EDUCATION AND HEALTH STANDING COMMITTEE

INQUIRY INTO THE ROLE OF DIET IN TYPE 2 DIABETES PREVENTION AND MANAGEMENT

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
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Members

Ms J.M. Freeman (Chair)
Mr W.R. Marmion (Deputy Chair)
Ms J. Farrer
Mr R.S. Love
Ms S.E. Winton

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Hearing commenced at 10.10 am

Dr CHRISTINA POLLARD
Dietitian and Adjunct Research Fellow, School of Public Health, Curtin University, examined:

Ms PATRICIA MARSHALL
Public Health Nutritionist and Diabetes Educator, Curtin University, examined:

The CHAIR: Thank you very much for coming along. On behalf of the committee, I would like to thank you for agreeing to appear today to provide evidence in relation to the committee's inquiry into the role of diet in type 2 diabetes prevention and management. My name is Janine Freeman, I am the Chair of the Education and Health Standing Committee. I would like to introduce the other members of the committee: Bill Marmion is the Deputy Chair of the committee and Shane Love is a member. Unfortunately, Josie Farrer and Sabine Winton are not able to come today.

It is important that you understand that any deliberate misleading of this committee may be regarded as a contempt of Parliament. Your evidence is protected by parliamentary privilege. However, this privilege does not apply to anything you might say outside of today's proceedings. That is very much for more controversial issues, but I am happy for you to be controversial if you want to. Before we begin, do you have any questions about your attendance here today?

The WITNESSES: No.

The CHAIR: Did you want to make a brief opening statement or do you want us to go straight into questions? I am more than happy if you want to make an opening statement.

Dr Pollard: I might just make a statement, quickly. I am very pleased that this topic is on the agenda, particularly given the rapid increase in diet-related diseases and the challenge that we are facing as a society to address them, particularly with the emphasis on diet, because that is both a big contributor in terms of factors and also it is quite complex to address and change dietary behaviour at the individual level and the societal level, not the least because we have a large commercial vested interest in this space. So, similar to tobacco, we have those issues in this area.

Ms Marshall: I would agree with what Christina said there. You say that we will not be controversial, but I think there are some controversial issues. Largely, we know what we need to do, but there is a lot of pushback from a vested interest that has quite significant political powers. So knowing what to do and being able to do it are often two different things.

The CHAIR: Do you want to take us through some of the things that we should do if we know what we could do? I am happy for you to be controversial; it is more that usually sometimes when we do something else there is media up the back and all that sort of stuff, so that is why those statements are made. Unfortunately, this is not one of those topics where the media rush in to see it. I am happy for you to be as controversial as possible in terms of challenging us, as members Parliament, and getting on record the sorts of things you think need to be done.

Ms Marshall: Increasing fruit and vegetable consumption is one of the things that is important, also reducing total food intake and going back to more traditional eating patterns—the basic five food groups. But, of course, the food industry thrives on processing food and adding value, and also promoting that through advertising. They spend a lot of money on advertising. They are very clever at advertising and promoting foods that we know are not healthy, and very resistant to any restraint. For example, we know that there has been a proposal to tax sugary drinks and the industry is very

much against that and they have been able to create a sense that: "They're trying to tell us what to do." The nanny state issues keep coming up. They have the political power to put a stop to those sorts of proposals.

I think it is a very brave government that will take on the food industry, because they are multinational, they are very powerful, they have a lot of money and they also have a lot of skill in getting the public on side. I remember a little while ago there was a statement against the sugary drinks tax by the grocery council saying, "No, don't tax things; it is about educating people to make the right choices." My reaction was: yes, it is about education, and look at the millions and millions you spend on educating people to eat food that is not healthy. I do not think small amounts of money here and there to promote healthy food can possibly match those huge budgets, so we have to find smarter and cleverer ways.

The CHAIR: In the state government we cannot apply tax because that is a federal government issue, so we are looking at other ways, and we have that small amount of money to do those sorts of things. You did the campaign around two and five fruit, which I see when I am out in the community, because Healthway promotes organisations. Do you want to talk about that campaign and whether that message is cutting through given some of the statistics that have come out since that time?

Dr Pollard: The topic of my PhD was evaluating the impact of that campaign. I guess the first point is that not all of the food industry is promoting foods that we do not want people to be eating more of, so we need to distinguish the food industry. The fruit and vegetable campaign was successful at the time when it was being implemented and we find—I even find now—that children who were at school at the time when we were conducting the campaign 15 or 20 years ago are still aware of the need to eat fruits and vegetables. While the campaign was on, in terms of a big public message, there was a high awareness of the need to eat fruit and vegetables. It was specific, it was clear, it was direct and there were a lot of supporting multi-strategy activities. It was run in schools, it was running workplaces, there were cookbooks, there were sponsorships and everywhere you went there was high awareness—97 per cent across our population at times.

Before the campaign, people did not realise they needed to eat more fruits and vegetables and we have population surveys that show that. The campaign created an uncomfortableness about people's diets, but people really grasped the fact that they did need to change it and they were made aware of what they needed to do. I guess the point is that comprehensive, well-funded public health education campaigns can influence consumer behaviour just as there is good evidence to suggest that government taking any action, or society taking any action, to limit the promotion of unhealthy foods will have the same impact. You can see globally that sugary drink consumption has decreased and even the conversations around taxing sugary drinks or finding ways to communicate that has made a difference. It is way more powerful if we try and make changes to the environment, like try to restrict the sales or try to change the availability of foods.

