



# Summary Report

## Child Death Review Team Annual Report 2006

The purpose of the New South Wales Child Death Review Team (the Team) is to prevent or reduce the number of deaths in New South Wales of children and young people aged 0-17 years.

The specific research functions of the Team are to maintain a Child Death Register, analyse the data regarding the causes of death, identify patterns and trends relating to these deaths and make recommendations to government and non-government agencies for the prevention of further child deaths.

### Key Findings

From January to December 2006, the deaths of 628 children and young people aged 0-17 years were registered in New South Wales. Males account for 61.0 per cent of these deaths (383 deaths) and females account for 39.0 per cent (245 deaths).

#### Trends in child deaths: Year of registration by sex, 1996 to 2006

Year of registration	Females		Males		Total	
	n	Rate	n	Rate	N	Rate
1996	314	41.1	463	57.7	777	49.6
1997	320	41.8	436	54.1	756	48.0
1998	281	36.4	426	53.1	707	44.7
1999	351	45.2	463	56.8	814	51.2
2000	303	38.8	442	53.9	745	46.6
2001	299	38.0	402	48.4	701	43.5
2002	262	33.4	367	44.5	629	39.1
2003	244	31.3	322	39.2	566	35.4
2004	234	30.0	311	37.9	545	34.1
2005	250	32.2	349	42.6	599	37.5
2006	245	31.6	383	46.8	628	39.4

Note: Rate shows the rate of death per 100,000 children and young people aged 0-17 years.

### There is an increase in the overall death rate

There is an increase in the overall death rate for the second consecutive year. The rate in 2006 is the highest since 2001. The increase is explained by the rise in infant deaths (both male and female) and deaths of males overall.



### **There is an increase in the number of infant deaths**

There is an increase in the number of infant deaths from 367 in 2005 (61.3% of all deaths) to 401 (63.9% of all deaths) in 2006. This is the second consecutive year that the number of infant deaths increased.

### **The death rate is higher for males than for females**

The overall death rate for males in 2006 is 46.8 per 100,000 compared with 31.6 for females. This pattern of higher death rates for males has been evident since 1996.

### **Rates of death for 1-17 year olds remain steady**

The death rates from diseases and morbid conditions and external causes of death among children and young people aged 1-17 years are similar to 2005 at 7.7 deaths per 100,000 and 6.8 deaths respectively.

### **Males are more likely to die from external causes than females**

The rate of deaths due to external causes for children aged 1-17 years is substantially higher for males than for females (10.2 deaths per 100,000 and 3.1 deaths respectively).

### **Vulnerable children are over-represented in external causes of death**

Children identified as vulnerable are more likely to die from external causes of death compared with those not identified as vulnerable (24.6% compared with 16.8%). Of note, 70.0 per cent of assault deaths, 62.5 per cent of drowning deaths and 40.0 per cent of sudden and unexpected deaths in infancy were of children identified as vulnerable.

### **Aboriginal and Torres Strait Islander children and young people are over-represented**

Of the 628 children and young people who died in 2006, 84 (13.4%) were identified as Aboriginal or Torres Strait Islander. In 2001, it was estimated that 3.5 per cent of the total population were Aboriginal or Torres Strait Islander<sup>1</sup>. Based on these data, the rate of death among Aboriginal and Torres Strait Islander children and young people in 2006 is estimated to be nearly four times the overall child death rate in New South Wales.

### **There is an increase in the rate of transport fatalities**

There is a substantial rise in the rate of transport fatalities. This rise is due to an increase in the male death rate for these incidents, which is the highest since 1997.

<sup>1</sup> Australian Bureau of Statistics (2001). Census of Population and Housing 2001: Unpublished data. Australian Bureau of Statistics: Canberra.



### **Aboriginal children and young people are over-represented in transport fatalities**

Fourteen (21.5%) of the children who died in transport incidents were identified as Aboriginal or Torres Strait Islander. Young people in the 15-17 year age group account for a higher proportion of the Aboriginal and Torres Strait Islander fatalities than in the non Aboriginal fatalities (57.1% compared to 39.2%).

