

Part III: Non-intentional injury-related deaths, 2013–14

Chapter 3 - Transport

This section provides details of child deaths from injury as a result of transport incidents.

Key findings

- In 2013–14, 31 children and young people died in transport incidents, a rate of 2.8 deaths per 100,000 children aged 0–17 years.
- The numbers of transport-related child fatalities over the last five periods have shown no clear trends, with the number ranging from 27 to 52 deaths (2.6 to 4.8 deaths per 100,000 children aged 0–17 years).
- Transport deaths were the leading external cause of death overall (42.5% of external causes of death for all children).

Child death and injury prevention activities

Data requests

CCYPCG provided Child Death Register data for seven data requests relating to transport incidents. The data provided were used for various reasons, including to inform research, for public education/reporting and to inform policy/program development. Information provided supported research initiatives conducted by Kidsafe QLD, the University of the Sunshine Coast Accident Research (USCAR), and the Queensland Injury Surveillance Unit.

Research and policy submissions

The CCYPCG prepared two submissions in 2013–14 relating to transport using evidence from the Queensland Child Death Register. One submission was to the Queensland Parliament Transport, Housing and Local Government Committee Inquiry into Cycling Issues which outlined specific considerations for young cyclists, including helmet use, improved road safety education and cycle path infrastructure to reduce cycling related fatalities. A submission was also made to the Department of Infrastructure and Transport in response to its *Driveway Safety Design Guidelines Discussion Paper* supporting the introduction of guidelines to design driveways that are safer for young children and to reduce deaths and injury from low speed vehicle run-overs.

Trends and Issues Papers

One Trends and Issues Paper was released which examined child deaths associated with low speed vehicle run-overs in Queensland. The paper advocates for strategies that build layers of protection by changing driver behaviour, environmental design and vehicle safety technologies.

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Transport, 2013–14

A copy of Table 3.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 3.1: Summary of transport deaths of children and young people in Queensland, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All transport deaths											
Transport	27	2.6	30	2.8	52	4.8	28	2.6	31	2.8	3.1
Incident type											
Motor vehicle	17	1.6	17	1.6	27	2.5	18	1.7	17	1.6	1.8
Pedestrian	7	0.7	8	0.8	11	1.0	6	0.6	7	0.6	0.7
LSVRO	2	*	4	0.4	4	0.4	3	*	4	0.4	*
Motorcycle	1	*	2	*	6	0.6	2	*	1	*	*
Quad bike	1	*	0	0.0	2	*	1	*	3	*	*
Watercraft	1	*	2	*	1	*	0	0.0	0	0.0	*
Other	0	0.0	1	*	5	0.5	1	*	3	*	*
Sex											
Female	10	2.0	10	1.9	19	3.6	12	2.3	11	2.1	2.4
Male	17	3.2	20	3.7	33	6.0	16	2.9	20	3.6	3.9
Age category											
Under 1 year	1	*	1	*	4	6.6	0	0.0	0	0.0	*
1–4 years	8	3.4	5	2.1	11	4.5	6	2.4	4	1.6	2.8
5–9 years	4	1.4	4	1.4	4	1.4	6	2.0	12	4.0	2.0
10–14 years	4	1.4	6	2.1	8	2.7	4	1.3	5	1.7	1.8
15–17 years	10	5.6	14	7.8	25	13.8	12	6.6	10	5.5	7.9
Aboriginal and Torres Strait Islander status											
Indigenous	0	0.0	4	4.8	9	10.8	7	8.3	5	5.9	6.0
Non-Indigenous	27	2.8	26	2.7	43	4.3	21	2.1	26	2.6	2.9
Geographical area of incident location (ARIA+)											
Remote	3	*	3	*	7	13.1	3	*	6	11.2	8.2
Regional	18	4.6	15	3.8	35	8.8	15	3.7	20	4.9	5.2
Metropolitan	5	0.8	12	2.0	9	1.5	10	1.6	5	0.8	1.3
Socio-economic status of incident location (SEIFA)											
Low to very low	14	3.3	17	4.0	34	7.9	15	3.4	8	1.8	4.1
Moderate	9	4.3	7	3.3	6	2.9	4	1.9	13	6.1	3.7
High to very high	3	*	6	1.4	11	2.6	9	2.0	10	2.3	1.8
Known to the child protection system											
Known to the child protection system	9	7.0	4	2.6	15	9.2	12	7.2	9	5.4	6.0

Data source: Queensland Child Death Register (2009–2014)

* Rates have not been calculated for numbers less than 4.

