T R A N S C R I P T

ROAD SAFETY COMMITTEE

Inquiry into serious injury

Sydney — 5 August 2013

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Dr L. de Rome, senior research officer, Neuroscience Research Australia.

The CHAIR — On behalf of the parliamentary Road Safety Committee we welcome you here today for our Sydney hearing process. I will just run through a few general points. The evidence you are giving today has the benefit of parliamentary privilege, and you will also receive a transcript of your evidence which you will be invited to correct for typographical errors and return to us. It will otherwise appear as part of our wider evidence brief which will be placed upon our committee website. Should there be any matters you would like to comment upon in camera, we can shut down the process and invite some other comments as well. We do thank you for giving your time. We have 10 or so questions to ask of you and we can cut to the chase straightaway, or if you would like to commence by speaking to our general terms of reference, you are welcome to do so.

Dr de ROME — Yes, with your permission I would like to address a few points. I did not prepare a submission for this inquiry, but I have been to the website and looked at some of the other submissions just to get a feel for the sorts of information you are getting in and maybe how I can best contribute without duplicating what everybody else is saying.

The CHAIR — Thank you, Dr de Rome. It is over to you. You can open the batting in Michael Clarke style, and we will see where we head to.

Dr de ROME — I am not a great cricketer, but I will do my best. There are a number of head points that I wanted to make. The first one is the definition of serious injury, and I am sure by now you are getting a lot of people telling you that it is incredibly difficult to say what a serious injury is, and I would certainly like to underline that. For years we have used hospitalisation as the basic definition — if somebody was admitted to hospital — but over the years, due to medical advances, someone who would have been hospitalised for a number of days a few years ago is sent home after treatment now. So it might look as if we are getting better at it, but it might also look as if it is the medicos who are getting better and we are still getting the same levels of those types of injuries. We do not know. You can have fractures, you can have severe lacerations or damage to the extremities, and it is not considered a serious injury because it is not life threatening and you will not be admitted. So that is the first point.

To move on from that, there is the whole notion of injury severity scores. Mostly they are based on the abbreviated injury scale developed by the AAAM — the Association for the Advancement of Automotive Medicine — and again, they are talking about a threat to life. So it is on a scale of 1 to 6, where 0 is no injury, 1 is a minor injury and 6 is unsurvivable, basically. Almost all injuries to the extremities — the arms and legs — are scored as a 1, as minor. You can have some very severe and debilitating injuries in the extremities, but under that system, because it is not a threat to life it is not regarded as severe. So it is a medical model. In terms of injury severity, what is this committee's concern? Why do you want to know about injury severity? Because if it is in medical terms and the cost of medical treatment, then that is really what the AIS and all that stuff is all about, but if it is about consequences for the injured individual then it does not rate.

I investigate crashes. I investigate motorcycle crashes and bicycle crashes, and I chair a panel review of motorcycle crashes and have been doing this for the last year, and I can tell you I get people in with an injury severity score of nine — their life is changed and it will not go back — but it was not life threatening in terms of life or death. Quality of life — yes. So that is the first thing. My basic premise is that in terms of injury severity we should stop trying to define what the bottom line is. It is easy to say what a severe injury is at the top level.

At the bottom level, let us just say they are injured, which is what most of the police services find more comfortable. In police crash investigations, they are either injured or they are not. Let us leave it there for the police and talk about the cost of outcomes to the individual if we really want to talk about costs. So then we are talking about what happens to them afterwards and we are not putting that definition on to the police who are not able to do it. Tell me if I am talking too much; I can talk under water.

The second thing is we are talking about the linkages between databases, and essentially there we are talking about linkages between the hospital databases and the police crash investigations, and the thing to recall about those are our work with both of them. Both of them are administrative databases established for administrative purposes for the function of those agencies. The police collect cash data to determine whether there needs to be a prosecution in relation to the crash.

