SELECT COMMITTEE ON PERSONAL CHOICE AND COMMUNITY SAFETY

INQUIRY ON PERSONAL CHOICE AND COMMUNITY SAFETY



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WEDNESDAY, 27 FEBRUARY 2019

SESSION ONE

Members

Hon Aaron Stonehouse (Chair)
Hon Dr Sally Talbot (Deputy Chair)
Hon Dr Steve Thomas
Hon Pierre Yang
Hon Rick Mazza

Hearing commenced at 10.16 am

Ms KAHLIA McCAUSLAND

Project Officer and PhD Scholar, Curtin University, sworn and examined:

Prof. BRUCE MAYCOCK

Professor, Public Health, Curtin University, sworn and examined:

Prof. JONINE JANCEY

Associate Professor, Public Health, Curtin University, sworn and examined:

The CHAIRMAN: Good morning. On behalf of the committee, I would like to welcome you to the meeting. Before we begin, I must ask you to either take the oath or affirmation.

[Witnesses took the affirmation.]

The CHAIRMAN: You will have signed a document entitled "Information for Witnesses". Have you read and understood that document?

The WITNESSES: Yes.

The CHAIRMAN: These proceedings are being recorded by Hansard and broadcast on the internet. A transcript of your evidence will be provided to you. To assist the committee and Hansard, please quote the full title of any document you refer to during the course of this hearing for the record. Please be aware of the microphones and try to speak into them. Ensure that you do not cover them with papers or make noise near them. I remind you that your transcript will become a matter for the public record. If for some reason you wish to make a confidential statement during today's proceedings, you should request that the evidence be taken in closed session. If the committee grants your request, any public and media in attendance will be excluded from the hearing. Please note that until such time as the transcript of your public final evidence is finalised, it should not be made public. I advise you that publication or disclosure of the uncorrected transcript of evidence may constitute a contempt of Parliament and may mean that the material published or disclosed is not subject to parliamentary privilege.

Would you like to make an opening statement to the committee?

Prof. Maycock: Yes, thank you. I would. This is also available, if you require, by print.

My opening statement to the Select Committee on Personal Choice and Community Safety: I am reading this on behalf of myself, Associate Professor Jonine Jancey and Ms Kahlia McCausland. We would like to thank you very much for the opportunity to present to this committee.

In our original submission we urged this committee to adopt the precautionary principle when dealing with vaping. We based these recommendations on the facts that the evidence relating to the claimed benefits of vaping were unclear, and that evidence of harms was emerging, as was suggestion of a possible link between prior vaping and subsequent tobacco consumption amongst youth. Since that submission in October, there have been numerous publications highlighting harms relating to vaping; a few publications demonstrating a relationship between vaping and subsequent tobacco consumption amongst youth, and a dramatic escalation of youth vaping in the US, which has prompted attempts to put in place control measures; and also publications indicating mixed results regarding use as a harm-reduction approach. Sadly, we have also seen the poisoning of a child and, internationally, the exploding of a vaping device.

[10.20 am]

As public health researchers, our job is to judge the quality of evidence in research and other publications, to examine papers in detail, to critique study designs and the treatment of evidence, and then to be directed by that evidence base. Unfortunately, the creation of an evidence base is not achieved by a single study. Within the area of vaping we see evidence of bias in the reporting of results, particularly where conflicts of interest are identified. We see inconsistent results and we see selective reporting of results. Unfortunately, this is the norm in an area which is relatively new and when there are vested interests associated with commerce.

To assist the committee with its deliberations, my colleague Kahlia McCausland has collated a table titled "Briefing notes: Select Committee on Personal Choice and Community Safety". The table presents a summary of evidence on the left-hand column and identifies the source on the right.

I would like to bring your attention now to a number of sections within that table; then, if you require, we can talk more fully about it.

In section 2 we provide data on smoking rates in Australia, Western Australia, the United States, the UK, Canada and New Zealand. As you will be able to see from that, the rates are relatively comparable. I would just like to bring your attention, though, to the second box under section 2, just to avoid any confusion. In that particular box the data there where they are talking around, for example, 33 per cent of current smokers are aged between 12 to 17, is referring specifically to current smokers, not to the general population. The data is reporting specifically on those who are already smoking. In section 3 we provide details relating to vaping use in Australia and by secondary school students. It is interesting to note that even with our restrictions, four per cent of 12-year-olds, moving up to 21 per cent of 17-year-olds, are reporting use of vaping. Again, I just want to be clear that that is reporting any use—not regular use, but any use. Whenever I am quoting the data, it is useful to just refer back to: are we talking of regular use, lifetime use or ever use? Because the terms are used differently depending upon different studies.

