THE LEGISLATIVE COUNCIL SELECT COMMITTEE ON ROAD SAFETY MET AT THE RESEARCH CENTRE FOR INJURY STUDIES, LAFFER DRIVE, BEDFORD PARK, FLINDERS UNIVERSITY, ADELAIDE, ON FRIDAY 30 JANUARY 2009.

THE COMMITTEE MET WITH **ASSOCIATE PROFESSOR JAMES HARRISON**, DIRECTOR, RESEARCH CENTRE FOR INJURY STUDIES, FLINDERS UNIVERSITY, ADELAIDE.

CHAIR (Mr Wing) - James, thank you very much for having us here and giving us your time.

Mr HARRISON - I have had a look at your terms of reference, thanks. This group is a health statistics group so we are involved in population health with a focus on injury. Injury we would frame rather broadly; not just injury from car crashes or something like that but injury from all circumstances, all situations such as sports injury or interpersonal violence, suicide and self harm, so quite a broad remit. Our focus is mainly on primary prevention of those injuries from occurring but we also have an interest in minimising the adverse consequences of the injuries, doing research involved in understanding predictors of people healing quickly or not healing quickly after injury and also in measuring the burden attributable to injury.

Ms FORREST - Do you mean the cost burden?

Mr HARRISON - We look a little at costs but not so much. The work that we are doing currently is mainly based on the global burden of diseases method using a metric called the DALY - disability-adjusted life year. It is similar to doing a dollar cost-based measurement but the idea is to be able to take account of the consequence of injury in terms of untimely death and also in terms of people living with imperfect health as a result of a spinal cord or traumatic brain injury and the like. This method is designed to enable one to put both those consequences into one measure. It is an interesting measure. Its main purpose is to assist people like you with priority setting, funding allocations and that sort of thing. I could talk more about that if you like but that, in terms of our outcomes, is what we are interested in. Our interest would be more in the primary measurement of numbers of cases and severity using direct severity measures and things like that rather than the derived metrics of costing or costing and burden, though we do both.

Our business is a public health group with an interest in population health with a strong focus on primary prevention but also on outcomes. Traffic, transport and road injury is one of the areas that we have been involved in over quite some years that we have existed, but it is far from being the only one. In that area, we are the main organisation that publishes statistical reports based on hospital admissions due to injury in Australia. Over the years we have put out quite a few statistical reports as an example, 'Hospital separations due to injury and poisoning Australia, 2004-05'. That report is based on information that has come from all of the State and Territory health departments, that has gone through the Australian Institute of Health and Welfare, which funds us to this sort of work from all jurisdictions. We analyse that and report it in ways that we believe are

able to provide an overview of the size of the problem and the nature, by things such as age group, sex, circumstances of occurrence of which traffic is one. We do similar work looking at deaths data from a variety of sources and some special studies.

Perhaps the most pertinent aspect of our work in the last two or three years has been a series of reports that we have done under a funding agreement that we have had with the organisation until recently known as the Australian Transport Safety Bureau, ATSB. Now the section of that agency that we deal with is no longer in the ATSB but is still part of the Department of Infrastructure. They have funded us to produce a series of reports for them over a three-year period. We have just finished the first three-year period and are about to begin the second one.

We put out four reports each year and the one that is probably most pertinent to you is 'Serious injury due to land transport accidents'. The most recent one covers the period 2005-06. Other reports in the series have been on injury due to rail crashes, a very short overview report that covers all modes of transport, including air, water and rail. Also one on Aboriginal and Torres Strait Islander injury, that has particular relevance for Queensland, Northern Territory, South Australia and Western Australia because for reasons to do with data quality those are the only four jurisdictions that we have been able to cover in those reports.

That gives you a feel for the sorts of things that we do. There are a couple of things that I would like to mention that we have been involved in and that I think, based on our reading of your terms of reference, might be of interest to you. One is the methodological development in health statistics based on data linkage. This might be something that has come up in conversations elsewhere and if so I will not spend too much time on it.

Mr HARRISS - No, I do no think that it has. We have not covered it.

Mr HARRISON - I think that the methods that I will talk about, if you want me to talk about this, really offer a lot of potential in terms of getting more information out of existing data sources; things such as hospitals data and deaths data and so on. I could talk for a few minutes about that. I will not do that right away because I will go through the rest of the list. One of my colleagues and I are representing Flinders University in what I think is really a rather interesting development on that front. It is a joint endeavour of South Australia and NT governments along with some other universities.

The thing that I saw in your terms of reference that caught my eye was your interest in motorcycle crash injuries including off-road. One of the things that has been a bit of a hobbyhorse of mine in my discussions with the ATSB people is that the word 'road' is the boundary. Within that scope of interest the agency has encouraged us to give these reports a similar scope. I have been encouraging them to let us make those reports a little bit wider because we are very conscious, from having looked at the hospital data, about the rather larger numbers of quite serious hospital cases particularly due to motorcycle injuries but also bicycle injuries and to a lesser extent other modes of transport. So I would be happy to show you some of the things that we have done in our standard reports that convinced me, at least, that there is too little attention being given to the off-road aspects of particularly motorcycle injury.