The CHAIR: When you talk about a comprehensive campaign that has a multifaceted approach, do you have any idea about how much those sorts of campaigns cost?

[10.20 am]

Dr Pollard: Campaigns cost a lot in terms of mass media, but in terms of reach per person, they are very small. It is like a piece of string really. You could have a very expensive campaign. What we do know is that if you start up an advertising campaign—I do not know how much current campaigns are costing, but once you get awareness up, you can maintain a campaign in a relatively cost-effective way because you have your initial expense up and running. There are lots of different ways with public relations activities to cut the cost of campaigns but they do not cost anywhere near the cost of advertising and promotion that the unhealthy products expend. Also, when they are public

education campaigns, there is an incredible cut through, so people listen and respect credible, reliable information.

The CHAIR: Jane Martin talked about the current health campaign with the gut fat pictures and was of the view that that is one of the leading campaigns in Australia at this point in time. Would you agree with that? Is that the sort of campaign that is needed to continue around this diabetes area? What sort of campaign would you envisage in terms of diet and actually talking to people about getting back to fruits and traditional foods and away from sugary drinks?

Ms Marshall: I think that that campaign has raised awareness of the negatives of the sugary drinks, but the next step would be promoting the positives. One of the other things that I am concerned about, which is another controversial issue, is low-carb diets for diabetes. I have looked pretty hard and I cannot find a lot of evidence to support low-carb diets, particularly in the public health sphere. In the short term, for somebody who has just been diagnosed with diabetes, maybe there is a place for it, but the bigger picture and the long term, the more traditional foods that we have been promoting all along are the way to go to avoid the long-term complications. It is not just about reducing blood glucose in the short term. It is about avoiding complications in the long term.

Back to your question about the next step in the campaign, maybe we need something to raise awareness of just how prevalent diabetes is and why it is so prevalent and what to do about it.

The CHAIR: One of the reasons we started out on this investigation is we had the opportunity to have Michael Mosley when he was here to launch his book. He is controversial and there is no doubt that that he has an enormous amount of confidence in his own opinion; that is why he is where he is. But his suggestion was that with those sorts of diets—I gather it is a low-carb diet that he promotes—you can reverse diabetes. What I understand you to be saying is that that might be the case when you first come in as a diabetes patient, but then you have to do the nutritional aspects to continue someone on into healthy eating. Is that what you are saying?

Ms Marshall: I am, and on the issue of reversing diabetes, diabetes has got a big genetic component. You cannot reverse your genes, so if you have it in your system, there is nothing that will change that, at least at the moment. We have not got the medical technology. We can only reverse the symptoms and while people with diabetes are doing what they need to do to manage their blood glucose and all the other metabolic abnormalities, they will be healthy and avoid the complications. But as soon as they stop doing that, the metabolic abnormalities will reappear and usually we find that when people go on diets and then come off the diet, they put on weight and they eat worse than at the beginning. As a dietician, I do not believe in diets for people with diabetes. We encourage people to change their eating patterns for life. It has to be a lifetime thing. With Michael Mosley's show, I remember seeing on the television one of his patients who was in the audience and had been on this very restrictive 800-calorie diet and they said, "How's the diet going?" and the patient said, "I can't wait to get off it." I went, "Aha—exactly!" It has to be a change in eating habits for life and for not only the person who has diabetes, their whole family because diabetes is a genetic thing so the rest of their family are going to be prone to it too. The sooner they learn to —

Mr W.R. MARMION: Can you give an example of what you would envisage as a healthy way of eating? I am not calling it a diet but —

Ms Marshall: Okay, healthy eating habits, yes.

Mr W.R. MARMION: What should we all train our children to do so we all —

Ms Marshall: There are two sides to this. The general principle is eating plenty of fruit, vegetables, whole grain cereals, legumes, small amounts of lean meat if people choose to eat meat, and small amounts of dairy products. So back to the old five food groups. But in addition, I find through

working with people with diabetes that they have all got little habits that are undermining them. One person might find that they get home from work and they are hungry and they hop into the chocolate biscuits or somebody will stop on the way home to buy a snack. Someone else will do something different on the weekends. I encourage people to look at the habits that are undermining them. In fact, a classic example is a mum who has children. They eat up their children's leftovers. I encourage them to look at these habits that are undermining them. Emotional eating is another one.

Mr W.R. MARMION: What about encouraging good habits? I am thinking, as a parent with five kids, that they will sort of graze all day on bickies and things, but they are running around exercising. When I was young, I ate so many lollies because that is what you spent your pocket money on. I remember the names of all the lollies you could get and you drank Coke, but you did a lot of exercise. What sort of habits can you develop early with kids? If they want something to eat, what should you have around so they can snack on something that is healthy?

Ms Marshall: When I was a child, there was not that much of that around. I tended to just eat my three meals a day but of course, children do need more frequent food. There are fruit and various snacks made out of bread and toast. There are plenty of healthy things around. The biggest problem is persuading children to accept them because children do tend to be a bit hooked on the things that are promoted. But the other thing that I have really noticed is parents using unhealthy food as rewards for good behaviour, and that teaches the child that the unhealthy foods have got sort of positive emotional connections. The old "eat your vegetables and you'll get dessert" is a really bad habit because it teaches the child that the vegetables are somehow scary or negative in some way.

Mr W.R. MARMION: That is what I used to get with spinach.