The CHAIRMAN: Can I just quickly clarify, lifetime use refers to?

Prof. Maycock: Any use during a lifetime. Single event or —

The CHAIRMAN: Okay, that is interchangeable with ever using it?

Prof. Maycock: Yes, that is correct.

Hon Dr SALLY TALBOT: One more clarification, if I may. This is specifically about ENDS, as you say in the title of the table. It does not include the nicotine-free vape products?

Prof. Maycock: Some of this data does. For Western Australia and the Australian data, it is including nicotine-free vaping.

Hon Dr SALLY TALBOT: For your purposes, that is classified as an ENDS device?

Prof. Maycock: Yes. In this circumstance, correct.

Hon Dr SALLY TALBOT: I saw the TKI research a couple of weeks ago that said that a lot of those so-called "nicotine-free" products have actually got nicotine in them, so yes, I can understand why you would do that.

Prof. Maycock: As Kahlia will probably indicate later, they are used interchangeably in Western Australia.

We also present some of the comparative use rates in other countries. Of particular note, the report cited by the US is particularly disturbing as it indicates current use—this is use within the last week, current using—has increased from 1.5 per cent in 2011 of school-aged children, to 20.8 per cent.

That represents a shift from 220 000 children in the US to over three million students currently using e-cigarettes. This increase runs parallel to increases in availability and sustained and invasive marketing of vaping products.

In section 6 we provide two new papers that were not available in our original submission that present evidence that prior use of vaping products is linked to a greater likelihood of tobacco use, with the upper limits on this being up to four times more likely. In section 11 we present some original data from Kahlia McCausland's research, which is related to the promotion and marketing of vaping products in Western Australia. Also, we present in exhibits A and D some comparative examples of previous tobacco marketing and recent marketing of ENDS products. That came about as a comment from the committee that they have not seen examples of that material.

Finally, I would like to highlight in section 8 and section 9 the range of highly reputable organisations that are recommending a cautionary approach based upon the precautionary principle, including organisations like NHMRC, the World Health Organization, the Therapeutic Goods Administration, the US National Academies of Sciences, Engineering and Medicine, and Australia's CSIRO and the Australian Medical Association and many others. However, regardless of their recommendations, in the end, the decision to act is a decision of government. In this particular issue, it is a decision about what level of risk you wish to expose the Australian people or Western Australian people to. Thank you.

The CHAIRMAN: Thank you for that. I appreciate the inclusion of this document, it is certainly easy to digest. Your original submission refers to criticisms of the Royal College of Physicians' report, "Nicotine without smoke", and its findings that electronic nicotine delivery systems are 95 per cent less harmful than regular cigarettes. Can you explain in more detail what the critiques of this report were and what your view of the data is?

[10.30 am]

Prof. Jancey: Yes, I am happy to do that. We work in public health. We are scientists and we look at the quality of research, not just the conclusions. On reviewing the article, which proposed that ecigarettes were 95 per cent safer, by Nutt and colleagues, we raised questions around the methodology of that research. To explain it, basically, it was a group of experts—what "expert" meant was not defined—which was conducted in 2013. This process was to compare variables of harm, which were agreed to by the panel and were weighted. There were 12 criteria and there were three main criteria. The three main criteria were: were products related to specific mortality; specific morbidity, so chronic illness, lung disease, heart disease; and the economic cost. So, what was the burden of this product on the community? They assessed 11 products ranging from cigarettes, to cigars, to pipes, to e-cigarettes, and the delivery devices were given a score out of 100. For example, pipes were given a score of 22, cigars were given a score of 15 and e-cigarettes were given a score of five while cigarettes were given a score of 100, being the most dangerous. But there are a number of questions around this research, because how could the morbidity, mortality and economic cost of e-cigarettes be determined when they were only developed in 2004? In essence, they had been available for nine years. It is impossible to see any longer-term outcomes from that.

The author also stated that there was no hard evidence, no empirical evidence, for these findings but this seems to have been washed over. Once again, this is a consensus process. It is not about presenting any hard data; it is just consensus. There have been a number of criticisms levied at this research. For example, *The Lancet* in 2015, which on your list of references is number 71, identified there was a financial conflict of interest by the authors. There was some interaction connection with tobacco companies, then *The British Medical Journal* of Australia, reference 72, illuminated this by disclosing the connections in an interactive infographic, which is documented in our submission. In

summary, as scientists, this research was not empirical, it was consensus, it was criticised and the authors even recognised that it had limitations and there was no hard evidence but this seems to have been failed to be recognised.

The CHAIRMAN: Thank you. You just mentioned a medical journal that put out an infographic. Can you clarify; was that *The British Medical Journal*?