CHAIR - That is interesting.

Mr HARRISON - I have already mentioned data linkage. One of my colleagues, Clare Bradley, has been doing some work with me on that. Another thing that she is doing concerns scooters. Some people call them mobility scooters or outdoor electric wheelchairs -

Ms FORREST - Gophers.

Mr HARRISON - Gophers, okay. Unfortunately there is not a universal used term to describe these things. In the health statistics, because they really did not exist and certainly had no prominence 20 years ago when the last version of the international classification of diseases was written, they are not distinguished from pedestrians, which seems a little odd. I don't know whether you are interested in that but our sense is that they are one of those issues that is never going to become vast but is going to become bigger than it is now due to the ageing population.

Ms FORREST - It is a big issue in Wynyard; there are lots of them there.

Mr HARRISON - There you go. They are a bit like bicycles, one of those things at risk of falling between the cracks. They are not really seen as part of the core business of road safety agencies but they are there on the roads.

Ms FORREST - They are generally on the footpath.

Mr HARRISON - Generally. You have probably seen a few of them with flags belting down the road occupying a lane. Clare is doing some work on that so if you are interested I am sure she would be happy to talk to you briefly about that.

I guess that is a bit of a flavour of the sorts of things that we do, mainly statistics but a few specific topics where we are interested in going beyond the statistics into some sort of outcome-oriented research.

Mr HARRISS - James, to what extent do committees from parliaments around the nation engage your expertise?

Mr HARRISON - In an average year we would have contact with one or two parliamentary committees but not all on traffic or transport. It might be on firearms or falls in the elderly or sports injuries or something like that but it would be about that frequency. We might have had one or two over the years where we have had contact with a parliamentary committee on an aspect of road safety, but not very often.

Ms FORREST - I would be keen to hear a bit more about your primary prevention focus and how you see that playing out in road safety. That flows naturally into the minimising of severity and consequences of an event should it occur.

CHAIR - And also off-road motorcycle driving issues.

Mr HARRISON - The patch of the forest in which we operate is very much one of providing the information on the basis of which other parts of the process depend. So we see our

business as very much one of a model for primary prevention, one that depends upon having reliable information about the size of the problem and the nature of the problem, who is involved and what the consequences are, in order to assess priorities. It also depends on information to assess, once interventions are being made, whether the interventions are doing anything, whether they are effective and efficient and whether the cost effectiveness is what we would hope it would be.

Within that overall framework most of our work is on how big is the problem and what sort of problem is it, and what is the distribution by age group, sex, State it is occurring in, whether people live in urban areas, rural or remote areas - that kind of descriptive epidemiology. Where we can we then take that further into more analytical work that is designed to identify risk factors, things that we would argue are causal factors or factors that are related to the occurrence of injuries which, again, help people who are deciding on where to put their priorities to make those decisions.

That is the bulk of what we do. Over the years we have frequently worked with groups that would include a range of other people who are, if you like, more directly involved in implementation projects. An example of that, not from the traffic area but just in areas that happen to be active at the moment, is falls in the elderly, something that we have been very much involved in over the last three to five years. Over the last week, in fact, there has been vigorous work going on nationally within a group that we are involved in, coming up with a set of priorities for funding intervention in falls prevention for the elderly. To some extent we provide statistics as input to that. There is also project that we have been involved with collaborators over the last year and half which has been designed for careful assessment of all of the main preventive interventions for that type of injury in the literature - the credible ones. We have been doing some work that combines that evidence. Some of the interventions involved assessments of older people's balance, some exercise interventions for older people - Tai Chi and things like that - and changes of medication.

There is a series of literature that provides information on the risk factors for those, like how much is your risk of falling and becoming injured increased if you have certain of those risk factors. That information alone tends not to be terribly useful for policymakers who are deciding how to spend $1 million to engage in prevention. The question the literature tends to leave unanswered is, yes, we can see that all of these five or six methods have been shown to work but which is the best one for me to spend my $1 million or $10 million on to get the most value for the dollar in terms of prevention? So this work with some colleagues is designed to provide an answer to that question. So it combines that literature with some evidence on costs of intervention - how costly it is to reach the target population for these things - combined again with information on the size of the problem which is the data that we provide. So we have fairly recently finished some work of that sort. We are beginning to get feedback from the public policymakers as to whether they are finding that that information lets them make better decisions. I know it is not your topic but that is one of the things that we are trying to do to guide the preventionists in their decision about what to do.

Ms FORREST - Have you at any stage looked at the impacts on blood alcohol levels on capacity? We know from published evidence that once you get over 0.05 your judgment and capacity to drive are diminished -

Mr HARRISON - Sure.

