



Shire of Cardinia 2010



Adolescent Community Profile

Shire of Cardinia 2010

This *Adolescent community profile* was prepared by the Office for Children and Portfolio Coordination, in the Victorian Department of Education and Early Childhood Development.

The series of *Adolescent community profiles* draw on data on outcomes for children compiled through the Victorian Child and Adolescent Monitoring System (VCAMS).

The profiles are intended to provide local level information on the health, wellbeing, learning, safety and development of adolescents. They are published to:

- Equip communities with the information required to identify the needs of adolescents and their families within their local government area.
- Assist local government areas to identify key areas of vulnerability for adolescents in their local area and use this information to assist with early intervention strategies.
- Support local government and regional planning of youth services; and
- Assist community service agencies working with vulnerable families and young people.

The Department of Education and Early Childhood Development, the Department of Human Services, the Department of Health, Victoria Police and the Australian Bureau of Statistics provided data for this document.



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Introduction

These *Adolescent community profiles* are compiled by the Data, Outcomes and Evaluation Division of the Department of Education and Early Childhood Development (DEECD). These profiles are intended to provide local level information on the health, wellbeing, learning, safety and developmental outcomes of Adolescent children.

The community profile series include the *Adolescent Community Profiles*, the *Early Childhood Community Profiles* and the *Aboriginal Early Childhood Community Profiles*. These community profiles have been developed to support local areas in using evidence for planning for all Local Government Areas (LGAs) in Victoria. These community profile series are complimented by the Catalogue of evidence-based interventions, which provides evidence-based strategies to address the indicators reported in the profiles. These resources are all products of the Victorian Child and Adolescent Monitoring System (VCAMS).

VCAMS is a comprehensive, across government, monitoring system that reports on the safety, health, development, learning and wellbeing of children and young people, aged 0 to 17, in Victoria. It is intended to underpin planning for improvement at a program, local government and statewide level, as well as to inform research and evaluation to generate new evidence on effectiveness on improving outcomes for children.

What is included?

The Adolescent community profiles are structured based on the Victorian Child and Adolescent Outcomes Framework (depicted on page 4). The indicators are grouped according to the four dimensions: Young Person, Families, Community and Society and are ordered by Outcome Areas within each dimension. Each outcome has one or many associated indicators presented.

Throughout these profiles, adolescents have been defined as young people aged 10 to 17 years. The Adolescent Health and Wellbeing Survey (HowRU) presents information on adolescents in Years 7, 9 and 11. Please refer to the glossary at Appendix C for a comprehensive definition of terms used throughout these profiles.

Parts A and F: Population and Demographics

While it is important to provide local demographics to enable users to determine the characteristics of the population, the latest available data is based on Census 2006 results, which may not reflect current trends in the community.

Demographics has been split to two sections, Part A providing latest population estimates, projections and measures of disadvantage and Part F, containing broader adolescent and family population demographics.

Parts B to E: Adolescent Indicators

This section contains the most recent administrative data and survey data for a selection of health and wellbeing Adolescent indicators. The indicators included in this section are a subset of the 150 indicators that form VCAMS.

Data included in these sections span across 22 outcome areas within VCAMS. A total of 58 indicators of adolescent health, development, learning, safety and wellbeing have been presented in these profiles.

These profiles have been produced for every LGA within Victoria and for the 9 Departmental regions. This is the first resource of its kind that presents a comprehensive report on how adolescents across Victoria are faring.

Notes:

- Some data presented have been suppressed due to the small numbers of the population being measured at an LGA level. These data will either be presented as np (not published) or replaced with broader region data in which that LGA is contained.
- Over half of the indicators presented in these profiles are sourced from the Victorian Adolescent Health and Wellbeing Survey (HowRU). Due to sample size, data was able to be disaggregated at the LGA level for metropolitan areas, but not for rural areas. For rural LGAs, broader region level data are presented for these indicators. See Appendix B for general information about the HowRU survey and Appendix A for HowRU respondent characteristics.
- The population base used to derive rate based measures are based on the latest Estimated Resident Population (ERP) series released by the Australian Bureau of Statistics. Population estimates to 2006 are based on final ERP, 2007 and 2008 population estimates are based on revised estimates and 2009 ERP are based on preliminary estimates. Where rate-based estimates are presented for financial years, the ERP for the denominator is based on the ERP at 30 June of the first year in the reporting period (i.e 2009 - 2010 financial year, ERP for denominator is at 30 June 2009).



Population

A population profile

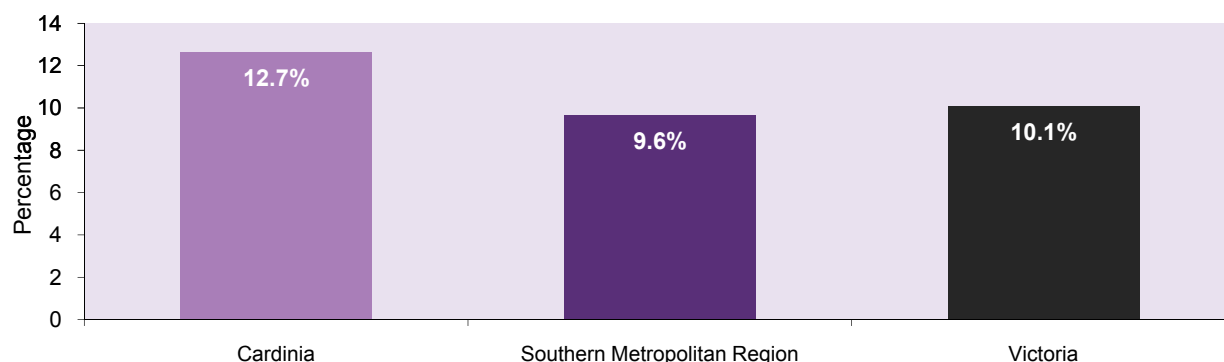
Estimated Resident Population (ERP) of Cardinia, Southern Metropolitan region and Victoria at 30 June 2009.

	Total Population	Adolescents aged 10 to 17 years	Percentage of adolescents (%)
Cardinia	68,641	8,686	12.7
Southern Metropolitan Region	1,305,685	125,916	9.6
Victoria	5,443,228	548,041	10.1

Source: Estimated Resident Population, ABS, 2009 preliminary

- At 30 June 2009, there was an estimated 5,443,228 people residing in Victoria. Of these, 548,041 were adolescent children aged between 10 to 17 years, representing 10.1 per cent of Victoria's total population.
- Cardinia was ranked 7 out of 79 LGAs in terms of the percentage of adolescents in the population. A rank of 1 was assigned to the LGA with the highest percentage of adolescents.