Prof. Jancey: Yes, *The British Medical Journal*. That is at the last page of the submission. Unfortunately, on our hard copy you cannot interact with it but there is a link there and if you choose to, you can go to the link and see how these organisations interact.

The CHAIRMAN: Thank you. The committee has heard of the concepts of the precautionary principle and the harm-minimisation principle. Can you explain how these theories apply in a public health context?

Prof. Maycock: The precautionary principle is something that we would often refer to when there may be inconclusive evidence of harm but potential associations and that in some way by changing the status quo, you may then expose people to harm prior to actually having that conclusive evidence. In this particular case—e-cigarettes are a very good example of that—we continue to see evidence of harm and more comprehensive understanding of what is actually happening in the e-cig vaping space. The harm minimisation approach is often invoked when we are trying to reduce the types of harms we expose people to. Often it is a very difficult decision because there are often trade-offs. For example, in the illicit drug space, you may decide to regulate or create some availability of a particular substance and a trade-off with that may then also be a change in public opinion around related harms and so on. You may see a shift towards a medicalisation versus a litigation or a criminalisation. They are some examples of harm minimisation.

Hon Dr SALLY TALBOT: Are they compatible concepts?

Prof. Maycock: Not necessarily. It depends upon what it is you are proposing with the harm minimisation. The issue with the precautionary principle is that it is cautioning you about taking action that may result in harm but as of yet we do not have all of the evidence.

Hon Dr SALLY TALBOT: The key word there is inconclusive.

Prof. Maycock: It is inconclusive. I think we are actually seeing a little bit of this in the US circumstance where the relaxation of regulations around vaping has resulted in a marked increase in youth use. So they in the process now of having to try to reformulate the regulation around that, but it is three million youth currently using a nicotine product.

Hon Dr SALLY TALBOT: Can you then distinguish that from harm reduction?

Prof. Maycock: The harm reduction approach is often used within a clinical setting. We have seen that in Australia in relation to cannabis, for example, where we tried to move it away from a criminal act to one that had more medical approaches, towards greater discretion and so on. We have examples of it. The provision of the needles and syringe program was a harm-minimisation approach in relation to HIV transmission and there was a trade-off in that. That was highly controversial at the time it was introduced because people expected to see greater drug use and so on.

The CHAIRMAN: Does the school of public health have a view on harm minimisation as an approach to illicit drug use?

Prof. Maycock: No; we do not have a stated view on that.

The CHAIRMAN: I suppose an element of a harm-minimisation approach is the recognition that I suppose people with an addiction to a substance are going to indulge in that addiction.

Prof. Maycock: Yes.

The CHAIRMAN: There is little we can do about it. Perhaps we can at least make the circumstances more safe for them if they indulge in that. Is that a fair assessment?

Prof. Maycock: That would be a very fair assessment. To clarify the previous question, the group within Curtin that would have opinion on it would be the National Drug Research Institute. That is very much its specialisation.

The CHAIRMAN: Thank you.

Hon RICK MAZZA: Can I ask a question on the research side of things. Professor Jancey, you spoke about the UK research that said that vaping was 95 per cent less harmful than tobacco and the fact that it has been only 15 years that these devices have been around. Also in the opening statement, you talk about evidence-based not being achieved through a single study. Based on that, how long do you think would be required to sort of analyse vaping and its effects on public health? Would it be 30 years, 40 years, 50 years? How many studies are you aware of at this moment in time that involve around vaping?

Prof. Jancey: For example, we were just talking about this today in that over the last 12 months there have been 300 publications on vaping, so you can see what that is and there are a lot of different areas around vaping—around evidence and how long does it take. We talk about short-term and long-term effects so we know that the short-term effects of vaping are increased heart rate, raising diastolic blood pressure, and changes in the inflammatory response. We know there are short-term physiological responses but when it comes to long term, it is really inconclusive. We know there are harmful chemicals and metals in e-cigs when it is delivered, but we do not know the long term, and that is why we are asking for time to get the evidence. If you look back regarding cigarettes, and we think about them being introduced in the 1930s, we are ahead of the eight ball admittedly, because we know that nicotine and the associated chemicals are dangerous. The lungs were made to breath in air. They were introduced in 1935, Richard Doll's study came out in 1950 and then it took to the 1970s where the message could actually be pushed out. I really cannot say but I think also the problem is that issues get clouded so people push out information that supports their purpose and it is hard to get the scientific information out there. Sorry, I cannot give —

Hon RICK MAZZA: We know how harmful tobacco smoking is and tobacco is a fairly constant type of product that people smoke. I am no expert on vaping but it would appear to me there are so many different types of fluids that they can put into vaping, so whether it contains nicotine, or is not supposed to contain nicotine, what other chemicals are in there. There is a whole range of different additives that they can put into vaping. Currently, vaping is banned in Western Australia, but people are importing it from overseas and often would not know what is in it. Is there any scope towards better understanding what products are in—the fluids that are being used in vaping—and would we be better to regulate it if it were made legal?