There are cases — I know of this in New South Wales; I cannot speak for Victoria — where there are fatalities or extremely serious injuries but there is no prospect of prosecution, because perhaps the severely injured person appears to be the person who is responsible, or they are dead. The Grafton truck and bus crash happened, and then the Kempsey bus crash happened, and I was on a panel recently and one of the people involved said, 'Initially the police were not going to investigate those crashes because the drivers were dead'. So there are limitations to the crash data.

The other thing, again in New South Wales, is that we have about 50 trained police crash investigators. They cannot investigate every crash that happens. In general duties police attend most crashes, and they determine whether or not to call the crash investigators. Again, I see crashes where I cannot believe they were not brought in, but they were not. There are lots of pressures on police. One is the availability of a crash investigation team, and one is the determination as to whether there is a prosecution likely or whether it appears to the general duties police that it is clear what happened and it is not investigated — and they are not necessarily right, but it is not investigated.

The other thing is that there is enormous pressure on police to get the road cleared and to get traffic going, and congestion becomes a major issue. So it is not that I am saying we cannot use that data, but recognise that there are limitations to it, and if we want to seriously use that data to know what happened — and the police do a very good job when they have the resources and the time — and if we are going to rely on that for more accurate data, as you are saying here, we need to give them the permission, the authority, the training and the time to actually do it properly. I am sure the police will say this to you, but it is also my experience, and I know it is true.

The other thing concerns the hospital data. I have worked for a year in an emergency department in Canberra, which has one of the best injury surveillance data collection systems in Australia, and that data about what happened to the individual, which is the stuff we use in the injury data — when they come in, the trauma nurse interviews them as to what happened — is administrative data for the purpose of treatment. They are trying to find out what happened so that they know how to treat them; they are not looking for road safety research information. When I was there we would use key words to go through the narrative and everything that was said and written down in emergency to find out who we could recruit to our studies. I would not have believed how inaccurate it was for a number of people. We had no idea whether it was a road crash or not, what vehicle they were on — whether it was a bike or motorbike — or whether they were walking. It was very muddled stuff, but that is the baseline for that hospital data.

Mr TILLEY — Which hospital was that?

Dr de ROME — It was not in Victoria; it was in Canberra. There are only two hospitals servicing the ACT. We had Canberra and we had Calvary — those are the two hospitals — and we had access to the data. It is a private hospital with a publicly funded emergency department. It is just that they write it all down. The nurses are there with the person, deciding what is your most serious injury, which doctor, what are we going to do with you, you are here bleeding. They are not worried about the data we want. They have boxes to tick and things to do, but it is just the accuracy. Having gone through it so much, I know that it is not at the level of accuracy you want for research studies. It is just a cautionary note.

The second thing about hospital data is that by and large injury surveillance data nationally is based on hospital admissions. I have my figures here. My bicycle study was a six-month cohort study. We attempted to contact everyone who fell off a bicycle in Canberra over six months. There are lots of them there. Of those who attended a hospital, 14 per cent were admitted, so in the hospital data records you have only those 14 per cent. Of the ones who attended, on the AIS system 42 per cent were moderately or severely injured, but only 14 per cent were admitted. So there is not that assumed association between being admitted and the severity of your injuries. I had a lot of AIS ones — that is, minor injuries — who were admitted, and that is because they potentially had a head injury. So they were kept in overnight for observation, they are ranked as being admitted but in fact they were fine. I am just trying to say that about the data.

The other thing is the proposal that the TAC is the best source of data that Victoria has. There are limitations there. I am just talking as an epidemiologist; we criticise data. With the TAC, if your out-of-pocket costs are less than $599, you do not make a claim to the TAC. So you might be treated in a public hospital, not have any out-of-pocket costs and therefore do not make a claim. I do not know what happens to the TAC, whether they

get those records or not, but I suspect that those people are out of this catchment. My numbers on bicycles are huge. If you are riding a bicycle, you do not get into the TAC system unless your crash involves a motor vehicle. So there is this whole body of data that is not captured by the TAC.

