

# **SELECT COMMITTEE ON PERSONAL CHOICE AND COMMUNITY SAFETY**

**INQUIRY ON PERSONAL CHOICE AND COMMUNITY SAFETY**



**TRANSCRIPT OF EVIDENCE  
TAKEN AT PERTH  
FRIDAY, 10 MAY 2019**

## **Members**

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

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**Hearing commenced at 10.21 am****Professor CHRIS RISSEL****Professor, University of Sydney, examined:**

**The CHAIRMAN:** On behalf of the committee, I would like to welcome you to the hearing. I remind all parties that if you have any private documents, keep them flat. As we are videoconferencing today, I advise you that present with me at the end of the link-up are reporting and committee staff and the following members of the committee: Hon Pierre Yang and Hon Rick Mazza. Can you please advise me if there is anyone else present with you there?

**Prof. Rissel:** There is no-one else present with me now.

**The CHAIRMAN:** I now require you to take either the oath or affirmation.

[Witness took the affirmation.]

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

**Prof. Rissel:** Yes.

**The CHAIRMAN:** These proceedings are being recorded by Hansard and broadcast on the internet. Please note that this broadcast will also be available for viewing online after this hearing. Please advise the committee if you object to the broadcast being made available in this way.

**Prof. Rissel:** No objections.

**The CHAIRMAN:** 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 microphone and try to speak directly into it and ensure that you do not cover it with papers or make noise near it. I remind you that your transcript will be made public. If for some reason you wish to make a confidential statement during today’s proceedings, you should request that the evidence be taken in private session. If the committee grants your request, any public and media in attendance will be excluded from the hearing. Until such time as the transcript of your public evidence is finalised, it should not be made public. I advise that the 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. Rissel:** Yes, I would like to restate the main points I made in the submission. I am an advocate for bicycle riding because I believe it increases physical activity and increases public health by more people being physically active through cycling. Cycling is an underutilised activity in Australia—in Western Australia, New South Wales, everywhere—and the community would benefit from a public health perspective if more people were cycling and more people were physically active.

My fundamental premise is that I want to seek to remove barriers to greater participation in cycling to achieve that public health benefit. I understand that mandatory helmet legislation is such a barrier to participation, both physically but also psychologically in a way that it creates an aura of danger around cycling, which is in itself is a deterrent to people even considering cycling themselves. I see there are greater public health benefits for more people cycling and removing mandatory helmet legislation that therefore encourages people to consider cycling and cycle themselves.

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I believe that the evidence is convincing that the helmet legislation, when it was introduced, has not contributed to a decrease in head injuries and other injury statistics in the Australian context, which is why most of the rest of the world has not followed suit to introduce mandatory helmet legislation in their own jurisdictions. I am pleased to leave that as my opening statement and I am very happy to answer questions or clarify any of those remarks.

**The CHAIRMAN:** Thank you, professor. Page 2 of your submission quotes a 2010 review by Pucher, Dill and Handy that found that the combined evidence presented from countries without universal helmet legislation indicates that the health benefits of bicycling far exceed the health risks from traffic injuries. Can you elaborate further on this statement?

**Prof. Rissel:** It is consistent with most of the reports I have mentioned that essentially the health benefits that are achieved through increased cardiovascular health and other physical movements lead to all sorts of reductions in diseases—chronic diseases, diabetes, heart disease and some cancers—a range of health problems—to the extent that the injuries that are experienced from cycling are much smaller in terms of the cost to the health system. By and large, the relative balance of health benefits versus disbenefits, if you like, from cycling far outweigh in the sense that cycling is a genuine positive contribution.

**The CHAIRMAN:** The committee recently heard evidence from the Western Australian Department of Transport that changing mandatory bicycle helmet legislation would not result in an increase in cycling participation. What are your views on how to increase cycling participation rates?

**Prof. Rissel:** I would first like to dispute that particular contention. I am unaware of what evidence they would be using to quote that, because I provided evidence from a survey of Sydney residents, approximately over 20 per cent of whom said that if they did not have to wear a helmet, they would cycle more. Even if only a fraction of them, even if it was a quarter of those people, actually did ride more—I accept that people will say things that they do not actually do—it would virtually double the rate of cycling in the Sydney context, and that applies in other jurisdictions as well.