- Notes:
1. Data presented here are current in the Queensland Child Death Register as at June 2014 and thus may differ from those presented in previously published reports.
 2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.
 3. The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period who were known to the Department of Communities in the 3 years prior to their death.
 4. ARIA and SEIFA were not able to be calculated for incidents occurring outside of Queensland.
 5. Average annual rates have been calculated using the estimated resident population data at June 2011 (the mid-point for the period).
 6. LSVRO refers to deaths as a result of a low speed vehicle run-over, a subset of the Pedestrian category, hence summing categories will exceed the total.
 7. The Other category includes deaths involving bicycles, scooters, motorised go-carts, horse riding incidents, and specialised industrial vehicles.

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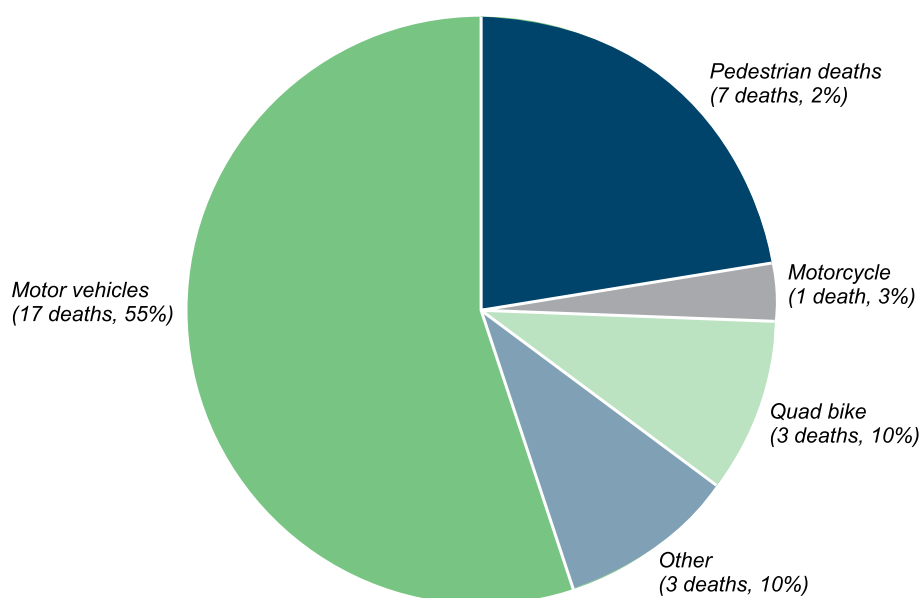
Transport-related fatalities: Findings, 2013–14

Between 1 July 2013 and 30 June 2014, 31 children and young people died as a result of transport incidents at a rate of 2.8 deaths per 100,000 children aged 0–17 years in Queensland.¹⁸ The rate of transport deaths is consistent with the last reporting period. Data trends since 2004 shows the rate of transport-related child deaths has greatly fluctuated across the reporting periods.

Nature of transport incident

As illustrated in Figure 3.1, the majority of transport fatalities occurred in motor vehicles (55%), followed by pedestrian deaths (23%). This pattern is similar with that observed in previous years.

Figure 3.1: Nature of transport fatality, 2013–14



Data source: Queensland Child Death Register (2013–14)

Sex

Males accounted for 64.5% of transport deaths (20 deaths). This relationship is consistent with previous reporting periods. Research has established that higher rates of death for males can, in part, be attributed to greater risk taking behaviours displayed by young males – this includes risk taking behaviours of male drivers.¹⁹

Age

Children aged 5–9 years experienced the greatest number of deaths as a result of transport incidents, at a rate of 4.0 deaths per 100,000 5–9 year olds (12 deaths, 38.7%).

