Implementing safe system research in
Aboriginal and Torres Strait Islander communities

Senserrick, T.[1], Yip, P.[2], Grzebieta, R.[3], Clapham, K.[1,4], Lyford, M.[1], Ivers, R[1]

[1] The George Institute for Global Health, University of Sydney
[2] Bidyadanga Aboriginal Community LaGrange, WA
[3] Injury Risk Management Research Centre, UNSW
[4] Australian Health Services Research Institute, University of Wollongong

Abstract

Aboriginal and Torres Strait Islander Australians are at increased risk of death and serious injury due to road crashes than other Australians. The safe system road safety approach aligns well with Aboriginal holistic knowledge and worldviews, yet little information is available on applications to Aboriginal settings. This paper reports on a safe system demonstration project in an Aboriginal community, commissioned by the Indigenous Road Safety Working Group, funded by Austroads, who formed the Reference Group for the study. Ethical approval was obtained and the project was advertised nationally calling for expressions of interest. Several applications were received and a community selected in conjunction with the Reference Group: Bidyadanga WA. Further consultation with the Bidyadanga Community Council resulted in unanimous support for the project and commitment to undertake a collaborative role. The audit was successfully conducted during June-August 2010. This demonstration project showed application of the safe system to Aboriginal settings is feasible. Strong engagement with the community was essential. The approach undertaken provides a model for other Indigenous communities both in Australia and internationally.

Keywords

Safe system, Aboriginal and Torres Strait Islander, demonstration project

Introduction

While road traffic injuries represent a significant risk of death and serious injury for all Australians, several disparities exist between Aboriginal and Torres Strait Islander Australians and other Australians. On a population basis, Aboriginal Australians are 2-3 times as likely to have a fatal road traffic injury and 30% more likely to have a serious injury compared to non-Aboriginal Australians (Australian Institute for Health and Welfare, 2006; Berry, Nearmy & Harrison, 2007). The risk of road fatality and injury increases sharply with the level of geographical remoteness, with a higher proportion of Indigenous than non-Indigenous people residing in remote and very remote areas (Berry et al, 2007).

The safe system approach to reducing road traffic injury aligns well with Indigenous holistic knowledge and worldviews, including circular logic, group ownership of knowledge, and connection between land and community (e.g., Canadian National Aboriginal Health Organization, 2005; Marinova, 2005). However, little information is available on applications of the safe system to Aboriginal settings.

In 2009, the Indigenous Road Safety Working Group received support from Austroads to fund a safe system demonstration project in an Aboriginal community. This paper reports on the steps taken to develop a method for the project, including selection criteria to determine where the safe system audit would be undertaken, which could be anywhere in Australia. This paper reports on these initial stages of the research and steps taken to ensure the project was feasible.

Forming project team, advisors and ethics approval

First the research team was formed including an Aboriginal researcher and a Reference Group comprising members of the Indigenous Road Safety Working Group, representing most Australian states and territories, with reporting to Austroads. All phases of the project were approved by the University of Sydney Human Research Ethics Committee and the Western Australian Aboriginal Health Information and Ethics Committee (due to the successful community being located in Western Australia). These steps were taken to ensure Aboriginal views were considered as well as those of state/territory road administrations, with both potential "end users" of the research.

Literature review

A review was undertaken of safe system literature, primarily drawn from national and international government and road administration publications (given limited peer-review sources on this fairly recent approach to road safety), plus a reference of published peer-review literature and supporting "grey literature" (primarily reports to government), to identify key recommendations for conduct of the study. Based on these, several conclusions were drawn:
- The demonstration audit must cover all elements of the safe system, including safe policy and management in addition to safe roads, safe vehicles, safe speeds and safe road users.
- Community advice is instrumental to the safe system audit rather than rigidly following comprehensive checklists primarily developed for established areas with many responsible stakeholders.
- This advice can be supplemented with road traffic crash and offence records, where available.
- There must be early and on-going consultation with the community, including community leaders.
- The audit should only be conducted on invitation from the community, for which unanimous agreement should be reached by community leaders before proceeding.
- Culturally effective communication and dissemination strategies must be employed.
- The research should result in direct benefits for the community.

Selection criteria

The following selection criteria were identified, discussed and agreed upon by the project team and Reference Group:
1. *Presence of road safety problem*: in order to target and be able to show improvements.
2. *Discrete geographical boundaries* of manageable size and location: in order to define the audit area. Based on this, remote communities were deemed best suited for an

initial demonstration project; with the community areas and access roads to nearest services to be included in the audit.

