

## SPECIAL REPORTS

# Injury mortality among children and teenagers in Australia, 1994

Ian Scott, Jerry Moller, Stan Bordeaux

This data set follows the paper on injury mortality among children and teenagers in the United States, 1993 published in *Injury Prevention* in June 1996.<sup>1</sup> As for that paper our table 1 (see also table 2) shows mortality data presented by external cause of injury and poisoning codes in the *International Classification of Diseases*, 9th revision (ICD-9 E-codes) according to (1) mechanism or cause of death and (2) intent of injury or manner of death. The single difference in presentation is the separate listing in table 1 of the 'medical misadventure' category as usual Australian practice is to exclude this from 'total injury'.

The data are from the National Injury Surveillance Unit (NISU) of the Australian Institute of Health and Welfare and based on information reported on death certificates and coroner's reports filed in the six states and two territories.

deaths as occupant and pedestrian are leading causes of death for all age groups. Drowning accounts for approximately one third of injury deaths among children aged 1 to 4 years. Suicide by firearm, poison and by ingestion and unintentional poisoning are substantial causes of death in teenagers aged 15-19 years. For teenagers, the Australian and US suicide rates are similar but the Australian homicide rate is 1/15 that in the US.

The 1994 data shows a substantial drop over time, in the first year ICD-9 was used, 1979, there were 1616 deaths at 32.11/100 000 (data from NISU). Motor vehicle traffic deaths fell from a rate of 19.02/100 000 in 1979 to a rate of 7.27 in 1994. Among those aged 15-19 years the fall was from 48.57 to 20.64.

**Kidsafe, Melbourne, Australia**  
I Scott

**National Injury Surveillance Unit, Adelaide, Australia**  
J Moller  
S Bordeaux

Correspondence to:  
Ian Scott, Director of Policy and Research, Kidsafe Australia, 10th Floor, 123 Queen Street, Melbourne, Victoria 3000, Australia.

## Data highlights

There were 852 injury deaths among those aged 0-19 years in 1993 at a rate of 15.85/100 000 population. Motor vehicle traffic

<sup>1</sup> Fingerhut LA, Annett JL, Baker SP, Kochanek KD, McLoughlin E. Injury mortality among children and teenagers in the United States, 1993. *Injury Prevention* 1996; 2: 93-4.

Table 1 Childhood mortality, Australia, 1994 (age in years)

E code	0-19		<1		1-4		5-9		10-14		15-19		
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	
Motor vehicle traffic (MVT)													
Unintentional	E810-819	387	7.20	7	2.74	32	2.48	37	2.89	51	4.00	260	20.33
Occupant	.0, .1	253	4.71	7	2.74	22	1.71	17	1.33	25	1.96	182	14.23
Motorcyclist	.2, .3	29	0.54	0	*	0	*	0	*	0	*	29	2.27
Pedal cyclist	.6	26	0.48	0	*	0	*	5	0.39	9	0.71	12	0.94
Pedestrian	.7	74	1.38	0	*	10	0.78	15	1.17	16	1.26	33	2.58
Unspecified	.9	5	0.09	0	*	0	*	0	*	1	*	4	0.31
Intentional/undertermined	E958.5, E988.5	4	0.07	0	*	0	*	0	*	0	*	4	0.31
MVT, all	E810-819, E958.5	391	7.27	7	2.74	32	2.48	37	2.89	51	4.00	264	20.64
	E988.5												
Pedestrian, other	E800-E807 (.2) E820-E825 (.7) E826-E829 (.0)	12	0.22	1	*	5	0.39	0	*	2	*	4	0.31
Firearm, all		48	0.89	0	*	2	*	3	*	2	*	41	3.21
Unintentional	E922	1	*	0	*	0	*	0	*	1	*	0	*
Suicide	E955 (.0-.4)	36	0.67	0	*	0	*	0	*	1	*	35	2.74
Homicide	E965 (.0-.4) E970	11	0.20	0	*	2	*	3	*	0	*	6	0.47
Intent unknown	E985 (.0-.4)	0	*	0	*	0	*	0	*	0	*	0	*
Drowning													
Unintentional	E830, E832, E910	85	1.58	4	1.57	44	3.41	12	0.94	5	0.39	20	1.56
Drowning, all	E954, E964, E984	88	1.64	4	1.57	44	3.41	12	0.94	3	*	23	1.80
Fire/flames													
Unintentional	E890-E899	28	0.52	1	*	13	1.01	7	0.55	4	0.31	3	*
Fire/flames, all	E958.1, E968.0, E988.1	31	0.58	1	*	13	1.01	8	0.63	5	0.39	4	0.31
Suffocation, all		76	1.41	5	1.96	12	0.93	4	0.31	6	0.47	49	3.83
Unintentional,													
Inhalation/ingestion	E911-912	6	0.11	0	*	5	0.39	1	*	0	*	0	*
Other	E913	14	0.26	5	1.96	6	0.47	2	*	1	*	0	*
Suicide	E953	51	0.95	0	*	0	*	0	*	3	*	48	3.75
Homicide	E963	4	0.07	0	*	1	*	1	*	1	*	1	*

