the population level.

Danny Lennon: One of the big challenges here is that in many circumstances, we're trying to make advice on certain policies to put in place that we can't really know exactly how they're going to play out until they are enacted. And so much of the evidence then we can build up around some really good modeling data, much of which is very complex and really instructive.

But now that we have examples from different places where certain policies have. Being put in place, what type of agreement or disagreement do we see between the predicted modeling data for certain types of interventions and then what we actually are seeing in the real world interventions that have been rolled out to date.

Kathryn Backholer: So a lot of the modeling is usually used to model out health. Impacts all the way out through to obesity, cardiovascular disease, diabetes and then years of life saved, for example. So it's really that that big

picture long term, what are the health what's the likely healthcare savings and therefore the cost effectiveness of implementing a certain policy, whereas the real world evidence often stops at purchase or consumption. And that's because there's a long lag time between implementing a policy at the population level and then impacts on overweight and obesity. So a huge lag time. And I think the other really important point is, we shouldn't be focusing on obesity as an outcome for something like a sugary drinks tax.

A sugary drink is just one small aspect of an overarching, overall whole diet. And if we want to truly address population diets, we need many different measures in place, not just one single intervention, one single policy. We are never going to, it's not a silver bullet. We're not going to solve obesity with a sugary drinks tax.

We need restrictions on marketing. We need to make foods more affordable. Healthy foods more affordable. We need a sugary drinks tax. We need healthy foods in schools. We need lots of different measures. So you can do that in an economic model, cause you can model it. 50 years, 10, 20, 30, 40, 50 years. But to do that in a real life natural experiment is really hard, cause lots of different things happen across that time.

Danny Lennon: Yeah. That's such a crucial point you bring up because sometimes the pushback to one specific intervention is look, let's look at the magnitude of this in isolation when we're accounting for everything else. And in reality, that's not really what anyone in public health is probably advising. As you say, this is one as a whole suite of different interventions that need to be put in place together as one overarching policy to really tackle the issue as opposed to this one thing is going to have a large enough impact on its own to completely take care of these issues.

And so it's not really a valid criticism per se that this alone isn't going to shift the needle when really the recommendation is we need a suite of changes that probably go all the way to... Just our perspective of what the problem is and how to come to a solution.

Kathryn Backholer: Yeah. That is so important that point because that's what industry will say: "there is no evidence that a tax. Sugar drinks tax or any intervention has an impact on obesity". But we're trying to, we're trying to shift a part of the system. There's all, it's a system of a food system and we

are tweaking just one part and there's many different parts we need to tweak.

And a sugar drinks tax does tweak the system. So if it does reduce consumption, it does reduce purchase consumption, changing diets, then I think that's enough. We don't need to go any further. We know that we are influencing diets in a positive way, and then we have to think about what else can we do to, change social norms, to send our kids out an environment that promotes health rather than one that promotes profits and he is driven to make unhealthy choices. How do we just, how do we set up the environments around us so that at the end of the day, people make their own decisions, but they're doing that in an environment that promotes health.

Danny Lennon: One of the points that sometimes comes up in this area is around potential unintended consequences, or at least consequences we can't predict yet ahead of time for a policy, and that is largely driven by how the food industry is going to respond to a certain intervention. And so one example we've talked about already is whether if someone, if there's going to be a reduction in a certain nutrient, then what that is replaced for is a big question.

And industry has a role in shaping that in terms of the products they then put forward and whether those products end up being healthier or just as unhealthy as previously, but are just fitting within certain regulations. What are your kind of thoughts on the careful nature we need to have around the potential unintended consequences of a policy that it may address one certain level, let's say a certain nutrient, but then there's all these knock on impacts that are very difficult to know ahead of time.

Kathryn Backholer: I think it comes to the point previously, this is why we shouldn't be thinking about single policies either, but we need to think about that package and, addressing the problem from many different angles. There will be unintended consequences. I think that if we are thinking about unintended consequences. We need to be thinking about which priority populations might not be benefiting or how do we make sure that our suite of pop of population, preventive nutrition policies brings everyone along?

They're the kinds of unintended consequences I'd be thinking of. So if we did a policy, for example, that focused on educating everyone let's do mass

media campaigns and educate people to eat better, do more physical activity. We know that those with more education and more, social economic resources are more likely to see that kind of mass media campaign and change their behavior because of it.

Whereas those that have less education, have more time pressures all, all sorts of different pressures as part of their lives because for various reasons and partly. They have less social and economic resources. They're less likely to respond to an intervention like that. So the unintended consequence there is that we see a widening in health inequities.

We're putting policies in place that benefit the best off and don't have much impact on the worst off. And we see widening health inequalities. So they're the unintended consequences that I think we really need to keep check of at a population level because governments are quick to go with policies based around education and industry is very quick to a policy like that because they know it's not really going to have much of an impact on their bottom line.