Ms FORREST - But when you get back to the lower levels, have you done any research into that area about the impact between zero and 0.05?

Mr HARRISON - The short answer is no. On that topic there is, as you would know, quite extensive literature and that is not something that we have particularly focused on. We have been looking at alcohol-related injury issues but we have tended to look at areas other than traffic because that is the one that is relatively best served with information. For example, we have looked at relationship between alcohol and water safety and drowning and there are a couple of other topics that we are looking at. The short answer is no, but alcohol and injury is certainly an area of interest to us.

Ms FORREST - In your work with alcohol and injury in other areas like water safety, I do not know whether you do workplace or anything like that -

Mr HARRISON - A little bit, yes.

Ms FORREST - What has that research shown?

Mr HARRISON - In the alcohol and work area the good news was that the best evidence that we could come up with showed relatively little problem. In terms of mortality the risks seemed to be lower. Even when we looked at the driver subset the best evidence, which was not very good I should say, we could find was that the risk of alcohol-relatedness among vehicle crashes when the driver was working was much lower than in the general population. It was still not zero but it was considerably lower which was, I guess, something you would hope to see and that was the finding.

In the alcohol and water safety area, again there was some relatively good news in what we found which was that some estimates made in Australia some time before we did our work and our work suggested that either the older estimates had over-estimated the problem or the problem was better. It was a bit difficult to distinguish between those two possible explanations but we certainly found lower involvement of alcohol in drownings than previous authors had found.

Ms FORREST - Did you look at the increase in risk as the blood alcohol level was higher or was it just the presence of alcohol and its impact?

Mr HARRISON - I don't know. I don't think I could say that our work would add, particularly at the lower level of alcohol involvement. There wasn't enough sensitivity in it; the number of cases we were dealing with was too small to come up with a meaningful answer to that.

Mr DEAN - In your analysis of the injuries from vehicle accidents, I take it that you look very closely at what caused the injury in the vehicle accident? In your research, for instance, if there are head injuries do you look at some aspect in the vehicle that might have caused those injuries?

Mr HARRISON - To some extent. The main data sources that we use for much of the analysis that we do, particularly that which is uniquely from us that is not really available

from other sources, is from hospital admissions data. The hospital admissions data in some ways provides information on some aspects of the circumstances of the crash but it is rather limited in others. Compared, for example, with the police derived deaths data and the sort of things that you would have heard being talked at CASR earlier today, the routine hospital morbidity data that we have is rather less detailed.

It will tell us quite a lot about the individual and a lot of detail about the injuries sustained and the rather broader information about the crash circumstances. We know date, the general place, broadly the type of vehicle and type of crash and whether it was a single vehicle. If it was a crash between vehicles we know the broad types of vehicles involved in the crash, we know whether the person was the driver or a passenger, but we really do not know the fine detail about the circumstances of crash that are available in the death data.

Ms FORREST - Is there anything else as far as vehicle measures go to address that issue of improving outcomes or reducing consequences that you have found in your research that could really have an impact on reducing injuries to people? We have talked a lot about roadside furniture and stuff in other settings but you focus more on the vehicle itself, do you?

Mr HARRISON - Not really. We focus more on the levels of injury in populations, on the rates of hospitalised injury, rates of deaths and how that number is distributed by age group, sex, population levels and so on. I am not sure that I can give you an answer to the question that you are asking that would not be really just replaying the sorts of findings that I know others have found to do with the more or less pedestrian-friendly sorts of vehicles that are around and so on. Other people you have been talking to would be better placed to talk about the details of that.

The sorts of things that I would be particularly interested to talk about is the issue of the off-road motorcycles and those sorts of things. One of the striking things that we have found, which I do not see highlighted very much in other work on this, is the extent to which the off-road injuries are important. I will give you a copy of this report. This is one of our hospital separations reports with a set of charts showing traffic accident and non-traffic accident statistics. These are based on people admitted to hospital - sufficiently severely injured to be admitted to a hospital, not just visiting the emergency department. There are male and female charts, each split by age with the vertical axis being numbers of hospitalisations per hundred-thousand population. The different lines represent different road user groups, pedestrians, car drivers, car passengers, motorcyclists and pedal cyclists.

I will pass this round in a minute, but the thing that I point out is that on the non-traffic side we have two great big peaks. The one for males is pedal cycles, boys on pedal cycles. The other peak is males on motorcycles. What I want you to look at is that those two equivalents on the other side; for motorcycles they are almost exactly the same size and shape so that roughly speaking you could say at every age group about half of the male hospitalised cases of motorcycle crashes are traffic and about half non-traffic.

Ms FORREST - Does 'traffic' mean on the formed roadways?

Mr HARRISON - Roughly; it is bit difficult to be entirely precise but roughly speaking it is equivalent to road.