My last point is that in Victoria we did a study of all bicycle crashes in Victoria over 2004 to 2008 and found that 5 per cent of police-reported crashes involved a single bicycle. Without the involvement of a motor vehicle, a cyclist fell off their bike, for whatever reason, and was injured and reported to police, but no motor vehicle was involved. Of single bicycle crashes, there were 5 per cent in the police records. In the admitted-to-hospital records, 55 per cent of admitted cycle injuries had been a single bicycle crash. That is a huge difference, and we are talking serious injuries there. That is all I want to say.

The CHAIR — Thank you very much.

Mr ELSBURY — Currently in Victoria crash and medical datasets are not formally linked, with data being shared between agencies in limited circumstances. The committee is aware that, in contrast, in Western Australia for some time they have used data linkage to join medical and crash datasets and that they are now moving to integrating medical, police and insurance claims data, with the aim of having a single dataset. From what we understand, an integrated approach to injury data is also used in New Zealand.

Dr de ROME — They have a real rocket. You can go and talk to them if you want to.

Mr ELSBURY — Tell us your views, then, on that.

Dr de ROME — I think the integrated system is really the only way to go, and I would stop mucking around with 'serious injury' and 'injury' and have just injured or not. It is the simplest way to go. I have worked with the New Zealand data. It is any accident and it is anybody — if you are visiting New Zealand and you fall over and hurt yourself, you are covered as well. With the TAC you have to be either a Victorian hit by a New South Wales car, that is okay, or you can be a New South Welshman hit by a Victorian car, but not if you come from South Australia. As soon as you start excluding people from the database, then you start getting a bias in the direction of whatever it is you have cut out.

The New Zealand system is all in, and then you can cut the data by removing things. It has its problems, but because it is a single-structured system it is far easier to interrogate and it is far easier to have classifications, because everybody uses the same set, instead of having what the police call theirs and everybody else. When you have different datasets, matching them, linking them, is a nightmare. New South Wales has been trying for centuries. Anyway, you will hear from them.

Mr TILLEY — In the New Zealand experience, who manages it? Is it managed independently?

Dr de ROME — No. It is managed by the government; it is managed by the equivalent of the TAC. It is the Accident Compensation Corporation, I think they are called — the ACC. It really is terrific data. You can tell I like data, but it is a really nice dataset to work with — and it has the costs. You can go in there and they have the costs because they pay the bills. You can separate out the compensation costs to injured parties, the payments to them, from the payments for their medical fees and things like that, so it is all integrated. Statistically it is lovely.

Mr ELSBURY — I think the next question has pretty much been answered. I will move on to the following question. Evidence in both submissions to the inquiry and the literature strongly suggests that there is support for the use of the international classification of disease-based injury severity score to define 'serious injury' in Victoria. Do you agree?

Dr de ROME — No.

Mr ELSBURY — That was an easy one.

The CHAIR — And why not?

Dr de ROME — Because it stems from the threat to life. If you look at the difference between the numbers of injured people that we are dealing with just in road trauma and the number of fatals, you are talking about hundreds in the fatals and you are talking about thousands and thousands in the injuries. All the road safety stuff

was initially developed to deal with fatals, because that was the overwhelming problem 10 or 15 years ago — but it is not now. I defer to people like those at MUARC on that, in terms of what is the easiest available, but I would go and talk to the ACC first and see what they are using. They may be using it, and I think Western Australia have based their system on what the ACC do. They all work together.

The CHAIR — Thank you, Dr de Rome.

Mr PERERA — The committee understand that the European Union has adopted the maximum abbreviated injury code — the MAIS 3+ injury measure — to define serious injury. What are your views on the MAIS 3+ definition?

