

TRANSCRIPT

ROAD SAFETY COMMITTEE

Inquiry into motorcycle safety

Melbourne — 6 March 2012

Members

Mr A. Elsbury

Mr T. Languiller

Mr J. Perera

Mr M. Thompson

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Witnesses

Professor M. Stevenson, director,

Ms C. Mulvihill, research fellow, and

Dr T. Allen, research fellow, Monash University Accident Research Centre.

The CHAIR — Welcome to the public hearings of the Victorian parliamentary Road Safety Committee in its inquiry into improving motorcycle safety outcomes. We have received 74 written submissions since releasing our terms of reference. The purpose of the hearings is to obtain further evidence from selected witnesses covering the terms of reference. Hansard will be recording today's proceedings. You will get a copy of the transcript. We invite you to peruse the transcript, correct any errors and return it to us. We are also in a position to take evidence in camera which would not be on the public record. You have the benefit of parliamentary privilege for comments made here today. That benefit will not exist outside the room. We have allocated around an hour for your evidence. Do you have a PowerPoint presentation you would like to speak to?

Prof. STEVENSON — I have, but it does not appear to be coming up. Basically all we had there was what current research we are undertaking and then some of the gaps in the current knowledge and what ought to be considered.

The CHAIR — Perhaps you can speak to it as an intact record and we will have the benefit of having it in front of us when we get a copy delivered. There are some questions that we can run through that may overlap a little bit. To get the ball rolling I will run through the first question, which relates to the issue of inappropriate versus excessive speed. The committee has received evidence from numerous sources that speeding by riders is a major contributing factor to most motorcycle accidents. That view, as you can imagine, gets a strong reaction from riders themselves. Part of our job as a committee is to ensure that the public perception of speed is not overwhelming the public debate, resulting in other contributing factors not receiving attention. We are particularly interested in hearing from you your views on the issue of inappropriate versus excessive speed, with a focus on how each issue should be approached.

Prof. STEVENSON — We could speak for many hours on speed, the role of speed in crash and road trauma and what is inappropriate speed — and then in the case of motorcyclists. At the beginning let me highlight firstly that the science is very adamant and very conclusive around the role of speed and road trauma. There is only a certain level of force that the body can tolerate, and excessive speed is defined by the road infrastructure that a motorcyclist is riding on and the speed of impact. All of those need to be factored in when you determine whether it was inappropriate or appropriate speed. Rather than just saying, 'Well, if they were going in excess of 50 kilometres an hour, then it was inappropriate', it needs to be couched in a much broader context around the infrastructure that they were using, the speed they were travelling at and the conditions at the time as well.

I guess what is really important around this — and it will actually give the Victorian public a much better understanding around speed and the role it plays in motorcycle crashes — is a large population-based study that we are currently undertaking and that Dr Trevor Allen here is heading from MUARC. It is going to give us some of the best evidence around the role of speed and motorcycle crashes. It will take account of road infrastructure and it will take account of a whole array of other characteristics around the urban environment — the type of motorbike and the actual characteristics of the motorcyclists themselves. It will be very valuable information around to what extent we see speed playing a role in motorcycle crashes.

The CHAIR — Dr Allen, when do you envisage having rounded off your research?

Dr ALLEN — The study officially launched in November of last year and it is a three-year study, so we have just started data collection and we are expecting the data collection period to be between 18 months and two years. So it will be that long before we come up with some outcomes from that research.

The CHAIR — Do you have a preliminary hypothesis that you are confident in being validated by the research?

Dr ALLEN — I guess in the case control design, which is the style of study that we are using, we look at a number of different variables that we think may contribute to crash risk and injury risk. I suppose the design is such that it does not have a hypothesis. It is focusing specifically on two main areas. One of them is the role of speed in crash causation and how that interacts with other factors such as training and experience. The other factor is the role of the road environment, so the role of the infrastructure. Things like aspects of the road, particular types of intersections, traffic density, those are the things that will be measured as well.

Prof. STEVENSON — It will be able to tell you things like: if a motorcyclist was travelling at 60 kilometres per hour, they are five times more likely to sustain a serious injury if they came off there than if

they were travelling at 20 kilometres an hour. It will be able to quantify the risk associated with speed and at what level you are going to see potential fatality. In this instance we will not be looking at fatalities, because we are excluding fatalities, but very serious injury right through to sort of minor injury.

Let me just also draw to your attention some other work we have done within MUARC on speed, answering that question. I can table this for the members as well, if you wish.

The CHAIR — Thank you.

Prof. STEVENSON — It outlines all our work over the last 10 years that is pertinent to motorcycle safety and it is under various headings, one of which is speed. Others are crash investigation, licensing, attitudes, training, skills — those sorts of areas. It will assist you. We have written a brief summary around each of those projects so that you can see what the outcomes are. You have asked about speed, and that is the first highlighted there.

The CHAIR — Thank you. We will review this, I think, rather than peruse it and interrogate at the moment.

Mr LANGUILLER — Thank you to the three of you for coming. It is really a privilege for the committee to have you. Can I also say incidentally that I have referred your work to a lot of other countries including Sri Lanka, where I was recently. I am happy to confirm that now they are using your website, information and research for their parliamentary road safety committee, which is terrific, and they may contact you.

Prof. STEVENSON — Great.

Mr LANGUILLER — Can I refer you to an important question on the relationship between the various regulators, research bodies and stakeholders. During the course of this inquiry it has become apparent that there seems to be a lack of coordination among regulators and researchers on motorcycle projects. It appears there has been a lot of good work done by researchers and regulators but it has not been used in a coordinated, coherent way that drives motorcycle safety interventions. Can you tell us how you approach road safety research in terms of motorcycles, what research you have done or are currently undertaking, and how it has been incorporated by VicRoads, Victoria Police and the TAC in road safety regulation in Victoria, if at all?

Prof. STEVENSON — These are huge questions that we could spend many hours discussing. Let me say at the outset that I think MUARC has probably one of the best records, if not the best record, in translating its research into policy and practice globally, and MUARC is renowned internationally for its work. Why it is renowned is purely for that reason: we have worked incredibly closely with government and non-government agencies to translate what we do and to put it into practice. Not only in the motorcycle area but in all areas of road safety we can cite many, many examples of this.