Prof. Jancey: I am in public health so my primary concern is people's health. We know that certain chemicals such as glycol and formaldehyde and metals are in e-cigarettes. No matter probably what you do, people will—I am not saying that a black market is appropriate—seek it out, but what we do not want to do, I think, is make it readily available so that people can become addicted and can be exposed to these chemicals.

[10.40 am]

Hon Dr SALLY TALBOT: I think the professor has some —

Prof. Maycock: I was just going to extend that just slightly, because I think part of your question is getting to the potential to minimise harm. There are various ways we can do that. At the moment

when we look at the use of nicotine substitute, they are coming in at very similar levels. So we have had some interesting recent studies in the New England Journal of Medicine that just recently reported that were showing that there was a 20 per cent reduction or cessation amongst those who are using e-cigarettes. That was actually pretty consistent with those also not in this particular study but in other studies using nicotine substitutes. So there is the potential. There are a couple of issues though, and this moves partly to your question about regulation. There is a difference between regulation and legalisation and what that might look like. So those substances that are used for therapeutic purposes such as in cessation actually often go through very stringent testing by the TGA. That allows them to make therapeutic claims. At the moment what we have, as Kahlia will be able to attest to from her research, is we have very large levels of unsubstantiated health claims existing in social media. So there are some mechanisms for that. The other thing we need to consider here is the trade-off. If we change the legislation that increases availability, we may very easily find ourselves in a similar situation as the US has found themselves with very large increases and a very rapid uptake of vaping product, but not amongst smokers. So, for example, at the moment we only have three per cent of 12 to 17-year-old youth regularly using tobacco. That is a very small number. So if you are then increasing the proportion of youth who are likely to vape to perhaps 20 per cent, as they have seen in the US, that creates additional problems for us. As I said, it is a wicked problem; there are constant trade-offs.

Hon PIERRE YANG: Professor, just in relation to the US situation, you mentioned that there is a large uptake by youth using electronic nicotine devices. I note in your summation today there is a corresponding decrease from 2005 to 2017 in terms of smoking rates. What do you attribute to that decrease?

Prof. Jancey: In 2005 —

Hon PIERRE YANG: US. So on the top of page 2 of your submission.

Prof. Jancey: So we are looking at ENDS use in the United States among high school students. Current ENDS use has increased from 1.5 per cent.

Prof. Maycock: No, this is in 2017, 14 —

Hon PIERRE YANG: The third bullet point on tobacco smoking rates in the United States.

Prof. Maycock: Fourteen per cent. **Prof. Jancey**: Sorry, I cannot find it.

Prof. Maycock: It is the third point here that says the current smoking rate has declined from 20 per cent to in 2005 to 14 per cent.

Prof. Jancey: And your question was, why do you think this has happened?

Hon PIERRE YANG: Why do you think that has happened?

Prof. Jancey: The decline in smoking rates in the US? One would propose—so the way smoking rates are controlled is through a comprehensive approach. So it is around legislation, education, decreasing access, increasing price, which could be all factors in this. One who wanted to push their case could say it is because people are taking up e-cigarettes—perhaps it is—but I have no evidence around that, even though e-cigarettes is increasing.

Prof. Maycock: And on page 4 of our table, some work by Glantz and others suggested that ENDS had no detectable effect on the decline in cigarette smoking amongst US adolescents, so it is in the adolescents we are looking at there. So just be aware that it is contested.

Hon PIERRE YANG: Maybe by way of comparison, do you know from the same period of time the smoking rates in comparable countries like in the UK, in Australia, what is the decrease for that period of time?

Prof. Maycock: I cannot answer that.

Prof. Jancey: We know what the current rates are, but, I am sorry, we have not looked at the rates over time in other countries.

Hon PIERRE YANG: Okay. Fair enough. Thanks.

The CHAIRMAN: At a population level perhaps, do e-cigarettes help reduce the number of people smoking tobacco and cigarettes?

Prof. Maycock: At a population level to the —

The CHAIRMAN: Yes, rather than looking at a specific cohort perhaps like adolescents. At an overall population level is there evidence to show that —

Prof. Maycock: We do not have evidence to show that. We have trials that have indicated their use as a harm reduction—cessation aid, so we have evidence that they have been effective in that space but at a comparable level to other nicotine-delivery devices, so patches and other things.