I think there is an express belief that we have evidence that people would cycle more if they did not have to wear a helmet. It is also balanced by the fact that when the legislation was introduced there was a reduction in the number of people cycling. There are a number of different sources of evidence for that, including in Western Australia when you look at the journey-to-work statistics from the census. In the years leading up to 1991 and 1992 there had been increases in the proportion of people cycling and follow it, it had gone down by about 35 per cent. A 30 to 40 per cent reduction in participation in cycling is also what has been reported in the Victorian context when they made assessments of what had happened at that time. I think there is generally a consensus, at least among people who look at the evidence, that there has been a reduction in cycling because of the introduction of mandatory helmet legislation.

I also can quote statistics from when New Zealand introduced it in 1994. They also saw a reduction in the journey-to-work statistics in cycling as a result of the introduction of legislation there. I dispute the contention from the Department of Transport that there is no effect on participation if we remove the legislation. I think there are many other things that can also be done to improve cycling, and that is about the provision of safe infrastructure for cycling, so separating the bicycle paths, on-road bike paths, lower speed limits for motor vehicles on dedicated cycling routes and driver awareness and education. These are all things that government can take action on. One of the key factors that does lead to both increased cycling safety and also more people cycling is what is called the safety in numbers phenomena: as more people cycle—it applies to walking as well—it becomes statistically safer for those people walking and cycling, and that in itself generates a groundswell

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and a critical mass in increasing those activities. There are lots of things we can do to increase cycling and mandatory helmet legislation is one of the barriers to doing that.

[10.30 am]

**The CHAIRMAN:** I would like to talk a little more about the safety in numbers phenomena, but before we do, Hon Pierre Yang has a question.

**Hon PIERRE YANG:** I seek clarification on the point you raise in your submission in relation to mandatory helmet laws not contributing to a reduction in the numbers of head injuries and also the same point in your submission, which you quoted in reference 16. Can you give me a bit more clarification on this point?

**Prof. Rissel:** Yes, it is an important point so thank you for raising it. The contention has always been that after the introduction of the helmet legislation, there was a reduction in head injuries, and a paper or two from New South Wales purports to make that case. My position on this is that they have analysed a particularly narrow window before and after the introduction of the legislation that was associated also with a lot of media at the time about scaring people about the dangers of cycling and this is part of what has contributed to the impact that is reported.

My contention is that this ignores the long-term trend in the reduction of head injuries among all road users. From about the 1960s there have been a lot of road safety campaigns and the figures show consistently and clearly that all road users reduce the level of head injuries up until around 1991 and that that period when the helmet legislation came in at the tail end of the massive wave of road safety improvements in fact made very little difference to the overall trend. I have given you a number of graphs at the end of the paper that show that gradual decline in injuries and mortality among cyclists. I think you can clearly see that there is a long-term downward trend. To artificially pick out a narrow window before and after the introduction of the legislation and then say that it reduced a lot of head injuries is misleading because it misses the bigger picture.

Then there are other reasons for saying why there was a reduction in head injuries immediately after the legislation was introduced. It is principally because there was a decrease in participation in cycling immediately following the legislation, but there was reduced exposure to the risk. The cause of the reduction in head injuries is not so much the helmet legislation but the fact that fewer people were cycling and fewer people were exposed to the risk in the first place. Given the long-term trends and the long-term effects of all the other road safety benefits, the relative effect of helmet legislation was trivial.

**Hon RICK MAZZA:** On that, you are talking about overall statistics of head injuries decreasing in any case. As far as you are concerned, they were already decreasing before helmet laws came in. Do you have any research or evidence around actual bicycle accidents where people have fallen off their bicycle or been hit by a motor vehicle where a helmet has reduced injuries to that person?