### **There is a decrease in the number of house fire fatalities**

There is a substantial reduction in house fire deaths compared to 2004 and 2005. Only one child died in an unintentional house fire in 2006.

### **Remote areas have higher rates of death**

The most remote regions in New South Wales have the highest rate of child deaths in the state. This is particularly pronounced for the 1-17 year olds. The death rate in the most remote regions is 37.5 per 100,000 children aged 1-17 years (95%CI: 9.6-65.4). This is more than three times the death rate seen in highly accessible areas (11.6 deaths per 100,000 children aged 1-17 years; 95%CI: 9.2-14.0).

### **Children in areas of greatest relative socio-economic disadvantage are over-represented**

Children living in disadvantaged areas are far more likely to die than in other areas. This is particularly pronounced for the 1-17 year olds. The death rate in the second most disadvantaged group is 19.2 (95%CI: 13.7-24.7). This is nearly three times greater than that for the least disadvantaged group (7.9 deaths per 100,000 children aged 1-17 years; 95%CI: 4.5-11.4).

### **The distribution of child death varies across NSW**

For children and young people aged 1-17 years, rates range from a low of 4.3 deaths per 100,000 children and young people aged 1-17 years in the Inner-Sydney SSD (95%CI: 0-10.3) to a high of 41.3 deaths in the North-Western SD (95%CI: 18.8-63.7).

For infants aged less than one year, the Richmond-Tweed SD shows the lowest infant death rate (256.0 deaths per 100,000; 95%CI: 93.9-557.2). The highest rate is for the Central West SD (885.8 deaths per 100,000; 95%CI: 533.3-1383.3).

In 2006, the Team referred the high death rates in the Nowra-Bomaderry SSD for the period 2001 to 2004 for further investigation by the Chief Health Officer. The Chief Health Officer found that, while the area had higher death rates compared with the overall rate in New South Wales, the rates were comparable with many other SSDs on statistical testing, due to the small numbers of deaths involved and the wide confidence intervals. The review also found that there were no common factors that explained the higher death rate in the area compared with the state rate.



### Age and gender patterns are evident

Consistent with previous years, the data supports an association between age, sex and cause of death.

Infants under one year of age account for the majority of all deaths (63.9% of all deaths). Most infant deaths (62.6% of all infant deaths) are due to conditions originating in the perinatal period.

External causes of death feature more prominently in the deaths of children aged over one year with transport incidents being the leading cause of death for these children. The nature of the transport incidents varies according to the age group of the children. Young people in the 15-17 year age group are more likely to die in incidents associated with adolescent risk-taking behaviours while children in the 1-4 year age group (which includes the years when mobility and exploratory skills usually start to develop), are more likely to die in pedestrian incidents associated with inadequate supervision.

The rate of deaths due to external causes for children aged 1-17 years is substantially higher for males than for females. Prevention efforts need to take this difference into account by targeting males, particularly in the 1-4 and 15-17 year age groups, where rates of external causes of death are highest.

### Sudden Unexpected Deaths in Infancy

There were 54 sudden and unexpected deaths of infants in this reporting period. Thirty-seven of the infants were male and 18 were female. The majority of these deaths were due to Sudden Infant Death Syndrome (25 deaths).

Risk-factors previously identified by the Team were evident in these deaths, including co-sleeping (25 infants); exposure to tobacco smoke (34 infants); unsafe bedding including placement of infants in an environment that contains pillows and doonas (27 infants); and inappropriate sleeping position (12 infants). For 47 of the 54 infants (87.0%), at least one of these risk factors was present.

Four infants died when they were bed-sharing with their mother while being breastfed.



## Transport fatalities

Transport incidents have consistently been the leading external cause of death for children and young people aged 0-17 years. In 2006, 65 children and young people died as a result of transport incidents (50 males and 15 females). The overall transport fatality rate was 4.1 deaths per 100,000 children and young people aged 0-17 years. This is a substantial increase from 2005 and is accounted for by an increase in the male fatality rate.

As with previous years, the majority of these deaths were due to passenger fatalities, followed by driver and pedestrian fatalities.

Young males in the 15-17 year age group accounted for the majority of transport related fatalities. Driver inexperience, speed and inappropriate restraint use featured in most of the fatalities involving this age group. Ten of the fatalities from this age group occurred in four incidents.

