

# Childhood (5–12 years)



This section focuses on 'school age' childhood (5–12 year olds). For many children this is the first major transition in life from the family home and into other environments, such as full-time compulsory schooling. This brings about challenges and risks. Both their behaviour and the physical and social environment increase the risk of adverse events such as injuries, the development of chronic conditions, mental and behavioural problems, and risk factors that persist into adolescence and adulthood. This is a crucial time for learning, social and

emotional development and social participation, and the acquisition of literacy and numeracy skills. It is also a critical time for establishing good health and social behaviours.

The following table presents national data for each of the measures of the five indicator topics for health and key health risk factors, and for each of the indicators for education and crime. Where time series data has been referred to on an indicator page, the direction of the recent trend is shown in the table.

Indicator	Measure	Value	Trend
<b>Injury and poisoning</b>	<b>Total hospitalisations due to injury and poisoning per 100,000 5–12 year olds</b>	<b>1,366</b>	<b>~</b>
	Hospitalisations due to transport accidents per 100,000 5–12 year olds	232	~
	Hospitalisations due to falls per 100,000 5–12 year olds	652	~
	Hospitalisations due to burns and scalds per 100,000 5–12 year olds	16	✗
	Hospitalisations due to accidental poisoning per 100,000 5–12 year olds	10	✓
	Hospitalisations due to accidental drowning per 100,000 5–12 year olds	3	~
<b>Chronic disease and mental health</b>	Hospitalisations for asthma per 100,000 5–12 year olds	331	✓
	Hospitalisations for mental health and behavioural disorders per 100,000 5–12 year olds	178	~
	Hospitalisations for diabetes per 100,000 5–12 year olds	85	✗
<b>Dental health</b>	Average number of decayed, missing or filled teeth in 6 year olds	2	✗
	Average number of decayed, missing or filled teeth in 12 year olds	1	~
<b>Physical activity/ screen time</b>	Percentage of children aged 5–12 years who did not participate in any organised sport or dancing in 2 weeks	42	..
	Percentage of children aged 5–12 years with 40 hours or more 'screen time' in 2 weeks	16	..
<b>Overweight and obesity</b>	Percentage of 6–11 year olds who were obese	6	..
	Percentage of 6–11 year olds who were overweight but not obese	17	..
<b>Literacy and numeracy benchmarks</b>	Percentage of Year 5 children meeting national reading benchmarks	88	~
	Percentage of Year 5 children meeting national writing benchmarks	94	~
	Percentage of Year 5 children meeting national numeracy benchmarks	90	~
<b>Crime</b>	Children aged 0–9 years who were victims of robbery, per 100,000	2	..
	Children aged 10–14 years who were victims of robbery, per 100,000	61	..
	Children aged 0–9 years who were victims of kidnapping or abduction, per 100,000	4	..
	Children aged 10–14 years who were victims of kidnapping or abduction, per 100,000	11	..
	Children aged 10–12 years under juvenile justice supervision, per 100,000	44	✓

Key: ✓ = favourable trend; ✗ = unfavourable trend; ~ = no change or clear trend; .. = no trend data presented.

## ► Injury and poisoning

### Measure: Injury hospitalisations for 5–12 year olds due to selected causes, per 100,000 population

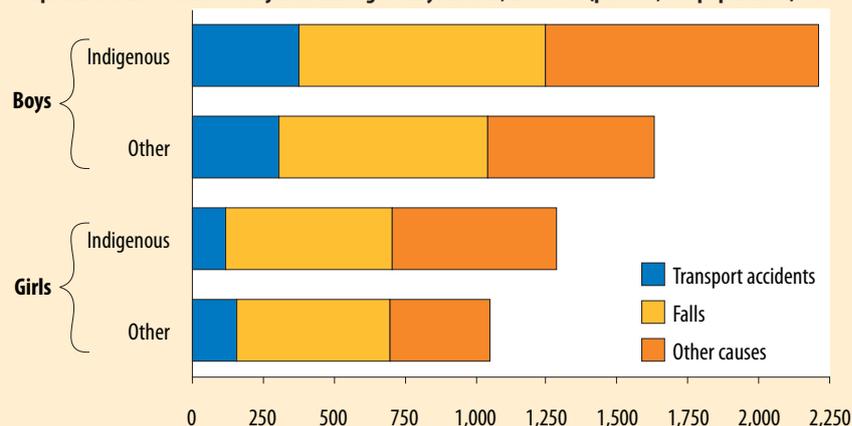
Injuries (including poisoning) are a major cause of acute care utilisation, long-term disability and mortality among children. They are the leading cause of death of children aged 1–14 years in every industrialised country, including Australia.<sup>62</sup> Among 5–12 year olds injuries and poisoning accounted for one-third of all deaths in 2006 and almost 30,000 hospitalisations in 2006–07 (see also *Mortality*, p. 7). Injuries can also result in permanent disability. In 2003, more than 120,000 Australians had a disability where their main disabling condition was caused by an injury that occurred before the age of 20.<sup>63</sup> Therefore injuries, which are largely preventable, are responsible for a great deal of personal suffering and cost to the health system and wider community.

