

# TRANSCRIPT

## LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

### **Inquiry into the Increase in Victoria's Road Toll**

Melbourne—Tuesday, 7 July 2020

*(via videoconference)*

#### **MEMBERS**

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**WITNESSES**

Dr Ben Beck, Head of Sustainable Mobility and Safety Research, and

Professor Belinda Gabbe, Head, Prehospital, Emergency and Trauma Research, Victorian State Trauma Outcomes Registry Monitoring Group.

**The CHAIR:** Welcome to the Economy and Infrastructure Committee's public hearing for the Inquiry into the Increase in Victoria's Road Toll. We welcome all members of the public watching via the live broadcast.

I will just read a short witness statement before you can begin. All evidence taken at this hearing is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore the information you provide during this hearing is protected by law. However, any comment repeated outside the hearing may not be protected. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament. All evidence is being recorded. You will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

We welcome your opening comments and ask that they be kept to a maximum of 5 to 10 minutes to allow time for discussion. Can I please remind members and witnesses to mute their microphones when not speaking to minimise any interference. If you have any technical difficulties, please disconnect and contact committee staff using the contacts provided. Can you please begin by stating your name for the benefit of our Hansard team and then begin the presentation. Thank you, Belinda. Thank you, Ben.

**Dr BECK:** Thank you, everyone. My name is Ben Beck. I am Head of Sustainable Mobility and Safety Research and Deputy Head of Prehospital, Emergency and Trauma Research in the School of Public Health and Preventive Medicine at Monash University, and I also hold the role of President of the Australasian Injury Prevention Network, the AIPN.

**Prof. GABBE:** I am Professor Belinda Gabbe. I am the Head of Prehospital, Emergency and Trauma Research in the School of Public Health and Preventive Medicine at Monash University. I am also the Head of VSTORM and the principal investigator for the Victorian State Trauma Registry.

**The CHAIR:** Fantastic. Please begin your presentation.

**Visual presentation.**

**Dr BECK:** Can everyone see that presentation? Fantastic. Thank you very much for the opportunity to be able to present today on behalf of the Victorian State Trauma Outcomes Registry and Monitoring Group, also known as VSTORM. What I want to do today is provide an overview. Sorry, before I commence, just one disclosure: VSTORM is funded by the Victorian state government department of health and the Transport Accident Commission. What I want to do today is briefly describe the role of VSTORM, introduce the Victorian State Trauma Registry, or the VSTR, provide examples of how VSTR data is used for monitoring of serious road injury, highlight some of the data-linkage capabilities and just address one additional issue, which is that of alcohol and other drugs.

VSTORM is a data analysis entity that is administratively independent of the department of health. It provides independent and objective analysis of data pertaining to the Victorian State Trauma System. That is the health system that manages our most seriously injured trauma patients in the state. VSTORM is the data custodian of the Victorian State Trauma Registry, and it is guided by a steering committee of expert clinicians, trauma service providers, stakeholders and researchers representing all of the different components of the Victorian State Trauma System. It reports to the department of health and formerly to the state trauma committee, which is currently being revised.

The Victorian State Trauma Registry is a population-based trauma registry, so by that I mean that it captures all seriously injured patients in the state of Victoria. We receive data from all trauma-receiving hospitals in Victoria, and we also report on trauma-related deaths from the National Coronial Information System. We have been collecting data since 2001, and injuries for our patients are coded by the gold standard of injury coding known as the abbreviated injury scale, or AIS.

Our patients are defined as what is called a major trauma patient, and to meet the criteria you need to meet one of the following—that is, death after injury; an injury severity score, which is a measure of the sum of the various severe injuries across multiple body regions—so an ISS—greater than 12; an admission to an intensive care unit for more than 24 hours requiring mechanical ventilation; urgent surgery for a variety of certain surgery types; and also a criteria related to partial and full-thickness burns. What is quite unique about the Victorian State Trauma Registry is that we capture data across the entire patient journey, so this is from the point of injury, from prehospital data, all acute hospital admissions and, most importantly, post-discharge outcomes. We have routine data linkage with a number of key other registries, including the Victorian Registry of Births, Deaths and Marriages, the National Coronial Information System, the Department of Health and Human Services and the Transport Accident Commission.