**Prof. Rissel:** I do not think there is any contention that a helmet will offer some protection in the event of a crash. I think we could argue around the margins about exactly how much protection a helmet does offer, because it does not cover the face or the neck and it does not cover most parts of the body. I accept that there is evidence that there is some protective value for some crashes where you fall off a bicycle. I do not think we are disputing that. The issue for me is that the mandatory helmet legislation that requires a helmet to be worn by both children and adults at all times while riding a bicycle in any circumstance is overkill for the risk that is involved to that person. If you are riding really fast in a bunch in a road riding group and you are going 35 kilometres an hour, then that is a high-risk scenario and in fact in that situation a helmet may be advisable. If you are riding at five or 10 kilometres through the park with your children, it is a very low-risk scenario and

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to introduce the full force of the law and fine that person for not wearing a helmet seems over and above the risk that that person is actually exposed to. I think that helmets have value, and people will wear helmets, and can wear helmets and should wear helmets in certain circumstances. But for the government to mandate that people wear them at all times seems excessive.

**Hon RICK MAZZA:** Professor Rissel, I am only just working from memory here, but I am sure we have heard evidence where there was a contention that many head injuries actually occur and low-speed situations as much, or more so, as people who are riding at high speed. Have you got any comments around that?

**Prof. Rissel:** It is possible that people can fall off a bicycle at low speed as equally as at high speed. I do not think there is any dispute that that can happen. The risk of having a head injury is there; it is true. But it is equally true that if you are walking through a park or you are jogging or you are doing many other activities that are at low speed and low risk, you might also fall and bump your head. So, I accept that it can happen, but we do not mandate helmets and all other circumstances.

**Hon PIERRE YANG:** I have a similar comment. In your submission, Professor, you said helmets do not protect the neck and face and may increase the risk of some injuries. Are you able to elaborate on that? What kinds of other injuries are we referring to here?

**Prof. Rissel:** Thank you for that question. I am very happy to do it. It is a fairly sophisticated sort of an idea here about brain injury versus head injury. The point is that the helmet will protect against some head injuries—so scrapes, protrusions; there is blood, basically. And that is fair enough and helmets do help to protect that to some extent. The issue that is of concern is around what is known as—it is around the brain and the way that the brain can impact on the inside of the skull in situations like in whiplash. You can be in a motor vehicle, you are hit suddenly; the head is whacked; the brain moves inside the skull; it impacts on the inside of the skull and that is where you have a potential trauma, and that is quite serious. A bicycle helmet does not actually protect against that kind of trauma. So, you have this, sort of, what is called a rotational axonal injury where the brain perhaps is twisted in the instance of a fall and, potentially, the helmet catches on the road and it twists the neck, the head spins—there is potential for the brain to have an increased impact because of that dynamic. It is a fairly subtle physics kind of thing. Most people sort of struggle to understand that the angle of the helmet and the way it hits the ground and the forces it exerts on the neck and head could actually increase the speed in which the brain hits the inside of the skull. But that is a potential risk, and it has been well documented mostly in motorcycle injuries where they have changed the nature of motorcycle helmets to manage and deal with that kind of injury. But the light foam bicycle helmets that are law, that are the standard in Australia, often have ventilations that catch on the road that potentially make that situation worse. It is possible that the helmets we actually have may increase of that internal brain injury over and above things like motorcycle helmets, which are smooth and slide and skid along the road and do not twist the head and neck in the same sort of way, because of those centrifugal forces. So, that is my interpretation of the evidence and the literature of that situation. It is not generally understood or acknowledged, but it is a genuine risk.

**Hon PIERRE YANG:** I appreciate that. Thank you.

**The CHAIRMAN:** I would like to talk a little bit about exposure and the risks associated with exposure. It seems to me, if I have understood parts of your submission correctly and based on evidence we heard in our last hearing from the Freestyle Cyclist organisation, that mandatory helmet laws may have had an impact on population level head injuries due to cycling, but the contention is that that is only due to a reduction in cycling participation. The contention is that the rate of injury amongst cyclist themselves has not been changed all that much; although, at a

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population level, head injuries due to cycling have reduced because there are less people cycling. I would like to get your comment on that, and then we could maybe dive into some more of the specifics from there. But have I summarised that correctly?