Figure 1: Percentage of adolescents in Cardinia compared to the Southern Metropolitan region and Victoria, 2009.



Source: Estimated Resident Population, ABS, 2009 preliminary

- The percentage of adolescent children in Cardinia (12.7 per cent) is higher than the percentage of adolescents in the Southern Metropolitan region (9.6 per cent) and is higher than the percentage of adolescents in Victoria (10.1 per cent).

Population Projections for Cardinia, 2006 to 2026

	2006 Population	2011 Population	2016 Population	2021 Population	2026 Population
10 to 17 years	7,841	9,539	11,241	13,535	16,808
Total Population	58,559	79,241	100,071	118,146	147,984

Source: Victoria in Future Population Projections, DPCD

- Based on the Department of Planning and Community Development (DPCD) projections, the total population in Victoria is expected to increase by 30.9 per cent from 5,128,310 in 2006 to reach 6,711,190 by 2026. The population of young people aged 10 to 17 years is expected to increase by 14.5 per cent from 543,662 in 2006 to 622,642 by 2026.
- Based on DPCD projections, the population aged 10 to 17 years in Cardinia will increase by 114.4 per cent from 7,841 in 2006 to 16,808 by 2026.
- Based on DPCD projections, the total population of Cardinia will increase by 152.7 per cent from 58,559 in 2006 to 147,984 by 2026.



Population

Measuring disadvantage

The Australian Bureau of Statistics (ABS) produces the Socio-Economic Indexes for Areas (SEIFA). These indexes are derived from data collected in the Census of Population and Housing. SEIFA 2006 comprises four indexes that measure different aspects of socio-economic conditions by geographic areas.

The Index of Relative Socio Economic Disadvantage (IRSED) is one part of SEIFA. It allows users to identify geographic areas that are relatively disadvantaged.

IRSED is derived from Census attributes believed to reflect disadvantage, such as:

- low income
- low educational attainment
- high unemployment
- proportion of work force in relatively unskilled occupations

The ABS standardises the IRSED scores for Census Collection Districts (CDs) so that the average IRSED score across Australia is 1000 and the middle two-thirds of IRSED scores will fall between 900 and 1100.

While a low IRSED score indicates that the LGA is more disadvantaged than another with a higher score, there is no particular score below which an area is classified as disadvantaged and above which it is classified as not disadvantaged.

The IRSED score for Cardinia is 1027.

- Cardinia was in the 9th decile out of all LGAs across Australia. The 1st decile contains the 10 per cent of LGAs that are the most disadvantaged across Australia and the 10th decile contains the 10 per cent that are the least disadvantaged.
- Cardinia was ranked 62 out of 79 LGAs in Victoria. A rank of 1 was assigned to the most disadvantaged LGA in Victoria.

The IRSED can be used to compare disadvantage across LGAs and within LGAs where the LGA consists of more than one Statistical Local Area (SLA).

There are 204 SLAs in Victoria which make up the 79 LGAs.

Statistical Local Areas within Cardinia

- The LGA of Cardinia is composed of just one Statistical Local Area. The IRSED for this area is ranked 162 out of the 204 Statistical Local Areas in Victoria.

Statistical Local Area	2009 ERP of population within SLA	Proportion of population within LGA (%)	IRSED score	Rank out of 204 SLAs in Victoria
Cardinia (S) - North	25,631	37.3	1047	162
Cardinia (S) - Pakenham	37,081	54.0	1018	126
Cardinia (S) - South	5,929	8.6	987	79

Source: Estimated Resident Population, ABS, 2009 preliminary; Census of Population and Housing, ABS, 2006

- A rank of 1 was assigned to the most disadvantaged SLA in Victoria.

Note: Where "Bal" appears in the above table, it refers to the balance or rest of the LGA not covered by the other SLAs.



Victorian Child and Adolescent Outcomes Framework

Each of the indicators presented in the following pages of this community profile link to the Victorian Child and Adolescent Outcomes Framework.

The framework represents a whole of government approach and provides a common basis for setting objectives and planning for children, young people and their families in Victoria.

The 35 agreed outcomes incorporate health, safety, learning, development and wellbeing from birth to 17 years and reflect an ecological model that places the child at the centre of family, community and society.

For further information on the Outcomes Framework, visit
<http://www.education.vic.gov.au/about/directions/children/vcams/default.htm>



Please note:

Each of the indicators presented in the following pages of this profile contain information on why the indicators have been selected and what is measured. For definitions of terms used throughout these profiles, please refer to glossary at Appendix C.



The Young Person

Outcome: Adequate Nutrition

Indicator: Proportion of adolescents who eat the minimum recommended serves of fruit and vegetables every day

What is measured?

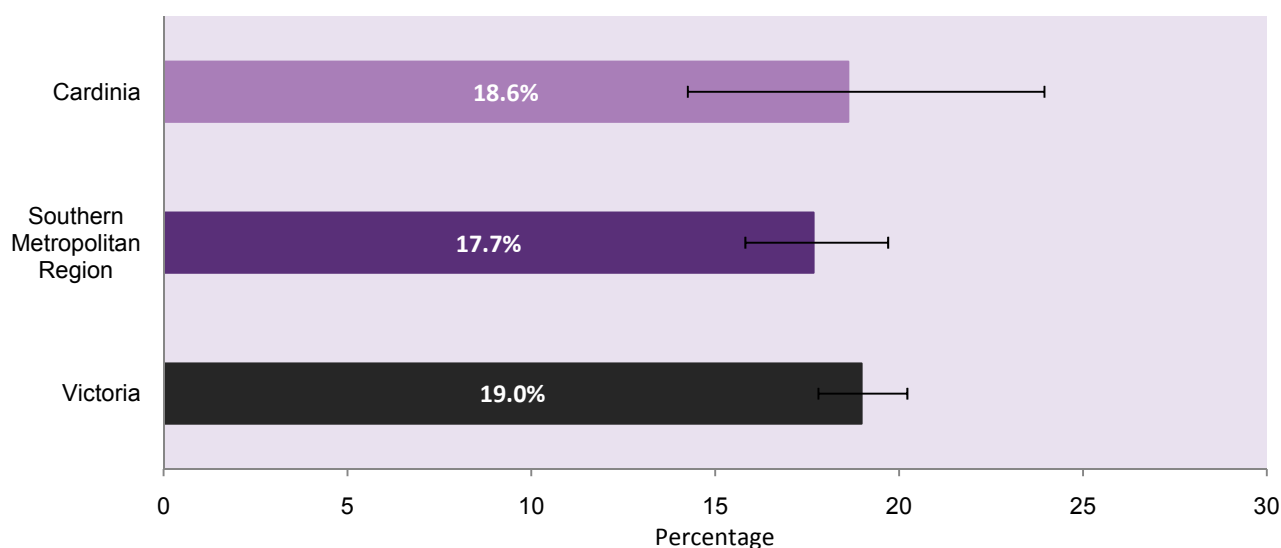
The proportion of adolescents enrolled in Years 7,9 and 11 who are reported to eat at least the minimum recommended serves of fruit and vegetables each day. An adolescent is considered to have met the daily intake requirements if they usually have 3 or more serves of fruit, or four or more serves of vegetables.