The CHAIRMAN: What are the health effects of long-term use of e-cigarettes?

Prof. Maycock: Again, it is one of those things where, as we were discussing before, the evidence is accumulating but it is not definitive.

The CHAIRMAN: And I suppose you have already answered this in some part, but your concern is that the legal availability of e-cigarettes would act as a gateway to nicotine use for non-smokers?

Prof. Maycock: Yes. We are getting increased evidence of that. Kahlia put in two papers that demonstrated that, with some quite some large samples, too. So there were some large samples there. The range varied, so the level of uptake varied from I think it was about 1.8 to four times more likely to use. It is interesting when you compare that with the Australian data. The ASSAD survey came out recently of 20 000 Australian schoolchildren. They also made a conclusion that there appeared to be a relationship between early use of vaping and then subsequent use of tobacco, but that was at nowhere near the same level. So it was actually related to 25 per cent. I could speculate as to why we might see that difference, but I suspect that is around what is actually happening in the market.

The CHAIRMAN: Okay. I would like to get back to some of those points, but just for now is the use of e-cigarettes less harmful than the use of tobacco cigarettes?

Prof. Maycock: On what criteria? This is the problem for us. So the attempt by the UK to quantify this has been disastrous. We would speculate—well, it would be problematic for me to do the same level of speculation. We keep on seeing new evidence emerging, whether it be impact upon potential emphysema and so on, and so there is some evidence that on section —

Prof. Jancey: Four; "Health and harms".

Prof. Maycock: Do you want to answer, or shall I?

Prof. Jancey: There are dangerous chemicals in e-cigarettes. So in addition to nicotine, most e-cigarettes products contain and emit numerous potentially toxic substances. The national academy of sciences has concluded that from a whole range of evidence, so they have actually come out and said there is conclusive evidence around that. There is limited evidence in a number of other areas around metals in e-cigarettes, there is moderate evidence that it can induce coughing and exacerbate asthma. But there is no available evidence whether or not long-term use among smokers

changes morbidity and mortality. As I have said, they were only developed in 2004, and it is a very short period of time. But there is increasing concern that exposure to nicotine during adolescence can cause harm for the developing brain.

Hon PIERRE YANG: I just want to bring you back to my previous question. I have just quickly looked up the ABS data and it shows that in Australia back in 2001 the daily smokers rate was 28.2 per cent. Fast-forward 13 years, in the 2014–2015 year the rate was 16.3 per cent. According to your submission, in 2005 in the US the rate was 20.9, and in 2017 it was 14 per cent. Is there an overall worldwide trend in the western countries that smoking rates were on the decrease, whether there was the introduction of e-cigarettes or not? Is that your understanding as well?

[10.50 am]

Prof. Maycock: There is certainly a worldwide trend. There is also a far greater understanding of what was effective in relation to reducing smoking-related harms. You will have seen shifts, for example, in the US. California and other US states have been at the forefront of the some of the environmental shifts, some of the restrictions on smoking in public places and so on. It is worth noting that as we keep on diminishing, the capacity to reduce the numbers will actually get harder. Mr Chair, you made a comment about addiction. This is very true in relation to tobacco consumption and potentially any nicotine-related products that deliver nicotine in the same sort of way. The issue for us then comes down to one of resource. To continue to drop that number down, we end up having a very small minority that are quite dependent upon the substance. At the moment, we are holding a great deal of hope on the fact that we have so few 12 to 17-year-olds that are regularly smoking. That is a very low number, but you will see this trend. Partially it is about resource provision, but we will see the rate of decrease probably declining as the numbers get smaller and smaller.

The CHAIRMAN: Are your researchers engaging with any international studies that show smoke-free options like e-cigarettes and personal vaporisers are less harmful or can help people to quit smoking, such as—I think you alluded to it earlier—the Queen Mary College of London research, which came out just last month?

Prof. Maycock: We are not engaging in relation to that. We only have one local project, which is Kahlia's doctoral work that is investigating aspects around e-cigarettes such as their use here, perceptions around e-cigarettes and the social marketing of e-cigarettes in the Western Australian context.

The CHAIRMAN: I have a couple of questions along similar lines. Considering the recent laws announced to legalise smoke-free products in New Zealand, is the school of public health actively seeking advice from New Zealand health bodies or the New Zealand health ministry on smoking cessation methods?

Prof. Maycock: No, we are not.

The CHAIRMAN: Again, considering Canada has legalised the same products, is the school of public health seek actively seeking advice from Health Canada or Canadian health bodies?

Prof. Maycock: No, again, we are not.

The CHAIRMAN: And the same for the United Kingdom?

Prof. Maycock: Correct.