In relation to the motorcycle area, that document we just circulated clearly goes through and highlights again how much of our research has been picked up by VicRoads, the TAC and numerous other agencies. For example, currently we are assisting VicRoads on one of the largest trials around motorcycle training, called Assisted Ride. The need for a trial of that kind arose out of work that we did in 2005. Again, there is this close association.

There is a very strong association between the government and non-government agencies. Having said that, is there a close association with the consumers, who in this instance might be motorcycle rider associations? I will be very candid in this instance around motorcycle safety. I think up until recently it probably has not been a real strength of MUARC to ensure that its consumers are party to the whole research process. I can fly the flag in this regard here. MUARC runs on very, very little funding and so for us — we are measured on the output, in terms of our research and its translation into practice — in the past there probably has not been a focus on the consumer. We have now acknowledged that that is an important element of what we do in order to ensure that we get the public buying into what our research is suggesting. The prime example of that now is Trevor's work, which has a consumer group. It has motorcycle advocacy groups all behind it. They are privy to the instruments, the whole research process and they are 100 per cent behind what we are doing. We have realised that in the past we may not have been terrific in that area and we have rectified it.

Overall, just to summarise in this short time we have this afternoon, I think we have excellent collaboration and translation of what we do.

Ms MULVIHILL — Can I just add that sometimes there is not always a direct link between some research and policy outcomes. There might be a chain of three, four or five projects that you do to get to that end, so our research might recommend further research in the area, which we either do or it is commissioned by VicRoads for someone to do before we can actually reach that outcome. So there can be incremental steps that you need to take before there is a direct link between a project and an outcome.

Mr LANGUILLER — Through the Chair, can I ask a supplementary question? Again if I may, I want to reiterate the opportunity for you to give evidence in camera. Our committee has heard on numerous occasions, particularly from riders — in fact almost unanimously from riders — other than VicRoads and TAC, to my recollection we have not yet heard any submission that actually likes the ads around prevention of injuries that they see on television. Presumably the agenda of some of those TAC ads would be to try and encourage riders to be careful, but we have not heard any rider say, 'I can relate to that'. Most of them, in fact on recollection all of them, have said, 'That is not me', 'That is not us', 'I don't know what they're driving at'. Fundamentally they put to us that the ads are being consistent with their internal culture. They say, 'In the end, they don't like motorcyclists', and so on. Do you have a view of those ads? In light of your research, do they really lead to preventing injuries — that is, do they actually get riders to ride safely? Or is it about putting off riders, as it has put me off? I have said, 'I will never ride', because of their impact. As somebody who was actually thinking about riding, fundamentally the ads that they put on television have led me to say, 'I won't do it'. If your agenda is to encourage people not to take up mopeds, scooters and bicycles, then the ads are certainly achieving that. In light of your research, what do you think of those ads?

Dr ALLEN — I guess the question is whether there is any evidence that those ads make a change in the direction of safety. I am not aware of any evidence about that. I am a rider myself, so I guess I can see from a rider's perspective that it can create a bit of frustration in the rider community. They have communicated that to us in consultation with our current study. It makes them look as if they are a group of risk-taking road users, and of course many of them are not. They are just trying to go about their business of either commuting or enjoying motorcycle riding. I can sympathise with the riders on that point. I am not aware of whether there is any evidence that those types of campaigns are effective. It may be out there, but I am not aware of any.

Ms MULVIHILL — I think if you do not perceive the ads as relevant to your own situation, you will just shut down and they will not sink in. If a person distances themselves from it, the message just will not go in. I am not really that sure, but some psych. research indicates that if you do not identify with it, it just will not go in. The trick is to work out how you can make it relevant. I am not sure what the answer to that question is.

Prof. STEVENSON — In relation to road safety more broadly, we also know that the vast majority of the public perceive that behaviours on the road are those of other people rather than their own. As a result they would not necessarily identify with that sort of behaviour — for example, in relation to hooners. If you ask the general public, they would perceive that hooners on our roads is a major road safety issue; but that is a potential misperception, because we know that hooners are overrepresented in our crash rates and serious injury statistics. We do not know, but the reality is that they may not be. It is a bit like the power-to-weight ratio legislation. Again, the evidence suggests that those overpowered vehicles and young drivers are a very, very small proportion, and yet there is a perception that it is a big issue. It is a very challenging area, and we need to understand what an individual's perception of their behaviour is. I think that relates just as much to the motorcycle area as well. There is a lot of misperception about their behaviour, and it is not what they do; therefore they do not identify with it.

The CHAIR — Just going back momentarily, and I may need to double check that I have got this question correct, but what led to the recognition that you needed to engage with motorcyclists as a group?

Prof. STEVENSON — Firstly, now there is a movement in the much broader research community that recognises it is very, very important; if you want to get policy and practice changes to occur, then you need to have a broad constituency supporting what you are looking at and actually conveying the evidence. I think having consumers on board means they get to understand the process that we are going through, and that it is not researchers cooking the books or creating an outcome that is adverse to what they perceive is the case. It is actually bringing them on the journey with you, rather than being adversarial and indicating, 'This is what the results are, and you need to adhere to it'. I think that is clearly the movement now across all areas.

The CHAIR — Thank you; that answers the question.

Mr ELSBURY — Thank you once again for coming to see us this afternoon. The work you have done has obviously exposed you to a lot of the different datasets that are out there, so my next question goes with an ongoing issue that has been raised during the inquiry — that is, that road trauma data quality, integrity and use is a major issue. Examples of this issue include the data gaps identified by the Victorian Auditor-General's Office; accusations about the use of selective analysis of data, such as the claim that riders are 38 times more likely to be injured; and the lack of consistent protocols for data collection across agencies. What are your views on data collection and analysis in Victoria, what problems if any have you identified with the system and what improvements do you suggest could be made?

Prof. STEVENSON — They are very big questions, and they extend way beyond just the motorcycle safety area. I think a whole of government approach is needed in terms of the data systems to give us an accurate record of what is happening in terms of road trauma in this state. That is it. We can look at each individual jurisdiction and report what they have collected. There are limitations in it. We at MUARC have proposed a new system which would allow us to link various government agency department data systems and maintain that, and provide very comprehensive, reliable data in which we can link police to health and to ambulance records, and provide a very reliable picture of what we are seeing. That is not available.