Why is it important?

In Australia, as in many Western countries, people often struggle to meet the recommended daily intake of fruits and vegetables. In Victoria, just over one quarter (27.1 per cent) of young people eat their daily serve of fruit. A much greater proportion (57.3 per cent) eat the minimum recommended daily serves of vegetables (ABS 2006).

Fruit and vegetable consumption is strongly linked to the prevention of chronic diseases including coronary heart disease, stroke and Type 2 diabetes (NHMRC 2003).

Figure 8: Proportion of adolescents who are reported to eat at least the minimum recommended serves of fruit and vegetables each day in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, less than a fifth (19.0 per cent) of adolescents in Victoria were reported to usually eat the minimum recommended serves of fruit and vegetables every day.
- There was no significant difference between the proportion of adolescents eating the minimum recommended serves of fruit and vegetables in Rural Victoria compared to those residing in Metropolitan Victoria.
- In 2009, 18.6 per cent of adolescents in Cardinia were eating the minimum recommended serves of fruit and vegetables each day. This was higher than the proportion reported across Southern Metropolitan Region (17.7 per cent), with the difference being non significant.
- The proportion of adolescents eating the minimum recommended serves of fruit and vegetables each day in Cardinia was lower than the proportion reported across Victoria (19.0 per cent), with the difference being non significant.



The Young Person

Outcome: Parent promotion of child health and development

Indicator: Proportion of adolescents aware of sun protection

What is measured?

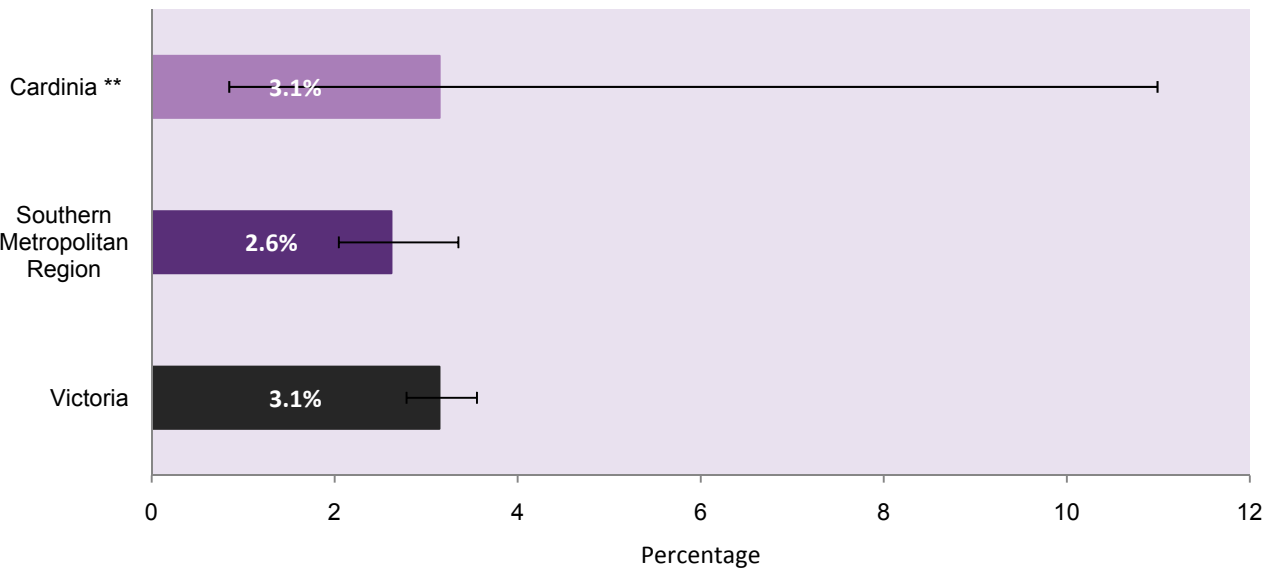
The proportion of adolescents enrolled in Years 7,9 and 11 who **always** wear sunscreen and a hat during summer when outdoors.

Why is it important?

Avoidance of sunlight with the use of clothing and sunscreen, avoidance of exposure to sunlight in the middle of the day, use of a broad-spectrum sunscreen with a minimum sun protective factor 15 and the use of sun protective structures are all strategies that can be employed to reduce the exposure to sunlight.

While adolescents show a high level of awareness of the dangers of sun exposure, they tend to adopt sun protection behaviours less frequently than adults. Young people are at high risk of of experiencing skin damage owing to excessive sun exposure. Australia has a long history of sun protection education; however, there are still sub-optimal practices among adolescents (Source: Centre for Adolescent Health, 2010).

Figure 9: Proportion of adolescents who always wear sunscreen and a hat during summer when outdoors in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.
** Estimate has a relative standard error of greater than 50 per cent and is not considered fit for use.

- In 2009, only 3.1 per cent of adolescents in Victoria adopted safe sun behaviours (always wears sunscreen and a hat during summer when outdoors).
- There was no significant difference between the proportion of adolescents who wore sunscreen and hat outdoors during summer in Rural Victoria compared to those residing in Metropolitan Victoria.
- In 2009, 3.1 per cent of adolescents in Cardinia adopted safe sun behaviours. This was higher than the proportion reported across Southern Metropolitan Region (2.6 per cent), with the difference being non significant.
- The proportion of adolescents who adopted safe sun behaviours in Cardinia was similar to the proportion reported across Victoria (3.1 per cent), with the difference being non significant.



The Young Person

Outcome: Healthy Teeth and Gums

Indicator: Proportion of adolescents who brush their teeth at least twice per day.

