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Understanding road crash injuries

Unfortunately, thousands of Australians are injured or die in road crashes every year.
Road crashes resulted in 39,500 hospitalisations and 1,131 deaths in 2021 alone according to the Bureau of Infrastructure and Transport Research Economics.

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The research

Queensland University of Technology Principal Research Fellow, Associate Professor Angela Watson, reports road safety strategy is shifting from a focus on road crash fatalities to include serious injuries. As a result, the Queensland Government established the Road Safety Data Bureau - a cross-agency team funded by the Motor Accident Insurance Commission (MAIC) and hosted by Transport and Main Roads with representatives from each, as well as the Queensland Police Service and Queensland Health.

As the Bureau's program lead, Associate Professor Watson says the team aims to consolidate, integrate, and analyse road crash-related data from government agencies. This data will inform government decision-making on road safety policy; intelligence-led policing; transport regulation activities; and public education initiatives.

"We need to understand serious injury better, but we don't currently measure it very well," Associate Professor Watson explains. "We know from previous work that certain types of injuries and road users are systematically underreported to police. For example, three in four cyclists and half of all motorcycle riders admitted to hospital for serious road crash injuries, are not reported to police".

"The police collect information about the crash, but they don't necessarily have a good understanding of the nature and severity of people's injuries. They may think someone has gone to hospital but there was no way to confirm it. We were blind to these road users, their injuries, and the huge burden it places on themselves and their communities."

With the help of PHRN-supported Data Linkage Queensland, the linkage of road crash, health and ambulance data is helping us determine the extent of serious injury, consistent with the national definition. For the first time, Queensland road safety researchers and policymakers can review the nature and severity of road injuries in the context of the crash, the infrastructure, person and vehicle characteristics. This information can influence road safety interventions such as vehicle design and infrastructure development.

Having linked road crash data means we can explore other areas of concern including the burden of road injury in Aboriginal and Torres Strait Islander communities, work-related injuries, and injuries such as those resulting from self-harm, as well as incidents in car parks and driveways, she explains.

Until now, if someone was admitted to hospital but the crash was not reported to the police, we may know broadly what area they live in and which hospital they are taken to, but we have no idea where the crash occurred, she says.
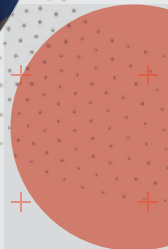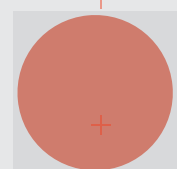
Fortunately, the Bureau is now gathering vital location information from the Queensland Ambulance Service, so we can better analyse road crash injuries.

It's been a long journey and a huge collaborative effort, but this linked data is filling an important information gap in the work to reduce road trauma.