Mr ELSBURY — What is the kind of data that your system is going to be collecting?

Prof. STEVENSON — It can be anything and everything that you could hope for. It could be the crash statistics from police. It could be all of that infrastructure, GIS-coded information for VicRoads. It could be the St John Ambulance details around pick-up, what they see at the scene, vital signs of the individual when they first approach. It could be the trauma industry information we have got, which is some of the best in the world. I guess we should say at the outset that Victoria is leading the world potentially in all of these areas. I am here sounding quite critical, but I think one of the areas about which we can be very critical of Victoria is that we have not moved forward in developing comprehensive network data systems. We are in the 21st century and we still have ad hoc data systems. I have just been to one agency today where they are cobbling together 17 different data systems in order to paint a picture around road trauma. That is not an ideal system.

Dr ALLEN — Can I add something to that? I think one of the statistics with which the motorcyclists find some offence is that one to do with being 38 times more likely to be injured. I think the main message from that is important, and they would not have a problem with it — that is, simply that motorcyclists are a vulnerable road-user group. They are much more likely to be injured in the event of a crash. In terms of looking at whether motorcyclists are over or underrepresented in the overall statistics, that is a much more difficult question to answer, because we simply do not have a good measure of their exposure. In other words, we know for instance that the popularity of motorcycling has gone up a lot in the last five years, when it is measured in terms of registrations; but in terms of exposure, how many of them are out on the road is a much more difficult question to answer. We know that for a lot of these people who have registered motorcycles — today, mine is parked in the garage — getting that measurement of exposure is much more difficult.

Prof. STEVENSON — That is done through travel time surveys, and very few governments are investing in travel time surveys now, in order to give you the good exposure data that is necessary.

Mr ELSBURY — Even within the groups that are commuter riders, you would probably find you have more of your mopeds and scooters in the inner city, whereas when you get out into the suburbs you get the higher powered bikes that are out there every day on the roads. Then on the weekends of course you have a different group altogether, who are the sport riders and the people that just want to have some fun with their bike.

Dr ALLEN — One of the reasons we are doing the current study is that we know that that demographic, that population of riders, has changed so much in the last 10 years. That is why we really need to do this new study, because we have got a completely different population of riders out there than we had 10 years ago, and much more of them of course as well.

Mr LANGUILLER — I want to continue with this subject. This is arguably one of the most important subjects in terms of the data collection and in terms of how the whole system works, because if used properly, and if funded properly by the way, it could lead to very good policies. The submission put to the committee showed clearly that there is a massive difference between the data collection by the health department,

VicRoads and Victoria Police. They just do not match each other. The health department, on my recollection, has been the best one there is. But just in relation to the data collection and in terms of the potential governance of this body, should it not be all linked? I think you have said that it should. Should it not be independent? Should it not have some sort of separate governance body so it can then be available to the public? I am new in the game in terms of road safety, but I get this sense of the agencies being amazingly protective of their data, much of which is not shown to the public. It appears that it is not in the public interest to actually put things on the table. Is that not fundamental to good policy development — to actually know what is going on, to have a proper diagnosis of the problems, whatever they may be? Should it not be a separate body altogether?

Prof. STEVENSON — If you could establish a separate body that collated the government data and could actually present it in a way that is palatable to the public, fantastic. I do not know of a jurisdiction that has done that, I think in part because of the privacy act in each state and how potentially prohibitive they are in terms of providing access in that regard. So I think what would end up happening is that it would still need to be an all-of-government process and it would require legislative change to ensure that researchers like ourselves can actually get access and maybe de-identified to be able to collate and provide the valuable information to inform policy and practice.

Mr LANGUILLER — Do you yourselves have access to all of the data you think you should be able to have access to?

Prof. STEVENSON — No, certainly not.

Dr ALLEN — Never.

Prof. STEVENSON — When I worked in Western Australia in the 1980s we actually were at the forefront of linking this data. We linked health, police and ambulance and were able to do amazing pieces of work around identifying that recidivist drink drivers presented to hospital 10 years down the track with alcohol-related diseases. They had a dependency issue; it was not that they were just breaking the law all the time. It was an issue that health needed to take up, not police all the time. So there is just a wealth of information you get.

Mr LANGUILLER — What state was this — in WA, did you say?

Prof. STEVENSON — That was in WA when I headed a group there in the 1980s. Actually I was not heading it in the 1980s, but that was when we initiated data linkage. It is incredibly expensive and it requires a considerable degree of resource, but it is ultimate in terms of planning and reliable data in order to provide you with the true picture of what is happening.

Mr LANGUILLER — If I may, further and finally, what has been the response out there in the community and with the stakeholders and people that you have talked to in relation to the improved data collection system? What has been the response that you have received?

Prof. STEVENSON — To be honest, we have had some discussion — very brief discussion — with some of the key agencies in Victoria. We also have a research centre in Perth called the Curtin Monash Accident Research Centre. The West Australian government has actually asked us to develop a whole process on how to go about doing this. We have written a report, which is on our website, about the way to move forward with this. The WA government is looking at potentially funding us. We have not got far here, but we have in WA in relation to this. That is not to say we are not going to pursue it here, but it is just they were first off the rank in terms of funding us to actually develop the system for it.

Mr ELSBURY — Just further to what Dr Allen was saying earlier about the 38 times more likely, would it be correct for you to say that the 38 times more likely to be injured claim is incorrect, in your view? Is that your understanding?

Dr ALLEN — It depends on the context about which that statistic is talking. Is it talking about 38 times more likely to be injured after you have had a crash compared to the driver, for instance? Or if you leave your house in the morning on your bike, are you 38 times more likely to be injured than if you left in your car?

Mr ELSBURY — If you can elaborate on that from your knowledge base — as in, am I 38 times more likely to be harmed hopping on a bike out of my driveway than reversing out in my car?

Dr ALLEN — I do not believe so. This is the thing. I think that statistic comes from one of the media campaigns, and it obviously has the motorcycle community offside. I do not know for certain, but I think that statistic may be more relevant once you are involved in a crash. Then you are obviously much more likely to be injured. To me, that is the most important statistic — the vulnerability of road users.