Children are exposed to a range of settings where there is potential for injury or poisoning to occur, including school, sporting environments, streets and neighbourhoods. Injuries sustained among older children are increasingly influenced by behaviour in addition to their physical and social environment. The compulsory use of bicycle helmets and seat-belts, safe playgrounds, and reduced speed limits and traffic-calming devices in school zones are examples of injury prevention initiatives relating to individual behaviour and physical and social environments.

Injury prevention and control has been a National Health Priority Area since 1986. A key priority of the National Injury Prevention and Safety Promotion Plan 2004–2014 is to create a positive safety culture and a safe environment, particularly for children.<sup>90</sup>

- ▶ Almost 30,000 hospitalisations due to injury among 5–12 year olds in 2006–07 (1,366 per 100,000 population).
- ▶ Injury hospitalisation rates were 60% higher for boys than girls, and 30% higher for Indigenous than other children.
- ▶ Falls (650 per 100,000 or 48% of injury hospitalisations) and transport accidents (mostly motor vehicle accidents; 230 per 100,000 or 17%) were the leading causes of injury hospitalisation.

Hospitalisations for selected injuries among 5–12 year olds, 2006–07 (per 100,000 population)



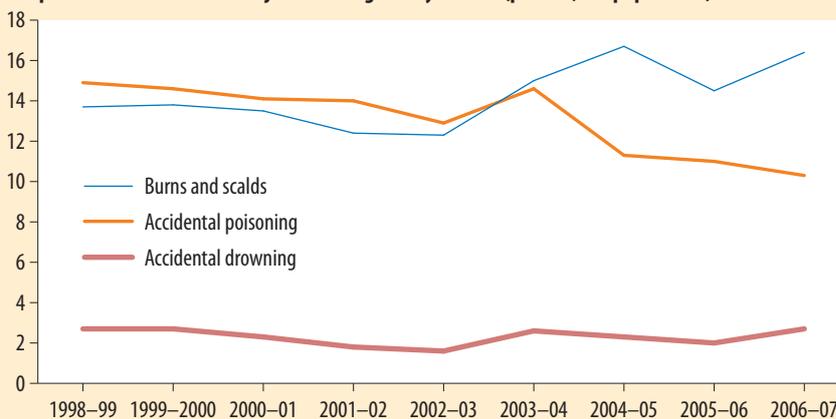
Notes

1. Due to data quality issues with Indigenous data, this figure is based on hospitalisations in NSW, Vic, Qld, WA and SA, and public hospitals in NT.
2. See Berry & Harrison 2007<sup>64</sup> for details of injury classifications from hospital morbidity data.

Source: AIHW National Hospital Morbidity Database.

- ▶ Accidental poisoning rate has declined by almost one-third, but rate for burns and scalds has increased by one-fifth since 1998–99.
- ▶ No clear trend in hospitalisation rates for accidental drowning, or for falls or transport accidents.

Hospitalisations for selected injuries among 5–12 year olds (per 100,000 population)



Note: See Berry & Harrison 2007<sup>64</sup> for details of injury classifications from hospital morbidity data.  
Source: AIHW National Hospital Morbidity Database.

### Key messages

- ▶ Around 30,000 children aged 5–12 years are hospitalised for injuries each year—there has been little change in the rate over the past decade.
- ▶ Boys 60% more likely than girls to be hospitalised for injuries; Indigenous children 30% more likely than other children.
- ▶ Hospitalisation rate due to burns and scalds has increased by 20% in a decade.

## ▶ Chronic disease and mental health

### Measure: Hospitalisations for 5–12 year olds for selected chronic health conditions, per 100,000 population

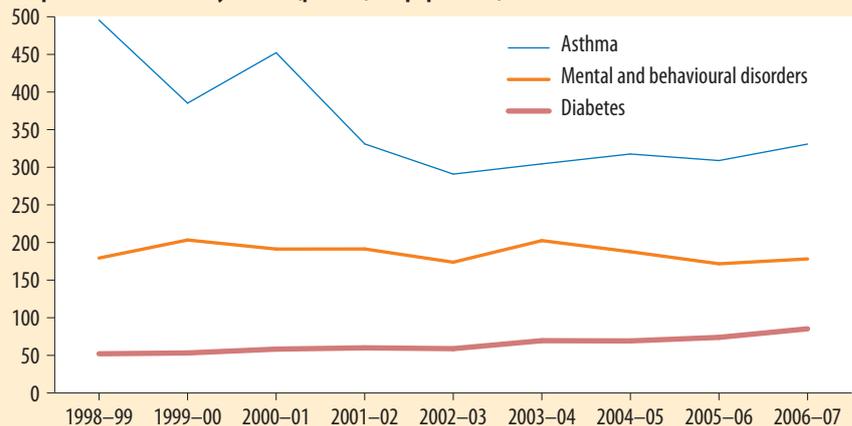
Despite substantial health gains due to reductions in rates of communicable disease and death, chronic disease remains a significant challenge to the health and wellbeing of Australian children. This section presents data on three chronic health conditions that are National Health Priority Areas. Asthma is the most common long-term health condition among children. Diabetes is less common but can have severe consequences in the short and long term, including diabetic coma, kidney failure, loss of limbs and premature death.<sup>65</sup> Mental and behavioural disorders are also included as many of these are chronic conditions and may have health and social consequences for affected children later in life (see also *Mental health*, p.31).