3. *Community governance*: in order that community representatives could liaise with the project team for conduct of the audit.
4. *Police presence* and reasonable level of enforcement: as it was likely this would be a key element of the implementation plan.
5. *State/territory government support*: in order to provide in-kind support for project and as identified need to ensure sustainability, as well as financial support towards the implementation plan and evaluation.

Advertising, response and selection

The project, including selection criteria 2 and 3 were advertised in The Koori Mail and the HealthInfoNet website so that communities could register an expression of interest. Of eight communities responding, seven registered interest in being the demonstration community. Additional details relative to the selection criteria were established for each, including any known road safety problems, Australia Bureau of Statistics classifications as remote or very remote locations, with population range >1,000 and <18,000, identification of local police presence and confirmation of state/territory government support.

Following discussion with the Reference Group, the successful community was identified as Bidyadanga WA, based on the most comprehensive information available regarding selection criteria and due to the established commitment of the state government towards the safe system. All communities who had contacted the project team were informed of the decision and offered to receive a personal summary of the study and how it might be applied in their community.

Consultation with the Bidyadanga community

Members of the project team presented to the elected Bidyadanga Community Council. Bidyadanga is the largest discrete Aboriginal community in Western Australia with five language groups: the Karajarri people, the traditional owners, and people from Nyangumartu, Mangala, Juwaling and Yulparija country. The Community Council comprises a Chair (co-author Peter Yip) and two representatives of each language group. On presentation of the project, the Council members (all present at the initial meeting), unanimously agreed to become the demonstration community for the project.

The audit was successfully conducted during June-August 2010, including: review of local police crash and offence records; review of policy and management; physical observation of roads, speeds and vehicles; and interviews with community members and local and regional stakeholders including regarding road user behaviour and access to safe vehicles. The Chair was closely involved and continued to be consulted and informed of progress throughout the study. The findings and recommendations developed were presented to the Community Council, who determined priorities for the implementation plan and unanimously agreed to the final recommendations submitted to the Indigenous Road Safety Working Group and Austroads.

Conclusions

This demonstration project shows that it is feasible to apply the safe system approach to road safety in Aboriginal communities. Steps were taken to ensure the project was commensurate with "best practice" identified in the literature and in consultation with both the Aboriginal and Torres Strait Islander community and state/territory road administrations. Ensuring the community invites supports and is engaged in the research throughout was particularly important to the success of the audit. These roles will continue for subsequent implementation and evaluation phases of the project.

Encouragingly, the approach adopted can be readily adapted for use in other Aboriginal communities in Australia, as well as international Indigenous communities. The success of the project will be important for road safety community advocacy of the safe system and ensuring it applies throughout Australia, particular to reduce the current disparity of higher road fatality and injury risk among Aboriginal Australians.

Further information

The full details of the project have been submitted in two volumes to the Indigenous Road Safety Working Group and Austroads (Senserrick, Yip, with Grzebieta Ivers, Clapham, Lyford, 2010; Senserrick, Ivers, Martiniuk, Clapham, Lyford, Grzebieta, 2011). Austroads is formatting the reports into one volume for publication on their website.

Australasian College of Road Safety Conference
"A Safe System: Making it Happen!" Melbourne 1-2 September 2011

5

References

Australian Institute of Health and Welfare (2006). Australia's health 2006. *AIHW cat. no. AUS 73*: Canberra ACT: AIHW; June.

Berry, J., Nearmy, D. & Harrison, J. (2007). Injury of Aboriginal and Torres Strait Islander people due to transport, 1999-00 to 2003-04. *AIHW Catalogue no. INJCAT 100.* Canberra ACT: Australian Institute of Health and Welfare and Australian Transport Safety Bureau; May.

Canadian National Aboriginal Health Organization (2005). Sacred ways of life: traditional knowledge. Ottawa, Canada: NAHO.

Marinova, D. (2005). Protecting indigenous knowledge. In A. Zerger & R.M. Argent (Eds.), MODSIM 2005 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand; December. (Available at: http://www.mssanz.org.au/modsim05/papers/marinova_3.pdf; last accessed 19/5/2011.)

Senserrick T, Ivers R, Martiniuk A, Clapham K, Lyford M, Grzebieta R. (2011). *Indigenous Safe System Demonstration Project, Final report – Volume I: Literature Review and Methods*. Report to Austroads and the Indigenous Road Safety Working Group. The George Institute for Global Health, Sydney NSW; January.

Senserrick T, Yip P, with Grzebieta R, Ivers R, Clapham K, Lyford M. (2010). *Indigenous Safe System Demonstration Project, Final report – Volume II: Audit and Implementation Plan*. Report to Austroads and the Indigenous Road Safety Working Group. The George Institute for Global Health, Sydney NSW; September.