Prof. Jancey: Can I just add that we always look to our own leading agencies for guidance—NHMRC, ARC and CSIRO.

The CHAIRMAN: Professor Jancey, I think you may have mentioned earlier that there were something like 300 different studies on the effects of vaping —

Prof. Jancey: In the last 12 months—not on the effects, but simply on e-cigarettes in the last 12 months.

The CHAIRMAN: Have your researchers or has the school of public health examined the more than 55 studies that show vaping and smoke-free products are less harmful than cigarettes and can help people to quit smoking for good?

Prof. Jancey: I cannot say that I have examined all those 55 articles. I have looked generally at evidence. I have looked at the accumulation of evidence through systematic reviews by agencies such as the National Academy of Sciences, NHMRC and ARC that accumulate conclusions. No, I have not specifically looked at the 55 articles, and I am sure that if there are 55 that are pro, there are possibly counter-arguments as well. Once again, when you do processes around accumulating evidence and looking, you need to look at the methodology. That is really important. You never just look at the conclusion.

Prof. Maycock: It is worth noting that a very recent publication showed distortion of the way in which results were being represented. That distortion was linked to a more positive framing of vaping and the relationship between the authors and declared conflicts of interest, particularly around relationships with either tobacco or with vaping organisations. This a fairly contested space. It is not just even the data, we are actually at this point, as *The Lancet* has done, of having to go back and investigate relationships before we can fully understand what is happening.

The CHAIRMAN: A document was provided to the committee titled—there is no title, but the front page has "Exhibit A" on it. It has a few graphics in it of what look to be vaping advertisements next to what look to be cigarette advertisements from past years. I have a couple of questions around these graphics and you may have something you might like to add to them. In what jurisdictions are these vaping posters or advertisements being promoted?

Ms McCausland: These ones are occurring in the UK and the US currently. You will find them on things like TV, magazines and billboards.

The CHAIRMAN: Are there currently any restrictions in the UK or the US on how vaping products can be advertised?

Ms McCausland: Not that I am aware of, but I can take that on notice and double-check.

The CHAIRMAN: That would be great. We will take that on notice.

Hon Dr SALLY TALBOT: And tobacco products as well.

The CHAIRMAN: Yes, and tobacco products, which was my next question. Some of these cigarettes advertisements seem to be a bit antiquated. They look like things that we are probably used to seeing from the 50s or 60s. There are some that seem more contemporary. There is one at the back: "Koolmixx" —

Ms McCausland: All of the e-cigarettes adverts have the date on the top of when they were published. They are from 2013 predominantly, and then you have one in 2014 and the last one was in 2015. So they are still quite recent.

The CHAIRMAN: Are there dates for the cigarette advertisements that are included there?

Ms McCausland: No, these are very old ones. Basically, what I am trying to portray with this document is that the e-cigarette ads are basically employing techniques that were previously used by the tobacco industry.

The CHAIRMAN: Since these cigarette advertisements have been displayed—the most recent one I assume is the 2004 one or the "DJ battle" advertisement—have any restrictions on tobacco advertising been implemented in the United States, since this Koolmixx one?

Ms McCausland: I believe so, yes.

The CHAIRMAN: Understanding that Australia has probably some of the most strict restrictions on the way that tobacco can be displayed or advertised, and that the US's restrictions are perhaps comparatively more lax, can advertisements that apply to a younger demographic like this one, be promoted in the United States now?

Ms McCausland: Yes, I believe they still can.

The CHAIRMAN: As Hon Dr Sally Talbot indicated, we would like to take on notice, if you can provide us with, some information on current cigarette or tobacco advertisement restrictions in the UK and US.

Ms McCausland: Sure.

The CHAIRMAN: Speaking about tobacco controls in other countries, you cited a study from the United States that shows that 20 per cent of secondary school students are currently vaping. That seems like an alarmingly high number. Can you tell us a little more about that study? How did they conduct that study? Where did they get those numbers from? Do you have any insight into that?

Ms McCausland: I can definitely provide that on notice.

The CHAIRMAN: Thank you. Looking at the rate of teen vapers, who seem to be a cohort that certainly vapes more than other age groups, and I think we see similar trends in smoking as well and perhaps illicit drug use and other reckless or dangerous behaviour, to what extent can we attribute teen smoking to the reckless behaviour of teenagers? Is there something about the behaviour of young people, where they are likely to experiment and try different products regardless of what is legal or illegal? I suppose if we have got a teen engaging in some kind of reckless activity—if we take the Nutt study, which shows that vaping is 95 per cent less harmful, if we assumed that that was correct, would it not be preferable that teenagers engage in a less harmful recreational activity than something more harmful like smoking cigarettes or taking illicit drugs?