Dr de ROME — It is really the same. The MAIS is the maximum abbreviated injury score, so where I was talking about the abbreviated injury score, 6 is unsurvivable and 0 is no injury. On that scale the MAIS is the most severe single injury, so if you are in a car crash and you have an AIS 3 to your head and an AIS 4 to your chest, then your MAIS is 4. It is just which is the most severe injury. Again, if it is a threat to life then it is informative; you basically know what they died from. But in terms of disability or long-term impairment and loss of quality of life, you can have a 2 or a 3, which loses you the use of your limbs, and your MAIS is 2 or 3 and everyone says, 'Minor or moderate injuries'.

It is administratively convenient. I will say what I think, but I am sure the weight of the medical fraternity will overwhelm me. I am saying it as a road safety researcher. I do not think it contributes much. If you look at vulnerable road users, a vulnerable road user does not have a shell around them. If you are a car occupant, your single most serious injury will be from the direction of impact, and it will be to a part of your body; you are restrained and you are not thrown around. With vulnerable road users — bicycles, motorcycles, pedestrians — if they are hit by a moving vehicle, they are thrown all over the place, their body is wrenched and there are multiple injuries all over the place. None of them might be a single high-impact force to a particular organ, so they do not rate as a 5 or a 6, but their life is ruined. It is quality of life that I am going with. You could use it as well but bring in the DALYs — disability adjusted life years — or the QALYs; I actually like the QALYs.

Mr PERERA — What other serious injury definitions are being used by Australian jurisdictions and internationally which you believe are worth considering for the purpose of this inquiry and for potential use in Victoria?

Dr de ROME — I would be looking at the DALYs — the disability adjusted life years. Basically that rates the number of years of quality life or disability adjusted life that you have lost. In terms of the outcomes for the individual that is a more just or realistic assessment of the impact of the crash, whereas the AIS has really got to do with whether or not you died, or how close you came to death. It really is of more use in a hospital setting, although even there I do not think it is. It is what the whole system is based on, so it is very difficult to shift them, but you can go to DALYs or QALYs relatively easily because they are in the system. That is where I would recommend that you look.

Mr PERERA — The next question is about DALYs and QALYs. A number of submissions have canvassed the issue of burden of injury measures such as disability adjusted life year — DALY — and QALY to monitor road safety and to measure long-term injury consequences. What are your thoughts on their use for this purpose?

Dr de ROME — I would be very supportive.

Mr PERERA — Very supportive.

Dr de ROME — I think it is the way to go; I really do.

Mr PERERA — Some submitters have also suggested that Victoria should take a cautious approach to adopting such measures on the basis that there are competing methodologies to produce them. What is your response to such suggestions?

Dr de ROME — I think we should work out the problems and do it. That is sort of saying it is convenient to stick with what we have got, which it probably is, but if we want to improve the system and prove our understanding of what we are doing, then I think we need to improve on ways of measuring it, and I think that

what we are doing now is not adequate. It biases what we do. Where we direct our attention is biased by the focus on threat-to-life issues, which are not really so relevant now.

Mr TILLEY — Doctor, I have a couple of previously prepared questions, so I will read those. I absolutely value your expert opinions on these.

Dr de ROME — Thank you.

Mr TILLEY — If we can just talk in black and white and include with your response, if you are able to, some personal experiences. I think we have already discussed the next couple of questions to some extent, so we would value some practical experiences of yours.

Dr de ROME — Sure.

Mr TILLEY — What are the benefits, if any, of adopting multiple measures for trauma and serious injury — for example, having both a threat-to-life measure through the international classification of disease-based injury severity code and a burden-of-injury measure, which is the disability adjusted life year, which we have spoken about, to monitor road trauma? At a government level, would multiple measures improve decision-making and policy development? That is the reason why I was talking about experiences.

Dr de ROME — Yes, I know. Simple measures like the AIS, and particularly fatals and not fatals and serious injury and not serious injury, those things, are easier for political purposes. The road toll is coming down.

Mr TILLEY — Yes.

Dr de ROME — That stuff. It is easier for direct media communication to benefit and stuff like that. Burden-of-injury things take longer to assess, because you can have a crash in December, but if you are using a calendar year for your numbers, at what point are you going to say what the outcome of that crash was? We have to think those sorts of things through. I think our focus on deciding countermeasures is vastly improved if we understand more about why we do things and how and why injuries are caused.

