In Australia between 2011 and 2015, injury was the second most common cause for hospital admissions among Aboriginal and Torres Strait Islander peoples, and injury and poisoning was the third leading cause of death (15% of all fatalities within Aboriginal and Torres Strait Islander peoples). Further, injury was the second highest burden of disease for Aboriginal and Torres Strait Islander peoples in Australia in 2011, contributing to 28,790 disability-adjusted life years (DALY).

Multiple health improvements are occurring for Aboriginal and Torres Strait Islander peoples, including improved psychological wellbeing and increased social inclusion. Injury and community safety continue to disproportionately influence the health of Aboriginal and Torres Strait Islander peoples compared to non-Aboriginal Australians. As displayed in Figure 1, in 2015 the leading causes of Aboriginal and Torres Strait Islander peoples injury fatalities were; suicide, land transport and poisonings.

In 2012 Aboriginal and Torres Strait Islander peoples accounted for:

- 9.1% of injury hospitalisations
- 6.6% of injury fatalities
- 8.7% of emergency department injury presentations

Injury is defined as the intentional or unintentional harm to a person resulting from contact with an object, substance or another person, either through excessive energy or the sudden absence of vital elements, such as oxygen.
INJURIES IN ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES IN WA

Eight hundred and thirty one people died in WA as a result of injury between 2006 and 2015, contributing to 18.6% of all fatalities to Aboriginal peoples between 2006 and 2015.\(^{(7)}\)

In WA between July 2013 and June 2015, 10,165 Aboriginal and Torres Strait Islander peoples were hospitalised with injury as a principle diagnosis, this is 2.5 times the rate of injury presentations compared to non-Aboriginal Australians.\(^{(4)}\) Trends show a 11% increase in injury hospitalisation rates for Aboriginal and Torres Strait Islander peoples from 2004 to 2014 (448 per 1,000 in 2004-05 to 471 per 1,000 in 2014-15).\(^{(4)}\) Table 1 outlines hospitalisations per injury area for Aboriginal and Torres Strait Islander peoples in WA.

### Table 1. Number and percentage of injury-related hospitalisations for Aboriginal and Torres Strait Islander peoples in WA between July 2013 and June 2015. Adapted from AIHW, Aboriginal and Torres Strait Islander Health Performance Framework 2017 report: Western Australia.\(^{(4)}\)

<table>
<thead>
<tr>
<th>CAUSATION OF HOSPITALISATION</th>
<th>NUMBER OF HOSPITALISATIONS</th>
<th>PERCENTAGE (%) OF INJURY HOSPITALISATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assault</td>
<td>3,013</td>
<td>29.6%</td>
</tr>
<tr>
<td>Falls</td>
<td>1,682</td>
<td>16.5%</td>
</tr>
<tr>
<td>Complications of medical/surgical care</td>
<td>1,295</td>
<td>12.7%</td>
</tr>
<tr>
<td>Exposure to inanimate mechanical forces</td>
<td>1,157</td>
<td>11.4%</td>
</tr>
<tr>
<td>Transport</td>
<td>816</td>
<td>8.0%</td>
</tr>
<tr>
<td>Other accidental exposures</td>
<td>569</td>
<td>5.6%</td>
</tr>
<tr>
<td>Intentional self-harm</td>
<td>542</td>
<td>5.3%</td>
</tr>
<tr>
<td>Exposure to animate mechanical forces</td>
<td>466</td>
<td>4.6%</td>
</tr>
<tr>
<td>Exposure to electric current/smoke/fire/venomous animals and plants/forces of nature</td>
<td>296</td>
<td>2.9%</td>
</tr>
<tr>
<td>Accidental poisoning by and exposure to noxious substances</td>
<td>180</td>
<td>1.8%</td>
</tr>
<tr>
<td>Other external causes</td>
<td>149</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

For Aboriginal and Torres Strait Islander peoples aged 45 years and older, falls were the only injury area categorised as a top ten cause of disease burden in Australia.\(^{(10)}\)

INJURY COSTS IN WA FOR ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

Aboriginal and Torres Strait Islander peoples accounted for 7.7% of injury costs in WA in 2012, despite only making up 3.6% of the WA population.\(^{(5)}\) The total lifetime costs of injury to Aboriginal and Torres Strait Islander peoples in WA in 2012 was estimated at $742 million which includes health care costs, long-term care needs, loss in paid productivity and quality of life lost.\(^{(2)}\)
LEADING INJURY AREAS FOR ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE IN WA

SELF-HARM
Aboriginal and Torres Strait Islander peoples in WA were hospitalised due to intentional self-harm at a rate of 3.0 per 1,000 people, which was lower than the National Aboriginal and Torres Strait Islander peoples rate of 3.2 hospitalisations per 1,000 people, between July 2013 to June 2015.\(^{4}\)

