# ACRI

## Australasian Centre for Rail Innovation

## Collating and communicating knowledge and understanding of URBAN RAIL TRESPASS AND SUICIDE PREVENTION

ACRI has conducted a review of current international practices in the prevention of trespass and suicide/self-harm incidents on urban rail systems and explored the findings with ACRI participants in discussion forums. This has highlighted that for Australia and New Zealand, rail trespass and suicide is a complex issue which needs a multi-layered approach for an effective, sustainable solution.

**There are around 300 suicide attempts on the Australian rail network each year, with around one third resulting in fatalities.**

The implications of train-pedestrian collisions leading to fatalities are very apparent. Beyond the tragic loss of human life, they impact the health and wellbeing of those affected, causing trauma and work-related stress to rail and recovery staff, as well as vicarious trauma to others. In Australia, these experiences have been well-documented with TrackSAFE Foundation leading in this area.

### The literature knowledge base

This review of strategies that rail networks around the world currently use to manage and prevent train-pedestrian collisions in the context of trespass and suicide-related incidents followed the Hierarchy of Risk Control approach, which is the most commonly adopted model of risk management used by rail practitioners in the Australian rail industry.

The study reviewed documents published over the ten-year period from 2008-2018. In total, 42 documents were reviewed, of which 54% dealt with suicide, 14% with trespass and 32% were related to both suicide and trespass.

Full report (www.acri.net.au/acri-research-projects) includes tabulated summary of all the literature to aid its ongoing accessibility to the rail industry, encompassing:

» **Physical design**: physical barriers, design of rolling stock, lighting at stations, etc

» **Media guidelines**

» **General education** programs: including rail safety presentations and public service announcements

» Identification of '**hotspots**'/introduction of controls at 'hotspots'

» **Control systems framework**/approach for organisational management

» **Signage**: included installation of warning and prohibitive signs, posters advertising helpline numbers

» **Collaboration** with other stakeholders/entities: included partnering with law enforcement agencies, local leaders and mental health support agencies

» **Education** programs for **rail staff**

» **Monitoring** and/or **detection systems**: systems that detect trespass or violation of a boundary

» Engaging with **lived experience** individuals: involvement with persons who have attempted or considered railway suicide or an individual who has experience of another person's suicide

» **Community survey**

In terms of intervention effectiveness for the prevention of trespass and suicide in the rail corridor, numerous gaps in the literature were identified: including in the areas of the impact of education programs for rail staff and members of the community; the redesign of rolling stock; installation of blue lights on railway station platforms; and organisational focus on locations of increased reported trespass and suicide ('hotspots').

## Australian and New Zealand key themes

The majority of audience members in the ACRI participant discussion forums held senior safety roles within the rail industry, with some attendees also representing mental health, road, security and emergency management. Analysis of the data from the forums across Australia and New Zealand identified a number of themes and practical and operational challenges in key areas, as shown below.

The forums also identified some variances in, and currency of, terminology. The terms "suicide" and "self-harm" were observed being used interchangeably by a number of stakeholder groups, perceived by audiences to be used both formally and informally, with the suggestion also that "self-harm" is euphemistic and may be softening or sanitising the confronting nature of the word "suicide." Opportunities for the Office of the National Rail Safety Regulator (ONRSR) to update language used in their official reporting were also noted and will be considered by ONRSR within the formulation of the National Data Strategy.
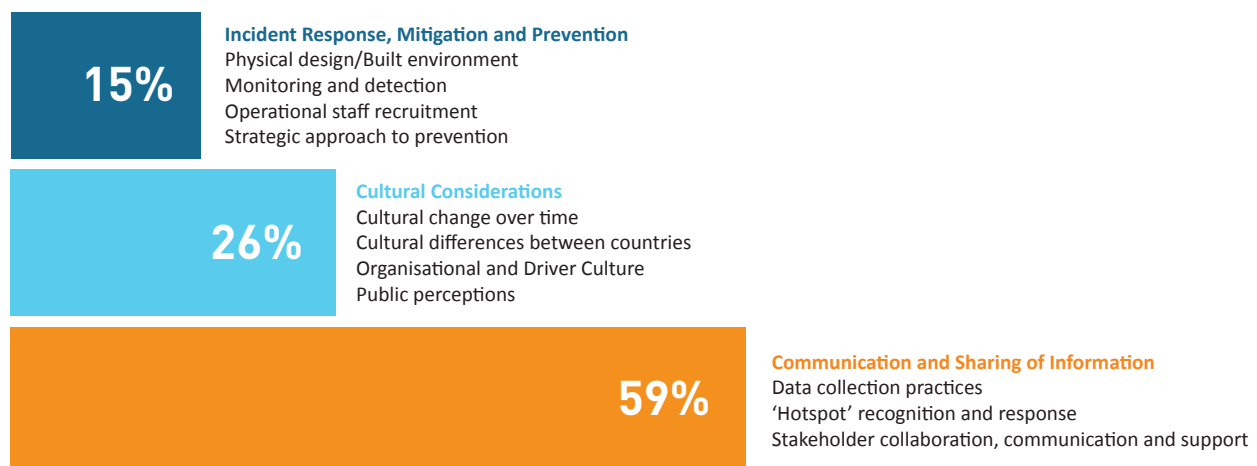
Effective media communication was found to be a significant enabler of suicide prevention in the review of literature, and this was reinforced by perspectives of positive relationships.

New Zealand appeared to have communication barriers with media agencies that obstructed progress on the issue in a way that was not mentioned in Australia. However, some forum audience members felt that a "media-blackout" around railway suicide may not necessarily be the best approach on the basis that it was also obscuring a true recognition of a seriousness of suicide as a societal issue as well as hindering a flow of information around the organisation.

Trespasser intent was discussed prevalently, with views reinforcing suicide as a very different type of trespass issue than those with unauthorised entry who had no intent to suicide. It was very clear that the audience forum members felt that trespass and suicide should be treated differently; these points echoed those made within the literature review about the "one size fits all" approach to both trespass and suicide being ineffective.

Points about the modifying or designing of the rail environment in a way that made them more engaging and improved the state of mind echoed the notion of crime prevention through environmental design and "green infrastructure". Views were that such targeted approaches may set the foundation for a long-term holistic approach in the prevention of suicides specifically.

### Summary of Preliminary Thematic Analysis

**15%**
**Incident Response, Mitigation and Prevention**
Physical design/Built environment
Monitoring and detection
Operational staff recruitment
Strategic approach to prevention

**26%**
**Cultural Considerations**
Cultural change over time
Cultural differences between countries
Organisational and Driver Culture
Public perceptions

**59%**
**Communication and Sharing of Information**
Data collection practices
'Hotspot' recognition and response
Stakeholder collaboration, communication and support