The highest rate of transport deaths was for 15–17 year olds (10 deaths, 5.5 deaths per 100,000 15–17 year olds). In eight of the ten deaths the vehicle was operated either by the young person or another driver aged under 21 years.

Aboriginal and Torres Strait Islander status

Of the 31 transport deaths, five were Aboriginal and Torres Strait Islander children and young people (16.1%, 5.9 deaths per 100,000 Indigenous children).

18. There was one additional transport-related incident death that has not been counted here as it occurred in the context of a suspected suicide.

19. Australian Institute of Health and Welfare (2011). *Young Australians: Their health and wellbeing*. Cat no PHE 140, Australian Institute of Health and Welfare, Canberra.

Geographical area of usual residence (ARIA+)²⁰

Children and young people who usually resided in regional areas had the highest number of deaths as a result of transport incidents, accounting for 18 deaths (4.5 deaths per 100,000 children, 58.1%), compared to six from each of remote and metropolitan areas.²¹

To facilitate an understanding of the areas in which transport fatalities more frequently occur, the incident locations (as provided in the Police Report of Death to a Coroner) have been calculated. Twenty-six of the 31 transport fatalities (83.9%) occurred in regional and remote areas of Queensland. This may be due to a combination of factors including poorer road conditions and fatigue due to driving long distances.²²

Socio-economic status of usual residence (SEIFA)²³

Regional analyses of death rates according to socio-economic status of the area of residence indicate that the rate of transport-related child deaths was 3.2 deaths per 100,000 from moderate socio-economic areas (13 deaths) and 2.7 deaths per 100,000 (12 deaths) from low to very low socio-economic areas. Children from high to very high socio-economic areas had a rate of 1.1 deaths per 100,000.²⁴

Children known to the child protection system

Of the 31 children who died in transport incidents, nine were known to the child protection system.

Motor vehicle incidents

Table 3.2 below illustrates the role of the child or young person in motor vehicle fatalities in Queensland in 2013–14. In ten of the 17 fatalities the child or young person was a passenger in the motor vehicle and for the remaining seven the young person was the driver.

Table 3.2: Motor vehicle incidents by role, age category and sex, 2013–14

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Drivers	6	1	7	0.6
10–14 years	1	0	1	*
15–17 years	5	1	6	3.3
Passengers	4	6	10	0.9
5–9 years	3	3	6	2.0
10–14 years	1	0	1	*
15–17 years	0	3	3	*
Total	10	7	17	1.6
Rate per 100,000	1.9	1.3	1.6	

Data source: Queensland Child Death Register (2013–14)

* Rates have not been calculated for numbers less than 4.

Notes: 1. Rates are calculated per 100,000 children and young people in each age category.
2. Rates for subtotals and totals are calculated per 100,000 children aged 0–17 years in Queensland.

20. Note that these figures are of the usual residence and will not match those presented in Table 3.1, which present data based on the incident location.

21. One child could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

22. Australasian College of Road Safety (2012). *Rural and Remote Road Safety: Fact Sheet*.

23. Note that these figures are of the usual residence and will not match those presented in Table 3.1, which present data based on the incident location.

24. One child could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

Pedestrians

Seven children and young people died as pedestrians in 2013–14 (see Table 3.3).

‘Low speed vehicle run-over’ is a term used to describe an incident where a pedestrian is injured or killed by a slow moving vehicle in a non-traffic area or whilst entering or exiting a traffic area. Most of these incidents involved younger children between 1–4 years of age. Drivers tend to be family members, with vehicles reversing at the time of impact. In 2013–14, four deaths occurred due to low speed vehicle run-overs. In two instances, the vehicle was reversing at the time, whilst the other two vehicles were moving forwards. The number of low speed vehicle run-overs has remained relatively stable in the last five reporting periods.