SUICIDE
In 2016, the rate of suicide among Aboriginal and Torres Strait Islander peoples in WA was 43.9 per 100,000 people compared to 12.2 per 100,000 in non-Aboriginal people.\(^{8}\) This was ranked as the third leading cause of death among Aboriginal and Torres Strait Islander peoples (47 fatalities).\(^{8}\) The suicide fatality rate is even higher in regional areas of WA, with research indicating it is one of the highest fatality rates in the world for Indigenous peoples, at 74 persons per 100,000 people annually.\(^{9}\)

Higher rates of suicide in Aboriginal and Torres Strait Islander peoples compared to non-Aboriginal Australians has been attributed to social factors associated with colonisation, policies that enabled racial discrimination, and the breakdown of culture including; social isolation\(^{10,11}\), socioeconomic disadvantage\(^{10,11}\), limited access to culturally appropriate services\(^{11,12}\), transgenerational trauma\(^{12}\), alcohol misuse\(^{11}\), regional residency\(^{11}\), violence\(^{11,13}\), and poor mental and physical health.\(^{11,13}\) As a protective factor, Aboriginal and Torres Strait Islander culture and community has shown to be a large influence in preventing suicide and self-harm, this includes strong family bonds and community connectivity.\(^{14}\)

ROAD TRAUMA
The Aboriginal and Torres Strait Islander peoples population in WA experienced higher transport hospitalisations (4.2 per 1,000 people) compared to the National Aboriginal and Torres Strait Islander peoples population (3.6 per 1,000 people) between July 2013 to June 2015.\(^{7}\) In 2016, land transport was the sixth highest cause of fatality for Aboriginal and Torres Strait Islander peoples (23 fatalities), while non-Aboriginal land transport fatalities ranked twenty first in WA.\(^{8}\) Contributing factors associated with higher rates of transport mortality for Aboriginal and Torres Strait Islander peoples include speeding\(^{12}\), unsurfaced roads\(^{12}\), long travel distances\(^{12}\), lower seatbelt use\(^{15}\), and driving in vehicles with lower safety standards.\(^{15}\)

Greater rates of road trauma within Aboriginal and Torres Strait Islander peoples may be contributed to difficulty in obtaining driver licenses, influenced by financial barriers, lack of culturally appropriate programs, lower literacy levels, reduced access to drivers licensing education\(^{15}\), and a lack of confidence.\(^{14}\) Other challenges to obtaining driver licencing for Aboriginal and Torres Strait Islander peoples include systemic inequalities, such as hardship to produce proof of identity documents, and an inability to meet licencing requirements (e.g. practice times and obtaining a suitable vehicle).\(^{15,17}\)

VIOLENCE
In WA, 48 Aboriginal and Torres Strait Islander peoples died as a result of assault between 2009 and 2013 (30.8% of all WA fatalities were due to assault).\(^{3}\) The National rate of Aboriginal and Torres Strait Islander peoples hospitalised due to assault was 8.9 per 1,000 people, in July 2013 to June 2015, which is considerably lower than the WA rate of 17.7 hospitalisations per 1,000 Aboriginal and Torres Strait Islander peoples.\(^{4}\) Risk factors for family and community violence in the Aboriginal and Torres Strait Islander population include; family hardships\(^{11,13}\), trauma due to colonisation, separation from traditional culture, previous experiences of violence, low socio-economic status, poor physical and mental health, high levels of alcohol misuse and illicit drug use.\(^{18}\) However many elements of Aboriginal and Torres Strait Islander culture can be protective against violence, including strong social connection and integrated family structures, as
DETERMINANTS THAT IMPACT ON INJURY WITHIN ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

LOW SOCIOECONOMIC STATUS
Research indicates that low socio-economic status is associated with an increased risk of injury.\(^{20,21}\) In WA in 2016, the median weekly income for Aboriginal and Torres Strait Islander peoples aged 15 years and over was $398, compared to the WA State median of $724.\(^{17}\) A lower median weekly income can heighten Aboriginal and Torres Strait Islander people's injury risk due to increased poverty-related stressors, poorer housing conditions, low health literacy, lower working conditions, and reduced access to medical care.\(^{20,22}\)

REMOTE GEOGRAPHICAL LOCATION
In Australia between 2014 and 2015, the hospitalisation rate for Aboriginal and Torres Strait Islander peoples increased with remoteness from 38 per 1,000 in major cities to 74 per 1,000 in remote and very remote areas.\(^{23}\) This is attributed to limited access to prevention, treatment and rehabilitation services, poor environmental conditions, and occupations with a higher injury risk.\(^{1}\)