Broad measures of chronic conditions in children may be based on surveys (such as National Health Surveys), or diagnosed or treated populations (such as the National Diabetes Register). Hospitalisations due to specific conditions represent the extent to which chronic diseases require acute care and are presented here. Differences in hospitalisation rates between types of conditions or population groups, or over time, reflect a range of factors including prevalence, severity, access to and effectiveness of early intervention, and access to and effectiveness of management and treatment in the community.

Asthma, diabetes and mental health are all National Health Priority Areas. COAG has committed to establishing a Preventative Health Care Partnership, including addressing the major risk factors contributing to increasing rates of diabetes and poor mental health.<sup>9</sup> Australian Health Ministers have established a National Asthma Strategy 2006–2008, which provides a framework for a collaborative approach towards improving asthma care in Australia.<sup>66</sup> The Australian Government has also formulated a National Primary Health Care Strategy to improve management of chronic disease.<sup>67</sup>

- ▶ The hospitalisation rate due to diabetes has increased by two-thirds since 1998–99 (85 per 100,000 in 2006–07, or 1,900 hospitalisations for 5–12 year olds). Almost all hospitalisations (98%) were for Type 1 diabetes.
- ▶ Asthma hospitalisation rate decreased by one-third to 331 per 100,000 children between 1998–99 and 2006–07.
- ▶ There has been no real change in the hospitalisation rate for mental and behavioural disorders—178 per 100,000 (3,900 hospitalisations for 5–12 year olds) in 2006–07.

Hospitalisations of 5–12 year olds (per 100,000 population)

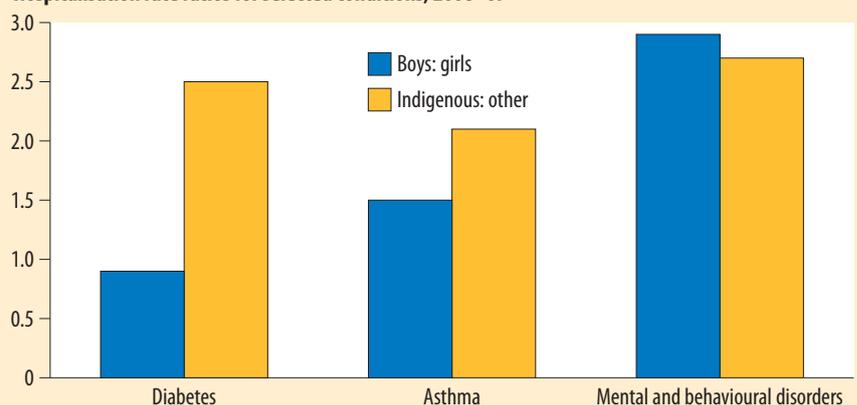


Note: Hospitalisation counts are based on the principal diagnosis.

Source: AIHW National Hospital Morbidity Database.

- ▶ Hospitalisation rates were higher for boys than girls for asthma (1.5 times as high) and for mental and behavioural disorders (2.9 times).
- ▶ Rates for Indigenous children were 2–3 times as high as for other children for each selected chronic condition.

Hospitalisation rate ratios for selected conditions, 2006–07



Note: Due to data quality issues with Indigenous data, rate ratios for Indigenous to other children were calculated based on hospital data from NSW, Vic, Qld, WA SA, and public hospitals in NT.

Source: AIHW National Hospital Morbidity Database.

### Key messages

- ▶ Children's hospitalisation rates have fallen considerably for asthma, but have risen for diabetes (mostly Type 1 diabetes).
- ▶ Boys and Indigenous children are at increased risk of hospitalisation due to asthma, and mental and behavioural disorders. Indigenous children are also more than twice as likely as other children to be hospitalised for diabetes.

## ▷ Dental health

### Measure: Mean number of decayed, missing or filled teeth among 6 year olds and 12 year olds

Poor dental health adversely affects children's health and overall wellbeing. Untreated dental caries facilitate abscess formation, cellulitis and systemic disease. Oral disease can lead to failure to thrive and school absences, negatively affecting educational performance.<sup>68</sup> Poor nutrition or an unbalanced diet high in sugar may place children at an increased risk of developing dental health problems such as gum disease and dental caries.<sup>69</sup>

The number of teeth decayed, extracted due to decay, or teeth with fillings is an indicator of oral disease in the population. Good oral health in childhood contributes to better dental outcomes in adulthood—less decay and the loss of fewer natural teeth. It also enhances children's confidence, self-esteem, appearance, chewing ability and participation in social activities.<sup>70</sup>