Mr ELSBURY — With the lack of crumple zones around a rider — —

Dr ALLEN — He is not protected.

Prof. STEVENSON — It is a risk factor — the probability of injury given a certain number of hours exposure. It is a probability value. When you are saying you are 38 times more likely, it is usually compared to something else. It would be that as a motorcyclist you are 38 times more likely to be injured than a motorist, let us say. It has to be in the context of something else, because it cannot just be that you are 38 times more likely to be injured. More likely than what?

Mr ELSBURY — Than what, yes — than a hang-glider pilot.

Prof. STEVENSON — Yes, exactly. It needs to be in relation to, I assume, a motorist. Then is it based on registered motor vehicles or registered motorcyclists or whatever?

Dr ALLEN — I think that one might be from the hospital database.

Ms MULVIHILL — Per million kilometres travelled.

Prof. STEVENSON — A million kilometres, okay.

Dr ALLEN — And that comes back to that issue I raised. In terms of kilometres travelled, we have some measures out there, but how accurate they are — —

Ms MULVIHILL — I think the worry is that motorcyclists — fair enough — take that statistic as almost like you are having a go at their abilities. They are two different issues. Of course you are more likely to be injured because you are a lot more vulnerable — a bike is inherently more unstable than a car — but that is not to suggest that the rider is a poor — —

Dr ALLEN — Irresponsible.

Ms MULVIHILL — Yes, exactly. It can be used in that context inappropriately.

Prof. STEVENSON — Can I just say that that is really inaccurate? Saying it is 38 times higher per million kilometres travelled is inaccurate. We hardly ever use per million kilometres travelled as a denominator. What is probably more reliable as a rate is ‘10 times higher with 10 000 registered vehicles’.

Ms MULVIHILL — That is a hospital admission.

Prof. STEVENSON — Yes. That is probably more accurate in terms of the picture.

Mr ELSBURY — So it is 10 times?

Prof. STEVENSON — It is not 38 times.

The CHAIR — I might just interpose here. The 38 times risk factor is based on a metric that the ABS warn should not be used because of a 25 per cent to 50 per cent level of standard deviation.

Prof. STEVENSON — Yes. You would not use that.

The CHAIR — What do you say now?

Prof. STEVENSON — I am just saying I would not use it. Looking at this now, I would never have used 38 times higher. I am an epidemiologist by training, so I guess this is what I do. You would not use that. I would place more value on a tenfold risk per 10 000 registered vehicles, but I would still have some caveats around that because registered motorcycles does not equate to one bike rider riding every day of the week. It is a

time-dependent thing. We do not have exposure data. There is a confidence around that. Thirty-eight is inaccurate. I would put that on record.

The CHAIR — Thank you, and we are on the record. A common criticism by riders is that rider fault or error is the default factor in many motorcycle crashes, yet the committee understands that a project conducted in 2008 by MUARC, the enhanced motorcycle crash investigation project, found that the main factor in crashes reviewed which involved both a car and motorcycle was a violation of the rider's right of way. That is not a commonly reported factor in road safety literature and road safety advertising. Can the findings of this project be extrapolated more broadly, and are you aware of how the recommendations and findings of the project have been incorporated into policy development, if at all, to date?

Prof. STEVENSON — Christine can probably comment on whether it has broadened to policy. Let me just announce and highlight that we undertake these pieces of work — and that is a fantastic piece of work on in-depth crash investigations around motorcycles to look at causality — but we are never funded beyond delivering that report. It is our commitment to deliver beyond that. I do not know whether that has been translated into practice.

Ms MULVIHILL — Not the multivehicle stuff. Two of the recommendations that came out of that ECI study, the enhanced crash investigation study — this is not related to that — were to do an on-road assisted ride program and look at returning riders, because inexperience was a factor. So I know about those ones, but I do not know what has happened with multiple vehicle — —

The CHAIR — All right. We will leave the question at that.

Dr ALLEN — Sorry, I am going to have to excuse myself because I have a meeting for our study just down the road. I will leave some copies outlining the current study we are doing. I apologise that I have to head off.

The CHAIR — Yes, sorry, Dr Allen, we were not aware that you had to move on. Are there any comments that you would like to make before departing?

Dr ALLEN — I will just make a quick statement. I think it is a challenging area to look at the role of other road users in crashes for motorcyclists. The motorcycle community has communicated that to us in our consultation with them for our current study, and it is one aspect that we will be investigating in the current ongoing study, which I have outlined there. We accept that it is a very important part in improving safety for riders because we know there is a large proportion where the other road user is involved and potentially at fault and that there perhaps needs to be more research in that area. There is some ongoing research, both for this study and another study that MUARC is conducting, looking at conspicuity of motorcyclists in a road environment. So it is a very important area that needs to be investigated.

The CHAIR — In terms of your visual presentation, Professor Stevenson will deal with this. Thank you for attending.

Mr LANGUILLER — According to the RACV post-licence training is not shown to be beneficial and should not be supported as an effective road safety countermeasure. That view has been consistently challenged by witnesses to this committee and to an extent seems counterintuitive. What are your views on post-licence training, and do you think it has the potential to reduce motorcycle trauma?

Ms MULVIHILL — There are a couple of problems with the training issue. One is that we do not yet have enough well-designed studies to demonstrate whether training is actually effective or not. That is why we do not recommend not to have training; we just do not know whether we can prove that it works or not. The other issue is whether the type and content of the training is appropriate. Traditionally there has been only a focus on the teaching of control skills, both in car and motorcycle riding, although control skills are clearly more important in riding than in driving. The argument is we need to have a greater emphasis on the role of higher order cognitive skills. By that we mean the ability of the rider to read the road and anticipate what is going to happen next.

There have also been a lack of attitudinal and motivational factors addressed in training programs because we are not really sure how to do that yet. They are harder to train than skills, for example. We are still not sure

about what the content of training should be, but there is a feeling that it should comprise more higher order training skills and more of a focus on attitudes and motivations.

