

Using high-quality serious injury data to inform development of road safety measures

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Abstract

The Centre for Road Safety (CRS) has established the routine collection and reporting of data on serious injuries from NSW road crashes. This new information shows that the profile of serious injuries and fatalities are different, and highlights the need for practitioners to use serious injury data in setting the road safety agenda and delivering initiatives to reduce serious injuries on roads. This paper outlines how NSW has used serious injury data to date to improve the design and delivery of road safety measures.

Background

The National Road Safety Strategy has a target of a 30 per cent reduction in serious injuries over the decade. It is critical that serious injury data are used by road safety professionals to progress towards achieving this target.

In NSW, a serious injury in the context of road safety is defined as a person injured in a road crash who is admitted to hospital. By linking data from NSW Health, the State Insurance Regulatory Authority (SIRA), Insurance & Care NSW and the NSW Police Force, Transport for NSW has enabled the routine collection of serious injury data from crashes on NSW public roads. In 2018, ambulance services data will be added to the existing linkage process to provide better information about hospitalised injuries.

Availability of serious injury data

CRS has now published official statistics on NSW road crash serious injuries for 2005 to 2016, and has incorporated serious injury trends in the release of its annual statistical statement for NSW road crashes. CRS has also established a quarterly process of matching crash data with hospital admissions for ongoing identification and analysis of serious injuries.

Further, serious injury data trends have been included in the development of data visualisations to supplement traditional, tabular statistical reporting. These visualisations are published on the CRS website for the general public, and allow users to see the more detailed characteristics of serious injuries from crashes.

Serious injury data use

The profile of serious injuries differs to fatalities (Figure 1). Fatalities tend to occur in country areas and on higher speed roads (e.g. 100 km/h zones). In contrast, serious injuries tend to occur in metropolitan areas and on lower speed roads (50 km/h and 60 km/h zones). This highlights the need to examine existing road safety measures to ensure they address both fatalities and serious injuries, and account for serious injury data now available.

CRS has worked to improve the understanding of serious injury trends and use this in our work. Examples include:

- Release of the new Road Safety Plan 2021, which sets new road safety priorities and actions for NSW, and incorporates serious injury data in identification of key trauma trends
- Use of serious injury data in the identification of road network risk and potential locations for infrastructure treatment under the Safer Roads Program
- Road safety campaign development (e.g. placement of billboards at strategic locations based on spatial analysis of fatal and serious injuries for motorcyclists for the 'Ride to Live' campaign)
- Creation of heat maps to visually represent fatal and serious injury pedestrian trauma
- Inclusion of serious injury outcomes in formal evaluations of key programs.



Figure 1. NSW fatalities and serious injuries by urbanisation

Discussion

Availability of serious injury data has enabled NSW to better analyse road trauma and target initiatives to reduce serious injuries. Continued use of these data in our daily work will allow NSW to remain the leading jurisdiction in identifying and addressing serious injuries on our roads. Further opportunities to embed the use of serious injury data into development of future road safety measures will be explored.