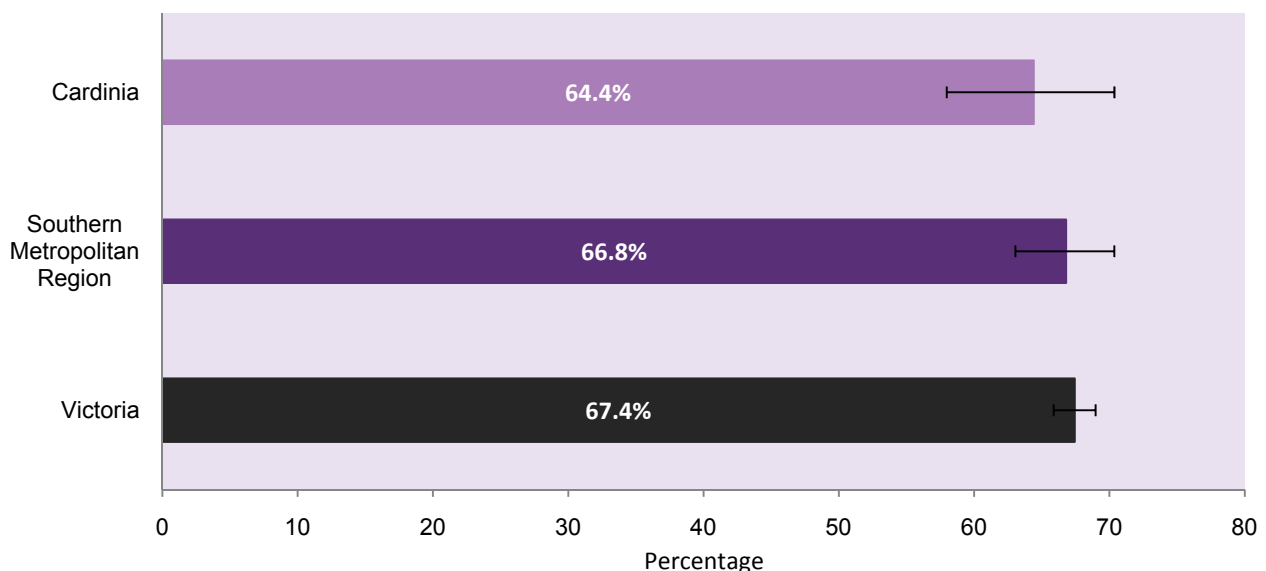
What is measured?

The proportion of adolescents enrolled in Years 7,9 and 11 who are reported to brush his or her teeth at least twice per day.

Why is it important?

Toothbrushing assists in ensuring good oral health. Effective toothbrushing removes dental plaque that can cause inflammation of the gums and dental decay (Robinson et al 2005). If good oral health strategies can be established in the early years, there is greater likelihood that an individual will have good oral health behaviours and oral health outcomes in adult life.

Figure 10: Proportion of adolescents who are reported to brush their teeth at least twice a day in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, the majority (67.4 per cent) of adolescents in Victoria brushed his or her teeth at least twice per day.
- There was no significant difference between the proportion of adolescents in Rural Victoria who brushed twice or more each day compared to those residing in Metropolitan Victoria.
- In 2009, 64.4 per cent of adolescents in Cardinia were reported to brush their teeth at least twice a day. This was lower than the proportion reported across Southern Metropolitan Region (66.8 per cent), with the difference being non significant.
- The proportion of adolescents who brushed their teeth at least twice a day in Cardinia was lower than the proportion reported across Victoria (67.4 per cent), with the difference being non significant.



The Young Person

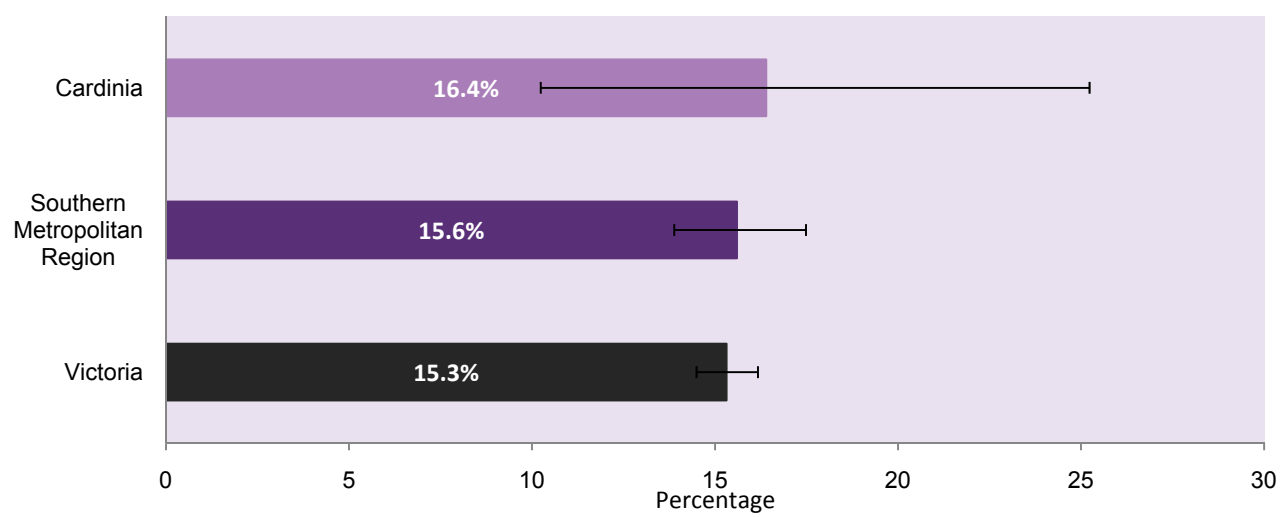
Outcome: Optimal Physical Health

Indicator: Proportion of adolescents with special health care need

What is measured?
The proportion of adolescents enrolled in Years 7,9 and 11 with special health care needs. Refer to glossary at Appendix C for definition of a 'special helath care need'.

Why is it important?
Young people who have special health care needs are a vulnerable population in the community. These young people are at an increased risk for chronic medical, developmental, behavioural or emotional conditions that rely on more complex services to ensure that they get the best possible care.

Figure 11: Proportion of adolescents with a special health care need in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 15.3 per cent of adolescents in Victoria were reported to have special health care needs.
- There was no significant difference between the proportion of adolescents in Rural Victoria who had special health care needs compared to those residing in Metropolitan Victoria.
- In 2009, 16.4 per cent of adolescents in Cardinia were reported to have special health care needs. This was higher than the proportion reported across Southern Metropolitan Region (15.6 per cent), with the difference being non significant.
- The proportion of adolescents who had special health care needs in Cardinia was higher than the proportion reported across Victoria (15.3 per cent), with the difference being non significant.



The Young Person

Outcome: Optimal Physical Health

Indicator: Proportion of adolescents with asthma

What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who reported that they have current asthma.