Ms FORREST - We took some evidence, and I cannot think who gave it now, that sometimes, depending on the person's circumstances, if they were an unlicensed or uninsured driver they might say, if they were not brought in to hospital in an ambulance which had picked them up from the site, that they were on private land because of the fear of being prosecuted. They could misreport the location and say it was on-road when it was off-road. Do you know if that has been allowed for in those findings?

Mr HARRISON - Not allowed for but -

Ms FORREST - Acknowledged.

Mr HARRISON - I cannot say that. I can say that this is the way it was reported through the hospitals. What you say could be true but remember these are people who were admitted to the hospital, so a large proportion of them will have been brought by ambulance. These are relatively severe cases so the likelihood is relatively high that they will have been picked up from the scene or something like that, so the room for that error is a bit reduced by that. But even if there is some of that error - and there will be some of that sort of error in this classification - nonetheless, in terms of the size of the problem, about half the cases are, if you like, outside the scope of what most road safety agencies regard as their business. So you can see what I am saying - that if a road safety agency was asked, 'How big is the non-fatal road crash injury problem due to motorcycles?', they would be likely to be reporting that and therefore leaving out roughly half of the motorcycle injury boom. I think that is a non-trivial blind spot in this issue and, sure, there might well be some misclassifications for reasons such as you say, but even if there is that, it is nevertheless an important part of the -

Ms FORREST - They still get injured on a bike anyway so they are going to show up in one graph, aren't they?

Mr HARRISON - Absolutely, but not in statistics if those statistics are limited to the ones that were identified as being 'road'.

CHAIR - The people who told us were our first appointment from yesterday morning - Roger and Richard at the St Andrew's office. They said that sometimes people go for the incorrect information because they did not want to be prosecuted for riding an unregistered motorcycle on a public roadway, so they tend to say it happened on private property.

Mr HARRISON - Sure. There is a lot of literature, and you would probably be aware of it, in many places that has shown that if you look at police statistics by road user type vehicles - a motor car driver, a pedestrian, a cyclist, that kind of thing - the difference in the apparent level of rate of cases between what you see in police statistics versus what you see in hospital statistics is kind of consistent with the sort of story you are talking about. The two rates look very similar for car drivers and truck drivers and so on, but when you look at motorcyclists, the hospital-derived stats are almost uniformly much higher than the police-derived stats, and that has been explained in most of these studies as an incentive not to report and an ability not to report under a number of circumstances

such as the ones you have raised. But certainly different data sources give you a different picture.

Ms FORREST - So it also would not include people who have an injury involved with a vehicle of some sort who just go to their GP. They obviously do not need hospitalisation but they may need treatment, so they do not show up in these figures either.

Mr HARRISON - Not in these figures, no. We have been looking at some other sources that can give us a little bit of insight into that. There are national health surveys in which people have been asked whether they have been involved in a vehicle crash and what they did as a result of that. Did they lose time from work or whatever? Did they go to any sort of medical service? Were they admitted to hospital? The numbers you get from that have quite wide boundaries of uncertainty but, nevertheless, it is possible to do that.

Ms FORREST - So do you think it is important that we get this sort of data, because it makes it more meaningful, like having a system where GPs are required to report an injury that was sustained from a vehicle crash of some sort and where it was? Another comment that was made was whether that was their own vehicle, particularly their own bike - I am talking about motorbikes - and how long they have had the bike. Did they go out and buy a new bike and not really know it? It is the inexperienced riders, it seems, who go out on weekends occasionally, not the die-hards who go out every weekend. Do you think we need to focus on that aspect to help with the data?

Mr HARRISON - Yes, and in particular what I agree with about your proposition is getting really focused about what you want to know about, because it is very easy to get bad data by asking for too much, too many bits of information, and the providers will resist and then in one way or the other, you will get bad data.

There are some studies that either are being done now or have been done recently that go into very specific detail about circumstances of crashes and so on. Are you going to Queensland?

CHAIR - No, just New South Wales and the ACT. I wonder if the numbers of injuries of which you are aware off-road are significant enough to impose any strain on hospital and medical services.

Mr HARRISON - We have not done a specific severity comparison between the on-road and off-road motorcyclist ones and that is something that I have been thinking about doing. Certainly something that we have been using increasingly in this work is stratifying the cases by severity as best we can with the data available. In some ways the hospitals can provide different information if you do that. I will come back to your question in a moment but I will just look at this issue.

In terms of burden, the survived injuries that I think we are all most concerned about are the ones that result in things such as serious traumatic brain injury, spinal cord injury, and certain other similar conditions where people are really not the same afterwards and will never get better or will get somewhat better but are left with a persisting disability of some sort. The statistics that we have at the moment - and it is not just us but worldwide - on hospital morbidity, are not really very good at letting us sieve the total cases, all the ones hospitalised, into a group that will almost completely get better - it might take them

a few months but they will be pretty much as good as new after a few months - versus the ones left with this sort of persisting serious disability. It is that second group that we really are very interested in.