## Suicides

Seven children and young people (5 males and 2 females) died by suicide in 2006. The overall rate of suicide was 1.3 deaths per 100,000 children and young people aged 12-17 years. This is a decline from 2005 and is the lowest rate since the Team began reporting in 1996. The small number of cases limits the conclusions that can be drawn. It is unclear whether reductions in suicide rates are associated with reductions in suicide attempts.

## Fatal assaults

Ten children and young people were fatally assaulted in 2006. All the children were male. The deaths of these children and young people will be reviewed in detail by the NSW Ombudsman. Consistent with the age profile of fatal assault deaths last year, the majority of deaths were of children aged four years and younger.

The overall rate of death from assault in 2006 was 0.6 deaths per 100,000 children and young people aged 0-17 years. This rate has shown little variation since the Team began reporting.



## Drowning fatalities

Fifteen children and young people (12 males and 3 females) drowned in 2006. Consistent with previous years, the majority of these children were in the 1-4 year age group (8 deaths). The overall rate of death for drowning was 0.9 deaths per 100,000 children and young people aged 0-17 years. This is an increase from 2005 and is accounted for by an increase in the rate of drowning for males.

Consistent with previous years, the majority of drowning deaths occurred in private swimming pools. Inadequate pool fencing and the supervision of young children were identified as issues in relation to these deaths. In this reporting period, two children drowned in public swimming pools or spas.

## Preventing further deaths

The Child Death Review Team makes recommendations aimed at preventing or reducing child deaths. This year, the Team monitored and reported on 11 recommendations from previous reports and will continue to monitor the following recommendations:

### CDRT 2002 Annual Report

- That Families First be enhanced to enable the provision of sustained home visiting for all high risk families for up to two years.

### Sudden Unexpected Deaths in Infancy (2005)

- The NSW Government and SIDS and Kids NSW should use prevention strategies that are effective with the high-risk groups identified in this study.
- The NSW Government and SIDS and Kids NSW should place more emphasis on the risk associated with the side sleeping position in prevention strategies. Post implementation evaluation should be undertaken for this and the previous recommendation to assess their success.
- NSW Health should monitor safe sleeping practices including the use of the side sleeping position, used by health professionals in maternity and neonatal wards.
- Professional bodies and NSW Health should disseminate information regarding modifiable risk factors for SUDI. This should be preceded by a study which investigates the most effective methods to disseminate this information.



- The NSW government should align the information currently collected throughout the SUDI response with international standards. It should emphasise multi-agency work, close collaboration and sharing of information, and be gathered by professionals with appropriate training and expertise. The Team believes that this can be achieved by the end of 2006.
- The NSW government should make sure that the tasks of the SUDI response are only undertaken by professionals with the appropriate role, knowledge (including up-to-date knowledge of relevant legislation, policies and guidelines) and expertise.
- Pathologists should follow an agreed protocol and make consistent decisions. Post mortem examinations should only be conducted by pathologists with specialist knowledge or experience, for example paediatric pathologists or forensic pathologists with specific training and expertise in paediatrics. The Team believes that this can be achieved by mid 2006.
- The NSW government should adopt a multi-agency integrated system of response to sudden and unexpected deaths in infancy. This will involve agreeing on a definition, clearly identifying the tasks of individual agencies and professionals and developing a model of response. It should reflect the findings from this study and address the key aspects identified including how to achieve the balance between care and investigation; collection and recording of comprehensive information; involvement of appropriate personnel; multi-agency case review and continual improvement; and monitoring and research. In developing the response, the needs of the family should be a central consideration. NSW Health should lead the coordination of this. The Team anticipates that this system would be developed by the end of 2006.

No new recommendations were made this year. The Team is currently undertaking a special research study on trends in child deaths from 1996 to 2005, focusing on particular causes of child deaths and specific groups of children. It is expected that further recommendations will be made following the findings of this study.

## Want more information?

This information is a summary of the NSW Child Death Review Team's 2006 Annual Report.

The full report and other Child Death Review Team reports are available at

<http://kids.nsw.gov.au/kids/resources/publications/childdeathreview.cfm>

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