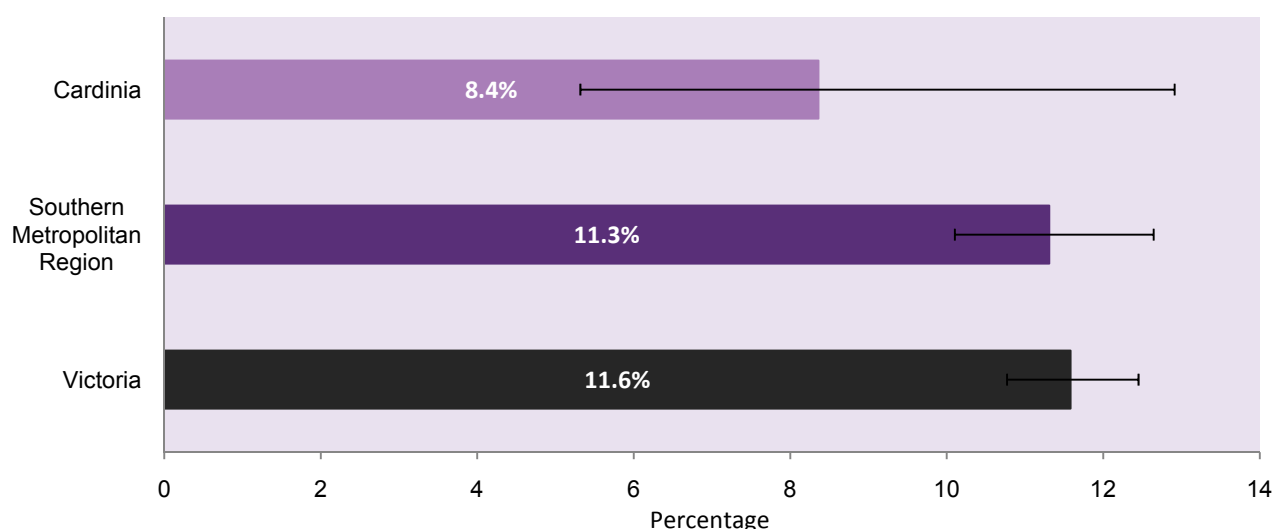
To be counted as having current asthma, the young person must have been told they have asthma by a doctor or nurse and also have reported symptoms or taken treatment for the condition in the last 12 months (for more information see glossary entry for 'Asthma' at Appendix C)

Why is it important?

Asthma is a debilitating condition that affects more than 1 in 10 Australians (AIHW 2008), with estimates of current asthma in 12 to 17 year olds being around 12 per cent. Asthma is the primary cause of disease burden for children living in Victoria and alone accounts for approximately one-fifth of the total disease burden in Victorian children (DHS, 2005).

While the underlying causes of asthma are still not well understood, the condition is associated with a substantial impact on the physical, social and emotional life of children and young people with asthma and their families. It can interfere with school and can create the need for urgent medical care. For the majority of people, asthma can be well controlled with the regular use of medication and the avoidance or controlling of trigger factors.

Figure 12: Proportion of adolescents with asthma in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 11.6 per cent of adolescents in Victoria were reported to have current asthma.
- There was no significant difference between the proportion of adolescents in Rural Victoria who reported current asthma compared to those residing in Metropolitan Victoria.
- In 2009, 8.4 per cent of adolescents in Cardinia were reported to have asthma. This was lower than the proportion reported across Southern Metropolitan Region (11.3 per cent), with the difference being non significant.
- The proportion of adolescents who had current asthma in Cardinia was lower than the proportion reported across Victoria (11.6 per cent), with the difference being non significant.



The Young Person

Outcome: Optimal Physical Health

Indicator: Proportion of adolescents with current asthma who have a written asthma plan

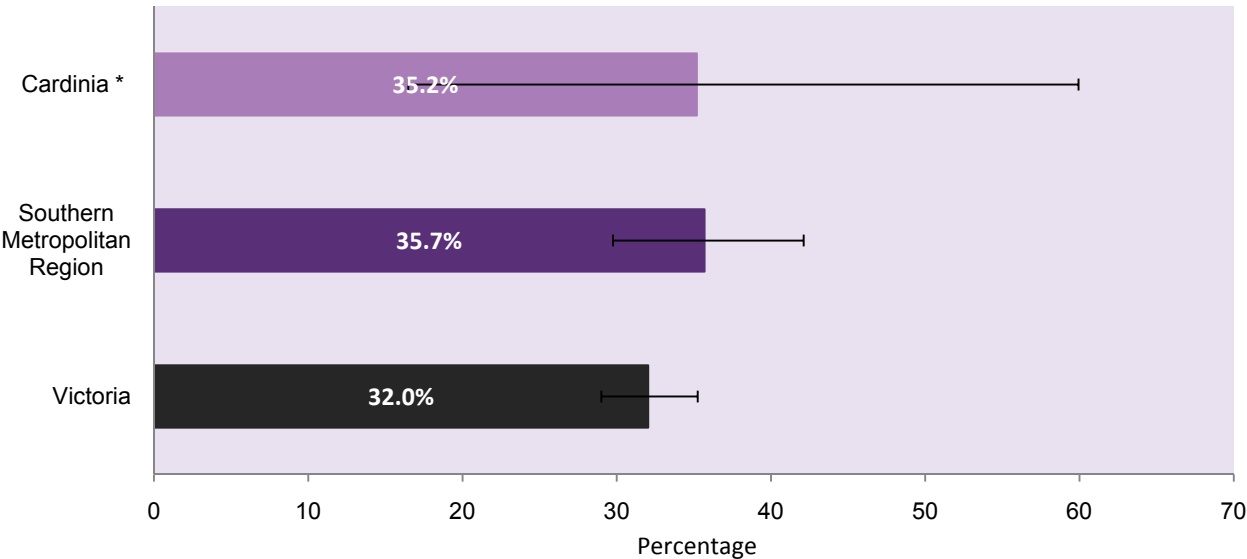
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 with current asthma who also have a written asthma plan. For more information see glossary entry for 'Asthma' and 'Asthma plan' at Appendix C.

Why is it important?

Written asthma action plans are an important component of asthma management (McCormick 1985, McDermott et al 2002). Monitoring the proportion of children and young people with asthma action plans informs the development of interventions and supports to assist children and young people and their families manage asthma symptoms.

Figure 13: Proportion of adolescents with current asthma who have a written asthma plan in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.
* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 32.0 per cent of adolescents in Victoria with asthma reported that they have a written asthma plan.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents with asthma who also had a written asthma plan.
- In 2009, 35.2 per cent of adolescents in Cardinia with asthma also had a written asthma plan. This was lower than, but not significantly different to the proportion reported across Southern Metropolitan Region (35.7 per cent).
- The proportion of adolescents with current asthma who had a written asthma plan in Cardinia was higher than, but not significantly different to the proportion reported across Victoria (32.0 per cent).

The Young Person



Outcome: Optimal physical health

Indicator: Hospitalisation rate for asthma

What is measured?