It is possible that past training programs have only focused on one part of that to the detriment of other aspects, which may be critical factors in reducing risk. We need to be careful about what we transfer from the driving to the motorcycling context, but the evidence with car driving for novices in particular shows that if you only focus on vehicle control skills, you risk a situation where it leads to inflated confidence of the novice who would then take more risks than they would if they had had no training at all. So you need to develop insight and temper the driver's confidence so that they do not think they know everything.

Whether that exists in motorcycle riders to the same degree, I am not sure but there are some lessons we have learnt in the car driver training research that we need to be mindful of with motorcycle riding.

Prof. STEVENSON — What about post-licensing?

Ms MULVIHILL — Post-licensing, yes, my response was about training in general. I am not really sure about post-licence training. I am just making a general comment.

The CHAIR — Did you say 'higher order skills' or 'higher audit skills'?

Ms MULVIHILL — Higher order cognitive skills.

The CHAIR — Thank you.

Mr ELSBURY — Just on the training aspect, I have undergone the learners permit requirements, which consisted of a massive 4 hours of training doing breakneck speeds of between 25 and 30 kilometres per hour. I have then gone and done an on-road component as well. I did not have to, but I thought I would do that in any case. I went through another training provider to get that additional experience before I felt that I was good enough to ride on the road. Perhaps it is my timid and shy nature. But do you think that an on-road component of training is something that should be supported considering it teaches road placement and the reaction to other road users that a motorcyclist should have?

Ms MULVIHILL — I think yes for that reason. Yes.

Mr ELSBURY — Wow. I got a yes/no answer. Damn!

Ms MULVIHILL — I can elaborate a bit more if you want.

Mr ELSBURY — Certainly.

Ms MULVIHILL — We did a project last year on returning riders and we took a group of them out onto the road and looked at their skills. We had an instructor take them out one at a time. They were told to ride as they would normally ride, obeying the speed limit and the general road rules. The instructor rated them on a number of skills, including the higher order ones as well that you would not assess on the range or in a car park. We then got some instructors who were different to the ones who took them on the road who were blinded to the rider type and they watched video footage and rated what sort of rider they thought they were and their skill level. We found no differences in the range data. There were no differences in the novice and the returning riders and experience on the range, so maybe that is not really very good at measuring that. But on the road we found differences with the new motorcyclists consistently coming off as poorer performers.

Mr ELSBURY — You said that you got a group of rider trainers who were with them all day and then another group in to assess them afterwards.

Ms MULVIHILL — Yes, just so they were not biased.

Mr ELSBURY — The current rider training program for a learners permit is that the person who takes you out for your training is the person who assesses you at the end of the day.

Ms MULVIHILL — Yes.

Mr ELSBURY — Is that a problem, or is that something we need to accept as a fact of practicality?

Ms MULVIHILL — I guess I can see your point. If you had someone else, it might make it more valid in case there were biases. I do not really think there would be a problem with it. They were still instructors, but they were not the ones who took them out and worked with them. We did that because we wanted another level of test. It was a study and we wanted to make it scientifically rigorous. But if there is no reason for the instructor to fail someone or overly pass them, I do not see the problem.

Mr LANGUILLER — On the same note, do you see any role for simulators?

Ms MULVIHILL — I could talk for ages about this. Yes, I do see a role. The problem is we do not have a good simulator that exists anywhere in Australia. There are a couple of good ones overseas in Italy and in France. Our motorcycle simulator has been used to determine differences between novice and experienced motorcyclists in terms of their hazard perception, and I think that was a really critical study because we know that those differences in car drivers can help explain the differential crash risk, so maybe it is the same for motorcyclists.

However, you cannot adequately measure in a simulator how the rider responds to the hazards, and the reason is because we do not have a well-designed simulator that can simulate proper braking and riding a motorcycle. Riders report that it does not feel real; they are trying to lean and the bike does not move. If we had a good simulator, I think you could use it to help with training. The Honda Australia Rider Training has a HART simulator; you know about that one. But arguably the screen is way too small — —

Mr ELSBURY — I died on that one.

Ms MULVIHILL — Okay. The screen is too small to give you a proper visual experience. You need a big screen.

Prof. STEVENSON — We have a simulator at MUARC and it is about \$3 million. It is not a small simulator; it has a huge 3D screen. We put a real bike in there, but it does not really reflect what it is like.

Ms MULVIHILL — It gives you something. Our old one just involved the rider sitting on the motorcycle and it did not have any interaction with what happened on the screen. We have now wired it up so that that it is interactive, but it is still nowhere near — —

Prof. STEVENSON — It is about 60 per cent.

Ms MULVIHILL — Yes.

Prof. STEVENSON — You can still be alarmed but it is still not quite like — —

Mr LANGUILLER — It is nowhere near the ones I used.

Mr ELSBURY — There is no lean to it; there is no engine throbbing underneath. There are no bumps on the roads — —

Prof. STEVENSON — No, there are — —

Ms MULVIHILL — There are no bumps.

Prof. STEVENSON — No bumps.

Ms MULVIHILL — It is a very smooth ride.

Mr ELSBURY — Yes, fantastic suspension on the things.

The CHAIR — On the question of simulators, are you familiar with the simulator used by Nottingham University, and can you comment on it?

Ms MULVIHILL — I am not really that familiar with it. I would need to just check but I was having a discussion with someone at MUARC who said it was not necessarily any better than ours. I thought it was better than ours, but apparently it is not anything fancy either. I probably would need to verify that first.

Mr ELSBURY — Can you explain the difference between attitudes and behaviours and what the links between the two are in terms of motorcycle safety outcomes? How do you think the outcomes of current projects you are undertaking on rider attitudes will filter through in terms of road safety measures?

Ms MULVIHILL — Okay, I thought that question might come along.

Mr ELSBURY — I am glad to deliver it.

Ms MULVIHILL — Basically ‘attitude’ is a thought or a feeling towards something, whereas ‘behaviour’ is the action. We know that certain behaviours are associated with crash risk in motorcycle riders, and they are all the obvious ones like drink riding, speeding, no helmet and unlicensed riding, as they are for car drivers too. What we do not understand very well, and what research is trying to go into now, is to understand the motivations and attitudes that lie behind those behaviours because you might go some way towards tackling or challenging those in motorcyclists.

