Q I S P P

INJURY BULLETIN

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1995 Injury Road Toll

The good news is that the number of bicycle accidents resulting in death and serious injury is decreasing. In this issue of the Bulletin, an overview of the 1995 injury road toll is followed by a comparison of the fatal and injury road toll trends over a 5 year period.

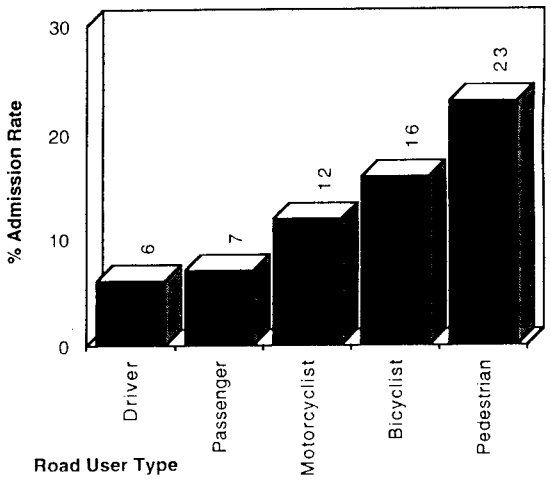
Injuries by Road User Type:

Pedestrians Close to one quarter of all pedestrian injuries result in admission to hospital and most of these (81%) are due to three injury descriptions: concussion/ intracranial injuries (31%); fractures (31%); multiple injuries (19%).

Bicyclists Bicycle accidents resulted most frequently in fractures (30% of all cases) most commonly involving the forearm (18%); wrists (18%); and clavicles (17%). Similarly, admission to hospital was most commonly for treatment of a fracture, forearm fractures accounting for 32% of these, and 17% of all admissions.

Motorcyclists The most common class of injury was fracture, to the forearm and clavice (each representing 19% of all fractures). However, the single most frequently occurring injury was descrubed as the multiple site injury. Multiple site injuries accounted for 38% of all admissions to hospital, and fractures for 46%.

Passengers The most commonly occurring



Graph 1. % Admission rate by road user type

injury was a sprain/strain to the neck (12%), followed by contusion injuries to the chest wall/ribs (6%). Fractures accounted for the highest number of admissions to hospital, again most commonly involving ribs (20% of all admissions) and upper legs (15% of all admissions).

Drivers As with passenger injuries, the most common injury was a sprain/strain to the neck (15% of cases). Contusion to the chest wall/ribs (5%) and multiple injuries (5%) were the next most common injuries. The injury most commonly associated with admission to hospital was fractured ribs

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(22%), revealing the vulnerability of this body region in drivers.

High Risk Age Groups:

Road User Type	*Age Group*	*% of total sample*
Driver	20-24	21%
Passenger	15-19	20%
Motorcyclist	20-24	28%
Bicyclist	10-14	38%
Pedestrian	10-14	20%

Causality and the Text Narrative:

Information provided by people injured on the road provides insight into the circumstances surrounding the accident and suggests ways these injuries might have been avoided. Some examples follow for:

Drivers

- *Hit by another vehicle which went through a red light.*
- *Fell asleep behind the wheel causing a road accident. Not wearing a seatbelt.*

Passengers

- *Passenger in car when brakes failed and car slid on road crashing into tree.*
- *Passenger in car when driver lost control of car due to wet conditions.*
- *Passenger on a bus when it collided with a car, thrown forward, hurting neck.*

Motorcyclists

- *Riding motorbike when bike slid out under brakes after hitting oil patch on road.*
- *Travelling on motorbike. Front wheel locked and slid across road.*
- *Lost control of motorbike going around curve of the road in the rain.*

Bicyclists

- *Fell off bike when sideswiped a parked car. Wearing protective helmet/hard hat.*
- *Fractured forearm riding bicycle. Swerved to miss pole and fell off. Wearing protective helmet/hard hat.*

Pedestrians

- *Ran across road and hit by car.*
- *Unaccompanied child playing in car let handbrake off. Car started rolling and child jumped out and was run over.*
- *Getting out of car on road-side and was knocked over by another car.*
- *Walking across the road when a car overtaking another vehicle struck him.*
- *Hit by car on pedestrian crossing.*

Road Toll Trends: In the February edition of *Road Safety Education News* this year, an analysis of the **fatal** road toll by road user type for 1995 revealed that the greatest proportional increases over the 1990 to 1994 average were associated with motorcycle and pedestrian accidents. The only road user category to show a decrease was *bicyclists.*

An analysis of the **injury** road toll by road user type for 1995 also revealed a decrease in bicycle related injuries. The number for 1995 had reduced by 45% compared to the 1990 to 1994 average.

However, any similarity between the trend for the fatal, as opposed to the trend for the injury road toll is limited to this one road user type (Table 1). The injury trend revealed proportional decreases for all road user types, with those associated with pedestrian injuries (54%) and motorcyclist injuries (53%) being even greater than for bicyclists.