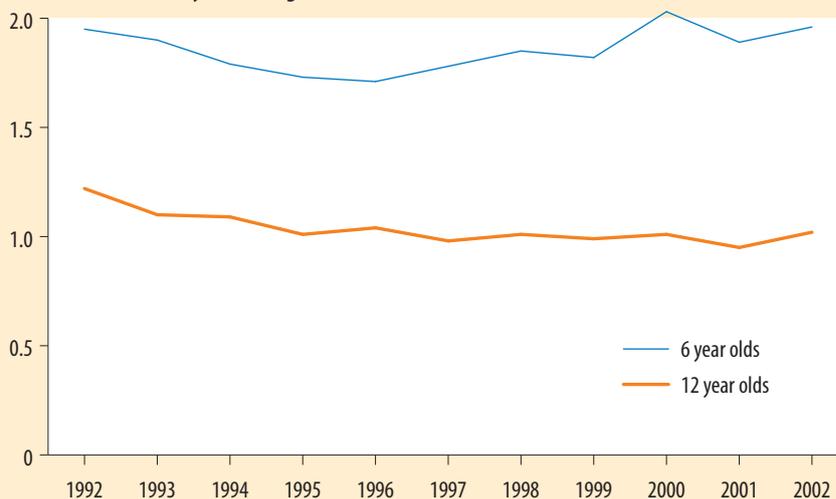
The dental health of Australia's children has improved substantially since the mid-1970s.<sup>2</sup> This trend can be attributed to a number of factors, including increased access to fluoridated toothpaste and drinking water, improved dental hygiene, and provision of clinical preventive services and ongoing monitoring through the School Dental Scheme. However, since the mid-1990s the decline in dental decay has been arrested or reversed.

The mean number of decayed, missing or filled teeth among 12 year olds has been endorsed by Health, Community and Disability Services Ministers as a Headline Indicator of children's health, development and wellbeing.<sup>3</sup>

COAG has committed to provide additional dental health services, delivering up to one million consultations and services over 3 years under the Commonwealth Dental Health Program, including 48,000 services over 4 years to Indigenous Australians.<sup>30</sup>

- ▶ Average number of decayed, missing or filled 'permanent teeth' among 12 year olds has been relatively stable at 1.0 since the mid-1990s.
- ▶ Dental decay among 6 year olds has increased since the mid-1990s, from 1.7 to 2.0 (1996–2002).

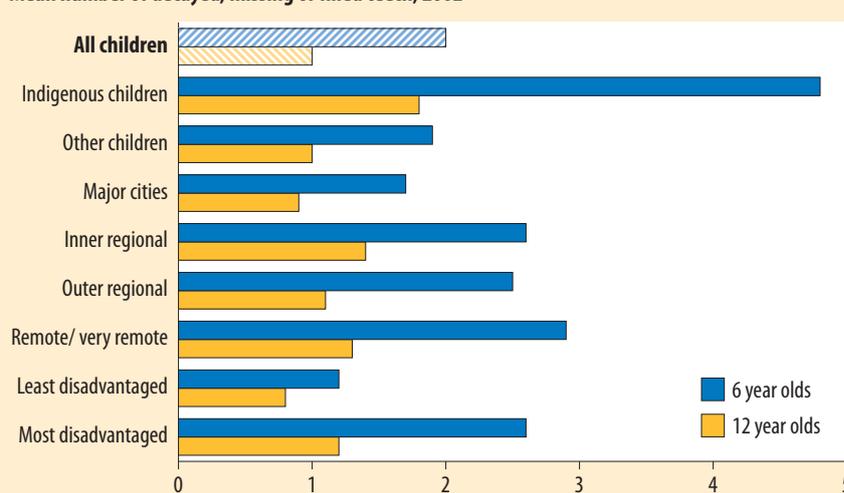
Mean number of decayed, missing or filled teeth



Note: Excludes children in NSW.  
Source: Child Dental Health Survey, unpublished data.

- ▶ On average, Indigenous children had more decayed, missing or filled teeth than other children in 2002 (2.5 and 1.8 times as many for 6 and 12 year olds respectively).
- ▶ Children living outside major cities (including those in regional areas) and in the most disadvantaged areas experienced worse dental health than average.

Mean number of decayed, missing or filled teeth, 2002



Note: Excludes children in NSW.  
Source: Child Dental Health Survey 2002, unpublished data.

## Key messages

- ▶ Australia compares favourably with other OECD countries, ranking 8th out of 30 countries in mean decay experience among 12 year olds in 2002.<sup>46</sup>
- ▶ Indigenous children and children living outside major cities or in areas of high socioeconomic disadvantage are at increased risk of dental health problems, with the gap between population groups higher for 6 year olds than 12 year olds.

## ► Physical activity/screen time

**Measure 1: Percentage of children aged 5–12 years who did not participate in any organised sport or dancing in a 2 week period**

**Measure 2: Percentage of children aged 5–12 years who spent 40 or more hours participating in screen activities over a 2 week period**