Table continued

Table 1 continued

E code	0-19		<1		1-4		5-9		10-14		15-19			
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate		
Intent unknown	E983	1	*	0	*	0	*	0	*	1	*	0	*	
Falls														
Unintentional	E880-E886, E888	11	0.20	1	*	0	*	0	*	2	*	8	0.63	
Falls, all	E957, E968.1, E987	21	0.39	1	*	0	*	0	*	3	*	17	1.33	
Cutting/piercing														
Homicide	E966 E974	16	0.30	3	*	4	0.31	1	*	1	*	7	0.55	
Cutting/piercing, all	E920, E956, E986	19	0.35	3	*	4	0.31	1	*	2	*	9	0.70	
Poisoning, all		71	1.32	1	*	3	*	1	*	4	0.31	62	4.85	
Unintentional	E850-E869	35	0.65	1	*	1	*	0	*	3	*	30	2.35	
Suicide	E950-E952	29	0.54	0	*	0	*	0	*	0	*	29	2.27	
Homicide	E962-E972	3	*	0	*	2	*	1	*	0	*	0	*	
Intent unknown	E983	4	0.07	0	*	0	*	0	*	1	*	3	*	
Other causes														
Unintentional		59	1.10	1	*	12	0.93	9	0.70	11	0.86	26	2.03	
Suicide		12	0.22	0	*	0	*	0	*	1	*	11	0.86	
Homicide		15	0.28	3	*	8	0.62	0	*	0	*	4	0.31	
Undetermined intent		3	*	0	*	1	*	0	*	0	*	2	*	
Medical misadvent		6	0.11	2	*	0	*	1	*	1	*	2	*	
Total other causes		95	1.77	6		2.35	21	1.63	10	0.78	13	1.02	45	3.52
All injury deaths														
Unintentional	E800-E949	646	12.01	23	9.00	118	9.15	69	5.39	82	6.44	354	27.68	
Suicide	E950-E959	145	2.70	0	*	0	*	0	*	6	0.47	139	10.87	
Homicide	E960-E978	51	0.95	6	2.35	17	1.32	7	0.55	3	*	18	1.41	
Intent unknown/other	E980-E999	10	0.19	0	*	1	*	0	*	2	*	7	0.55	
Total		852	15.85	29	11.35	136	10.55	76	5.94	93	7.30	518	40.51	
Population		5 376 787		255 475		1 289 147		1 279 226		1 274 097		1 278 842		

Source: Australian Institute of Health and Welfare, National Injury Surveillance Unit, based on death registrations and coroner's reports collected by Australian Bureau of Statistics.

Notes: rates are calculated as deaths/100 000 population. Rates based on a low number of deaths are unstable and, in line with Australian practice are replaced with \* below four deaths. Estimates of variability can be calculated from table 2.

Table 2 Poisson table: death data, 1994 (95% CI Poisson variability as a proportion of No of cases)

No	%	No	%
4	0.98	40	0.31
5	0.89	50	0.28
6	0.81	100	0.20
7	0.74	200	0.14
8	0.70	500	0.09
9	0.65	1000	0.06
10	0.62	2000	0.04
20	0.44	5000	0.03
30	0.36	10000	0.02

CI=confidence interval.

## Injury mortality among children and teenagers in England and Wales, 1992

Carolyn DiGuseppi, Ian Roberts

The following table summarises 1992 injury mortality rates among children and teenagers in England and Wales. For these analyses we used annual numbers of injury deaths rather than annual numbers of death registrations as published in routine mortality data. Late registrations are common in injury deaths, often because an inquest is being held. Nearly one third of injury deaths registered each year in England and Wales were late registrations from previous years. To facilitate comparisons, we used the same data conventions for external cause of injury as in the recently published report on injury mortality among children and teenagers in the United States.<sup>1</sup> Injury mortality rates were calculated using published census population denominator data. We have chosen to present all rates except those in categories with no deaths. Due to space limitations, the 95% confidence limits for the death rates cannot be included in the table, but

these should be considered when interpreting the rates shown.

1992 is the most recent year for which there are mortality data coded for external cause of injury available from the Office of National Statistics. Trend analyses indicate that injury death rates in England and Wales declined 5.7% per year between 1985 and 1992.<sup>2</sup> Assuming death rates have continued to follow these downward trends, 1993 rates can be estimated to be 5.7% lower than the rates shown in the table.

### Data highlights

Of the 1422 injury deaths among children and teenagers in England and Wales in 1992, 49% were attributable to motor vehicle traffic, for a rate of 5.39 deaths/100 000 population. Motor vehicle traffic deaths accounted for 62% of all unintentional injury deaths. Of all injury

Institute of Child Health, University of London, UK: Department of Epidemiology C DiGuseppi

Child Health Monitoring Unit I Roberts

Correspondence to: Dr Carolyn DiGuseppi, Department of Epidemiology, Institute of Child Health, 30 Guilford Street, London WC1N 1EH, UK.