So quickly to my vast experience: if you look at a diagram of fatals, you will see that it will go pedestrians, motorcycles and then bicycles in terms of fatals, but if you look at serious injury, the patterns will change and certainly the patterns for bicycles will go right up. People do not tend to look at that, because we tend not to look at serious injury or injury for bicycles. An absolute case in point at the moment in Melbourne is what I regard as appalling — that is, those bicycle traffic lanes with the brick false kerb that delineates the kerbs. Have you seen them?

Mr TILLEY — I am a country boy.

Dr de ROME — Really? Okay. La Trobe Street is the one I tripped over. You have bicycle lanes that are marked off with a single-height brick kerb — a false kerb — between the traffic lane and the bicycle lane. It makes a cyclist feel safer, but it doubles their risk of head injuries, because when you fall off a bike you fall in one direction or the other, and now you can get a head injury from both sides. No-one has investigated it.

Mr TILLEY — Okay, so from the time of crash and the triage and first treatment, how long does it take to establish that as a result of the crash the driver or the bicyclist or pedestrian has an ABI? That can take some time.

Dr de ROME — An ABI?

Mr TILLEY — An acquired brain injury.

Dr de ROME — I see; sorry. If there is any evidence of having lost consciousness or they suspect that, that is the first question the ambos ask you. If you have lost consciousness for — I am not sure how long — a certain time, you get what is called a Glasgow coma index and you are given a number as soon as possible. They would be watching for that. You can get a temporary injury and you recover from it. But I am not a brain doctor so I do not know how long it takes, but I think it would take quite some time. Were you referring to in terms of falling off a bike or were you talking in general?

Mr TILLEY — In general terms of all road users.

Dr de ROME — In general, I do not know. But if we are talking in terms of road statistics, you would know within weeks, or months perhaps, not years. The body recovers. The insults to the organs and the blood vessels and things recover within a certain time frame — quite short — and then it is the damage and the scarring that determine what the outcomes are, so it is not that long.

Mr TILLEY — Sure. I was probably getting a little bit off track. I do apologise for that little throw-in.

Dr de ROME — That is all right. I go off the track all the time. You have to keep me online. Have I answered your question?

Mr TILLEY — Yes, I believe you have. We have a very short time and we want to get out of you as much as we can. I will move on. The ability to identify cost-effective countermeasures relies on evaluations of these countermeasures. Many participants in this inquiry have noted that there are a limited number of evaluations of existing countermeasures and that it is more appropriate to look at the combined impact of countermeasures. Firstly, do you agree that there are limited evaluations of any existing countermeasures, particularly behavioural countermeasures; and secondly, is it appropriate to assess countermeasures as a group or on a collective basis? If so, how can decision-makers discern what works from what does not? There is a lot there.

Dr de ROME — It is true that there are not many. I am the proud owner of one, and I think I did it very well — that is what I got my PhD for. What we did was: does motorcycle clothing make a difference? The critical thing there was that we did not just go to a hospital to look at injured people; we attempted a cohort study. We tried to get every single motorcyclist who had been involved in any sort of a serious crash — whether they were injured or their bike was damaged — over a 12-month period. We went to the bike repair shops to get the broken bikes in case those people were wearing clothing that worked. It was a very well designed study.

I think you are going to see Rebecca Ivers; she was my supervisor. That was a classically well-designed study. We could see the difference between those who were wearing protective clothing and those who were not. It is hard to do that in the real world, looking at other studies, but I do not believe that massing different countermeasures together is the way.

There does not seem to be a lot of evidence for behavioural programs or the safe system approach, where you are improving the operating environment so that when people do the wrong thing they are not killed. It is reducing uncertainty. The things that seem to work are where you reduce the risk that people will make mistakes because they have misinterpreted the environment, so you bring it down to them making a decision to do the wrong thing and then we ping them with the police. There is quite a bit of research that suggests that crash risk is associated with slips and errors — sort of like carelessness and lack of attention — not intentional violations.