This indicator measures the rate of hospital separations for asthma in adolescents aged 10 to 17 years. Admissions to hospital are called separations following discharge from the hospital (see glossary entry for 'hospital separations' and 'asthma' at Appendix C).

Why is it important?

Asthma is the most common long-term condition among Australian children aged under 14 years. It is also the most common cause of hospitalisation in this age group (DEECD, 2007). Asthma hospitalisations are included as part of the ambulatory care sensitive conditions, for which hospitalisation are considered avoidable with the application of preventative care and early disease management.

Asthma has been recognised as a priority area for gain for Victoria's children. It is the leading cause of disease burden among children. Estimates suggest that one in four children will develop some form of wheezing sometime during childhood (DHS, 2005). Asthma can have considerable impact on the physical, social and emotional life of those with asthma and their families. It can interfere with school and can create the need for urgent medical care and can even cause premature death (Global initiative for asthma, 2005).

Hospital separations for asthma in adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2005 - 2006 to 2009 - 2010.

2005 - 2006			
	Number of hospital separations for asthma	Adolescent population at 30 June 2005.	Rate per 1000 adolescent children
Cardinia	13	7,475	1.7
Southern Metropolitan region	114	121,789	0.9
Victoria	578	541,742	1.1
2006 - 2007			
	Number of hospital separations for asthma	Adolescent population at 30 June 2006.	Rate per 1000 adolescent children
Cardinia	9	7,841	1.1
Southern Metropolitan region	144	122,741	1.2
Victoria	655	543,483	1.2
2007 - 2008			
	Number of hospital separations for asthma	Adolescent population at 30 June 2007.	Rate per 1000 adolescent children
Cardinia	6	8,046	0.7
Southern Metropolitan region	115	124,190	0.9
Victoria	554	546,660	1.0



Hospital separations for asthma in adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2005 - 2006 to 2009 - 2010 ... continued

2008 - 2009

	Number of hospital separations for asthma	Adolescent population at 30 June 2008.	Rate per 1000 adolescent children
Cardinia	9	8,321	1.1
Southern Metropolitan region	120	125,028	1.0
Victoria	525	547,115	1.0

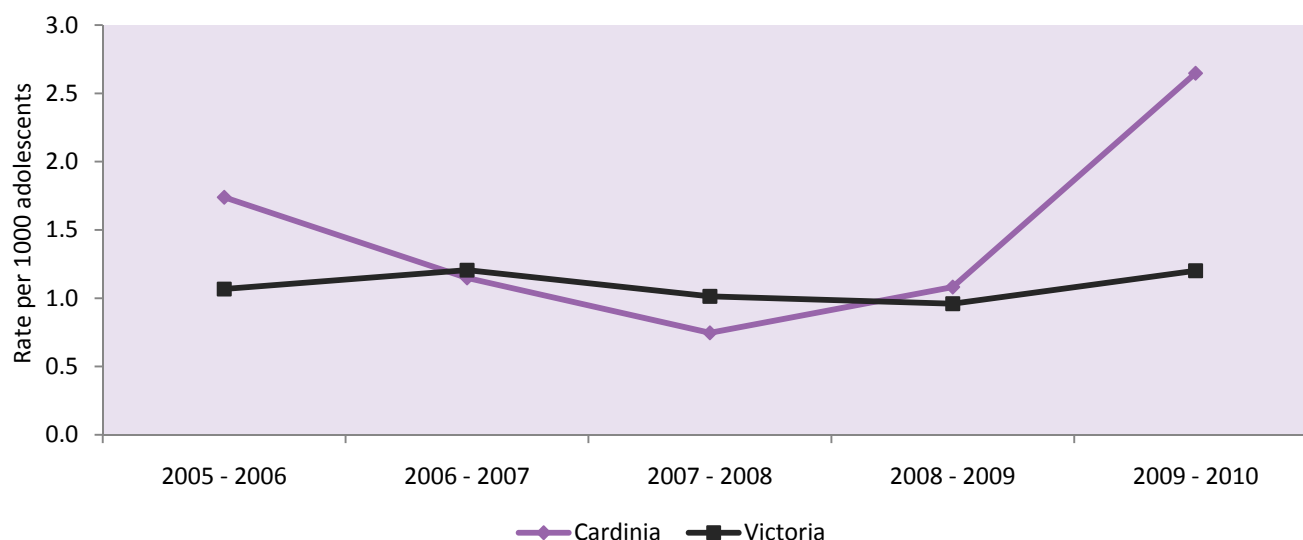
2009 - 2010

	Number of hospital separations for asthma	Adolescent population at 30 June 2009.	Rate per 1000 adolescent children
Cardinia	23	8,686	2.6
Southern Metropolitan region	151	125,916	1.2
Victoria	658	548,041	1.2

Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished.
Australian Bureau of Statistics, Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- During 2009 - 2010, there were 2.6 hospital separations for asthma per 1,000 adolescents in Cardinia. This is more than double that of the rate of hospital separations for asthma in the Southern Metropolitan region (1.2 per 1,000 adolescents) and more than double that of the rate of hospital separations for asthma in Victoria (1.2 per 1,000 adolescents).
- Cardinia was ranked 6 out of 45 LGAs in terms of the rate of hospital separations for asthma during 2009 - 2010. A rank of 1 was assigned to the LGA with the highest rate of hospital separations. LGA with less than 5 hospital separations during 2009 - 2010 were not assigned a rank.

Figure 14: Rate of hospital separations for asthma per 1,000 adolescents in Cardinia and Victoria, 2005 - 2006 to 2009 - 2010.



Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished.
Australian Bureau of Statistics, Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- In Cardinia, the rate of hospital separations for asthma for adolescents has increased over the past five years.



The Young Person

Outcome: Optimal physical health

Indicator: Leading causes of hospitalisation

What is measured?

This indicator measures the leading causes of hospital separations (admissions to hospital are called separations following discharge from the hospital) by principal diagnosis. Number of hospital separations are expressed as rates per 1,000 of the estimated resident population of adolescents aged 10 to 17 years at the beginning of the reporting period.