[10.40 am]

**Prof. Rissel:** Yes, I think I have understood your point about the relative increase in safety due to the increase in people cycling, relative to the actual number of injuries that actually occur. There have been quite a lot of studies now that have looked at that—and some in terms of the introduction of the bicycle-share programs in the United States where suddenly you have got an increase in the number of people cycling, and, of course, there is always a fear that when you have got more people cycling, then you will have more injuries that will result from it. But what happens is that there is kind of a formula for this. I forget the exact dynamics of this now. But as the numbers increase, the relative rate of injuries starts to go down, and that is because there are more people on the road—or more people around—and the drivers and other road users learn to accommodate and adjust to the changing level of what they find before them, so with more people cycling. Then what happens is governments introduce better infrastructure and improvements to manage that situation better, with more people cycling, and so the net effect is that the more and more people cycle, the better conditions become for cycling, the better the other road users deal with cycling, and so the rate of injury actually falls even though the number of injuries might sort of creep up. But because there are so many more people cycling, the proportion of injuries to cyclists is actually smaller. It is a subtle difference between there might be a few more injuries, but because there are so many more people cycling, the rate of injuries is actually going down.

**The CHAIRMAN:** If you had 100 people cycling and maybe two in every hundred had a head injury, then you pass some law and now you have only 10 people cycling but you have one head injury out of those 10—I mean, the total number of head injuries has decreased, but the risk to cyclists as a group has increased.

**Prof. Rissel:** Has massively increased at that. It has gone from two per cent to about 50 per cent; so that is exactly right.

**The CHAIRMAN:** You use the example of rideshare programs, more people riding and the effect that has on motorists and on governments introducing new regulations or new infrastructure. Is that the “safety in numbers” phenomenon you were talking about earlier?

**Prof. Rissel:** Yes, that is a great example of that, and it has happened in a couple of the New York cities and in the United States. New York City is one specific example where they introduced a bike-share scheme; they introduced some separated bike paths; and the number of people has just sort of gone up. The proportion of people cycling has gone up by about 40 per cent, but the rate of injuries, actually, has declined in that context, so they have had fewer injuries. It is a win-win situation, actually.

**The CHAIRMAN:** Hon Rick Mazza spoke about injuries in so-called low-risk scenarios. I would like to talk a little bit more about that. The Department of Transport pointed out to us that most cycling injuries occur in what we would think of as low-risk scenarios: riding on paths, riding short distances, riding in areas where the speed limit for traffic is low—50 kilometres an hour; that kind of thing—rather than injuries occurring in what we think of as high-risk scenarios: people in lycra, riding in a group on the side of a road at high speed. It has been pointed out to me that that is most likely due to exposure. The reason why you are more likely to suffer an injury in a low-risk scenario is because that is where most cycling occurs, compared to these high-risk scenarios of riding at 35 kilometres an hour on the side of the road. Can you comment on that and is there any evidence to back that up? Is the rate of injury for the cyclist engaged in that activity lower or higher? Is it just that the total

number of injuries is high but the rate, based on participation, is lower? What does the data show us there?

**Prof. Rissel:** That is a great question. I think you are right in your general assessment that there is greater exposure in those lower risk situations. One of the research projects that I have been involved with is the Safer Cycling Study in New South Wales, where we recruited over 2 000 cyclists and we followed them up over a 12-month period. Every two months we asked them in a survey: have you had any injuries in the last little while? We looked at their riding conditions: how far they rode, how long the rode, where they were riding, what infrastructure they were on—whether it was a road or a bike path or some other context. Typically, the most severe injuries were actually found on the road. When we looked at the rate of injuries that required some medical assistance and the rate of injuries that required hospital admission, it was the road accidents that had the greater requirements for medical attention. There were a fair number of low-speed crashes, but, essentially, it was bandaids and a scrape and it did not require medical attention. It was the roads and motor vehicles that contributed to the greater [inaudible] of harm, damage requiring medical attention. So, I think you are right that there is a lot of low-risk exposure, but it does not result in lots of serious injury. I guess that is the context that we are talking about for helmets, because in those situations the likelihood of a head injury is actually quite small, even though there is lots of that type of thing going on.