Violation behaviour is linked to violation crashes. If you habitually drink drive, you are more likely to have an alcohol crash; if you habitually speed, you are more likely to have a speeding crash. But if you take those out of the equation, then the risk of having a crash has got more to do with errors, so it is not behavioural stuff. There is some evidence of that.

I think we are better off doing constructed studies — and they can be done. The thing is, though, when we are funded to do programs the difficulty of designing structured studies tends to sound a little bit too hard, and it is expensive. Therefore the money does not come forth from the people funding the study.

I know Rebecca is coming. I worked with her on a randomised controlled study of a motorcycle intervention, the VicRide, for VicRoads. That was a gold standard for evaluating and intervention. It can be done, but it is expensive, so you pick and choose which ones you would do.

Mr TILLEY — You have probably heard in the past the saying that you cannot legislate against stupidity when talking about drink driving, substance abuse and other risk-taking behaviour. Do you have a view? I am a former policeman with the traffic unit, and I investigated a number of crashes.

Dr de ROME — Then you know what I am talking about.

Mr TILLEY — Absolutely. I am a firm believer that when it comes to operating a motor vehicle or a motorcycle that a drivers licence is a privilege not a right. There are things in that area that go way back to before we even get to capturing data on crashes. I am throwing away a little bit, but do you have a view in relation to before we even get to a crash and having to address all these — —

Dr de ROME — Yes. Again, using population-based studies, we know that certain groups in the population have a higher risk rate, but we often do not use that. Some years ago there was this notion that older motorcyclists were more at risk of having crashes because there were large numbers of older motorcyclists turning up in hospitals. The prevailing road authority theory at the time was that these were older fellows who were buying brand-new bikes that were far more powerful than they were used to. They were over 40, so they were obviously not fit, and that was why they were crashing — they could not handle the bikes.

My first foray into this area was when I looked at the age group of registered owners of motorcyclists in New South Wales. I discovered that it was not that there were a lot more bad older riders; there was just an enormous number of older riders and very few young riders. By looking at the risk rate per registered vehicle I found that riders under the age of 25 — and only 8 per cent of riders in New South Wales are under 25 — had 660, or something, crashes per 10 000 registered bikes. The guys over 40 — millions of them — had 115, or something like that, crashes per 10 000 registered bikes. They had a far lower crash risk rate per population, but there were just a lot of them. The ones we needed to focus on were the young riders, but we were focusing on the older ones because there were more of them. That is the burden on hospitals. If we actually want to stop the crashes, we need to focus on the younger ones.

Mr TILLEY — So the countermeasure could be charging an appropriate rate for registration as they are demonstrated in the figures?

Dr de ROME — Forgive me, but I disagree with you about the privilege business. I think that used to be the case, but we have designed our cities and our transport systems — particularly in New South Wales; perhaps less so in Victoria — so that if you want a job, you need a licence. It is no longer a luxury. We do not provide options. We hammer young people for their misbehaviour. It is wired into the genes. Until they are about 22, they are hard-wired to take risks, and so they are going to take risks. Let us make them safer. I would put them in safe vehicles, I would encourage and support them, but I would not take their licences away. It may be that we let them keep their licence and they have to do some sort of safe driving every second weekend, but do not take their licences away. All that does is push them towards further breaches. We put them in jail here. Socially I think that is wrong.

Mr TILLEY — I am glad you picked up on what I said. I appreciate that.

Dr de ROME — Sorry, I lost the plot. What was your question? Where was I going?

Mr TILLEY — One example is: if a disproportionately high number of young motorcycle riders are involved in injuries and fatalities, is it getting to the point where governments should charge higher premiums for their third-party insurance or registration?