Dr Pollard: Can I just add something here. Some of this conversation points to the need to assess dietary evidence in a particular way. We have processes that the World Health Organization recommends that we assess all of the evidence in a rigorous, systematic way to come up with recommendations for a dietary pattern that is essential for health. We have dietary guidelines in this country and there are dietary guidelines that cover children and adolescents and parenting. They are developed over a four-year period. They assess all of the big studies and come up with a set of recommendations. Pretty much there are five guidelines about encouraging the types of foods that Tricia was talking about—fruits, vegetables, whole grain breads and cereals—and discouraging or limiting foods that are high in added sugar and high in added fat that do not contain nutrients and are not nutritious. They encourage breastfeeding, which is also protective, and also preparing and eating food safely and encouraging physical activity. So you can see that diet is actually quite complex. Often what happens is that these simplistic, restrictive and prescriptive diets that have people lose weight quickly are embraced, but in the long term they are not protective against diabetes, heart disease and other chronic diseases.

[10.30 am]

The CHAIR: But neither are your guidelines protective because so far your guidelines are not working. We have had an increase in diabetes, so it is all very good to say you have got guidelines and they say these things, but they are not working. Because they are not working, people are reaching out for short-term, quick ways. There is a reason why people like Michael Mosley have become extraordinarily popular and able to sell hundreds of thousands of books.

Dr Pollard: I think perhaps that it is not that if people followed the dietary guidelines, they would not work. It is that they are not implemented. They are on a website. The workforce that would ordinarily implement dietary guidelines has diminished. There are not the education programs and systems in place. The LiveLighter campaign has created a really high awareness of the risk and the

consequences of being overweight. It does not contain ready, accessible dietary guidance for people about what types and amounts of food to eat at what stage in their life and how to actually embed that habitually, routinely.

The CHAIR: One of the things that, again, Michael Mosley put to us was that most GPs do not get any training around diet and so people are turning up into their clinics and they are overweight and all they say is—I know this as a personal example with my partner—that you have to lose five kilos. There is no, "I'm going to help you lose five kilos", or, "Let's work together to lose five kilos", or, "I've got some great ideas about how you can lose five kilos."

Dr Pollard: Absolutely, it is an under-resourced area. Having access to an accredited practicing dietician to support people would be one thing. Having access to group education, developing and—we have very little funding for public health and nutrition interventions in this country and globally, so it is actually looking to increase funding to develop up and evaluate those sorts of programs. We had some in the past and they did well, but they have kind of stopped. I think the other thing is that diabetes is one area where we know that a significant proportion of the population is pre-diabetic, so at very high risk. Simply raising awareness, making clear the type of dietary practices that are needed to prevent diabetes, would have a big impact on the future health costs and the future impact. There is also an immediate impact for people who are diagnosed straightaway. If they change their dietary habit to the recommended dietary pattern, they get immediate results, not just weight loss but control of their blood glucose and reducing their risk. That is what I was kind of referring to with the comprehensive approach that provides the infrastructure that we need and the support, including the workforce. For example, in the past we used to print off dietary guidelines, educate school principals and teachers and run sessions for them about this credible and reliable information. That does not happen anymore. There is less and less nutritional education available at the settings and places where people can use them.

Ms Marshall: And then, of course, we have also got the big layer of people who have the metabolic syndrome. So you have the metabolic syndrome and then prediabetes and then diabetes, and a huge proportion of the population have got the metabolic syndrome, which is the precursor of diabetes and cardiovascular disease. There is very little awareness of that, but the same principles apply to them.

Janine, just going back to your issue about going to the GP, I hear so many people say, "The doctor told me to watch my diet." I do not think watching your diet is going to change anything. But, of course, you go to the doctor and see the doctor for 10 minutes. Most initial consultations with the dietician will be an hour. You can do a lot more in an hour than you can in 10 minutes. It would really be much more cost effective for people to be spending more time with people like dieticians than constantly going to the GP and being told to "watch their diet".

The CHAIR: Under the Medicare system, you can get six treatments per year with an ancillary practitioner, that includes a dietician, does it not?

Ms Marshall: It does.

The CHAIR: Do you know how often that is accessed?

Ms Marshall: It is accessed a lot but it is not only for dieticians. The six includes podiatrists, physiotherapists and psychologists. They could either see the dietician six times or they could see one of six, once. As far as I know, nothing is covered for group education. In fact, it is a little bit sad in Western Australia. We used to have a lot of group education for diabetes and it is almost non-existent now.

The CHAIR: And what did that entail, the group education?

Ms Marshall: Diabetes WA developed a program called "Living with diabetes" and it was six sessions and each session was three hours long. In the first session, the nurse talked to them about what diabetes was, encouraged them to test their own glucose and taught them what to do with the results, and gave them the big picture of potential complications and the importance of managing it themselves, which is another big issue. In the second one, the dietician usually talked to them about changing dietary habits, presented information on the five food groups and various other issues like frequency of eating carbohydrates, the quantity and that sort of thing. That was a three-hour session. In the third one the dietician took them into the supermarket, went around the supermarket and taught them to read and interpret the labels and make choices. The fourth one was about physical activity, which was taken by the physiotherapist, and stress management. The fifth one was about complications. Often the podiatrist would come in to talk about foot care—what to do about taking care of their feet to avoid problems, what to look for, what to do if they did have problems—and other issues like the urine test that was for their kidney health, what cholesterol meant et cetera. Then the sixth one was a wrap-it-all-up, where-to-from-now type of session and what are you going to do about changing your self-care habits. We got very positive feedback from that. Unfortunately, it was never formally evaluated with a pre and a post-evaluation.

The CHAIR: There is currently an online course, "Life with Diabetes". Do you have any dealings with that and do you know how effective that is?