The methods that we have been using here are almost a weigh station towards being able to do that sort of split that we are talking about. They are a method that has been shown to be valid in terms of predicting probability of survival with the different sorts of injuries. We and a number of other people around the world have been applying these sorts of measures to stratify all hospitalised cases into the types that we know have high risk to life and the rest. We have already found some benefits of that kind of approach in a number of ways. One, for example, is that when we are trying to compare the rates from different States there are known to be some problems with comparing hospitalised data from different States because admission criteria are different, the pressure on beds differs and statistical systems differ a bit. This means that a case that might not be terribly severely injured - a broken arm or something - in one State might wind up being admitted to hospital typically and in another State might not. If you do not take account of that you can get apparent differences between the road injury hospitalised admission rates between States that are really just counting differences. We have found by stratifying by severity that we get much more plausible numbers; the rates from the different States pack together much more tightly, except for the Northern Territory, and in ways that are looking much more plausible. There is some evidence that we are seeing within the data that is encouraging us to use that method and that is the sort of thing that we will use in that work that I was talking about concerning the motorcyclists, to get a handle on whether there are apparent differences in the severity between the on-road and off-road cases.

I do not know whether when you were in Victoria anybody talked to you about the two trauma registers that are in place there sometimes known as VSTORM and VOTOR?

CHAIR - I do not recall that.

Mr HARRISON - They are operated out of the Alfred Hospital and, in my view, they are among the most important trauma registers in the world. They are funded largely by the TAC - Transport Accident Commission - in Victoria and the thing that makes them very close to unique worldwide is that, unlike nearly all other trauma registers which gather information on people as they come through hospitals and assess their state at the time they get discharged from hospital only and in the main focus on whether they survive to discharge, these registers follow people up at six and 12 months. Recently, they have received some extra money I believe - or they are certainly expecting it - to enable them to follow up people at longer periods than that during the second year after injury.

What they do in these follow-ups is assess the health status of people. They assess things such as whether they have returned to work, how well they are, whether they are able to get around, whether they are able to look after themselves, whether they are able to shop, whether they are suffering pain and if so how badly and what their mental state is, whether they are depressed or not and a few other things like that. They are using well-validated, standardised measures for this. This gives a chance to look at the question we would really like to know, such as thinking about those on-road and off-road motorcycle cases and whether they are serious not just in terms of their risk to life but also their risk to limb, how people are doing, whether they are getting back to work, back to

engagement with society and their health status after that. Those bits of information are really important in terms of enabling us to prioritise what we need to focus on.

CHAIR - Sorry to interrupt you, but in Victoria it was suggested to us that we talk if possible to a surgeon -

Ms FORREST - Peter Cameron.

CHAIR - at the Alfred Hospital. We did not have time in our program to do that but we are hoping that we may be able to talk with him by a telephone hook-up. Do you know of him?

Mr HARRISON - I am not sure about the surgeon but -

CHAIR - He may not have been a surgeon.

Ms FORREST - I think he was the professor of -

Mr HARRISON - A senior researcher who works with him is Belinda Gabbe and they would be absolutely the right people to talk to about that. I can't stress how what an important set of developments they are doing there.

Ms FORREST - Is that on all patients who are injured, who come in?

Mr HARRISON - They have the two registers. One of them, the VSTORM, tries to cover everyone in Victoria above a certain level of severity of injury, that is the quite severe ones for nearly the whole State. The other one, the VOTOR, is an orthopaedic one, which does not cover the whole State - I think it is from four hospitals, but I might be wrong on that, but at least from several large hospitals. The important thing about it is it is not restricted to the types of injury that have conventionally been seen as severe. The point of that is that their work is beginning to reveal that certain kinds of injuries which have been really rather overlooked in the past, damage people badly, leave people much worse off after they are injured than before and it has been under recognised. Some leg injuries, for example, which leave people with really quite serious disabilities and pain but never kill people. In an era in which the severity outcome measures have been almost entirely restricted to probability of death, things such as leg injuries have been terribly under recognised for the amount of impact they have on people and their ability to get around to work and to enjoy life. That is why their work is really important.

Ms FORREST - Who is responsible for the data collection? Obviously it is done more than once; there are follow-ups so there must be initial data entries. Is there a team?

Mr HARRISON - It is the group that Peter Cameron and Belinda Gabbe are involved with. They have some funding from the Transport Accident Commission in Victoria to do exactly that follow-up work. I think it maybe co-funded by others.

CHAIR - For the purpose of *Hansard* would you mind giving the meaning for the acronyms to which you referred, as far as you are able?

Mr HARRISON - I will try. I think it is Victorian Severe Trauma Outcome Research, or something like that. VOTOR is something like Victorian Trauma and Orthopaedic Register or something like that. I am sure the folks at the Alfred will be very pleased to give you all the details.