Table 3.3: Pedestrian incidents by type, age category and sex, 2013–14

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>
Low speed vehicle run-over			
1–4 years	0	3	3
5–9 years	0	1	1
Total	0	4	4
Road or railway crossing			
1–4 years	0	1	1
Total	0	1	1
Other			
10–14 years	0	1	1
15–17 years	0	1	1
Total	0	2	2

Data source: Queensland Child Death Register (2013–14)

Motorcycles and quad bikes

One child (male) died in a motorcycle incident in 2013–14. The fatality occurred off-road with the child solely operating the motorcycle.

Three children (2 males and 1 female, aged 12 years and under) died in quad bike incidents. In two of the incidents the child was operating the vehicle. One child was reported as not wearing a helmet at the time of the incident. It is recommended that children under 12 years be restricted from operating a quad bike of any size due to the physical strength and experience required to operate a quad bike.²⁵ At the time of reporting, the Deputy State Coroner was conducting an inquest with the view to developing recommendations into reducing the likelihood of quad bike deaths.

Other

Three male children (aged 5-9 years) died while riding bicycles on or across roadways. In each of the bicycling deaths, at least one of the following risk factors were identified:

- no/ineffective helmet usage
- no active supervision while riding on the roadway, and
- ineffective braking mechanisms.

25. CCYPCG (2013). Trends and Issues paper: *Child deaths – risk of death in off-road transport incidents*.

Key issues 2013–14

Multiple fatalities

Seven children and young people died in four motor vehicle incidents that involved multiple fatalities in 2013–14 (including incidents where adults also died). Of these, three incidents involved the deaths of two children and one incident involved the death of one child and at least one adult.

Highway fatalities

Of the 17 children and young people who died in motor vehicle incidents, nine died on highways (speed limit greater than or equal to 100km/h). Six of these nine children were in the 5–9 year age category (66.7%). There were three fatalities on major roads (speed limit between 60 and 100km/h) and three on rural roadways.

Charges and criminal proceedings

Of the 31 transport fatalities in 2013–14, driving-related charges were laid for five incidents (16.1%) (based on information available at the time of reporting). These charges included dangerous operation of a motor vehicle causing death, failure to stop at a road incident, driving without due care and attention, disqualified driving, driving unaccompanied, exceeding registered carrying capacity and drink driving. In some incidents a criminal offence may have taken place; however, the driver of the vehicle also died and therefore charges were unable to be laid.

Off-road fatalities

The deaths of children and young people that occur in an off-road environment are not included in the official road toll. There were seven deaths of children and young people in off-road transport environments in 2013–14. Three of these incidents involved quad bikes, one a motorcycle and three were pedestrian incidents.

Risk factors

Table 3.4 (over page) outlines the types of risk factors and the frequency of risk factors present for every transport fatality in 2013–14. The most prevalent risk-factors for child and young person transport-related fatalities were:

- having a driver or operator who was aged 21 years or younger
- limited driver ability
- excessive speed
- drug and/or alcohol use, and
- peer passengers.

The highest number of transport fatalities was of young people in the 5–9 years age group. The most prevalent risk factors for both youth and adult driver behaviours were:

- excessive speed
- driving in wet conditions, and
- drug and/or alcohol use.

Table 3-4: Summary of characteristics of all children and young people who died in transport incidents in 2013–14

		Demographics				Known risk factors											Known to child protection system	
Sex	Type of Incident	Indigenous	Regional/ remote	Low SES	Speed	Fatigue	Driver ability	Risktaking	Inappropriate seat belts/restraints	Failure to drive to road condition	Rain or wet road	Dry or dusty road	Uneven road	Alcohol / drug use	Driver/ operator aged 21 or under	Peer passengers	Breach of peer passenger laws	Known to child protection system
1-4 years	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	Pedestrian		✓															
M	Pedestrian		✓															
M	Pedestrian		✓															
M	Pedestrian		✓															
5-9 years	12	2	10	4	2	1	0	0	1	0	2	0	1	2	0	0	0	3
F	Motor vehicle		✓															
F	Motor vehicle		✓															
F	Motor vehicle		✓															
M	Other																	
M	Motorcycle		✓															
M	Motor vehicle		✓		✓						✓							
M	Other		✓	✓	✓													✓
M	Motor vehicle	✓	✓	✓		✓			✓					✓				✓
M	Motor vehicle		✓	✓														
M	Other	✓	✓	✓														✓
M	Quad bike		✓										✓	✓				
M	Pedestrian																	
10-14 years	5	1	4	2	2	0	4	2	1	1	0	2	2	2	4	1	0	2
F	Motor vehicle	✓		✓	✓		✓	✓							✓			✓
F	Motor vehicle		✓		✓		✓	✓	✓	✓		✓		✓	✓	✓		✓
F	Quad bike		✓				✓				✓		✓		✓			
M	Quad bike		✓				✓						✓		✓			
M	Pedestrian		✓	✓										✓				