ALCOHOL CONSUMPTION
Due to the impact alcohol has on risk-taking behaviour and psychomotor performance, even at moderate doses, the volume of alcohol consumed and the pattern of drinking overtime can influence injury risk.\(^{24}\) In WA from 2000 to 2008, alcohol contributed to over 22% of all Aboriginal and Torres Strait Islander peoples injury hospitalisations, which was twice the rate of non-Aboriginal people.\(^{25}\) Due to the influence of alcohol consumption on injury risk, higher rates of alcohol consumption among Aboriginal and Torres Strait Islander peoples can influence the rate of injury particularly for violence, suicide, falls and transport injuries.\(^{25}\)

RACIAL DISCRIMINATION
Aboriginal and Torres Strait Islander peoples are inequitably affected by racism, which can influence injury risk through reduced access to healthcare, long-term psychological stress, prejudice, mental health, alcohol consumption and substance abuse.\(^{4}\) Results from the 2014-15 National Aboriginal and Torres Strait Islander Social Survey indicate that 37% of Western Australian Aboriginal and Torres Strait Islander peoples felt they had been unfairly treated at least once in the previous 12 months because they were Aboriginal and/or Torres Strait Islander.\(^{18}\) Racism has been attributed to lower levels of education, employment and living conditions, all of which have been associated with higher levels of injury risk.\(^{1,22,27}\)

WORKING WITH ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES
The WA Aboriginal Health and Wellbeing Framework 2015-2030\(^{28}\) provides guiding principles which are important in the development and implementation of any activity aiming to prevent injury among Aboriginal and Torres Strait Islander peoples. These activities should;

• recognise contributing factors to Aboriginal and Torres Strait Islander peoples health and wellbeing
• operate within a holistic framework
• respond to the needs of the local community
• involve collaboration with Aboriginal and Torres Strait Islander peoples
• work with other organisations and services towards shared priorities
• be physically and culturally accessible to Aboriginal and Torres Strait Islander peoples
### INJURY PREVENTION RESOURCES FOR ABORIGINAL PEOPLES IN WA

<table>
<thead>
<tr>
<th>INJURY AREA</th>
<th>RESOURCE</th>
<th>ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALLS</td>
<td>Stay On Your Feet® Move Improve Remove A5 Booklet (2018)</td>
<td>Injury Matters</td>
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<tr>
<td></td>
<td>Autumn Safety A3 Poster (2011)</td>
<td>Kidsafe WA</td>
</tr>
<tr>
<td>TRANSPORT</td>
<td>Corrugations to Highways Video (2002)</td>
<td>WALGA Roadwise</td>
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<tr>
<td></td>
<td>Buckle Up A3 Poster (2017)</td>
<td>Kidsafe WA</td>
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<tr>
<td>SUICIDE</td>
<td>Finding Our Way Back Booklet (2016)</td>
<td>beyondblue</td>
</tr>
<tr>
<td></td>
<td>Suicide prevention information for Aboriginal and Torres Strait Islander people (2010)</td>
<td>Lifeline</td>
</tr>
<tr>
<td>BURNS AND SCALDS</td>
<td>Fire safety in your home Brochure (2015)</td>
<td>Department of Fire and Emergency Services</td>
</tr>
<tr>
<td></td>
<td>Get Warm, Not Burnt A3 Poster (2017)</td>
<td>Kidsafe WA</td>
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<tr>
<td>POISONING</td>
<td>Spring Safety A3 Poster (2011)</td>
<td>Kidsafe WA</td>
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<tr>
<td>DROWNING</td>
<td>Adventures of Ernie Emu Storybooks (2018)</td>
<td>Royal Life Saving WA</td>
</tr>
<tr>
<td></td>
<td>Look Out You Mob Resources (2013)</td>
<td>Royal Life Saving Australia</td>
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</table>

Injury Matters would like to thank our partners at HealthInfoNet for reviewing this document prior to publication.

### INJURY PREVENTION RESOURCES FOR WA HEALTH PROFESSIONALS

<table>
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<tr>
<th>INJURY AREA</th>
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<th>ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIOLENCE</td>
<td>Changing the picture: A national resource to support the prevention of violence against Aboriginal and Torres Strait Islander women and their children (2018)</td>
<td>Our Watch</td>
</tr>
<tr>
<td>TRANSPORT</td>
<td>Keeping Your Mob Safe: A guide to making roads safer in the community (2017)</td>
<td>WA Road Safety Commission</td>
</tr>
<tr>
<td>INJURY AMONG CHILDREN</td>
<td>Watch Out for Your Kids Day and Night (2014)</td>
<td>Kidsafe WA</td>
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</table>


3. Data generated using HealthTracks Reporting, by the Epidemiology Branch, WA Department of Health in collaboration with the Cooperative Research Centre for Spatial Information (CRC-S), March 2017.


SUGGESTED CITATION