Mr DEAN - Can I get back to the off-road injury reports that are made to you? You might have covered it. Do the statistics and data that you're keeping show that there has been an increase in injuries and off-road motorcycle accidents over the past few years?

Mr HARRISON - Yes, but there have been increases in on-road as well. Our hospital statistics show a very clear rise in hospitalised motorcyclist cases, both on-road and off-road. A little steeper on-road, in fact, than off-road, but I wouldn't make too much of that. It is definitely rising for both. It is the one traffic user group that is really standing out in the trends as being on the rise.

Ms FORREST - Do you think that's probably because there are so many more of them these days?

Mr HARRISON - Yes, precisely. I don't think we have published it yet but there is some work in train to compare the trends when taking account of the numbers of motorcycle licences on the road. We looked at the number of hospitalised cases per population - and that has been rising - the number of motorcycle injury hospitalisations and the rate in terms of the numbers of registered motorcycles. That was not changing much; it seemed to be the same. The rise in injuries seemed to be in proportion to the rising numbers of registered motorcycles. We also looked at it in terms of estimates of the distance travelled by motorcyclists. From memory, that didn't show much change either. The average distance travelled per registered motorcyclist didn't seem to have changed much either. The three possible explanations for the rise might have been dangerous motorcyclists, more numerous motorcyclists or motorcyclists travelling further on their bikes, perhaps due to petrol price rises or using their motorcycles more. Of those three explanations, the one that seemed to be most consistent with the data was more motorcycles; more fashionable.

Ms FORREST - In Victoria they have two different registrations for motorcyclists. One is for on-road motorcycle riding and the other is the recreational. Do you have that here?

Mr HARRISON - We didn't use that. The section of that analysis that was based on licensing was restricted to the traffic segment of it.

Ms FORREST - So you can't really make that same assessment about the off-road because they might not be registered?

Mr HARRISON - That's exactly right. We do see rises in the absolute numbers of those. It would be nice to be able to analyse those directly but it seems quite plausible to me that there has been a rise in the numbers of motorcycles in that sector as well but I don't have direct information on that.

CHAIR - Do you have any views about how the injury rate might be curbed, in particular with off-road users of motorcycles? That is not your main function, I know, it is a

question of dealing with the injuries arising from them. Do you have any views about that?

Mr HARRISON - As a generic issue, I think there is a risk of that group having been ignored. There has been a lot of attention for the last two decades on, for example, graduated licensing schemes. There has been a lot of focus on that transition to being a driver for motorists, of having a longer and longer period during which a novice driver has to prove himself.

Ms FORREST - And is restricted, to a certain extent.

Mr HARRISON - Exactly. You have talked about the Victorian innovation there. That sort of thing is much newer, much less developed and getting much less attention so that until recently and still in most parts of Australia you can basically go and buy a motorbike and start riding it, off road.

Ms FORREST - You do not have to be registered.

Mr HARRISON - It seems to me that that is in part the marked difference in the policy and programs to do with the transition from not being a driver to being a driver. Twenty, 30 or 40 years ago it was about as simple as that for motorists. There were pretty minimal obligations before you got an unfettered licence but there has been a great deal of development on that front and nothing in terms of the sort of off-road users of vehicles.

Ms FORREST - Do you think there could be some sort of formalised registration process for recreational off-road bikes that was not too expensive, because it is a recreational activity generally, and that as part of that there was some sort of educational component where they are taught about the safe gear that you need?

Mr HARRISON - I would hope so. At the risk of going beyond my area of competency, in general terms I think the attention needs to be broadened from the on-road to the off-road bit and at least some of the measures that have been found to be effective, or believed to be effective in the on-road domain for motorcyclists I suspect would be fruitful for the off-road domain. Whether registration is an aspect that, I do not feel competent to say but certainly in terms of information that sounds good and there might be some incentives found to encourage off-road motorcyclists to become involved in that. Carrots and sticks can both be effective.

The one thing that I would emphasise is that we are struck by the numbers of mainly young males admitted to hospitals after motorcycles crashes that have been at least recorded as being not road, and I am sure many of them are not road. It seems to us that because the bulk of the road traffic safety endeavours around the country have been sharply restricted to the on road it seems likely that there might be some relatively easy safety gains to be made in that off-road area simply because it has been ignored for so long. In the on-road area the easy gains have probably been made.

Ms FORREST - If you do not know what you are dealing with it is a bit hard to address it, isn't it.

Mr HARRISON - Well exactly. That is right.

Ms FORREST - There needs to be some way of keeping track with data and statistics on what is actually happening out there. Don could probably tell you that one doctor in particular in the Launceston General Hospital has made it his mission to collect data.

CHAIR - Dr Gary Fettke.

Ms FORREST - He has been recording the data of the people being brought in from off-road crashes. I do not know whether he has Scott Fletcher involved at Burnie or not.

CHAIR - I am not sure.

Ms FORREST - Scott was interested.