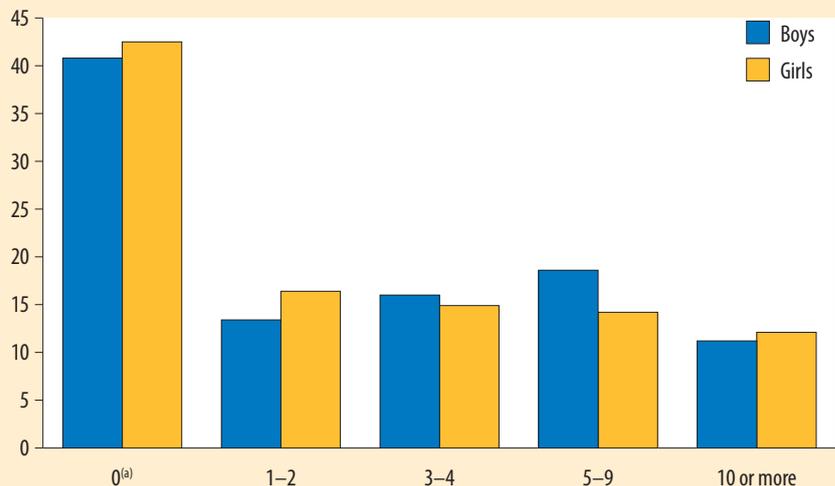
Regular physical activity has many benefits to health and wellbeing of children and is an important factor in maintaining good health. It reduces the risk of being overweight or obese; having high blood pressure, Type 2 diabetes and cardiovascular disease; protects against some forms of cancer; and strengthens the musculoskeletal system.<sup>65,71</sup> Physical activity also has psychosocial benefits, reducing symptoms of depression, stress and anxiety, and improving self-confidence, self-esteem, energy levels, sleep quality and the ability to concentrate.<sup>72</sup>

Physical activity includes any activity that requires children to expend energy, including sports, domestic duties or simply playing. It is important to consider children's physical activity alongside information on the amount of screen time they engage in, as various studies have found a positive correlation between hours of television viewing and overweight.<sup>73</sup>

The National Physical Activity Guidelines for Australian children aged 5–18 years recommend at least 60 minutes of moderate to vigorous physical activity and no more than 2 hours of screen time (for example, watching television or using a computer) per day.<sup>74</sup>

- 42% of 5–12 year olds (880,000 children) did not participate in any organised sport or dancing over a fortnight in April 2006.
- Similar proportions of children spent 1–2, 3–4 and 5–9 hours in organised physical activities (15–16%), and 12% were involved for 10 or more hours over a 2-week period.

Participation in organised sport or dancing outside school hours by 5–12 year olds: hours spent over 2 weeks, April 2006 (per cent)

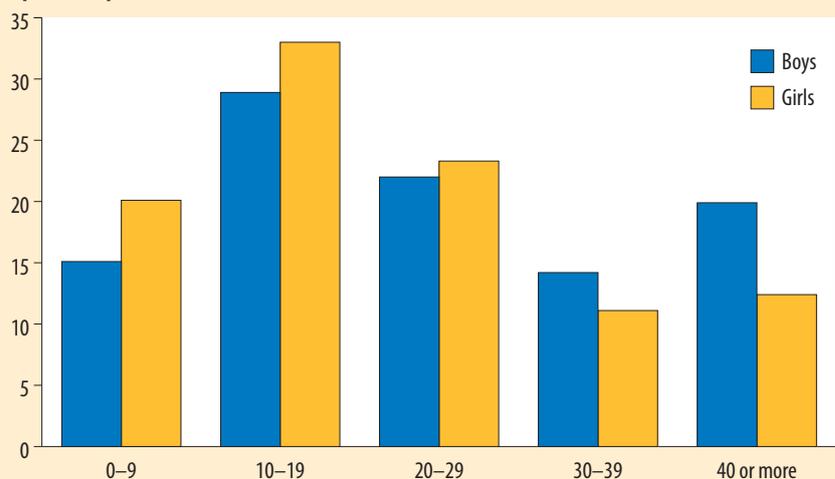


(a) Includes children who participated in the last 12 months, but not the past 2 weeks.

Source: ABS 2006 Survey of Children's Participation in Cultural and Leisure Activities, unpublished data.

- 16% of children spent 40 or more hours in a fortnight on screen activities, excluding internet activities. The rate was 60% higher among boys than girls.
- 49% of boys who spent 40 hours or more on screen activities participated in organised physical activities, compared with 58% of boys generally. The difference was less for girls.

Participation in screen activities<sup>(a)</sup> outside school hours by 5–12 year olds: hours spent over 2 weeks, April 2006 (per cent)



(a) Includes watching TV, videos, DVDs, and playing electronic or computer games. Does not include internet activities such as messaging, emailing, downloading music and surfing the Internet.

Source: ABS 2006 Survey of Children's Participation in Cultural and Leisure Activities, unpublished data.

### Key messages

- More than half of all 5–12 year olds were involved in organised sport or dancing outside school hours in 2006.
- One in six children spent 40 hours or more on screen activities in a fortnight; the rate was higher for boys than girls.

## ► Overweight and obesity

### Measure: Percentage of 6–11 year olds who are overweight or obese

Children who are overweight or obese are at increased risk of developing physical and mental health problems. In the short to medium term they may experience serious conditions such as gallstones, hepatitis, sleep apnoea, asthma, cardiovascular conditions and Type 2 diabetes.<sup>75,76</sup> In the long term, consequences of childhood weight problems include adult obesity, increased rates of coronary heart disease, diabetes, certain cancers, gall bladder disease, osteoarthritis and endocrine disorders.<sup>1</sup> In addition, overweight and obese children frequently experience discrimination, victimisation and teasing by their peers and are more likely to have mental health problems than children with other chronic health conditions.<sup>77</sup>

Many interacting factors lead to increased body weight. All children naturally gain body weight as they grow and develop; however, for excess weight gain to occur, an imbalance must exist between the amounts of energy children are consuming and the energy they expend over an extended period of time. While genetics plays a role, it is clear that cultural, environmental, economic, familial and individual behavioural factors also influence the likelihood of this imbalance occurring.

