QUEENSLAND INJURY SURVEILLANCE UNIT

INJURY BULLETIN

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Pedestrian injuries

Summary

- 59 pedestrians were killed and 728 injured in Queensland during 1997
- 16% of all road deaths are pedestrians
- 32% of road deaths are pedestrians under 17 years of age
- Alcohol was a contributing factor in 50% of the fatalities
- Most pedestrian injuries occurred on a Friday and in the late afternoon.
- Slow speed runovers were the second biggest single cause of death from injury for pre-schoolers in 1994-96.

Introduction

The recent introduction of a 50 km/h speed limit for selected residential streets in south east Queensland has focused attention on pedestrian road crashes, particularly those involving young children.

Fatalities resulting from pedestrian road crashes make up a significant proportion of the annual road toll in Queensland, especially amongst children. Any measure likely to reduce this toll, such as the reduced speed limit, is to be applauded, although it needs to be remembered that speed is only one of the factors contributing to pedestrian fatalities.

* QISU data is based on emergency department presentations to the following hospitals: Mater Children's Hospital, Mater Adult Hospital, Mater Private Emergency Care Centre, Queen Elizabeth II Jubilee Hospital, Redland Hospital, Logan Hospital, Royal Children's Hospital, Mt Isa Hospital and Mackay and Moranbah Health District hospi-

During 1997 in Queensland, 59 pedestrians were killed, 364 hospitalised and 364 received other medical treatment representing 7% of all road crash casualties. Pedestrian fatalities aged less than 17 years comprised 32% of all road crash fatalities for this age group. This compares with only 16% for all age groups.[1]

Nearly 60% of all pedestrian deaths in 1997 were considered by police to be the fault of the victim.[1]

	Total		Males		Females	
Age	N	%	N	%	N	%
0-4	11	5.5%	9	7.3%	2	2.6%
5-14	56	28.0%	30	24.2%	26	34.2%
15-24	56	28.0%	35	28.2%	21	27.6%
25-44	46	23.0%	38	30.6%	8	10.5%
45-64	16	8.0%	10	8.1%	6	7.9%
65+	15	7.5%	2	1.6%	13	17.1%
Total	**200**	**100.0**	**124**	**100.0**	**76**	**100.0**

Table 1 QISU Pedestrian injuries - road, 1997-98, by

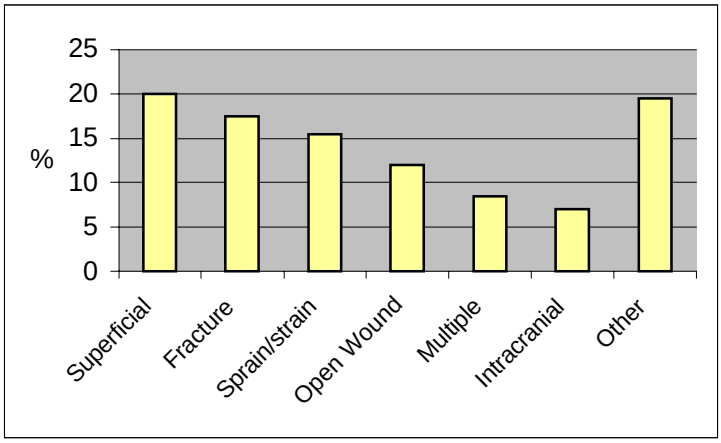


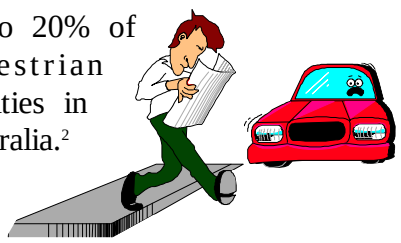
Figure 1 QISU Pedestrian injuries – road, 1997-98, by

Alcohol

Alcohol use contributes to a substantial proportion of road crashes, particularly those involving fatalities. Of all pedestrian fatalities in 1997 nearly 50% had a blood alcohol content (BAC) above the legal limit, this compares with 27% for drivers and motor cyclists.[1] The involvement of drivers with elevated BAC is low with only one in twenty drivers in Australia in 1992 involved in a pedestrian fatality having had a BAC greater than .05%.[2]

Bull Bars

In a report by the Federal Office of Road Safety on pedestrian fatalities in Australia, it was reported that bull bars were involved in 12% of fatal pedestrian crashes in 1992. However, because of the level of missing data for this data item it was estimated that bull bars could be involved in up to 20% of pedestrian fatalities in Australia.[2]



Pedestrian Injuries

The Queensland Injury Surveillance Unit recorded 200 injuries resulting from pedestrian road crashes presenting at participating hospital Emergency Departments in Queensland during 1997 and the first half of 1998*. Males made up 62% of the victims and the majority was aged 5 to 44 years (Table 1).

The most common type of injury was superficial (20%) followed by fracture (18%), sprain or strain (16%) and open wound (12%), while the most frequent body location was the leg (40%) (Figure 1). Of the 200 injuries presenting, 76 (38%) were either admitted or transferred to another institution.