Ms Marshall: I wrote it.

The CHAIR: Is that the same one?

Ms Marshall: No. "Life with Diabetes" is loosely based on "Living with Diabetes" but it is through Curtin and edX. EdX is a MOOC company, so it is completely online, and we have an international audience. I think the last time we ran it last year, we had 149 different countries, which was very interesting, but one of the most interesting things about that was that 63 per cent of the people who were enrolled in it were actually health professionals looking for information. Another really big area is that we need to be training our health professionals. They see people with diabetes quite regularly. They do not really know how to advise them, particularly on the dietary issues, and I would just love to modify this MOOC to make it more appropriate for health professionals because I am getting a lot of requests. I communicate with the learners through the discussion groups and they email me sometimes and the health professionals are asking for more information at a higher level about how to teach their patients. The health professionals range from doctors right through to carers in nursing homes. I am looking for some funding to do that now. I would really like to make that online because health professionals do not have a lot of time to actually go and sit and listen to things, but online learning is becoming very popular.

But just back to your question: how successful was it? We got some really, really positive feedback. One man said he had lost six kilos since he did the five-week course. People said that they had realised how they need to take responsibility for it and make changes themselves. They have been working with their doctors and they have reduced their medication. The evaluation was very gratifying and I am happy to send you the evaluation report if you are interested in that.

[10.40 am]

The CHAIR: Yes, that would be excellent. In terms of when we talk about diet and going back to traditional diets, I have the honour of representing a very culturally diverse and religiously diverse community where 52 per cent of the population was born overseas and 64 per cent have at least one parent that speaks a language other than English. How are we addressing talking to those people about diet and do we have people in our system that are able to discuss diet in a manner that goes back to tradition? My understanding is that Somalian residents in Victoria have been

shown to have higher levels of diabetes, for example. Are we doing any work around that that you are aware of?

Dr Pollard: I would have to say no, not much, particularly in Western Australia where we do not actually have a workforce for a lot of those refugees and migrants and for different ethnic groups. There are really culturally specific dietary practices and the way people regard food, including with Aboriginal Australians as well, that are not being that well addressed simply because there are not the resources. Again, there were some resources previously that people are trying to utilise. They were available online but one of the issues with online is that not everybody has access to online. In fact, we know access to it is very inequitable and a lot of the people in the communities that you are talking about are often in lower socioeconomic circumstances and they have less access to food. The answer is that there are very limited resources available, and a very high need. In some of those communities there are very high incidents of poor dietary practices, some of which has happened when they arrived in Australia and adopted or seen the television advertising of Coke and thought, "Well, the government allows it so it must be something that is good."

The CHAIR: Or the halal McDonald's.

Dr Pollard: Yes, so there is a susceptibility to advertising and promotion among certain population groups as well as a genetic predisposition to some of the risk factors for diabetes and heart disease when people make that nutritional transition to a high-sugar, high-fat, high-salt and high-energy diet. There are certainly groups in our community that are very high at risk who we are not reaching and they are asking for support.

Ms Marshall: There was a program—a colleague of mine who is a dietician was running out of assets. Can you remember the name of that?—"Good Food for New Arrivals". I think the funding has been discontinued for that.

Dr Pollard: That is the one that I was referring to.

Ms Marshall: I was involved in various ways. I was running a community kitchen at one stage in Belmont and we had a lot of people from various cultures coming along to the community kitchen and we encouraged them to bring along their traditional recipes. We would cook the traditional foods and they would share it and they really enjoyed it. It was really good fun but for me, the important thing was that I was reinforcing that their traditional foods were valuable and worth maintaining because they do run into a number of problems. One is language, of course. They go into the supermarket and they cannot read the labels. They do not understand what the foods are and their kids go to school and learn English and come home and say, "I want to eat real Australian food like McDonald's." The parents are under a lot of pressure from their kids to switch over and abandon their traditional eating habits. That is where part of it comes from. They also have a lot of difficulty accessing their traditional foods. They usually come from specialist shops. Often they do not have cars so they have to travel on public transport with children and carrying a lot of fruit and vegetables on a bus, which is a bit of a challenge. They were some of the other things they said to me.

The CHAIR: I would counter a bit of that, but part of the issue is that traditional foods take a long time to prepare. If you talk to any young Vietnamese person who was born and raised in Australia, they go to festivals so that they can eat Vietnamese food. Otherwise, they eat steak and other Australian foods, not necessarily because they want that but because those foods take quite a long time to prepare, which is an interesting thing because there are quick ways of making pho, but anyway I would question some of those things that we do in terms of making assumptions.

Ms Marshall: I am just repeating what they told me.

Mr R.S. LOVE: Can I just ask something before we go much further, because I have been listening intently to your questioning. I have heard a lot of comment from various people about sugary drinks this and sugary drinks that. I understand that with young people especially, because they are probably more prone to drinking that. But can you give me just a general understanding of the role that alcohol might play, more so with adults, as a key contributor to the conditions for developing diabetes but also as a problem whilst people have diabetes and are under treatment?

Dr Pollard: What I did not mention before was the role of alcohol in dietary guidance because often we think of alcohol in our society in terms of harm minimisation or accidents in road traffic, but it has a very significant impact in terms of its metabolic impact, the energy content and its role in increasing the likelihood of being overweight and obesity. The other thing about alcohol is that it was recently categorised as a group 1 carcinogen by the world cancer research fund and the World Health Organization, so in terms of cancer the recommendation is that there is really no safe level of alcohol consumption in terms of population cancer risks. It is an issue in our society that alcohol plays a particular role and it kind of goes unnoticed a lot of the time, yet it can have a significant impact on increasing the risk of diabetes and other chronic diseases, but also it needs to be managed in the control of diabetes.