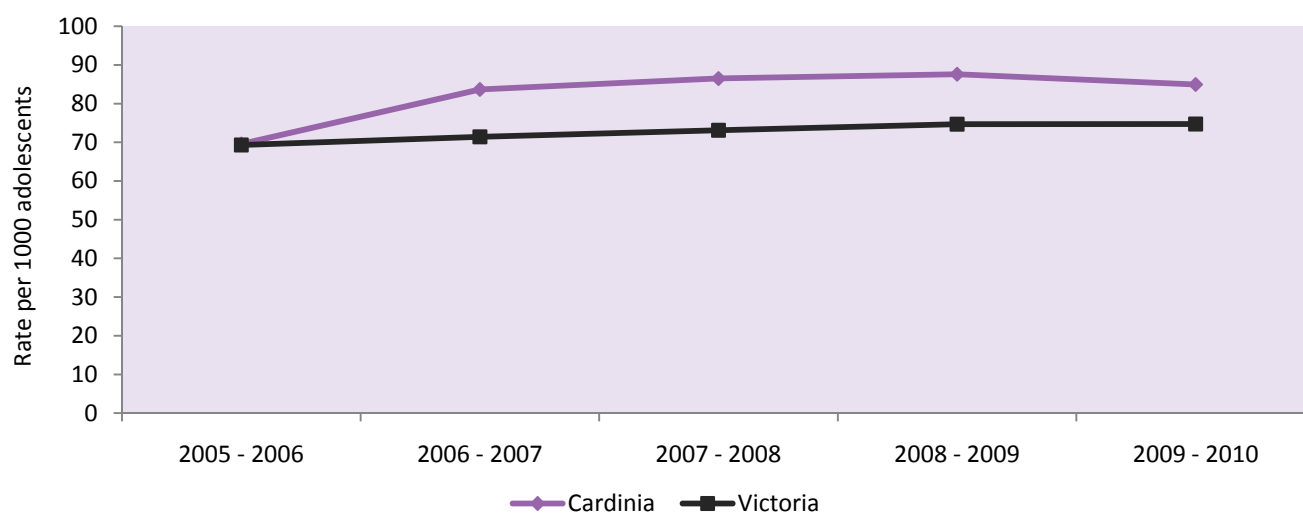
The International Statistical Classification of Diseases (ICD) is the international standard diagnostic classification for all general epidemiological, many health management purposes and clinical use. It is used to classify diseases and other health problems recorded on many types of health and vital records including death certificates and health records (see ICD in glossary at Appendix C for more information).

Why is it important?

A range of factors can lead to hospitalisation. These include injury, disease, congenital conditions and birth defects. Consideration of the leading causes of hospitalisation at different ages is important in monitoring changes or emerging risks for children (DHS, 2005)

Hospitalisation rates are often used as a proxy indicators for the level of serious illness within a community (DHS, 2005). However, care should be taken in considering changes in hospitalisation rates. Rates can be influenced by access issues and changes in admission practices. Hospitalisation rates may also reflect issues with access to appropriate primary care (such as GPs) (DHS, 2005).

Figure 15: Rate of hospital separations, for all principal diagnosis, per 1,000 adolescents in Cardinia and Victoria, 2005 - 2006 to 2009 - 2010.



Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished. Australian Bureau of Statistics, Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- The rate of hospital separations per 1,000 adolescents in Victoria has increased by an average rate of 1.5 per cent per year, from 69.3 per 1000 adolescents in 2005 - 2006 to 74.7 per 1000 adolescents in 2009 - 2010.
- Over the past five years, the rate of hospital separations in Cardinia has increased by an average rate of 4.1 per cent per year, from 69.6 in 2005 - 2006 to 85.0 in 2009 - 2010.



Top 25 principal causes for hospitalisation in adolescents across Victoria compared to Cardinia, 2009 - 2010.

ICD principal diagnosis	Cardinia		Victoria	
	Number of hospital separations	Rate of hospital separations per 100,000 adolescents	Number of hospital separations	Rate of hospital separations per 100,000 adolescents
Acute appendicitis unspecified	37	426.0	1,118	204.0
Chronic tonsillitis	20	230.3	1,076	196.3
Other and unspecified abdominal pain	7	80.6	861	157.1
Extracorporeal dialysis	56	644.7	576	105.1
Pharmacotherapy session for neoplasm	—	—	661	120.6
Asthma unspecified	23	264.8	617	112.6
Pain localised to oth parts low abdomen	8	92.1	548	100.0
Impacted teeth	np	np	500	91.2
F/U care r/o fx plate oth int fix dev	9	103.6	467	85.2
Gastroenteritis & colitis unsp origin	7	80.6	431	78.6
Fx low end radius w dorsal angulation	6	69.1	425	77.5
Ment & beh disrd dt alcohol use ac intox	np	np	360	65.7
Acute tonsillitis unspecified	np	np	358	65.3
Dental caries unspecified	np	np	352	64.2
Ingrowing nail	8	92.1	348	63.5
Crohn's disease unspecified	6	69.1	329	60.0
Viral infection unspecified	5	57.6	304	55.5
Fracture of lower end of radius unsp	np	np	292	53.3
Torsion of testis	12	138.2	276	50.4
Medical abortion complete unsp wo comp	np	np	267	48.7
Nausea and vomiting	7	80.6	255	46.5
LOC brief dur [less than 30 minutes]	np	np	245	44.7
Type 1 diabetes mellitus wo complication	np	np	251	45.8
Pneumonia unspecified	np	np	247	45.1
Fracture lower end both ulna & radius	np	np	242	44.2
Adolescent population at 30 June 2009	8,686		548,041	

Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished.

Note: The population estimate used to derive the rate of hospital separations during 2009-2010 was the ABS preliminary ERP at 30 June 2009.

- The leading cause for hospitalisations in adolescents across Victoria in 2009 - 2010 was 'Acute appendicitis unspecified' (rate of 204.0 per 100,000 adolescents). This was followed by 'Chronic tonsillitis' (rate of 196.3 per 100,000 adolescents) and 'Other and unspecified abdominal pain' (rate of 157.1 per 100,000 adolescents).
- During 2009 - 2010, the top three causes of hospitalisations for adolescents in Cardinia were: 'Extracorporeal dialysis' (rate of 644.7 per 100,000 adolescents), 'Mucopolysaccharidosis type II' (rate of 575.6 per 100,000 adolescents) and 'Acute appendicitis unspecified' (rate of 426.0 per 100,000 adolescents).



The Young Person

Outcome: Optimal Physical Health

Indicator: Proportion of adolescents with good health

What is measured?