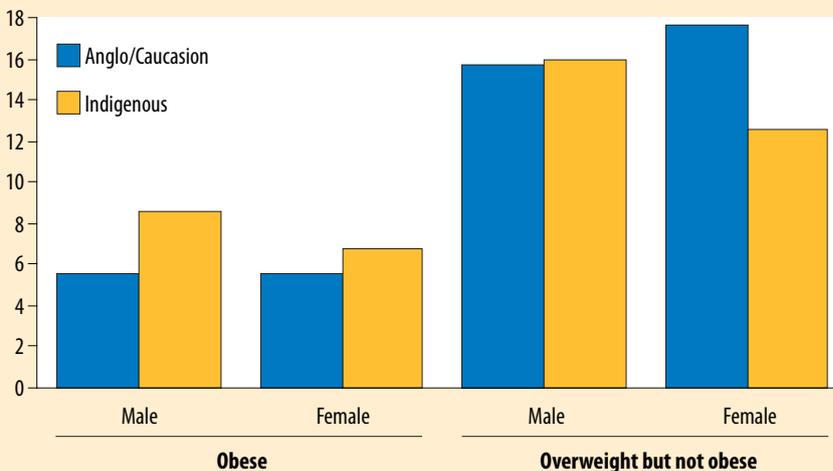
Rates of overweight and obesity among children have been endorsed by Health, Community and Disability Services Ministers as a Headline Indicator of children's health, development and wellbeing.<sup>3</sup>

Australian Health Ministers made obesity a National Health Priority Area in 2008.<sup>95</sup> The Australian Government has also established the Preventative Health Taskforce, aimed at reducing the burden of chronic disease caused by obesity, tobacco and the excessive consumption of alcohol.<sup>78</sup> This Taskforce is responsible for the development of a National Obesity Strategy.<sup>95</sup>

► 6% of children aged 6–11 years were obese in 2006, and an additional 17% were overweight but not obese.

► Obesity rates were higher for Indigenous boys than Anglo/Caucasian boys.

Percentage of 6–11 year olds overweight or obese, by ethnicity, 2006



Notes

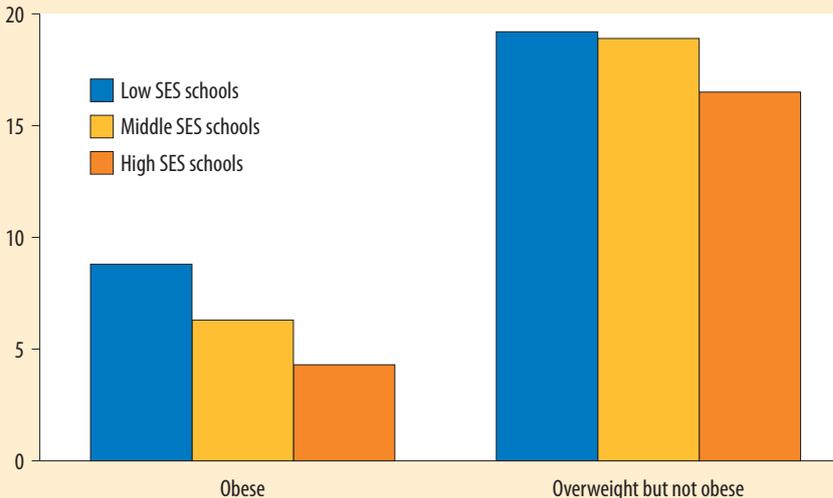
1. See Cole et al. 2000<sup>96</sup> for Body Mass Index (BMI) cut-offs for overweight and obese categories.
2. Other ethnicities were included in the study but are not presented here.
3. Based on measured height and weight.

Source: O'Dea 2008.<sup>79</sup>

► Students in the most disadvantaged schools had higher rates of overweight and obesity than students in the least disadvantaged schools.

► The social gradient was greater for obese children than for overweight (excluding obese) children.

Percentage of school children aged 6–11 years overweight or obese, 2006



Notes

1. Socioeconomic status (SES) of school was calculated based on a government survey of total family income.
2. See Cole et al. 2000<sup>96</sup> for body mass index (BMI) cut-offs for overweight and obese categories.
3. Based on measured height and weight.

Source: O'Dea 2008.<sup>79</sup>

### Key messages

- 6% of primary school-aged children (6–11 year olds) were obese, and 17% were overweight but not obese in 2006.
- Overweight and obesity rates in children increased with socioeconomic disadvantage.