There has been some research done in the UK to show that with motorcyclists the reasons why they ride will impact on their crash risk. So, for example, if you are a rider who rides primarily for pleasure, excitement and fun, you will have a higher risk than if you just ride primarily for commuting or general transport purposes. I do not know the details of that, but what we have now done in our on-road assisted rider program for novices is incorporated a component that addresses ‘Tell us why you ride’ and we give them a little questionnaire before they come onto the program. Then there is a 15-minute discussion on the side of the road about the reasons why they ride, how it makes them feel and if there are any risks associated with that.

That type of work is in its infancy. There has been some success with car drivers, but it is very new. I can only think of one other study that has looked at trying to work on attitudes and behaviours and that was by some researchers in CARRS Queensland.

Mr LANGUILLER — What about the variables of gender? Are men worse than women or is it the other way around?

Ms MULVIHILL — Men are typically more risk-taking than women, but I do not have any evidence that suggests in detail whether their attitudes are different. They may be if the risks are higher for men. But I think that is across the board.

Mr LANGUILLER — And age?

Ms MULVIHILL — That is a bit mixed.

Prof. STEVENSON — Age in terms of attitudes and behaviour? Or as a risk? A general risk for motorcycling?

Mr LANGUILLER — Yes.

Ms MULVIHILL — Younger drivers are typically much more risk-taking than older drivers. That can be part of a wider developmental thing that is associated with youth. But with motorcycle riders a lot of them are not young. I have not done a lot of research to work out whether they are the same as young car drivers in that respect.

The CHAIR — Do you have a view on how effective the current accredited provider scheme is in terms of reducing motorcycle trauma? Do you think it produces better outcomes in terms of rider training and licensing, and if not, how could it be improved?

Prof. STEVENSON — You can answer that. I do not have any comment on it.

Ms MULVIHILL — I can give a couple. The training across the providers is not consistent; it can range from a half day to a full day in some instances, as you might know. It would be good to get some consistency in terms of what basically should be delivered, but that is complicated by the fact that we do not have a really good understanding of what we should be training for. Although on the face of it you would think we should include more of the higher order stuff than is currently being included, and there are a lot of recommendations for that coming out in the graduated licensing work — if you have seen that — and also more on the attitudes and

behaviours staff. I think the concern that has been expressed is that they do test-only situations where you can just go in and get your test and not do training. That is a bit of a worry. You wonder if the provider is actually worried about the safety of the rider or if the rider really cares either. From that point of view, I think we should remove the test-only situation and make at least some basic training compulsory.

Mr LANGUILLER — Can I come back to comments made in your earlier submission? The committee and its predecessor, the Social Development Committee, in their inquiries on motorcycle safety in 1993, 1994 and 1998 have made a range of recommendations for the use of research to drive road safety messages for motorcyclists. How has research been used to drive road safety measures, and what opportunities have not been pursued in terms of recent research to drive regulatory intervention? I am cognisant of the comment made earlier that governments and agencies have picked up a lot of the research done and the work that MUARC and others have done, but what has not been done, do you think?

Prof. STEVENSON — What has not been done particularly around motorcycling?

Mr LANGUILLER — Yes, motorcycling.

Prof. STEVENSON — So not the research element, but the regulatory elements?

Ms MULVIHILL — I am probably only familiar with the training stuff, which is my main area, and that is starting to happen, but it has been awfully slow. We knew going back 10 years ago — I say 10 years because that is when I started, and I cannot comment on how it was before then — that it needed to happen, but it has been slow. But we are now finally starting to make some breakthroughs with the graduated licensing work being on the table. If that gets accepted that will bring in a change. I think we have done stuff for the training, but we have just taken a very long time to do it. A lot of reports repeat themselves, so we could probably save a lot of effort and work by getting on to the policy much earlier rather than having six different organisations around the country writing lit. reviews about how training does not work. I cannot really comment on other components.

Prof. STEVENSON — What about the sort of power-to-weight stuff that we have discussed? It is not power to weight, it is actually the capacity and learner drivers.

Ms MULVIHILL — Now they are on the learner-approved motorcycle scheme, which we did not have before, so that is one good thing that has happened. But I am not confident to comment on the research that has led to that because from one lit. review I did about five years ago there was a lot of inconsistent information about whether it is worse to ride a higher powered bike or not. I am not really an expert in that field to be able to comment.

Mr LANGUILLER — You talked about the whole-of-government approach. I am going to put that to one side. Further, according to the submissions put to us by the motorcyclists themselves and their fraternity, there is a culture in VicRoads which fundamentally does not include motorcyclists. For whatever reason, rightly or wrongly, they feel VicRoads develops roads for the mainstream, for the major users: the cars and the trucks. But I get a sense that they feel pretty much isolated and that there is an anti-motorcyclist culture within VicRoads. Do you get a sense from the users that there is a culture of ‘Let us build infrastructure and roads and so on for everybody’, rather than for the vulnerable road users? My personal observation is that that is probably not the case. But what do you think? Do we have to have a cultural change institutionally that puts at the heart of the institution the pedestrians, pushbikes, motorcyclists and so on, and is that not ultimately the systemic change we need to drive and to make?

Prof. STEVENSON — It is a very challenging area. I think firstly you have a very good agency, VicRoads, which is held in very high esteem internationally, so I think it is always good to work from that foundation as well. I think what we are dealing with is a transport system that does not support the vulnerable user, whether that be the cyclist, the motorcyclist or the pedestrian. So what we need to see in the future are urban plans and urban forms that actually take account of vulnerable road users in a way that they probably have not done in the past. I am not saying that is VicRoads; I would definitely say it is not VicRoads setting out to establish an infrastructure that is not conducive to vulnerable road users, but they are probably working with plans that are older, and we need innovation in the transport system to ensure that if we are seeing a move towards greater proportion of mobility around cycling, as we are in Melbourne, then there is a need to ensure that the infrastructure is conducive to that.

On that note we actually are hoping to get funded by the federal government to do probably the largest cycling safety study of its kind anywhere in the world, the end product of which will be new prototype development around road infrastructure, with simulation in the laboratory of cyclists using that new infrastructure to see how they interact with other road users. That is the sort of information that needs to be then delivered to the agencies and for them to say, 'Right, this is what needs to inform your planning and infrastructure for the future, that is, ensuring it is amenable to the cyclists', if that is clearly where we are moving. I think that also applies to most cyclists, to all of the vulnerable road users.