Dr de ROME — We do have the under-25 business, but again if dad is rich, it does not matter. I think that any time you put money into the equation it becomes a social equity issue. I like what we do here. We have two days compulsory learner rider training, and they have to come both days. We provide the bike, the helmet and everything, so there is no commitment to becoming a motorcyclist when they do the two-day course. A lot of kids never come back again; the two days is enough, and they can say that they have learnt to ride. But they do not go any further, and I think that is a really good way of sorting them out. Then they have to come back for a second mandatory course, which includes a 20-minute on-road ride to get their P-plate. I think that level of compulsory contact, and the training course is set by the RTA — or whatever it is now — and it has got to do with that sort of 'This is how you do it. It's not enough for you to come and show me you can ride your bike because you learnt on the farm'. It is not about operating the bike. Riding a bike in the street is not about operating the machine; it is about how you interact with the road environment and other traffic.

The CHAIR — We have a few more questions to work our way through.

Mr ELSBURY — I think you have touched on this next question a little bit, but a number of witnesses and submitters to this inquiry have noted that it is difficult to specify the cost-effectiveness of individual measures.

How does this work at a policy level where the allocation of resources and priority setting is sometimes based on comparing the cost-effectiveness of individual road safety measures?

Dr de ROME — It really is difficult. I do not think I have an answer for that. There are some very specific things we know about, and I think that VicRoads and MUARC have done quite a lot of work evaluating individual outcomes. VicRoads or MUARC identified a number of black spots — these are motorcycle black spots — and they treated half of them. Mostly it is road hygiene — fixing the angle and removing the gravel and stuff. Some were expensive, but they did that. Then they compared the incidence of crashes at similar black spots that they had not treated with the ones they had treated, and they come out with a cost-benefit analysis on that.

That was in about 2006 or 2008. It was part of the first tranche of what became the Great Ocean Road repair job. They have published some stuff on that, and I think that was a very good way of doing it, because you are comparing real roads and using AusRAP. You can use AusRAP to rate a road. Do you know AusRAP? It is the Australian road assessment program. It is a bit like Google world; they run a specialised truck along roads, and they rate them for all aspects of the quality of the road — the design and everything like that — and then they give them a star ranking. You can compare road performance on those sorts of things, but you have to control for exposure — and the types of vehicles that use them.

The CHAIR — I am just going to redirect some of the questions, as we only have a short time left. We really appreciate your evidence to the inquiry.

Mr TILLEY — The committee is aware that some in the road safety community believe that a disproportionate emphasis has been placed on fatalities and fatality reduction targets. They contend that the focus needs to be realigned towards serious injuries, suggesting, for example, using a serious injury toll and focusing on serious injury reduction targets rather than fatality reduction targets. What is your response to those views?

Dr de ROME — I agree that we should not be focusing on fatals. I think we just get ourselves in a knot if we try to define what we mean by 'serious injury'. The police in New South Wales say, 'injured', 'not injured'. I would publish the number of crashes. I think we should let people know how common it is to have crashes — the total number. Firstly, if people know there are 50 000 crashes a year rather than knowing 300 people die, I think that would make a difference. I think it would have more impact. The second thing is that if you know the proportion of crashes that end up in injury — and we are not just saying serious injury — the numbers are more telling.

The other thing is that in media campaigns, if you threaten people with death, they think it does not happen to them, but if you talk about causing an injury to another person, mild impairment is more emotionally effective than gross impairment because they cannot imagine gross things happening to themselves. Make it within their frame of reference, if you like, that it could happen; it is much more useful.

The CHAIR — Thank you. Dr de Rome. We appreciate the time you have given us and allocated to your preparation as well as your epidemiological insights into the field we are studying at the moment. Thank you very much.

Dr de ROME — My pleasure. Thank you. I wish you very well with this; I think it is a great job you do with these inquiries. I am very pleased to give you any help I can.

The CHAIR — We are very grateful. Thank you, Dr de Rome.

Dr de ROME — And if you want to follow up with anything I have said — —

Mr TILLEY — No doubt you will get some follow up.

The CHAIR — Thank you.

Witness withdrew.