Danny Lennon: Yeah, and I think one of the troubling issues in this area has been that the role of industry still has within that policy making process, which for maybe that people haven't heard that before, is odd to hear that, that there is an active role, oftentimes even beyond lobbying, that they're actually involved in that process, which creates a challenge, like you say, because we're not really talking about putting in place one intervention. We need to really rethink the perspective and ideology that people have around what we're trying to achieve with the food system. And so it's hard to see how that can be in harmony with the interests of large food corporations. So it seems like such a tricky situation there.

Kathryn Backholer: Yeah. And this is what, when you asked me at the start, what are the commercial determinants of health. That's exactly what it is. The food industry: The primary purpose is to make profits and to return value to their shareholders. So there's a clear conflict of interest if there's a policy where the primary objective is to reduce consumption of the very products that they make money on.

So there needs to be really clear conflict of interests policies put in place when governments are developing and formulating policy. I don't think that industry should be at the table in the policy development process where they

should be at the policy table is in the implementation, not in development because of that conflict of interest. And then governments do need to work with industry because they are the ones that need to implement and understand the rules and adhere to the policy.

Danny Lennon: Yeah. At this point, some of what you've touched on there reminds me of actually a quote from one of your publications on health equity that I had made a note of here, because I think it perfectly speaks to this and it's outlined excellently.

So I'm maybe going to read this quote just for people listening and then maybe ask you to expand on this idea. It says: "The notion that policy actions should be for all and reach everyone were seldom backed by specific actions. Rhetorical acknowledgements of the upstream drivers of health inequalities were also rarely problematized, as were government responsibilities for health equity and the role of policy and governance in reducing socioeconomic inequalities in nutrition."

Can you maybe just speak to that a bit more? Cause I thought it was excellently put.

Kathryn Backholer: I will give that credit to my PhD student, Christina Zorbas. So it was excellently put, that study was really about looking at to what extent do governments around the world when they consider food and nutrition policy. How do they consider health equity? And if you read all the documents around the world, it's really strong. All these governments saying, we need to do something about nutrition. We need to bring everyone along. We need to make sure we do that in an equitable way. And then you look at the actions and it's all based on these kinds of interventions that are more likely to benefit those with better off. So education-based.

And so that's where the rhetoric really comes in it. They're saying it all, but you get to the action and it's just not coming through with the goods. The governments just aren't coming through with the goods. There are some exam exceptions, so as I said, Mexico, some of the Latin American countries that are, really addressing food environments and showing positive impacts.

For different socioeconomic groups and greater impacts for lower socioeconomic groups. But that study in particular was looking at high

income countries and there was just wasn't a single example that's doing, food and nutrition policy. In a way that is pro-equity, bringing everyone along.

Danny Lennon: And regular listeners of this podcast will be well aware of our opinions on many of the governments in western nations right now, and their ideology versus what the evidence actually says. But as a way of thinking for a path forward, if we, again, circle back to this idea of health levies that we can put in place or broadly taxation policies.

There's clearly different ways for them to be implemented, and there's probably certain ways that are more likely to be effective than to be less likely. And so if we were to imagine an ideal world where we could put forward policies that would be enacted, that would we would think would be most effective, what are some of the factors that might determine whether a policy is going to be more or less likely to be.

Kathryn Backholer: Yep. So more effective if it addresses the structural environment in which we make our choices. So you can target a policy that requires people to make a change themselves. So education based, labeling, it's about someone picking up a package, reading the label and making that behavioral.

Or we can have policies that change the environment in which we make those decisions. So everyone still has to make those decisions, but they do so in an environment that makes the healthy choice the easy choice. At the moment we live in an environment that makes the unhealthy choice the easier choice and the preferred choice.

So definitely addressing those more structural changes. As we talked about earlier as well, a multi-pronged systems approach to food and nutrition, obesity prevention and all the other diseases that go alongside; diabetes, heart disease, mental health. And then making sure that industry stays out of the policy development process.

We know that when industry is part of that policy development process, that a policy might start strong and it ends up weak. It really gets watered down. We've seen that time and time again . Yeah, I think they're the key things to make sure that it's effective. So it addresses the structural environment, it

keeps industry out of the process. And a multi-pronged, systems-wide approach.

Danny Lennon: It echoes some of the conclusions that in a previous episode I talked to Dr. Gyorgy Scrinis, who's based at the University of Melbourne who has done some work in the area of ultra processed foods specifically. And why not directly the same thing, he did touch on something similar of, we need to be wary of having a re reductionist approach on one nutrient, let's say whether we're just having all our eggs in just reducing sugar intake.

And as you've mentioned a number of times already. Sure that could be one target, but it, we need to look at what is the overall impact of the overall diet and health outcomes, as well as addressing the bigger issue, which is the food system more broadly. And one of the things of why Dr. Scrinis says he's won over, I suppose, by the NOVA classification system.

And this designation of ultra processed foods is because it's one of the classifications that goes beyond a technical classification only, and takes into account the purpose of the production of a certain food. So ultra processed foods are not just a characteristic of nutrients, but they have this purpose of being able to drive profits for corporations. and that's why they're formulated in the way they are. And so I wonder how and again, this is obviously still a hotly debated topic within nutrition around that classification system or which we should adopt or, and so on, but by and large, it does seem that there is this acknowledged thing within public health more broadly that number one, like you say, we need to look at the overall food system as opposed to necessarily one nutrient.