What makes the Victorian State Trauma Registry globally unique is the fact that we routinely measure longer term patient-reported outcomes after injury, so at six, 12 and 24 months post injury we contact our patients and that is done through a centralised follow-up using standardised telephone interviews. We conduct predominantly patient but sometimes proxy and also paediatric interviews. As part of this we measure a number of different factors, including things such as functional outcomes, health-related quality of life and return-to-work outcomes. Because we capture this variety of measures it enables us to provide a very comprehensive overview and measures of disability burdens. These include things that relate to mortality but also non-fatal injury, and I have mentioned a number of these measures previously. What these measures also enable us to do is calculate what are known as disability-adjusted life years, or DALYs, which is an internationally recognised measure of disability burden. Further, we are also able, particularly with our Transport Accident Commission, to get a very detailed understanding of post-injury costs.

I want to touch on monitoring serious injury. These are figures that are provided within VSTORM's submission to the inquiry, but this is data that represents our hospitalised major trauma data, and as we can see over the period of 2006–07 through to 2018–19 that we have not seen a change in the population-adjusted incidence of all road transport injury in Victoria. We have seen a 1.3 per cent per year decline in motor vehicle occupants, but we have seen increases in motorcyclists and also pedal cyclists. I want to note here that this is not adjusted for exposure, so here we are adjusting for changes in population over time. We do not have robust measures of exposure for some of our road user groups, particularly our pedal cyclists and pedestrians, that would enable us to adjust for changes in participation and exposure over time.

As I mentioned, we collect longer term patient-reported outcome measures. Here I present some data from a measure known as the Glasgow Outcome Scale-Extended, which is a measure of functional outcome. What we can see here is that road transport injury has a significant impact out to two years post injury for many of our patients. At 24 months post injury the proportion of patients that had returned to pre-injury levels of function were fairly low: 15 per cent for motor vehicle occupants, 25 per cent for motorcyclists, 41 per cent for pedal cyclists and 11 per cent for pedestrians.

What I also wanted to touch on was the data linkage component and how the VSTR can be used to monitor road safety in Victoria. A previous inquiry, the Inquiry into Serious Injury by the Parliament of Victoria's Road Safety Committee, recommended that the Victorian State Trauma Outcomes Registry and Monitoring Group undertake a pilot data linkage project of crash data. This project is currently underway, with the objective of linking VSTR data with data from Victoria Police, the TAC, the Department of Transport and Ambulance Victoria. We have been attempting to achieve this now for over three years and there have been a number of hurdles along the way, but we are very close to finalising the final agreements on this. We have agreements from all parties with the exception of one. But what this platform will enable us to do is bring together crash data across multiple organisations, give us the detailed prehospital and hospital information that I have spoken about, provide us with really detailed injury information using the globally accepted method for coding injury information and enable us to quantify in-hospital outcomes but also importantly patient-reported outcomes, as I have mentioned. Finally, it will give us a really unique opportunity to provide robust measures of disability burden and monitor these over time. And so the recommendation that we have made through our submission is that this platform be used as the independent data platform to monitor serious road trauma.

Finally, alcohol and other drugs. The VSTR routinely links with the National Coronial Information Service and therefore has access to toxicology data for fatal events. However, the issue at the moment is that there is no comprehensive population-based testing of alcohol and other drugs in our non-fatal seriously injured road transport patients, and as a result we have made a recommendation in our submission that the Victorian State

Trauma System, through the Victorian Department of Health and Human Services, be resourced to conduct population-based alcohol and other drug screening of all seriously injured road transport patients in Victoria.

That is the end of my presentation.

**The CHAIR:** Thank you for that. I might actually ask the first question, and then I will go to Mr Quilty. I noticed in your submission there was something quite controversial on page 5, which caught my eye, about suggestion or reducing the road speed on suburban roads to 30 kilometres an hour. Do you have any modelling or case studies on the expected outcomes of a change like this?

**Dr BECK:** I do not, but the City of Yarra have undertaken a trial of 30-kilometre-an-hour residential speed limits. I believe that is close to being finalised, and my understanding is that the committee will be provided with a copy of that report once it is finalised. My understanding from the early findings of that trial is that it has significantly reduced the average vehicle speed through those zones and there has also been an evaluation of community support for those zones which has been positive, but I do not have access to those findings.

**Mr QUILTY:** Whenever I see somebody advocating for a 30-k speed limit, I think there is someone who lives in the inner city who has probably got tramlines next to them. I find it highly improbable that would be rolled out across the whole of the city, let alone the whole of the state, but my question is: your submission notes there has been no decrease in serious road trauma over the period 2006–2018. That would suggest we have wasted a whole lot of money over the last 15 years on policies that do not work very well. We often hear from those inside the safety industry that if what we are doing works, we need to do more of that, and if what we are doing has not worked, we need to do more of it to make it work. Could in fact this whole safety approach we are currently running be wrong?