When the injuries were examined by day of week it was found most occurred on a Friday (Figure 2). The

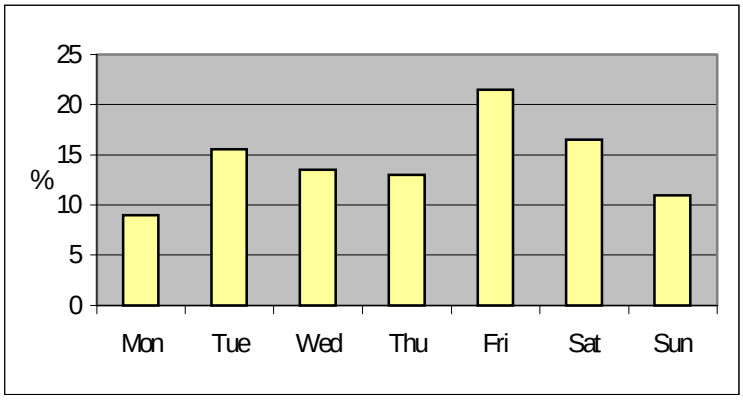


Figure 2 QISU Pedestrian injuries – road, 1997-98,

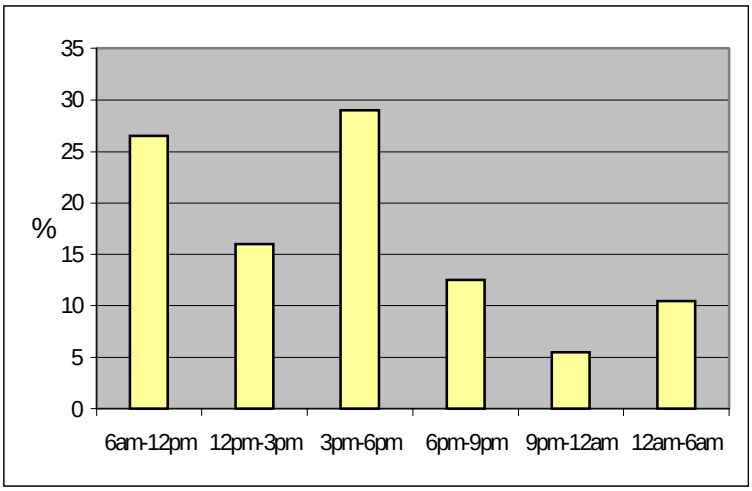


Figure 3 QISU Pedestria n injuries – road, 1997-98

time of the injury event was most often between 3pm and 6pm (Figure 3). However when these data were examined by age it was observed that injuries to school age victims occurred most commonly on Tuesdays and Wednesdays and 20% of 15 to 24 year-olds sustained their injuries between midnight and 6am.

Paediatric pedestrian deaths

In the recent report of the Queensland Council on Obstetric and Paediatric Morbidity and Mortality which examined all paediatric deaths (aged 28 days to 14 years) in Queensland for the period 1994 to 1996, 28 deaths resulting from pedestrian road crashes were identified.

These represented 24% of transport related paediatric deaths or 10% of all paediatric injury deaths.[3] A further 11 paediatric pedestrian deaths have been identified for 1997 and 1998 indicating that the incidence may be declining, although the data for this time period is still provisional.

Further examination of these 11 deaths revealed that four occurred on local streets which are now subject to the 50 km/h speed limit. For this measure to be more effective in reducing child pedestrian deaths consideration needs to be given to extending it to other residential streets not subject to the 50 km/h limit and to the whole state.

Slow speed runover deaths

The Council's report also identified a significant number of paediatric non-traffic pedestrian deaths or slow speed runovers. Slow speed runover fatalities were the second biggest single cause of death from injury for children aged one to four years after pool drowning in Queensland for the period 1994 to 1996.

"slow speed runover fatalities were the second biggest single cause of death from injury for children aged 1 to 4 years after pool drowning"

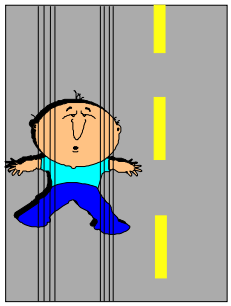
A total of 18 such fatalities were identified amongst all paediatric deaths for 1994 to 1996. They ranged in age from nine months to five years with 14 (78%) aged

between one and four years. During the same period there were 58 hospital admissions in the state as a result of non-traffic pedestrian injury.

The Council undertook further investigations into the circumstances surrounding these fatalities which revealed the following observations:

- 76% of the fatalities involved a truck, utility or 4 wheel drive vehicle.
- 78% of the vehicles were reported as reversing at the time.
- 69% of the vehicle drivers were part of the immediate family of the deceased.
- 67% of the fatalities occurred in or around a residential driveway.
- Compared with the rest of Australia, Queensland has a significantly higher incidence.

These findings indicate that strategies, such as driver/parent education and improved vehicle design, need to be investigated to prevent such fatalities.



Discussion

Due to the diverse nature of pedestrian road crashes strategies for prevention need to be developed which target particular groups identified as being at risk.

To this end Queensland Police and Queensland Transport in conjunction with other stakeholders have produced the Pedestrian Safety Strategy 1998/99. The stated aim of this strategy is *to make Queensland a safer place for pedestrians to travel*, through promoting safer pedestrian behaviour, providing a safe pedestrian environment and facilitating coordination of pedestrian safety strategies.

Strategies already in place include the 50 km/h speed limit for selected residential streets and the Safe School Travel package.

Recommendations

- Extension of the 50 km/h residential speed limit to all residential streets and to the whole of the State
- Further investigate strategies to reduce alcohol related pedestrian road crashes
- Further investigate the role of bull bars in pedestrian fatalities
- Investigate strategies to reduce non-traffic slow speed run-over fatalities
- Implementation of the Pedestrian Safety Strategy

References

1 Queensland Transport 1998. *Road traffic crashes in Queensland: 1997*. Brisbane: Queensland Transport.

2 Federal Office of Road Safety, 1996. *Pedestrian fatalities in Australia. Monograph 7*. Canberra, FORS.

3 Queensland Council on Obstetric and Paediatric Morbidity and Mortality 1998. *Maternal, Perinatal and Paediatric Mortality and Morbidity in Queensland, 1994-1996*. Brisbane: QCOPMM.

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