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Road user type	1995		1994		1990-1994 5 year average		*Difference 1995 from 5 year average	
	Fatality	*Injury*	Fatality	*Injury*	Fatality	*Injury*	Fatality	*Injury*
Driver	181	*912*	177	*1105*	170	*1018*	11	*-106*
Passenger	119	*537*	108	*928*	108	*889*	11	*-352*
Motorcyclist	54	*207*	45	*367*	46	*439*	8	*-232*
Bicyclist	10	*476*	13	*605*	15	*865*	-5	*-389*
Pedestrian	92	*130*	79	*246*	67	*284*	25	*-154*
Total	**456**	***2262***	**422**	***3251***	**406**	***3495***	**50**	***-1233***

Table 1 Queensland Fatalities & QISPP database Injuries by road user type

Nursery Furniture

Injuries to children under five, involving nursery furniture, resulted in 72 presentations at South Brisbane hospitals in 1995.

The items of furniture most commonly involved were:

Baby walkers	22%
Highchairs	18%
Change Tables	17%
Prams	17%
Cots	13%

• 90% of the injuries resulted from falls off or out of the nursery equipment. Of these 30% fell >1 metre.

• 80% of the baby walker injuries involved falls on stairs compared with 17% for the whole sample.

• 89% of the children injured were < 2 years old (45 - 0-1 years, 19 - 1-2 years).

• There were twice as many boys as girls injured and in the 0-1 age group there were three times as many boys injured.

• 89% of injuries occurred in the home.

• The intent of more than half of the injuries was unknown while 29 were deemed unintentional and one an act of child abuse.

• The head and face were the body parts most frequently injured (47%).

• Injuries included:
  20 concussion/intracranial ;
  15 contusions;
  13 fractures; and,
  7 lacerations.

• There was one immersion after a child fell from a pram into a pool.

Recommendations

CAPFA (Child Accident Prevention Foundation) advise parents to look for Australian Standards when purchasing nursery furniture. They further recommend :

change tables - never leave a baby alone on a change table, use a retaining belt , and keep pins and lotions out of the baby's reach but within adult reach.

cots - choose a cot that complies with the Australian Standard AS 2172, appropriate for the age of the child; place it away from windows, heaters and power points; ensure nothing hangs into the cot; when the baby starts to climb replace the cot with a bed.

highchairs - choose one that is stable and has a child harness including a strap between the legs; supervise the child in the high chair; place it away from walls, windows and appliances.

prams - choose a pram that is stable, with a good brake and a child harness; use the harness; avoid loading up the handles of the pram; supervise the child in the pram.

baby walkers - are not recommended for use at all as they pose an unacceptable injury risk.

Baby Walkers

According to the Office of Consumer Affairs, baby walkers are becoming more difficult to obtain as retailers are becoming more aware of the potential hazard they pose and no longer stock them.

However it will take some time for the number of baby walkers in the community to substantialy decrease as they are passed on or sold second hand.

Possible design modifications to improve safety include devices to govern speed (baby walkers can travel at 1 metre per second) or widening the walker to prevent it passing through door ways.

	Drivers	Passengers	Motorcyclists	**Bicyclists**	Pedestrians
1988	227	198	103	182	62
1989	213	178	89	190	61
1990	180	168	81	193	56
1991	151	137	69	159	49
1992	128	116	69	137	38
1993	169	135	70	102	43
Total	1068	932	481	963	309
88-93 Av.	178	155	80	161	52
1994	166	139	55	91	37
Difference	12	16	25	70	15
Proportional Decrease	7%	10%	31%	**43%**	29%
Rank	5	4	2	**1**	3

Table 2. Injuries per 100 000 by road user type: QISPP data

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Need for a State Sampling Plan for Injury Surveillance: It is interesting to note these opposite trends. However, despite this apparent contrast between the mortality and injury patterns over this five year period, generalisations cannot be made by comparing Statewide with local South Brisbane figures. Clearly, there are no neat explanations. The increase in the fatal road toll across four of the five road user types, cannot be explained by corresponding injury decreases. However, these differences do suggest the importance of detailed, representative injury surveillance data as a means of obtaining a more comprehensive picture, and understanding of the road toll. To this end, QISPP has submitted a proposal to Queensland Health for a State Sampling Plan for Injury Surveillance that would provide such data.

When the numbers of Statewide deaths are seen against the overwhelming number of injuries in a single urban area of Queensland, the picture obtainable from the comparatively small dataset of road deaths, appears undeniably limited.

Decrease in Bicycle-related injury as a result of Queensland road safety initiatives: When the injury rate is calculated per 100,000 population of QISPP's participating hospitals' drainage area of South Brisbane, QISPP data coincides with road fatality data in identifying that the road user type associated with the greatest gains of late, is *bicyclists* (Table 2).

**Rate per 100,000 population for 1995 could not be calculated as the ABS Estimated Resident Population for that year is not available.*

From 1988, when the QISPP data collection commenced, to 1990, the rate of bicycle-related injury was gradually increasing each year. In 1991, there was a dramatic decrease in the number of bicycle-related injuries recorded. The rate of 159 per 100,000 population was 23 less than for 1988. This decrease coincided with the introduction of legislation for compulsory wearing of bicycle helmets in June 1991. The decrease in 1992 was almost double that of the previous year, and in 1993, with the introduction of a penalty for failure to wear bicycle helmets, the gain was increasing exponentially.

Meg Lewis-Driver
Coordinator QISPP

Thag Anderson becomes the first fatality as a result of falling asleep at the wheel.