And then we really need to tackle the corporations and their involvement in this way. Both of which are extremely big challenges, but it does seem that there's starting to be pretty much a consensus that these are two big issues that we need to address.

Kathryn Backholer: Yeah, absolutely. I think corporations, if there's one thing, one thing that would move us in the right direction, if we could take large corporations out of the policymaking process and out of politicians' ears and take away that power and influence, we would be so far ahead right now. So I think that is probably one of the single biggest challenges to food and nutrition and making, healthy environments around the world. I think

industry, the food industry, and more than the food industry, when you're talking about marketing, we've got the advertising industry, just big corporations more generally... (is) the single greatest challenge to really making a difference in this space.

Danny Lennon: So we've touched on a path forward in terms of actual policy and interventions, but if we turn to research now for you and your group. Are there certain research questions that over the next number of years you really want to try and address that we, you think we need to really investigate a bit more, or that we don't have much evidence on right now or that are particularly interesting that build on your work today? What are those research questions you're most interested in exploring right now?

Kathryn Backholer: If I had to pick one policy in the food and nutrition space. If I could pick just one policy to be implemented tomorrow, I would ban all food marketing. Because it sets up social norms, our kids are just absolutely bombarded with it, especially in the digital space.

And so that's where we are. We are spending a lot of our work at the moment. And if you talk to governments around the world, especially in the digital space, we know that. See, on average in Australia, about 15 ads for every hour they're online; junk food ads, for every hour they're online. If you speak to governments around the world, they'll say it's really tricky to monitor digital marketing because it's highly personalized, highly targeted.

If you can't monitor it, you can't enforce it. If you can't enforce it, what's the point in regulating it? So a really large focus of our work at the moment is looking at how we build a monitoring system so that governments have that tool, up their sleeves. And so we are building an artificial intelligence system to be able to recognize junk food marketing and other types of marketing and advertising in both digital footage.

So the digital world and also the physical world. So we've got technology where we are putting, glasses on kids and we're able to see the world through the kids' eyes and, what marketing do they see? Where do they look? And then can we analyze that using artificial intelligence technology so that it's done in real time and in a really fast way.

And that's all about building the tools for governments to be able to implement a policy, to be able to monitor it, to be able to enforce it. And this is really, important, particularly in low middle income countries where we're starting to see policies, but they're not implemented because they're not enforced at all because there's just no monitoring systems in place.

So that's sort of one area that we've got a big strong focus at the moment. And then the other one is really listening to the lived experience of those experiencing social or. Disadvantage. So multicultural populations, Aboriginal Torres State Islander groups, those with the low income, what are their experiences with the food system?

What are their experiences with different food policies? How can we make sure that we design policies that put their voices and their values, front and center in policy making? And, essentially, Make sure that equity is at the heart of everything we do. So they're probably the two key areas that I'm working on at the moment.

Danny Lennon: Before we start wrapping up here, Katherine, is there any open loops from this conversation or any other points that you would like to leave people with related to this conversation? Before we start to wrap up here?

Kathryn Backholer: Probably. The only thing I would say is I think one of the biggest tensions in this field is the tension between personal responsibility and government responsibility. And the only thing I would say there is that, I think at the end of the day, everyone has to make a choice. They have to choose how much they eat what types of foods they eat, but they can do that in two different worlds. They can do it. In a world that promotes our health and promotes, the healthy choice being the easy choice, or they can do it in a world where industry dictates the environment in which we live in, that makes the unhealthy choice the easy choice because it drives profits that profit driven world.

And if we want the first world where, we live in an environment that promotes health in our children's health, we need government regulation to give us, the most amount of choice that we can have in an environment that's healthy. So I'd just leave it there and say I don't think they're too

extremes. I think we need both, but we really need policy to give a healthy environment to our kids and future kids.

Danny Lennon: For people listening that are interested in diving into more of your work or following your work online, is there any places they can go, social media, websites, anything like that you might want to send their attention to?

Kathryn Backholer: Yep. Twitter: @kBackholer. So that's Twitter. And then the Deakin University Institute for Health Transformation website as well. There's plenty there.

Danny Lennon: And with that, we come to the final question that we always round the podcast out on can be to with anything even outside of today's conversation topic.

And it's simply, 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?

Kathryn Backholer: Go for a surf if you live near the beach. Otherwise, go out and do something nice for yourself, . Yeah, if you can care for yourself, you'll c you know, care for others better as well.

Danny Lennon: Dr. Katherine Backholer, thank you so much for giving up your time today. Thank you so much for this conversation. It's been an honor to talk to you about it and also for the work that you do in this area. It's extremely important and has been very informative for me. Thank you for that and thanks for coming on the podcast.

Kathryn Backholer: You're welcome. Thanks for having me.