**The CHAIRMAN:** That is interesting. The committee has heard of a segmented approach to mandatory helmet laws, such as exemptions for adults riding on cycle and shared paths or off-road not having to wear a helmet. What is your view on a segmented approach?

**Prof. Rissel:** I think that a segmented approach is probably the most sensible policy move at this point in the Australian context. I think removing mandatory helmet legislation is a step too far for most jurisdictions and I do not think that is likely. I think it would be highly desirable to trial a segmented, staged approach and evaluate that really carefully to demonstrate what does actually happen in terms of cycling participation and also injury and head injury rates. The prudent thing would be to study what actually happens in this case so that we have some genuine, real, current data that we can actually base this kind of conversation on.

Now, I look at the Northern Territory and I look at their legislation up there. They have an exemption for cycling. You do not have to wear a helmet if you cycle on a bike path or a footpath in the Northern Territory. As far as I can tell, the injury rates in the Northern Territory seem the same as the rest of the country. So, not making people wear helmets in those low-risk situations does not appear to make the number of head injuries greater. My view would be that it would be a good option to allow people not to wear a helmet in those low-speed, low-risk scenarios—adults. I think there is a case for still having children wear helmets. But that segmented approach would be an important step towards understanding what is really going on with helmet legislation.

**The CHAIRMAN:** So, recently the Bicycle Network changed its long-standing position of supporting mandatory helmet laws and has recommended a five-year trial for people aged 17 and over to ride on footpaths and cyclepaths without a helmet. I suppose that is in line with what you have just told us.

**Prof. Rissel:** Yes. Honestly, I have recommended this sort of approach to the segmented thing and the study and the valuation for quite a while. But Bicycle Network went through an extraordinarily detailed and comprehensive approach to come to that conclusion. They reviewed all of the international literature; they consulted with all the major stakeholders; they conducted surveys of all their members, and non-members as well; and, by and large, the community attitude towards this was that they were ready for a relaxing of the laws, or the rules, to allow this kind of thing. The

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literature that they surveyed from around the world seemed to support that position as well. I think that the world has moved on in terms of understanding what is going on in cycling, and there is a greater desire to have more people cycling for all the health benefits that it generates. And so I think people are keen to look at—well, what else can we do to make it easier for people to cycle, and maybe trying this with adults in certain situations is a good thing to try.

[10.50 am]

**The CHAIRMAN:** You mentioned the Northern Territory experience a moment ago. Can you tell us a little more about that? What did the Northern Territory do exactly, and when, and what has their experience shown us so far?

**Prof. Rissel:** Yes. In the Northern Territory, a few years after it was introduced around the rest of the country, we had a lot of feedback from the public, because it is fundamentally really hot up there, and people were uncomfortable wearing a helmet and felt that it was unnecessary for the sort of cycling that they were doing in the urban environments where they were. So the Territory legislated, as I think you have mentioned, that it was not required to wear a helmet on a bicycle path or a footpath, but if you are riding on the road, then you are required to wear a helmet. That has been in place for many, many years. When you look at the transport injuries by mode, across the country, the Northern Territory figures, although small, show no difference in the rates compared with all the other states and territories and the ACT, so there does not appear to be an adverse effect for allowing adults to cycle on footpaths and bike paths without a helmet. It makes you wonder. We are worried that we will cause a greater level of injury if we relax the laws, but when it has been done in the Australian context, there was no adverse effect.

**The CHAIRMAN:** Has the removal of mandatory helmet laws in the Northern Territory for adults on cyclepaths and shared paths had an impact on cycling participation rates in the Territory?