[11.00 am]

Prof. Maycock: That is a pretty complex question. First of all, to refute, I think the 95 per cent study has been pretty well discredited. The commentary about teenage behaviour and risk taking is certainly true, and we find lots of studies, whether it be around illicit drug use, alcohol consumption and other things, that talk about risk-taking behaviour and teenage action. The e-cigarette space, though, presents another alternative as well, because one of the framings that has been used quite effectively by industry is based upon the fact that this is a healthy thing to do. So we do not just get the risk takers; we are actually getting kids who are going, "Well, I'm going to do this because it's reported to be healthy, so it's not going to damage me in any way." In relation to your question about is it preferable, it would be preferable to not expose any of our young people to a highly addictive substance, which is certainly the circumstance in the States, with quite a large proportion of children now being exposed to nicotine and then subsequent addiction to that. That is problematic for us, because it may not be, then, just something that is taken occasionally but it has the potential to be a longer-term behaviour.

The CHAIRMAN: In the briefing notes that you provided before this hearing, on page 4, in the left-hand column, second row, it states —

At the same time that ENDS use was increasing, cigarette use among youth declined, leading some to suggest that ENDS were replacing conventional cigarettes among youth and are contributing to declines in youth smoking. At least through 2014, however, ENDS had no detectable effect on the decline in cigarette in cigarette smoking among US adolescents.

In the year 2014, there was no relationship between smoking and ENDS use. Is there an overall trend, though, where 2014 stands out as an exception to that trend, or as a blip, to what is otherwise a trend of declining smoking rates but increasing vaping rates?

Prof. Maycock: I cannot answer that off the top of my head, Chair. I am just checking on figure 1, which we cite in there, and the data only goes to 2014.

The CHAIRMAN: It seems to me that while a lot of studies show—I think you cite them—that a large majority of vaping users now are former smokers. There are some new vapers who have never smoked before in their lives, but the majority of them are normally former smokers, or people who are using both cigarettes and vaping products at the same time. But that trend does not exist among the younger cohorts, the teenagers, the adolescents. Would it not be the case, though, that a lot of these young people get to a certain age where they engage in reckless behaviour and are looking for some kind of recreational activity, some substance to take? I mean, a lot of these people, whether they picked up a cigarette or a vaping product, have probably never smoked before anyway, so that would skew the data somewhat towards these younger people being first time vapers and not prior smokers. Would that not account for the fact that a lot of these children are vaping as their first nicotine indulgence, as opposed to being former smokers who then switch to vaping?

Prof. Maycock: It may well. In the US and other places, the UK et cetera, there are a number of factors that are going to influence that, including issues of availability. I do think, though, it is worth noting that it then does expose them, according to some of the most recent publications, to an increased likelihood of taking up tobacco, and that is particularly problematic if that relationship holds true.

The CHAIRMAN: There are a few studies that point to this gateway effect, from vaping to cigarettes. Do those studies account for the fact that some of these children may have taken up smoking anyway? Is that something that is measurable and that can be controlled for?

Prof. Maycock: The issue of, "Do I intend to take up smoking at some point down the track, but I have taken up e-cigarette use now"—no.

The CHAIRMAN: We are almost out of time, but perhaps one last question. Looking at the tobacco control measures here in Australia, they are perhaps the strictest in the world, and the highest excise, I think, in the world, or at least in the region, with restrictions on advertising, restrictions on how these products can be displayed, graphic health warnings et cetera. If there is a phenomenon of a gateway effect in the United States, which does not have those strict controls, can we really expect those results to be replicated here, where the cost of cigarettes is going up to something like \$40 a packet? For a young people to go from vaping, which is relatively cheaper, to then switch to a \$40 a packet habit of smoking cigarettes, do you expect, with our strict tobacco controls, that that same gateway effect will be replicated here?

Prof. Maycock: We do not have a lot of data on it. The one we do cite is the school ASSAD survey, which showed that there was a 25 per cent progression from prior vaping through to tobacco. That is quite different, as I said, to other studies, but our market is also very different. We do not have the same level of availability. We do not have the same level of marketing exposure and so on.

Hon Dr SALLY TALBOT: I just want to come back to the question about the difference between prevention—the precautionary approach, say—and harm reduction. If we could imagine for one moment that we are only dealing with that cohort of adults who still smoke tobacco, are you finding any evidence that they are indeed a special group in some way, that they are in some sense immune to the public health messages that have seen the vast majority of smokers quit? The follow-up question will be whether or not there is evidence to that effect. Is it the view of the three of you that they might be in some sense treated as a special case, and indeed the principle of harm reduction might apply to them rather than the precautionary principle?

Prof. Maycock: I cannot answer that question; Jonine, are you able to?