Mr R.S. LOVE: How much of a challenge is that to most adults with diabetes? Do they continue to drink alcohol or can it be controlled or what happens?

Ms Marshall: People with diabetes are not told they cannot drink it, but they have to be particularly careful mainly because alcohol will interact with a lot of diabetes medications. Apart from the general health effects, there are certain oral medications that cause quite unpleasant side effects. The alcohol can either potentiate the effect of the medication, which can cause low blood glucose, or, in the case of insulin, the alcohol can put the blood glucose down initially and then push it up, so it really causes a lot of imbalance. But alcohol plus insulin will push the blood glucose down to really dangerous levels and it is a really bad issue with young people because if they have been out drinking with their friends, they often do not tell their friends they have got diabetes. When the alcohol and the insulin react, they collapse. People think they are just drunk and they just leave them there and there have been deaths from alcohol because of the interaction with insulin, so it can be quite lethal. As I say, people with diabetes are not told they must not drink, but they are told they really need to be particularly careful and also to talk to their doctor about the hazards of alcohol combining with whatever medication they are on.

Mr R.S. LOVE: In your experience, is it a common thing for people to continue to use alcohol even when they are diagnosed as having diabetes?

Ms Marshall: We encourage them to have one or two drinks occasionally if they are used to doing that socially because it is important that diabetes fits into your life rather than running it. If you tell people that they cannot ever have a drink, that only makes them want to have it all the more. There is a subgroup of people with diabetes who have drunk to excess and it has caused damage to their liver and their pancreas and actually created the diabetes. That is a different group of people. It is a bit of a problem in some Aboriginal communities where that has happened, and I mention that because I have seen it up in the Northern Territory. But that is a slightly different group to the usual person who has type 2 diabetes and then says, “Can I drink alcohol?”

[10.50 am]

Mr R.S. LOVE: That fits into the terms of our inquiry because we are looking at those at-risk groups, in which a lot of remote Aboriginal groups would certainly fit. Thank you for that.

Mr W.R. MARMION: My interest is more in the early prevention, so I am interested in anything you can do that actually has an outcome. I apologise for being an engineer, so I am outcome focused. You mentioned education. I got from what you are saying, and I would add to that, that if education was taught in the schools, it was part of the curriculum—year 6s come to Parliament so it is part of their curriculum—surely a simple solution for early prevention might be that the health section of the Department of Education, which does not cost any funding to anything else, funds in certain years units or courses and it is mandated in the curriculum. That is why I put that to you. I would suggest that maybe that would be a better outcome than taxing sugar. My kids do not like cool drinks. I am lucky; they just drink water. But when I go to the supermarket I see people pick up big cartons of Coke and I am amazed at how cheap it is. You could have a 50 per cent tax on that and they would still take it. I am telling you, you would end up getting a lot of money from this tax, and then what would you do with the money? I know what you will tell me to do with it. What happens if you end up getting more? Treasury would not stop it. They will keep it going.

The CHAIR: We are not doing the tax. You are talking about the education.

Mr W.R. MARMION: Yes, but I would like their view on whether a tax would be more beneficial to an outcome than an education program. It is pretty simple.

Dr Pollard: My answer is that you actually need multiple strategies if you are really serious about addressing the issue. That includes those big environmental ones. With the tax, if it became a regulatory option, then things like price promotions would need to be considered as a priority. We do know that those 50 per cent discounts for bulk purchases are often loss-leaders, so that would need to be taken into account and dealt with, and I think it has been in other countries. It is very effective, as I said before, from messaging, commitment and even to get people to stop and think: Why are they taxing that now? Is this something I need to think about? Education is really important; embedding knowledge and skills early on with role modelling from teachers, schools and the school environment. We have known for years that that works. The very clear, credible, reliable information from a variety of sources is important. Once people get messages, they may not like them, it may cause some interruption, but that works. It is really about taking a comprehensive approach. The message about not becoming overweight is really important for diabetes prevention, but also it is about eating a variety of nutritious food. Countries around the world are reviewing their dietary guidelines all the time. The Canadian Diabetic Association just put out a set of guidelines with amazing education tools for all subgroups in the population. That would work really well if it were part of a comprehensive approach.

Mr W.R. MARMION: Is that the problem? It is great having all these tools, as Janine said, great even if you have all the pamphlets, but if people do not use them—adults are not going to, unless they have diabetes and they might take some interest. My view is that you have to attack the education, the kids, early.

Ms Marshall: I used to use those pamphlets when I was doing diabetes education, but I would give everybody in the group a copy. Then we would have a big felt model and I would give them food and get them to put it on, so it was interactive. That is the thing about education: if you just give them a pamphlet they might look at it and that is the end of it. Education is an opportunity to get people to actually interact with something and do something. That was the beauty of the supermarket tour. They actually go in and do something themselves, and that would stimulate them to make some decisions and go away and do things. That was the whole idea of education. To take it to the next step, rather than just information, they would engage with it and relate it to their own personal lifestyle and see that they could make some changes.

I would just like to make a comment on your question about outcomes. This is a perennial problem with prevention. If you are running an education program to prevent diabetes, what do you measure when you are successful?

The CHAIR: At this point in time diabetes is on such an increase that you could—it is currently quite measurable because —

Mr W.R. MARMION: Anything is better than nothing.