It is a wish list. It is not an easy one. I cannot say that is going to happen overnight, but we are very proactive here and I think we are amenable to that. I have worked in a lot of agencies and I have never seen a relationship between the research agencies and government agencies like the one I see between MUARC and the agencies here, so I think there is a great likelihood that we will see some change in the future in this area.

Ms MULVIHILL — I think one of the problems is that generally you design a system that separates the vulnerable road users from the car drivers, which can achieve higher speeds and can be more dangerous to pedestrians and cyclists. We have done that, and that has been done very well. But the problem with the motorcyclists is that they are also very vulnerable to injury, just like cyclists and pedestrians. But they can achieve speeds higher than car drivers can, so you might not want to put them with the cyclists and the pedestrians because they might bowl them over. They achieve much higher speeds, but putting them with the car drivers does not help either, because that mixes a vulnerable person in with the car driver, so you have a system that does not cater well for motorcycling. I have read some stuff recently which talks about — I think the motorcyclists would die if it happened — slow motorcycling so that you can mix them. But I do not think — —

Prof. STEVENSON — In Malaysia they have set up their own motorcycle lanes as well, but the major problem they have there is the interaction when they come off those motorcycle lanes: they are interacting with all road users and the whole issue then becomes the large trauma at the intersections.

The CHAIR — Are there any best-practice examples other than Malaysia?

Mr LANGUILLER — I have seen a bit in Guangdong and Guangzhou in China, for example, where there is total separation of cyclists.

Prof. STEVENSON — I was just going to say that. I have been working for many years in China and they have that. However, they are engineering that out of the system as part of the motorisation process. They had probably the safest system in terms of cyclists being separated from the motorists. They need the lanes and the cyclists have been moved on, so the cyclists are now interacting with everything. You may have seen it in the early 1990s; you will not see it in the 21st century so much in China. So there are challenges there.

The CHAIR — If you had a wish list for training what would be on it?

Ms MULVIHILL — Can we have a good motorcycle simulator so that we can assess whether training could work and be able to train them in an environment that is safe, as we have tried for car drivers?

Mr LANGUILLER — And pilots?

Ms MULVIHILL — Yes.

The CHAIR — So you are asking for a good simulator?

Ms MULVIHILL — A good motorcycle simulator.

The CHAIR — You already have one, but you are asking for — —

Ms MULVIHILL — A better one.

Prof. STEVENSON — We are looking to upgrade and make it so that we can do all of the simulation work that is appropriate. At the moment we can really only utilise the motor vehicle.

The CHAIR — And would that be a build from base, or would it be adapting from what is available from Italy or France?

Ms MULVIHILL — I am not sure.

Prof. STEVENSON — We are doing a business case at the moment for it, but my take is that we will not be getting rid of what we have got; it would be adapted and enhanced.

The CHAIR — Are there any other items in relation to training on your wish list, apart from the simulator?

Ms MULVIHILL — What was on our list?

Prof. STEVENSON — It is in here in our written material: the key elements necessary for effective motorcycle training programs. I guess that is the key gap in our knowledge, as Christine has highlighted.

Ms MULVIHILL — I raised before that one of the things we do not know yet is what are the factors that are really contributing to motorcycle rider crashes. That can include things like skills, where they ride, motivations, attitudes and so on. We have some good data but we need much better data on that and we do not have it at the moment. If we had that we could then know what it is that we should train people in, but the question of whether it is amenable to training is another question.

Mr ELSBURY — Witnesses to the inquiry have expressed consternation about the lack of transparency by research organisations and regulators, including MUARC, in providing the public with publicly commissioned research into motorcycle safety. Examples include research into wire rope safety barriers and the explicit restriction on publishing research commissioned by VMAC. Can you tell us why reports are not made available to the public and how that does not impact on public perceptions?

Prof. STEVENSON — That is a challenging question. I have only been director of MUARC for the last 12 months, so I really do not know all of the historical content of MUARC.

Ms MULVIHILL — I was going to say I was involved in a report on wire rope barriers about six or seven years ago, and we sent it out to any rider who asked for it and got good feedback. Some of it could be perception.

Prof. STEVENSON — Some of it is our contracts.

Ms MULVIHILL — Some of that is confidential.

Prof. STEVENSON — Some of our contracts stipulate we are not allowed to divulge any of the research we conduct. It is a private contract, and it is on that basis. As a university we will disseminate as widely as possible, and if we have not, it is purely because there is likely a contractual agreement here. When we attended for the piece of work, it was stipulated that we were not to divulge any of their surveys.

Ms MULVIHILL — Then you would not want to do it, because you would not want to get into any — —

Mr ELSBURY — In particular, the secretariat attempted to obtain some information about a research paper that MUARC did on alcohol and motorcyclists that was done for the Department of Transport and Main Roads in Queensland. They were not able to get a copy of it, because MUARC said, 'We are not responsible for that. We have given it over to Main Roads'. When we contacted Main Roads they said, 'MUARC can release that if it would like'. We had an almost *Yes Minister* sort of response that stifled our inquiry.

Prof. STEVENSON — Was that just recently?

Ms MULVIHILL — I worked on that project.

Mr ELSBURY — How long ago was that one?

Mr ALIFERIS — Three months ago.

Ms MULVIHILL — I actually did work on that project, and I remember there was a bit of concern about it when it was commissioned by motorcyclists who were worried we might be bringing in a zero BAC on

everyone. Main Roads were the ones that commissioned the work and won the bid for that. We would not release it if the work is not finished. That is definitely if it is confidential to them. But the work is finished now and papers are being written so there is no concern. It is not a secret. If somebody rang me up and wanted to know the results of it, I could tell them.

Mr ELSBURY — Could we possibly ask now and right here to get that sent through?

Ms MULVIHILL — Okay, sure. Yes.

Prof. STEVENSON — I am surprised that has happened.

Ms MULVIHILL — There is no reason why I cannot send that.

Prof. STEVENSON — No, not at all. There is no legal restriction as to why we cannot disseminate it. We will have it on our website or we will disseminate it.

Ms MULVIHILL — We are not afraid to tell you the results either if you want to know.