**Prof. Rissel:** Actually, it has. The Northern Territory is one of the highest journey to works—so, statistics on cycling participation are generally not great. I say that to then look at the only evidence that we do have, which is the ride to work statistics. Darwin in the Northern Territory has one of the highest ride to work statistics in the country, so the participation is pretty good there, actually, compared with other cities. Part of that may also be the fact that it is a lower density environment, and I accept that there may be other reasons why cycling to work is a desirable activity, but I think that the relaxing of the helmet legislation in that context actually fits in with that environment and that climate up there.

**The CHAIRMAN:** Thank you. The committee is aware of research by the Queensland Centre for Accident Research and Road Safety in 2010 that claims that a segmented approach would absolutely lead to an increase in head injuries. For example, from their research —

... if the helmet wearing rate for adults fell to zero as a result of requiring helmets only for children, then a 56% increase in head injuries to adults would be expected. Assuming that adults comprise 65% of cyclists injured in on-road crashes, this would correspond to an overall 36% increase in head injuries to all cyclists injured in on-road crashes.

Can you comment on this proposition?

**Prof. Rissel:** Okay. I think it is entirely false to suggest that a zero level of helmet wearing would be the result of relaxing that legislation, because the statistics that have been published show that about 30 per cent of existing cyclists would continue to wear a helmet, even if they were not required to wear one. You will never get to a zero level, because some people feel safer wearing a helmet, and that is just the way it is going to be. I think adults are intelligent enough to make a decision about when it is safe or risky to wear a helmet, and will continue to wear a helmet. I think

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they are extrapolating on unlikely rates, but I think if you did not have mandatory legislation for adults, then you would have that safety in numbers effect, and that would mitigate against the possibility that the rates would actually go up. I am not convinced by their numbers in this particular scenario.

**The CHAIRMAN:** That is interesting. You are saying that if helmets were no longer mandatory, there would still be a certain number of people who choose to wear them for their own safety?

**Prof. Rissel:** Absolutely, yes.

**The CHAIRMAN:** I spent some time in Stockholm a few weeks ago. As I understand it, helmets are not mandatory there, but there are still a large number of people choosing to wear helmets regardless.

**Prof. Rissel:** Absolutely, yes. That is right.

**The CHAIRMAN:** Those other countries have rideshare programs for bicycles. Can you comment on the health impact of bike-share or rideshare programs, and how mandatory helmet laws impact those programs, if you have any information about that? We are yet to have a rideshare program in Perth on any large scale, whereas other jurisdictions do have them. What impact might mandatory helmet laws have on that?

**Prof. Rissel:** The programs that have been introduced in Melbourne and Brisbane have largely been operating at a level of about 10 per cent compared with similar schemes in similar-sized cities around the world. There was one in Dublin that was introduced at the same time as the Brisbane one was introduced, and by the same company, so the same bikes, the same everything. The Brisbane system was being used at about a 10 per cent level of what was happening in Dublin. The road conditions in Dublin are no better than the ones in Brisbane; I have cycled in Dublin. There was some qualitative research on the perceptions of the bike-share scheme in Brisbane conducted by Dr Elliot Fishman, who has become a bit of an expert on bike-share programs. One of the factors that was consistently reported in their focus groups and studies was, of course, the helmet issue. People did not use it, and I think it was about 16 or 20 per cent of people consistently reported that having to wear a helmet was a reason that they did not use the scheme. There was not a helmet there to use; they were not going to use it. So the helmet aspect is a definite issue for bike-share. Some countries have actually repealed their legislation for urban environments to facilitate access to the bike-share program. This happened in Israel. They had a law; they got rid of it. It happened in Mexico City in the same way, so other countries are recognising and acting on the fact that helmet legislation is a barrier to bike-share use. In the countries where they have introduced the bike-share schemes, as I think I have mentioned earlier, there have been quite considerable increases in participation.