Prof. Jancey: There are a few things, I think, about those laggards—the one in 10 people who are continuing to be addicted to cigarettes. For one, they are addicted and obviously, perhaps within their personality, that makes it challenging. Increasingly, we have devoted less, perhaps, investment, because there are less people who are addicted. We have done such a great job, so these laggards are not getting as much attention as perhaps previously they would have.

Prof. Maycock: Can I just interject. When Professor Jancey is using the word "laggards", it actually comes from a theory called diffusion of innovation.

Hon Dr SALLY TALBOT: I assumed it was a technical term!

Prof. Maycock: It is. It is not a derogatory term, so to be very clear.

Prof. Jancey: When you develop campaigns and try to create behaviour change, those people at the end who become particularly challenging around changing their behaviour and find it very difficult are classified in a very scientific way as laggards. It is not meant to be derogatory at all. Have I answered your question, because I think I might have forgotten it now?

Hon Dr SALLY TALBOT: I want to know whether there is some theoretical or academic sense in which we might be justified in regarding them as a special case and therefore apply the principle of harm reduction rather than the principle of precaution?

Prof. Jancey: And may I say yes. If you look at the theory of diffusion of innovation, then, yes, they are sitting right at the end of the continuum, so they are perhaps a different group. But I suppose when it comes to harm minimisation, they do have opportunities to use other products that have been tested, such as other nicotine delivery devices. I go back to, once again, we do not know how safe ENDS are.

Hon Dr SALLY TALBOT: Because they have not been through the TGA?

[11.10 am]

Prof. Jancey: Yes, they have not been through the TGA. The TGA bases all its decisions on evidence. That is its responsibility.

Hon Dr SALLY TALBOT: Would you encourage the producers—the manufacturers of ENDS—to submit themselves to the TGA?

Prof. Jancey: It would seem the appropriate thing to do.

Hon PIERRE YANG: If we look at comparable countries, in the US, Canada and Australia the smoking rates are decreasing across all countries. At the same time, ENDS are available legally in the US and Canada, for example, but not in Australia. It seems to me that looking at the data and the information you presented, I find it really hard to see if there is a gateway effect actually happening here. Do you see that? Do you see the gateway effect is actually taking place?

Prof. Maycock: There are a couple of issues here. One of the issues is delay in actually being able to detect things. As I said at the very beginning, since we presented in October, there have been over 100 papers in this space which are presenting new evidence, two of which I presented to you here, which actually give recent summation of US data that went through to 2017. I cannot remember how many thousands of schoolchildren were involved, but it went through to 2017, and on that data, they are clearly showing that there is an increased likelihood of up to four times for those who start vaping and progress through to tobacco, compared with those who do not vape at the beginning.

Hon PIERRE YANG: So the gateway to progress to smoking rather than the other way around?

Prof. Maycock: Yes, correct—going from vaping through to smoking. You might not see it in relation to when we were talking about the tobacco reduction data because it is all so new. There is a delay. We are citing 2017 data on tobacco consumption but most of it is even earlier than that—2016 and so on. That progression through with the US schoolchildren was 2017 data. There is just a lag in where these things are. That is why the precautionary principle is so important.

Hon RICK MAZZA: In the last paragraph of your submission on page 2, you pretty much say that a lot of research is going on but everything is quite inconclusive at this stage. Listening to the evidence given this morning, that suggests that common thread—that we have all this research going on and it is inconclusive. Professor Jancey said the methodology of this research can sometimes skew the outcomes, if you like. Not that I am a researcher, but it makes sense to me. Professor Maycock, you spoke about the trade-off to public health and whether we legalise it, what those consequences might be. Would it be fair to say that the school of public health at this stage is fearful of legalising vaping because we just do not know what the results of that legalisation might be?

Prof. Maycock: We are fearful of legalising vaping because we do not have all the evidence around the harms. There are certain trends we can see globally where we would get a fairly good insight into what some of the results would be. We would anticipate for example that there would be pretty rapid uptake mainly because as soon as you start to shift regulation, you expose what is a constrained market here, so we acknowledge it is quite a constrained market. You suddenly expose that market to billions of dollars potentially of marketing and new engagement through multinational players, and that is problematic.

The CHAIRMAN: Thank you for attending today. A transcript of this hearing will be forwarded to you for correction. If you believe that any corrections should be made because of typographical or transcription errors, please indicate these corrections on the transcript. The committee requests that you provide your answers to questions taken on notice when you return your corrected transcript of evidence. If you want to provide additional information or elaborate on particular points, you may provide supplementary evidence for the committee's consideration when you return your corrected transcript of evidence.

Hearing concluded at 11.14 am