Demographics			Known risk factors											Known to child to protection system				
Sex	Type of Incident	Indigenous	Regional/ remote	Low SES	Speed	Fatigue	Driver ability	Risktaking	Inappropriate seat belts/restraints	Failure to drive to road condition	Rain or wet road	Dry or dusty road	Uneven road		Alcohol / drug use	Driver/operator aged 21 or under	Peer passengers	Breach of peer passenger laws
15-17 years	10	2	8	4	2	1	4	0	1	1	3	0	2	8	5	0	4	
F	Motor vehicle						✓							✓	✓		✓	
F	Motor vehicle		✓											✓	✓			
F	Motor vehicle		✓	✓		✓								✓				
F	Motor vehicle		✓		✓		✓		✓				✓	✓	✓		✓	
F	Motor vehicle		✓				✓							✓				
M	Motor vehicle				✓									✓				
M	Motor vehicle	✓	✓	✓			✓							✓	✓		✓	
M	Motor vehicle		✓	✓						✓								
M	Motor vehicle		✓											✓		✓		
M	Pedestrian	✓	✓	✓										✓	✓		✓	
Total	31	5	26	10	6	2	8	2	3	2	3	5	3	6	12	6	0	9

Data source: Queensland Child Death Register (2013–14)

✓ = Risk factor identified for the child based on the evidence available at the time of reporting

Notes: 1. Regional or remote and low SES categories refer to the location of incident as opposed to area of the usual place of residence.

2. 'Driver/operator aged 21 or under' refers only to motor vehicle incidents based on Queensland licensing provisions.

3. 'Fatigue' refers to driver fatigue caused by a range of factors including driving with a lack of quality sleep, the time of day and length of time driving.

4. 'Risk taking behaviour' refers to inappropriate and unsafe driving behaviour which may result in perceived thrill including hooning, racing, dragging, and drifting.

5. 'Driver ability' refers to the ability of the driver to effectively control the vehicle with an understanding, awareness and ability to react appropriately to hazards. Driver ability is impacted by the driver's physical and mental ability and level of cognition, perception and insight.

6. 'Alcohol/drug use' includes other individuals involved in the transport incident as well as the child or young person.

Queensland Ambulance Service data

Injury data can be used to gain a more comprehensive understanding of the risks posed to children by vehicles and machinery. The Queensland Ambulance Service (QAS) has provided data on the number of ambulance responses to transport incidents involving children. Table 3.5 outlines the 3468 QAS responses for transport incidents, including both fatal and non-fatal injuries, between 1 July 2013 and 30 June 2014. As evident in previous reporting periods, the majority of incidents involved motor vehicles, followed by motorcycle incidents. The highest number of incidents involved young people aged 15–17 years.

Table 3.5: Queensland Ambulance Service responses to transport incidents, 2013–14

Type of incident	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>
Motor vehicle (including car, utility, bus, truck)	122	332	381	414	928	2177
Motorcycle	0	10	47	133	164	354
Bicycle	0	8	48	116	84	256
Pedestrian	0	22	29	36	35	122
Quad bike/ATV	0	5	12	13	19	49
Unknown method of transport	9	60	92	170	179	510
Total	131	437	609	882	1409	3468

Data Source: Queensland Ambulance Service (2013–14)

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