## ► Literacy and numeracy

### Measure: Percentage of Year 5 students who achieve the national benchmarks for reading, writing and numeracy

The acquisition of literacy skills in the schooling years is the basis for further educational attainment, social development and employment. The concepts of literacy and numeracy encompass the skills required to identify, understand, interpret, create, communicate and compute using written and printed materials in various contexts, including information and communication technologies.<sup>80</sup>

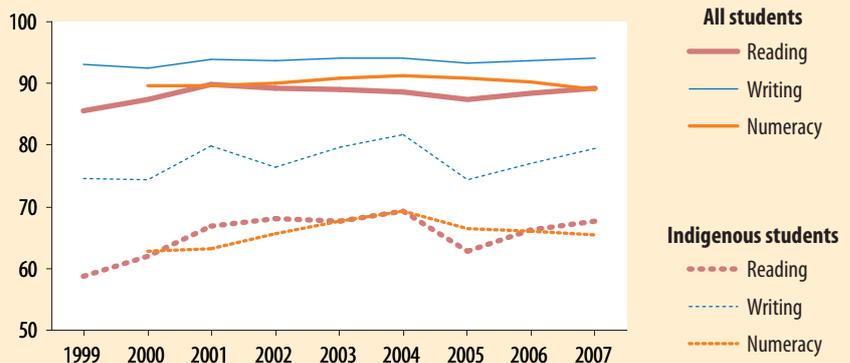
People with limited literacy and numeracy tend to experience greater difficulty in finding employment. In terms of business and the economy, low levels of functional literacy and numeracy are a recognised major barrier to growth.<sup>81</sup> Educational outcomes measured through test scores during the school years, including literacy and numeracy scores, are predictive of social exclusion and there is a strong connection between health and socioeconomic gradients related to education, employment and income.<sup>6,82</sup>

Ministers for Health, Disability and Community Services have endorsed literacy and numeracy benchmarking results for Year 5 students as a Headline Indicator of children's health, development and wellbeing<sup>3</sup>.

COAG has committed to the development of a broad national strategy for early childhood development and reforms in schools.<sup>10</sup> COAG has also committed to the development and implementation of a national curriculum in key learning areas by 2010.<sup>9</sup> For Indigenous young people, COAG has committed to halve the gap in reading, writing and numeracy achievements within a decade.<sup>60</sup>

- Around 9 in 10 Year 5 students met the national benchmarks in 2007—89% for reading and numeracy, and 94% for writing.
- Fewer Indigenous students met the benchmarks in each area—66% for numeracy, 68% for reading, and 80% for writing. More Indigenous students met the reading benchmarks in 2007 than in 1999, but there has been no significant change in the writing and numeracy gaps.

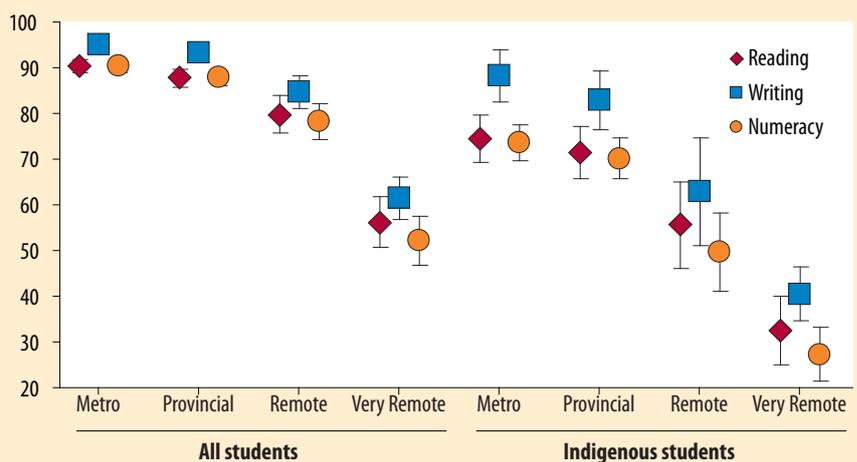
Percentage of Year 5 students achieving literacy and numeracy benchmarks



Source: National report on schooling in Australia. MCEETYA 2008.<sup>83</sup>

- Students living in remote and very remote areas were less likely to meet the reading, writing and numeracy benchmarks than students in metropolitan areas.
- Indigenous students had lower than average rates of meeting the benchmarks within metropolitan, remote and very remote areas.
- Two-thirds of Indigenous students in very remote areas did not meet the reading and numeracy benchmarks, and more than half did not meet the writing benchmark.

Percentage of Year 5 students achieving literacy and numeracy benchmarks



Source: National report on schooling in Australia. MCEETYA 2008.<sup>83</sup>

### Key messages

- Most Year 5 students met national literacy (reading and writing) and numeracy benchmarks.
- There is a significant gap between Indigenous students and the national average for literacy and numeracy. It is not limited to Indigenous students living in remote parts of Australia.
- Australian Year 4 students ranked 8th in science and 16th in mathematics out of 25 participating countries in an international benchmarking study in 2003.<sup>84,85</sup>