Ms Marshall: It is measurable but you cannot attribute the change to one particular thing; that is the problem. If someone goes to the doctor with an infection and the doctor gives them an antibiotic and they go back the next week and they are fixed, that is something that is measurable. If you teach somebody to change their eating habits and they do not get diabetes, what do you measure?

The CHAIR: Therein lies the problem, though. Taking every individual in Australia into the supermarket really is not a realistic proposition, is it?

Ms Marshall: It is not but we could turn it into an online thing.

The CHAIR: Certainly, you could turn it into on online thing where you allow people to only shop online and if they try to buy sugary products it does not go through. You could do lots of the stuff like that. Yes, you could do it as an online thing, but whether it just becomes a pamphlet is another thing.

Dr Pollard: We recently did some focus groups with young people—adults 18 to 35. The thing that really came through strongly was that they wanted help. There was an awareness of the need to eat healthy, to avoid junk food, but they were trying. The advertising promotion at the football, everywhere they went, junk food was in their face. Any strategy that restricts the sale or promotion of junk food at all times, or reinforces the steps they are trying to take, was desired.

The CHAIR: Jane Martin talked about access being an issue. She also talked about the fact that that age group you are talking about, the 16 to early 20s, is one of the highest consumers of sugary drinks and that that was a potential problem. Did you want to add anything to that?

Dr Pollard: I think it is and I think there are strategies that could be adopted to reduce access. For example, the Queensland government is looking at restricting soft drink sales in all of their health facilities—just removing them. Reducing access by either removing, reducing availability, decreasing the type available, the number of different products available, and increasing the cost in any way really makes a big change.

The CHAIR: Is that considered food service intervention? That is one of your specialities.

Dr Pollard: Food service interventions are quite good because you can actually make changes across a life course, in childcare centres, at schools, in hospitals and in other settings. One of the things you can do is those behind-the-scenes changes so that people do not have to choose. The idea here is that we want to create an environment where people do not have to opt in to being healthy: "I'm going to be healthy now. I'll choose this instead of that." We want to reduce and remove the choice in a sense so that it is easier for people to choose healthy. For example, if they are getting a pasta, they get a wholegrain pasta because that is what is on sale. There is quite a lot of benefit for behind-the-scenes food service changes that would make a difference in this space. We did some work with retailers in the City of Vincent and we were working with them quite closely. Healthway funded some research. It was really difficult to shift the menus to be 50 per cent healthy, but it was possible. For example, the Indian restaurant had a lot of high-fat foods on it and they had to change products. If you change ingredients, if you add in salads and different foods, if you remove sugary drinks on the table and advertising and promotion when people sit down and if you really control what is in

kids' meals, which children's menus are offered, then there are really significant ways you can make an impact.

[11.00 am]

The CHAIR: Did you do a report on that or was that from a report to Healthway?

Dr Pollard: Yes, we did a report on that one.

The CHAIR: Do we have a copy of it, or can you send that to us? That is all right, we have it on *Hansard* so we will send you an email to remind you.

Dr Pollard: I think the other thing is that a lot of food companies are saying in their corporate social responsibility statements that they want to promote health, that they know what consumers need, so to encourage them to make changes that are credible and make a difference and are outcomes based. The evidence that dietary guidelines use are about outcomes. They are about if you increase one serve of veg per week, or per day, you get this health benefit. We have that evidence. We also know the types of interventions that work. Those reviews have been done. So it is really time to look at them and see how we can incorporate them in our action.

The CHAIR: Instead of going down the route of taxing, which impacts the consumer, but doing something that was more inducing for those companies, like giving them tax concessions—has anything like that been tried throughout the country or anywhere else? Say, for example, the City of Vincent says that if the IGA promotes better choice when you walk in so you walk past fruit before you walk past cream buns, the council will lessen some of its rates. I am thinking about whether there are any innovative programs that actually use that monetary tool that we talk about with tax but in a much more positive way.

Dr Pollard: I think one of the things with the monetary interventions for big wholefood businesses is that we already offer them a lot of monetary compensation for their advertising and promotion because it is a business activity. So they get a tax deduction for that, and that is the very thing we are trying to limit. There is probably potential in having conversations with businesses around their corporate social responsibility: what they are contributing to society in terms of food and their product and the public good. If we start with where is an economic benefit that we can give you as a carrot for doing that, that is a whole different ball game that we really need to look at. There is an opportunity now and businesses are aware, and in their statements they want to make change, so I think just to start that dialogue would be very valuable.

Mr R.S. LOVE: Could you give an example of such a business or such a change? I am struggling to understand what you are talking about I have to say.

Dr Pollard: Sorry. For example, we recently looked at supermarkets—the top supermarket chains—and all supermarkets say that they want to promote good health and nutrition. That is one of their statements. When you actually look at what they are doing, a lot of what they are doing is counter, so they are discounting soft drinks. They are doing deals with certain products. They turnover junk foods and 60 per cent of soft drinks is sales. But they can do other things, and there are good examples in some countries. We have done a scoping review on this, so I can provide that. For example, Woolies here puts out free fruit for children. Some of those initiatives can be impactful. It is the same with food service outlets. Businesses can do things like label or promote healthier options. Sometimes if they promote healthy options, they do not sell, so it is behind the scenes. They identify the ones that are healthy and they promote those with deals with water, for example, for children. There are quite of lot of those strategies that work quite well. The Alfred hospital has some really good examples of what has worked well in promoting behind-the-scenes change. I guess

what I am saying is that there is a big opportunity and it has been identified by the World Cancer Research Fund International that this is an area we should be looking at.