Mr ELSBURY — The problem is that you have a few hiccups like we have just had, and suddenly the conspiracy theory gets out there.

Ms MULVIHILL — I wondered what was.

Prof. STEVENSON — I do not know. It would be interesting to know.

Ms MULVIHILL — Yes, but there is a bit of that that goes on. We have been told by VicRoads on some occasions not to talk to the media in case you say the wrong thing. But there could be a culture of not actually wanting to do the wrong thing rather than actually hiding something. I know I am very paranoid when someone rings me about a report. I have to think twice now and think, 'What sort of trouble am I going to get into if I send this out?'. It is not like, 'I don't want you to know because I am trying to hide something'. That has been my perspective in 10 years of research, anyway.

Prof. STEVENSON — I think that would be the case across the board.

Ms MULVIHILL — Yes, the team I worked for is — —

Prof. STEVENSON — We want the information to be out there.

Ms MULVIHILL — They are not anti-riders or anything.

The CHAIR — Just to conclude, and for the benefit of the *Hansard* parliamentary record, would you be able to speak to the gaps in knowledge and just put that on the record?

Prof. STEVENSON — Could we also just highlight a few of the current studies which I think would be of particular value here?

The CHAIR — Yes.

Prof. STEVENSON — Just in terms of the current research, we have already talked about item 1, which is the large study to determine risk and protective factors for motorcycle-related crashes. Riders risk perception and acceptance of assistive technology would be of considerable interest. This is a European study that MUARC has been involved in and trialling motorcyclists take-up of things like adaptive cruise control and intelligent speed adaptation on motorcycles. The results are in the document we have since given to you.

2-B-Safe is about conspicuity, particularly around the lighting of motorcycles and how they should be illuminated to ensure the conspicuity of the rider. Fascinating results were found out of that about where lights should be and what type of lights should be on motorcycles and how that will improve their conspicuity. There are some really simple messages that can be taken through from this committee around enhancing safety by conspicuity of the rider. Again some of the outcomes of that are in the document we gave you. You have already alluded to the enhanced motorcycle crash investigation project. The other one is the assisted rides which currently Christine has developed which is the randomised trial of training. Do you want to add to any of that?

Ms MULVIHILL — No.

Prof. STEVENSON — In terms of gaps in our knowledge, we have discussed that as well, which are some of the elements around motorcycle training and the natures of crashes. There are also the main contributing factors and characteristics amenable to countermeasures. There is a unique technique that we are looking to develop here in Victoria around naturalistic riding and driving, which is basically where you put a camera on a helmet and it captures what the rider is going through in terms of the hazards they are actually having to deal with and how they avoid potential crashes. That sort of information would be incredibly valuable to feed into not only training programs but also our information around the potential hazards or contributing factors of crashing which we do not get. We are going post crash and collecting as much as we can, but if we have that detail — —

Ms MULVIHILL — In real time.

Prof. STEVENSON — If we have that detail in real time then it is going to be valuable.

The CHAIR — Yes, one could imagine there being quite some benefit in there being a black spot camera that records numbers that motorcyclists had on their helmets. They could record in real time what they are doing so there is a capacity to do a post-accident review.

Prof. STEVENSON — That is what this is — exactly that. It is sort of like the black spot camera. You can instrument the bike to provide you with exactly that.

The CHAIR — You are finished then in that delineation?

Prof. STEVENSON — Yes, certainly.

The CHAIR — I have one final question on my part: do you have any comments in relation to ABS and ESC?

Ms MULVIHILL — I could not comment, I am sorry. I do not know enough about it. It is the engineering side of it.

Prof. STEVENSON — Dr Mike Lenné from MUARC has led that research in Europe. He would be the best person to comment on that. I certainly could not either. I know the latest models.

Ms MULVIHILL — I could not.

The CHAIR — Dr Mike — —?

Prof. STEVENSON — He is Dr Mike Lenné.

The CHAIR — Where is he based?

Prof. STEVENSON — At MUARC.

The CHAIR — Yes.

Prof. STEVENSON — He is the head of our human factors research team.

Mr LANGUILLER — Just a very quick one in relation to protective gear and whether our committee should make recommendations to the effect of that becoming compulsory: obviously riders, I can recollect, object to making anything compulsory. I can see their point of view on that, but in your experience and research — at the moment we have a helmet which can be half a full helmet; there is no compulsory provision for the wearing of safety boots or gloves — do you have any thoughts on that?

Ms MULVIHILL — The research shows, I think, people are more aware of it. The research shows it reduces injuries, so it would make sense to have that.

Prof. STEVENSON — Yes, particularly the footwear. A study in New South Wales that has just been completed and is probably the most comprehensive in this area shows that the rest of the protective gear — I am

not precluding the helmet; that is very efficacious — is very protective, particularly footwear and knee protection. What they found, however, was that there is incredible variability not only in terms of what riders are wearing or not wearing but in terms of the gear they are wearing. If they are wearing protective gear some of it actually is not that efficacious and it is not that great if they do come off. There is a need for some standardisation around Australian standards on that.

Ms MULVIHILL — We do not have any standards.

Prof. STEVENSON — We do not have any standards on that.

Ms MULVIHILL — It is like the Europe situation here.

Prof. STEVENSON — So they considered doing a star rating around that, but they found it was probably not something they could do at this stage.

Ms MULVIHILL — Subject to the issue of standards.

Prof. STEVENSON — Yes, clearly there is benefit for those who are wearing the best quality. They are well protected in terms of reductions in injury.

Mr LANGUILLER — Presumably that is your question, but would the world come to an end if we were to make a recommendation to the effect that riders would have to wear shoes and gloves?

Ms MULVIHILL — If it is going to make them safer, then I think is a good thing as long as it does not cost. I suppose you have to be careful about social issues there. If the evidence shows it reduces injuries, I think it would have to be a good thing.

The CHAIR — Professor Stevenson and Ms Mulvihill, thank you very much for your attendance here today. We found your evidence particularly illuminating. Your outlined research is informative. Ms Jenkins, our executive officer, will forward you the list of questions we have asked today. If you wish, having read the transcript, to amplify any point, please feel free to do so as it will inform our research. Thank you for your time and expertise.

Witnesses withdrew.