## Crime

**Measure 1: Number of children aged 0–14 years who were victims of selected crimes, per 100,000 population**

**Measure 2: Number of children aged 10–12 years who are under juvenile justice supervision, per 100,000 population**

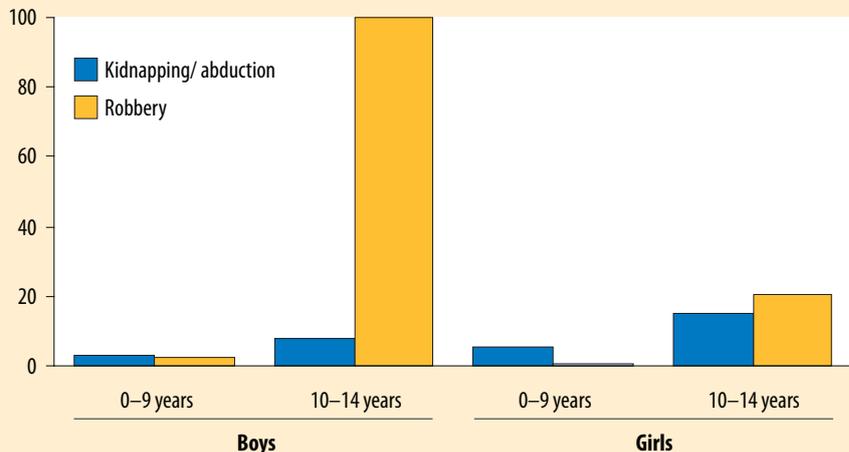
Being a victim of crime can be detrimental to a child's health, wellbeing, sense of security, safety and feelings about the future. For some children, being victimised may lead to diminished educational attainment and social participation in early adulthood, or result in physical injury, disability and even death. Experience of crime is central to issues of community safety in general, and even more so for children as the most vulnerable members of society. For many children, their personal experience of crime is as victims of child abuse and neglect (see also *Child abuse and neglect*, p. 11).

Some children are themselves perpetrators of crime, and children who have been victimised are at greater risk of later offending.<sup>4</sup> For most children engaged in criminal activities, the nature of the offence is relatively minor and the behaviour is short lived. However, for a small number of children this behaviour becomes more serious or persistent and results in contact with the juvenile justice system. Children whose first juvenile justice supervision order occurs before the age of 13 comprise less than 10% of all young people under supervision,<sup>86</sup> and represent a particularly disadvantaged and high-risk group of the Australian population.

The Australian Government has committed to developing a National Child Protection Framework which will focus on preventing abuse through early intervention and better integration of family services.<sup>87</sup> COAG has also committed to identify joint reforms and implementation timetables for basic protective security from violence for Indigenous parents and children.<sup>30</sup>

- ▶ There were 900 robbery victims aged under 15 years in 2007—95% were aged 10–14 years. The victimisation rate was 5 times as high for boys as for girls.
- ▶ There were 267 kidnapping/abductions of children aged under 15 years—60% were aged 10–14 years. The rate was almost twice as high for girls as boys.

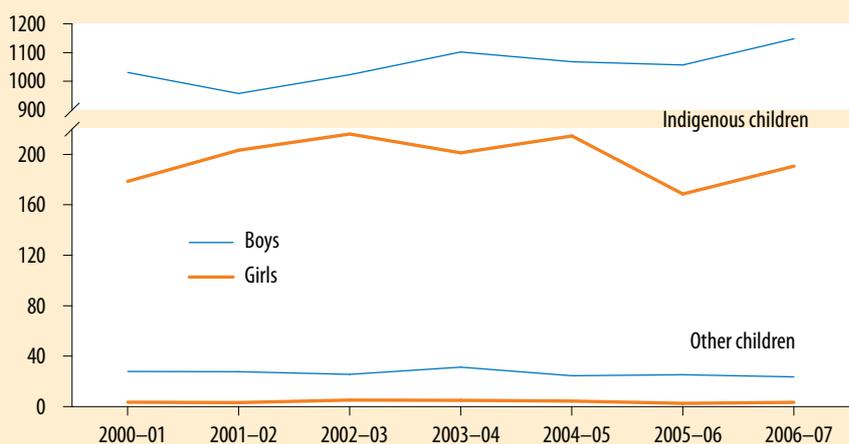
Victims of selected crimes, 2007 (per 100,000 population)



Note: Rates for children being victims of murder and attempted murder are less than 1 per 100,000 for each age group shown. National data on rates of physical and sexual assault are not available.  
Source: ABS Recorded Crime—Victims, Australia 2007 (Cat. no. 4510.0).

- ▶ 360 children aged 10–12 years were under juvenile justice supervision in 2006–07; 70% were Aboriginal or Torres Strait Islander children.
- ▶ Juvenile justice supervision rate was 686 per 100,000 Indigenous children, compared with 14 per 100,000 for other children.
- ▶ Juvenile justice supervision rate rose by 11% for Indigenous children, but fell by 14% for other children (2000–01 to 2006–07).

Number of children aged 10–12 years under juvenile justice supervision (per 100,000 population)



Note: No data were available for the ACT from 2000–01 to 2002–03, therefore national rates across all years exclude the ACT.  
Source: AIHW Juvenile Justice National Minimum Data Set.

## Key messages

- ▶ Children aged 10–14 years are more likely to be victims of robbery or kidnapping/abduction than younger children (0–9 year-olds).
- ▶ Boys are 5 times as likely as girls to be victims of robbery, and 6 times as likely to be under juvenile justice supervision.
- ▶ Indigenous children are over-represented in juvenile justice supervision, 49 times as likely as other 10–12 year olds to be under supervision.