Mr R.S. LOVE: I guess in terms of the promotion, as opposed to taxation, there is already a taxation differential between processed food and fresh food because of the GST, but that does not seem to have achieved anything. I do not know at what level you would have to impose a tax to achieve any outcomes. It seems to me that basically any food that is processed will have some of the key contributors to the problem sources of high fat or high sugar. How do you combat that? People will always buy the biscuits; it does not matter what you put up. But is it more fundamental than the supermarket? Does it need to go back to the manufacturer and find other ways of providing a product that people like to eat that is actually healthier?

Dr Pollard: If you are looking at control in the food system, supermarkets have a very powerful role. They control what goes on the shelves. You are right, there are points throughout the food system where we can make entry points to impact change. It would be something that pulled together various sectors of the food industry with the policy outcome of improving dietary intake or improving the sales of nutritious foods and that could be quite an interesting exercise. The GST has been effective in keeping—if you did not have GST exemptions on nutritious food, then you would put quite a lot of population subgroups at risk of not being able to afford a healthy diet in this country. Although we take it for granted, it is actually quite a progressive measure and 20 per cent is the tax threshold at which there is significant dietary change.

Mr R.S. LOVE: Does that have to be overt? Does that have to be known? GST is not known. When you walk in the supermarket, you do not know whether the oranges or the orange juice have GST, but to be effective in terms of the public awareness, is it better to be highlighted that there is an impost?

Dr Pollard: If foods go up in price, people know it. I am not sure whether there is evidence that knowing separate from the price increase has a role or not.

Mr R.S. LOVE: People might see that as a signal that that is a bad food, or otherwise, perversely as a signal that that is the government hitting us and then they eat more of it. They would then know that there was a tax involved. I do not think that at the moment they understand that there is no tax on a fresh piece of meat but there might be on a piece of ham.

Ms Marshall: That would be fairly easy to implement because when I get my receipt from the supermarket it tells me down the bottom how much GST I have paid —

Mr R.S. LOVE: But it does not tell you on the individual items.

Ms Marshall: It could very easily be put beside the ones that have GST how much GST you have paid, because that is where they have got the total from anyway. I have a suggestion that might be useful. With the cashless welfare card, rather than just being something that is a rather punitive measure, it could be turned into a rewards card where people get points for buying healthy food and then once they have their points, like with the other rewards cards, they could then spend their rewards points on whatever so it would be a way of promoting healthier food to the people on welfare.

Mr W.R. MARMION: Or they get an extra 20 bucks for X because it is fruit and veg.

Ms Marshall: Yes, that would be another way of doing it. I saw something similar done at Boronia prison, where they had a cashless card to buy their food. Technically, it is possible.

The CHAIR: How do you know that 20 per cent is the threshold for where people make the distinction, or when they will not buy the overly processed packaged food from the freezer, but will buy the onions and lentils or whatever?

Dr Pollard: The 20 per cent is the level at which it impacts that commodity. I am not saying that it means that they will switch from that commodity to a different food; it is just that that has the impact in terms of behaviour.

The CHAIR: How do you know that?

Dr Pollard: There is quite a lot of literature and modelling and information on that, so I can get something to you if you like with that.

[11.10 am]

The CHAIR: Can you tell us how nutrition epidemiology works?

Dr Pollard: Yes, nutrition epidemiology is the study of disease rates across populations and it is really important because it tells you that if you have a particular dietary practice or pattern across the population, this is the increased likelihood of a risk factor or this is the increased likelihood of a positive outcome. It is a method used for all big dietary surveys and dietary assessment. It stops that small individual case study perception that if I make this change, it will be the same for everybody. It is the evidence-based practice for diet that is highly regarded and revered in terms of evidence.

Mr W.R. MARMION: Because it has a larger sample?

Dr Pollard: Big samples, yes, and we have some really good cohorts around the world.

The CHAIR: A trick question: we talked about this just before we came in. Folic acid is put into bread. Is there any research into changing some of that processed food so that it has a lower GI so that people can make those choices for the biscuit or the choice for the white bread instead of the brown bread?

Dr Pollard: So reformulating a food product to give it a lower GI?

The CHAIR: Yes.

Dr Pollard: Not that I could say off the top of my head but I am sure that the Baker Institute would be —

Ms Marshall: There is a bit done and it is about adding things back in. It is also about how things are cooked. Again, the more processed something is, generally the higher the glycaemic index. But it is not only about the ingredients. For example, wholegrain breads have a lower glycaemic index than the more finely ground-up processed flours that are used, but there are other things too. The traditionally proven bread—by proven I mean when you knead it and let it rise—when there is a lot of fermentation happening in the dough, it creates a bread that has a lower glycaemic index than one that has been very quickly produced with chemicals to make it rise faster. Glycaemic index and processing are definitely very much linked, but it is more that the glycaemic index is higher with the less processing—that is a general rule of thumb.

The CHAIR: Sorry, glycaemic index —

Ms Marshall: You want it low.

The CHAIR: Yes.

Ms Marshall: A high glycaemic index is a bad thing.

The CHAIR: Yes, so a higher glycaemic index results from greater processing.

Ms Marshall: Yes, also an ingredient such as barley has a fairly low glycaemic index so they are starting to use barley in products. Again, that is a grain that has been used in traditional diets because it is higher in fibre. The type of fibre will also influence glycaemic index. Glycaemic index applies only to foods that have carbohydrate in them.