The beautiful thing about the bike-share programs is that they can track the exposure of people cycling and then look at what happens in terms of injuries and that sort of thing. In the London scheme, it was about 12 or 18 months with almost a million people using the bike share scheme before they had a serious head injury. This is like millions and millions of hours—I do not know if it is quite millions and millions, but there was a significant amount of exposure to cycling in that context before they had one particularly bad injury, and they do not require helmets in that context. The bike-share schemes have taught us quite a lot of things—that helmets are a barrier to their use, but the exposure when cycling means that the injury rates and the risks are actually quite low. I think that they are a great example of a way to encourage cycling, and that does contribute to a significant health benefit, especially when you are taking people out of motor vehicles, so they were sedentary and become more active. If you are taking people who are walking or people on public transport, then the health benefit is not as great, because if you stop people walking and get them riding,

maybe they are not exerting themselves quite as much. But, by and large, there is a net increase in people being more physically active through participation in the bike-share schemes.

**Hon PIERRE YANG:** Professor, I want to make a quick observation and pose a question. I would like to hear your perspective. During the course of today, I heard the discussion around if the number of people riding bicycles goes up, the rate of injuries can go down, because we have more people riding on bikes on the road or on footpaths. I take that as a reality. At the same time, the incidents, as you correctly pointed out, could go up, because there are more people riding bikes at that time. The point I want to raise is that the expenses on the community dealing with the increased numbers of injuries is obviously going to go up as well. Would you have any response to that question?

[11.00 am]

**Prof. Rissel:** Yes. I think you are right to raise the fact that there will be more injuries. I know we are averse to risk, but in fact we can never remove all risk altogether. If we want to encourage a particular behaviour, there will be some sort of risk or adverse effects as a result. I return to the earlier position that we started with, where we looked at the relative benefits of health gain, and the reduced cost from people being cardiovascular fit and healthier in terms of chronic diseases. The cost of those diseases from being sedentary actually completely outweighs the cost of injuries through people being active. So the cost of injuries, when they are compared—and there are at least half a dozen different studies that have examined that in detail across the world where they have come to the conclusion, to relatively different levels of benefit, but all of them have been positive that the cycling health benefits have outweighed the costs from injury that are incurred from that activity. I am confident that, yes, there may be a slightly greater cost than we have at the moment for injury, but that will be offset by the savings that we get on chronic diseases.

**Hon PIERRE YANG:** Thank you.

**The CHAIRMAN:** Just as we wrap up, Professor, very quickly, if you can, when we talked about the segmented approach, and perhaps a trial, an opportunity to look at what the data tells us when we relax mandatory helmet laws, Western Australia has a local government, the City of Fremantle, where the mayor has been quite vocal about his view on mandatory helmet laws and has at times has even called for a trial within his city to allow people to ride without helmets. What is your view on having a trial or a segmented trial within one geographical area, within one local city? Would that be realistic or difficult to pull off? How would such a thing be policed as people move in and out of the city's bounds?

**Prof. Rissel:** I think it is a good idea. I think the scale of a local government area the size of Fremantle—and there are other jurisdictions in New South Wales that we have considered, like the Newcastle area, for example, so that it is reasonably geographically clear where it is, and the population is aware of that. There may be some overlap in the borders—we can perhaps not get too fixated on the actual boundaries—but I think it can be policed within the area that is defined, and there can be communication that alerts people to that. The boundaries are useful for the evaluation of surveys that will need to be conducted to assess participation rates, but also the health statistics that are available from that geographic area can also be defined through that kind of geography, so it is sensible to use an existing area that is definable, and the collated statistics are more readily available. I think that is a very positive way to look at it, actually. You want a location where someone is willing to give it a go and it will not be resisted by local authorities, and having cooperation makes the whole project a lot easier. You want it to work. You want it to be a win for everyone. So if Fremantle was able to embrace it, and there were increases in cycling, and it did lead to a positive health outcome, then that would be great. If there was an increase in injuries, we could monitor that and track it and be observant about it, and if it was going belly up, then you would stop

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it. But you would have control over how it is being managed and how it is being done, so I believe that that is a sensible way to go forward.

**The CHAIRMAN:** Thank you for that, Chris. We have run out of time. Please end the broadcast. 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. Errors of fact or substance must be corrected in a formal letter to the committee. 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. Thank you very much for your time today.

**Prof. Rissel:** Thank you very much for having me.

**Hearing concluded at 11.05 am**

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