**Dr BECK:** That is certainly outside the scope of what we wanted to present from VSTORM's perspective on this committee. Clearly there is variation in the effectiveness of road safety interventions that have been rolled out over this period. I agree with you that we need enhanced efforts to provide population coverage of interventions that we know are effective in reducing injury, but from our perspective the key here is data and the critical element is having data that enables us to unpack how these crashes are changing over time and to better understand where these crashes are occurring and enable us to rapidly intervene and be adaptable with the way that we intervene.

**Mrs McARTHUR:** Thank you very much for your presentation. I am interested that you are interested in data, and I am wondering, if we are really looking at how we can prevent road accidents, why we are only collecting the data of hospitalised crashes. What about the data of accidents where an ambulance is not called? What about the data of accidents where even the police are not called or even if the police are called, because that is a real way of preventing more serious accidents which will end up on your statistics. I am a real lover of quangos and acronyms, and I noticed you have got a lot. So if we really want to have accurate data, why aren't we collecting the data from all accidents and near misses?

**Dr BECK:** I think it is a really good point. I think our project attempting to link the Victorian State Trauma Registry with other crash data that exists in the state is a perfect example of why we have trouble collecting additional information. These are routinely collected data on a population base that we have the linkage mechanism that exists for the majority of these cases already and it has taken me over three years to make that linkage happen. The data capture then on less seriously injured cases, particularly those that do not present to hospital, as you have indicated, becomes far more challenging because the underlying data sources are not there to be able to capture those cases and therefore it is a blind spot in our ability to monitor less seriously injured patients. But from my perspective, the critical component here is that we need to firstly create the data systems that enable us to monitor our most seriously injured patients and get those right, and then once we have those systems, build increased capability to monitor less severely injured patients.

**Prof. GABBE:** I might like to add to that. There is sporadic data that can sort of start to help us understand that. For example, the Transport Accident Commission does actually have data about people who make a claim for their injuries but not necessarily have been to hospital or had an ambulance called to the scene of the injury. But it does require people to actually make a claim, and some people certainly will not do that. The other issue is that if a crash occurs and people are not aware at the time that they have an injury and it pops up a little bit later, then they will actually get managed in community care and it will go through a different circumstance. I

think access to primary care data is actually really challenging and certainly difficult to link to, but it is really important. If we cannot get the more seriously injured end really locked down, we are going to have much more trouble capturing the sort of less severe and the injuries that are actually captured in the community.

**Mrs McARTHUR:** Well, can I just say that really begs the question that we are basing massive expenditure on roads and infrastructure on inadequate data, especially in rural and regional areas. Particularly we have got an issue on the Great Ocean Road where international drivers are a major issue with accidents. Some do not go to hospital, and unfortunately there have been deaths occur. But it is a serious matter, and if we cannot get proper information, what are we doing spending billions on road safety measures that may be totally irrelevant to the real problem?

**Prof. GABBE:** You make a good point. I think a lot of what we have been talking about here is around the rising death toll. There are many interventions over time that have actually reduced the death toll on the road, and also we have seen changes in the pattern of serious injury, even through the major trauma registry, through the Victorian State Trauma Registry, with a reduction in severe traumatic brain injury, which will go on to have long-term implications for people. I think we need to think about the cost effectiveness measured in a whole lot of different ways. And it is not just about prevention of deaths, it is also prevention of serious injury, but a lot of how we consider serious injury has also been determined in the past by hospitalisation. There is a lot of evidence to suggest that not going to hospital has long-term disability for people, so people who may present to an emergency department or to other healthcare providers will go on to have long-term disability. The ability to capture that information and feed it back into cost-effectiveness evaluations would be really important. If we do not have really accurate data about the true burden of road traffic injury—and I use that term very broadly, but the disability related—it becomes very hard to determine how cost effective our interventions are. That is why it was a major push of the Victorian State Trauma Registry to actually collect long-term outcomes of patients. We do that also through the Victorian Orthopaedic Trauma Outcomes Registry, which is hospitalisation for fracture but not necessarily particularly serious injury, and we are starting to see projects and studies that are starting to pick up more community-level injury and the long-term disability associated with that. But I think if we can gather that information, it can be fed into those cost-effectiveness models. Things that we might be considering not very cost effective right now—if we had full understanding of the burden that could be prevented, we may actually consider them cost effective.