CHAIR - Dr Fettke has spoken to the media about this and his concern because one weekend, it may have been a long weekend, there were I think about 17 cases of young men being brought to the hospital for treatment and that may have been mainly the emergency outpatient section. I do not know how many were hospitalised but he will be giving evidence to us next month.

Mr HARRISON - Right. Okay.

Ms FORREST - There was one particularly bad weekend where they had some on-farm injuries too. There was a little boy who died.

Mr HARRISON - On farm includes some of those things like the all-terrain vehicles.

Ms FORREST - That is right. That is what it was on, an ATV I think.

CHAIR - You may like to have some contact with Dr Gary Fettke.

Mr HARRISON - I certainly would. At Launceston?

CHAIR - Yes. His home I think is at Relbia Road, Relbia, but he will be in the telephone directory and I am sure that he would be delighted to hear from you. He is very pleased that we have that in our terms of reference and it is because of the attention he drew to the situation that we included it in our terms of reference.

Mr HARRISON - That is great, something that I have been particularly interested in advocating for more attention to be given to - and also to bicyclists for that matter. With bicyclists it is a bit different because it is a younger age group but it is still a rather large number, particularly young boys who are hospitalised with bicycle-related injuries having come off bicycles. Again, it tends to be just outside the administrative attention of the road safety agency. Sure they acknowledge that when there is a crash on a road and a bicycle gets hit by a car or something then it is their business. But there is really a rather large number of kids admitted to hospital after bike crashes, the non-traffic ones, and it is nobody's core business. It is not the road safety agencies' core business; sports people say it is not really their business; schools might say they might have some responsibility for the travel to and from school. You can see that various people might be interested in little bits of it but it is one of those things that do not have a natural

administrative home and things that do not have a natural administrative home are at risk of getting too little attention.

Mr DEAN - With the increased number of adults now using bicycles, and South Australia has done it very well I might add, do your statistics show that there are a greater number of accidents involving adults on bikes?

Mr HARRISON - Yes. Not quite as marked as for the motorbikes but, yes, there has been. It is in those age groups that you might expect the increase. We always have and continue to see very large numbers in the 10- to 20-year age group. That is the peak age pattern for bicycling. But in the 30- to 40-year-olds and even to a lesser extent, but still there, in the older age groups we are seeing rises, definitely. We are planning to put some of that, both the motorcycle and the bicycle trends, in the next edition of the report that we do of this series.

Mr DEAN - That will be of a lot of interest to those outside of this committee on councils.

Mr HARRISON - One of the things that I have in my mind in coming in and speaking to you is that we regard the content of this sort of report as something that we hope will be useful to people like you. If it is not, then we want to know that and we want to have suggestions as to things that could be done differently. Obviously we need to negotiate that with the funding agency but that is their attitude as well. I will give you a copy of this. If you see something and you think that is 90 per cent of what we like but if it was a bit more this way or had a bit more detail we would certainly be pleased to hear that.

Mr DEAN - The data that you collect does not necessarily show whether those bicycle injuries have been caused by colliding with a vehicle or simply just falling off or hitting another object.

Mr HARRISON - They give us some indication of that. I do not think in these reports that we have made that split but it certainly includes what the person or what their vehicle hit, so broadly speaking we can do that. Indeed in both of these reports there are a few tables in which they have injured person's mode of transport, car occupant, motorcyclist, pedal cyclist and what they hit. You can see common combinations of travel mode of the injured person and what they most commonly hit. That is pretty obvious really because most people hit cars because cars are the predominant 'species' on the road.

Ms FORREST - We did also hear that there was another category that seemed to be over-represented in the motorcyclists and that was the returning riders. They might have ridden when they were younger and then they become more sensible or whatever it is, and they drive cars for a while. They often have a family and they need a car to put the children in and then the mid-life crisis or whatever happens and they either buy the little sports car or the motor bike. Has that been borne out in your research?

Mr HARRISON - Not quite. I don't think I could say that's terribly obvious. Certainly for the motorcycle cases the age groups extend well beyond the 20s and 30s, through all ages. There might be a trend there but I can't remember what we've seen on trends for middle-aged males with motorbikes. I think we have looked at it, but I can't remember what we found.

Ms FORREST - Not only males; it could be females, too, returning to riding.

Mr HARRISON - Except that the numbers there are just so much lower.

Ms FORREST - In overall numbers.

Mr HARRISON - Yes.

Mr HARRISS - Is there anything in particular which Queensland are doing that would lead you to ask that question?

Mr HARRISON - One of the research agencies there - CARRS-Q - was until recently headed by Mary Sheehan, who is semi-retired now. I think they are still in the process of getting a new director. There was an interesting project that she did jointly with some other researchers from that group. In some ways the topic was very remotely different from what you're doing, but something about the method struck me as highly interesting. They were looking at risk factors for traffic injury in remote communities in Queensland, so they looked around using data sources that they got in local communities, local clinics, and talked to people up close and personal about individual events. They received a lot of qualitative information, asking people their perceptions of what had caused crashes and different things that they think could have helped to avoid having the injury or the crash.