Dr Pollard: There are components of foods and ingredients, and I am sure that reformulation can occur to change some foods, but overall it is the dietary pattern that impacts your disease risk. It is the types and amounts of all of the foods that you eat, including alcohol, that really—and it is a habitual practice. It is not something that you do once in a while. It is habitual consumption that we are really interested in because that is what makes a difference in terms of risk and prevention.

Ms Marshall: I have another comment about the glycaemic index. Sugar only has a glycaemic index of about 50. The reason for that is that only half of it is glucose. It is the glucose component that goes into the blood. Sucrose is a bit of an anomaly in that because it is only half glucose. It looks like it has a low glycaemic index, but that does not necessarily mean that it is a good thing, for other reasons. It tends to be incorporated into the fat metabolic cycle.

Mr R.S. LOVE: Given the fact that we now have a royal commission into aged care, I am just wondering whether diabetics do become old people? Is there any particular issue in aged care that may need some attention?

Ms Marshall: Definitely. I have some stats here showing how diabetes increases with age, and it goes like that with numbers. They drop off after 85. That is for two reasons: one is that the death rate over 85 is fairly high. Secondly, it is interesting when you look at the lifestyle of very elderly people. They tend to stick to their very old ways. It is the younger people who have changed their eating habits drastically. Just back with aged care, yes, it is a very big area of concern. You might have seen *Four Corners* talk about how people are given their food and then it is taken away quickly so they do not have time to eat it. They often need help with eating. I have worked in hospitals and aged-care places. You really need someone to sit down and feed the person and make it a social event rather than just a refuelling exercise. They often have problems with chewing, swallowing and taste. There are all sorts of issues with feeding old people in general. When they have diabetes, often it is about restricting what they can have rather than taking care to give them something appropriate. For example, I had one lady with diabetes in hospital who was complaining about the food in the nursing home so I went to visit her, and I was a little shocked by what she had. She had this tiny plate of food because they had taken a whole lot of things out that were not appropriate, but they had not put something else in. Everybody else had jelly and ice cream for dessert and she had diabetic jelly, which is basically just artificially coloured and flavoured water. She was complaining that she was hungry. Of course she was, because they just were not giving her enough. Yes, there are huge issues there that I would love to get involved in and try to sort out.

The CHAIR: I was going to ask whether you are working on any apps for the phone now. You are working on an app?

Dr Pollard: Yes, there is a research project at Curtin University that is a dietary assessment app and an intervention project, which has been quite successful. People take photographs of the food they eat. They are then assessed by a dietician remotely and they get messages to encourage them to make changes. There are conditions under which it works, but generally because people love using mobile phones and taking photos it is an innovative and timely methodology. We find that we learn a lot more about people's diet because we can see where they are eating and the time they eat.

The CHAIR: Is that an app that you can download now?

Dr Pollard: No, it is an in-research app. We are trialling it with Aboriginal people at the moment. It has been successful in a lot of different population groups and we are doing a big study with LiveLighter at the moment. We are recruiting people from the LiveLighter website and seeing how that works—men in particular.

Ms Marshall: I think there is a huge potential for digital technology. I have learnt so much from doing this MOOC and teaching people all around the world about diabetes. It is amazing the tools we now have. I have learnt a huge amount and it is great fun because it is so effective.

The CHAIR: Do you know of any apps that are similar to the one you are working on now or is that quite innovative?

Dr Pollard: There are some apps that exist that are really about taking photos of food products and finding out about them. There are a lot of apps out there that are not that evidence-based and give not necessarily credible dietary advice. But this app is being developed by a team from the US and Australia and it is being applied in a lot of settings so it is very promising. It is well published. It is called the CHAT app—connecting health and technology app diet.

Mr W.R. MARMION: It will be interesting to analyse. You might get the Hawthorne effect when people say, "I'm not going to eat that because I'm not going to take a photo of it", so you might have a double bonus of people doing very well with the app.

Dr Pollard: Surprisingly, young people take photographs of alcohol, which is an interesting thing.

Mr W.R. MARMION: Yes, that has the negative Hawthorne effect.

Dr Pollard: Yes! We have learnt about things in dietary assessment that we did not expect because of the way that people forget that they are taking photos for the purpose they are taking the photo for. It is quite a useful concept. There are some others around. I can forward some of the papers around that one if you are interested in that.

The CHAIR: Yes, I am sure the staff will be very interested. We will try to read some of those papers as well.

Ms Marshall: There are a lot of diabetes apps too where people are encouraged to record their food intake, more in an old-fashioned way rather than via photos. They record their food intake and blood glucose and it integrates them and helps them work out how they need to change their food intake to manage their blood glucose better. There are a dozen of them that I know of.

The CHAIR: Making choice simpler is really the issue, is it not? Most people like the idea of being healthier. It is just that when you are coming home from work and the kids are yelling for something to eat, then the simple option is the drive-through.

Ms Marshall: It is the short term versus the long term.

The CHAIR: Yes, and that is the thing that we battle with in terms of having something in the fridge so that you can just bring them home, get them home, and have them excited about that instead. That is the issue as well, is it not?

Dr Pollard: It is about increasing the motivation too of the individual and recognising the importance of that. There are families that prepare nutritious meals, plan ahead and do all of that sort of work and there are people in very low income households with two jobs who eat quite well. It is how we get to that.

Ms Marshall: A lot of it is changing habits too. Habits are hard to change at the beginning, but after a while they get easier. Sometimes you have to persevere a bit to change your habit. I think they say that you have to do it four times before it starts to become a habit.

The CHAIR: Yes. Thank you very much.

Hearing concluded at 11.22 am

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