**Mrs McARTHUR:** Exactly. And can I just say, as a former councillor, we were always in a continual battle of trying to prove to VicRoads or some authority that there was a dangerous road. There were numerous near misses, but you fully understood that unless somebody died it would not be fixed. This is a ridiculous situation, and surely it cannot be beyond the wit of our Western civilisation and this country and this state to be able to collect all the data when anything is reported to the police or an insurance company or an outpatients facility when it relates to roads—just tick-box road and it ends up in your bailiwick. Surely that is possible. What has been the stumbling block?

**Prof. GABBE:** Do you want to tackle that, Ben? You tackle it.

**Dr BECK:** The Department of Transport will be the best to address the specific issue that you have mentioned, but all police-reported crashes are contained within an existing database that is managed jointly by Victoria Police and the Department of Transport. As I said, the Department of Transport will be best placed to discuss that. I will hand back to Belinda.

**The CHAIR:** Bev, we might have some opportunity for further questions a bit later.

**Mr BARTON:** Thank you, Belinda and Ben. Can you just clarify for me then: are you getting the data from TAC?

**Dr BECK:** Basically, we house the Victorian State Trauma Registry, which is all of the hospital and injury information. The project that I am currently undertaking links various data from the TAC, from the Department of Transport and from Victoria Police. We routinely link with the Transport Accident Commission to get particular post-discharge information. But for the purposes of the road safety linkage project that I have discussed, there is data coming from multiple organisations.

**Mr BARTON:** My experience with the TAC has been a good one. I was involved in a car accident, I was hospitalised for about three days and there was that follow-up—I think it was at six months, 12 months—to see how I was travelling. I thought they did great work.

Just one other area about the importance of the data and being able to make decisions on that. You may or may not know this one, but my understanding is when we dropped the speed limit around school zones there was a remarkable improvement in the safety of the kids around the school zone. There was a lot of criticism at the time, but I think it is been very successful. Have you got any data about that?

**Dr BECK:** We do not.

**Mr BARTON:** All right. Well, that is the end of that then. Thank you.

**Mr MEDDICK:** Thank you, both, for presenting today and for your very, very detailed submission. I just really have one question, and it relates to data collection. Are some of the barriers that you might experience around data collection privacy related, either through a legislative process or that people do not necessarily want to share any personal information to the gatherers of that data?

**Prof. GABBE:** It is a really good question. We operate under a very tight ethical framework for the Victorian State Trauma Registry. We have ethics approval from the department of health, from the university, from the department of justice, from 138 trauma-receiving hospitals. We work under a really tight ethical framework, so we have been through very sensitive privacy considerations in setting the registry up and operating the registry. A lot of the concern when the registry was set up was that the participants would not want to take part, would not want to answer questions, and we have actually found that has been really unfounded. The opt-out rate for the registry is less than 0.5 per cent, so less than 0.5 per cent of eligible patients who receive the information about the registry actually choose to have their details removed. And the follow-up rates for the collection of the information around health-related quality of life and function have been incredibly high—higher than we have seen in any other follow-up study undertaken anywhere in the world, which I think shows the engagement of the community and the major trauma patient population and the importance of the work that we are actually doing.

The linkage is more challenging, and we have gone through the extensive privacy aspects on that as well. While we have received data from the Transport Accident Commission, we do not provide them any patient information around the injuries that they have sustained or their outcomes specifically. We have that in place for a number of the organisations that we actually link with as well, so it is all done in a very, very tight framework.

**The CHAIR:** Thank you, Belinda. I will allow one short question if anyone has any.

**Mrs McARTHUR:** I am wondering if you are aware of a project that happened in the Marais, in Paris, where they did away with all road rules completely and it was left to the wit of individuals—taxi drivers, bus drivers, motorists, pedestrians, everybody—to actually take some individual responsibility for how they drove on the road area, how they walked across a road and how they got out of a bus et cetera. Are you aware of that project, and what would you say about giving individuals a bit more responsibility for how they behave?

**Dr BECK:** I am not aware of that project, and I would probably just prefer not to make a comment in response to that question.

**The CHAIR:** Thank you, Professor Gabbe and Dr Beck, for your contributions and presentation. It was quite a detailed submission. If any member of the committee has a question, I am sure that we could forward that to you. Would you be happy to get back to us if we had a further question?

**Dr BECK:** Indeed.

**Prof. GABBE:** Absolutely.

**The CHAIR:** Fantastic then. Thank you very much.

**Witnesses withdrew.**