With that sort of analysis you have to be very careful because there's obvious potential for self-serving descriptions after the fact and I am sure there was a lot of that in what they found. However, in a presentation I saw on some aspects of that data back in October, it also seemed that there were some really rather interesting specificity that they were obtaining. You reminded me of that when you were giving some really rather specific examples of specific things that you thought might be important to get information on. Even if that sort of work is only done to come up with some topics that might then be made the subject of later more routine statistical work, it seemed like a good idea. I don't want to try to quote their findings, having seen only some of them through one report, but it does strike me that that might be worth pursuing. I am very happy to get the details of that and pass them onto you. This work is relatively qualitative work, particularly in the context where you might have relatively small numbers of things that you're dealing with. If you were interested, for example, in trying to focus on the north-west coast or different parts of the State where fortunately the absolute numbers of events are not huge because of the small population, these sorts of methods might be rather useful in that context.

Ms FORREST - So mostly your research is qualitative, then, you don't do much quantitative?

Mr HARRISON - Ours is mainly quantitative. We do some qualitative - a mixture.

I mentioned this data linkage approach as something that I thought would be worth at least looking at. The issue is that all jurisdictions have a lot of administrative data - things like hospitals, all sorts of systems. I think it is fair to describe those data as lazy from the point of view of research for guiding public policy. Those of us who are statistical users do our best but we know there is a lot of potential in these sources that

goes untapped. Some of the reasons it goes untapped are very understandable ones, to do with things like ensuring privacy of people about whom records are recorded in these data sources and things like that. There is a bit of a head-on collision between providing people who could analyse data with unfettered access to those data to do the analysis that they would like to do and that they think could provide useful outcomes, but on the other hand there is the obvious and important need to ensure that privacy and so on is protected. For a long time those two things were seen as without solution. How do you get both? Getting on for 15 years in the case of Western Australia, where the most progress has been made, there has been a method found that does seem to get both. I will give you a couple of brief documents that will give you a feel for it. In essence, what the system comes down to having is a centre within a State which does some cunning jiggery-pokery with data from various sources and which enables researchers who have proper permission through ethics committees to get access to information that has already been joined together. Information from maybe death records has been joined up with electoral roll information, with hospital in-patient data, with police data on licensing or something like that. The researchers involved never get close to having any of the identifying information for any of the people who are recorded in these datasets.

I mentioned Western Australia. With Professor Fiona Stanley - who you may recall was Australian of the Year several years ago - much of the work that she is most famous for was based on using earlier versions of this kind of data linkage. Her findings on the importance of folate to reduce certain birth defects were based on this sort of analysis.

Western Australia is leading the world in finding ways to reduce the laziness of administrative data to enable smart research to be done so that you do not have to spend a lot of money on the expensive business of gathering new data. You just use the existing data in smarter ways.

There is a Federal research program called NCRIS. This is roughly a half-billion dollar Federal fund mainly to pay for things like synchrotrons and those kinds of very expensive devices that no single university or researcher can afford. There is a decision made that the nation, as a whole, would benefit from having one. A much smaller slab of funds from this source - $20 million, I think - was earmarked, on the urging of Fiona Stanley probably, for expenditure on enabling Australia to move from the situation of having one State with a really advanced health data linkage capability to having the whole country with that sort of capability. We are now at the stage where, partly prompted by that funding and partly prompted by the fact that is has been widely seen as a really good idea, New South Wales now has a capability, not as mature as the Western Australian, but well on the way. It has been running for about three or four years. I mentioned earlier that South Australia at this time, jointly with the Northern Territory as a cross-border coalition, have gone through of the time-consuming front-end work of getting the money, getting the permission, getting everybody on board. Our system will start operating during 2009 and developments are afoot, certainly in Queensland.

I understand there is a joint arrangement between Victoria and Tasmania but I know almost nothing about who is involved and exactly how they are doing it. I wanted to make sure, since I saw your terms of reference on data developments, that I told you about these data developments. I will give you a couple of bits of paper that give you more information on it.

The reason it is most important is two-fold. One is that right from the beginning of the Western Australian system some very interesting work was done on traffic injury, linking police crash data with coroner data and hospitals data to overcome some of the deficiencies that our data has. By joining together information on the same crashes from different systems you can get much, much richer information. That is where we see ourselves heading with that work. The other reason is to do with injury outcomes. It is very expensive to do long term follow-up of people to see how they do during the years following their injury. But these health data linkage systems allow some pretty good follow-up much more cheaply. You can look at the health service utilisation profiles that people do in the years after they have been involved in a car crash. It means you only enter the information once but you add to it.

CHAIR - Thank you very much for sharing your views. We really appreciate that.

THE DISCUSSION CONCLUDED.