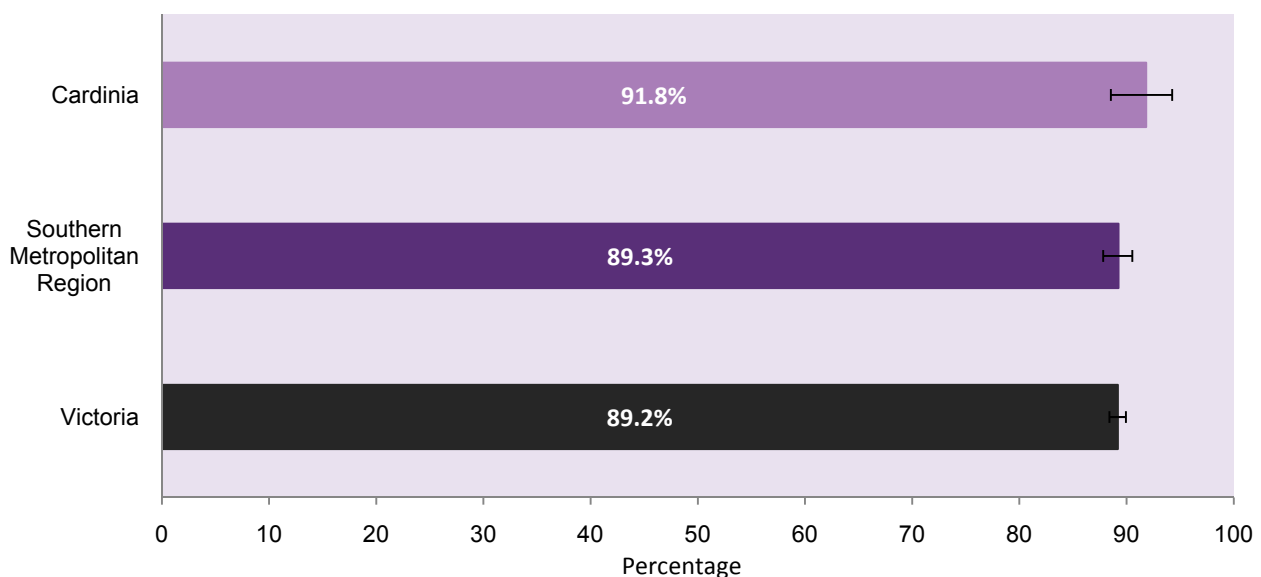
This indicator uses global self-reported health rating. The proportion of adolescents enrolled in Years 7, 9 and 11 who rate themselves as having either 'good', 'very good' or 'excellent' health.

Why is it important?

The health of young people is known to be affected by a wide range of individual, familial, neighbourhood, environmental, and socio-economic factors, such as education, employment and income. Health behaviours that young people engage in during their adolescence and early adulthood can be important influences on both current and future health outcomes into adult life (AIHW 2005; 2007).

The use of a global self-reported health rating as a measure of health status is simple to administer and has been shown to be a powerful predictor of future health care use and mortality independent of other medical, behavioural and psychosocial risk factors (AIHW 2007).

Figure 16: Proportion of adolescents who describe themselves as having good health in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 89.2 per cent of adolescents in Victoria described themselves as having 'good health'.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents rating themselves as having 'good health'.
- In 2009, 91.8 per cent of adolescents in Cardinia rated themselves as having 'good health'. This was higher than the proportion reported across Southern Metropolitan Region (89.3 per cent), with the difference being non significant.
- The proportion of adolescents with 'good health' in Cardinia was higher than the proportion reported across Victoria (89.2 per cent), with the difference being non significant.



The Young Person

Outcome: Adequate exercise and physical activity

Indicator: Proportion of adolescents who do the recommended amount of physical activity every day

What is measured?

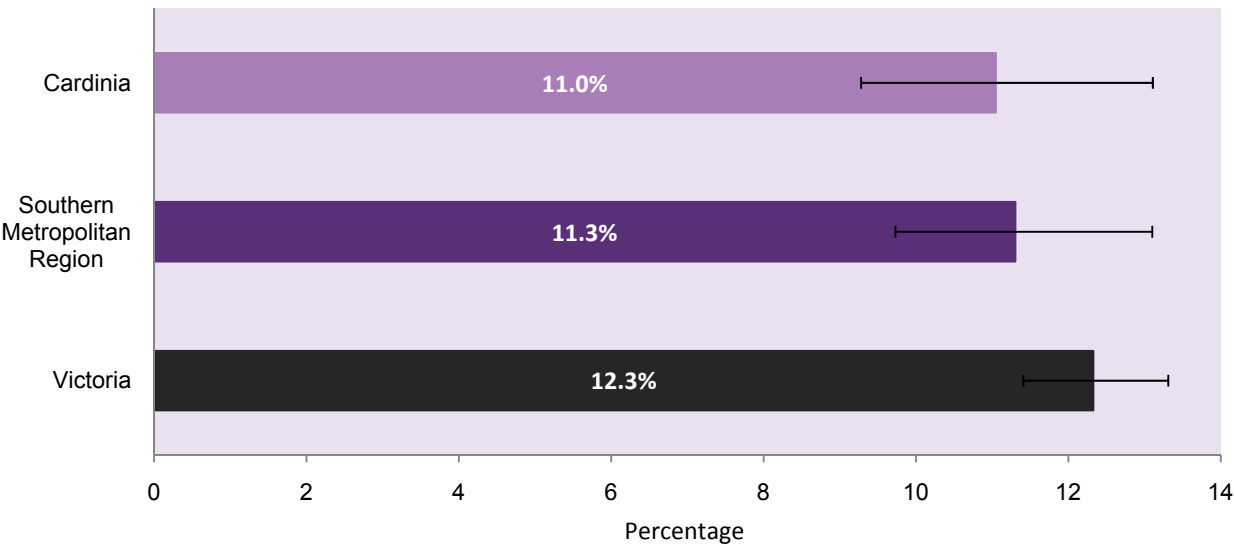
The proportion of adolescents enrolled in Years 7, 9 and 11 who reported that they do at least 60 minutes of moderate to vigorous physical activity every day.

Australia's physical activity recommendations for children aged 5 to 18 years advise that children need at least 60 minutes (and up to 7 hours) of moderate to vigorous physical activity everyday (DoHA 2004a).

Why is it important?

Participation in physical activity is thought to influence many aspects of a young person's development. Physical activity plays an important role in promoting healthy growth, weight control and cardiovascular fitness. It also provides children and young people with opportunities to interact with others and to improve self esteem (DoHA 2004a).

Figure 17: Proportion of adolescents who do the recommended amount of physical activity every day in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 12.3 per cent of adolescents in Victoria reported doing the recommended amount of physical activity every day.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents who do the recommended amount of physical activity every day.
- In 2009, 11.0 per cent of adolescents surveyed in Cardinia did the recommended amount of physical activity every day. This was lower than the proportion reported across Southern Metropolitan Region (11.3 per cent), with the difference being non significant.
- The proportion of adolescents in Cardinia who did the recommended amount of physical activity every day was lower than the proportion reported across Victoria (12.3 per cent), with the difference being non significant.



The Young Person

Outcome: Adequate exercise and physical activity

Indicator: Proportion of adolescents who use electronic media for more than two hours per day

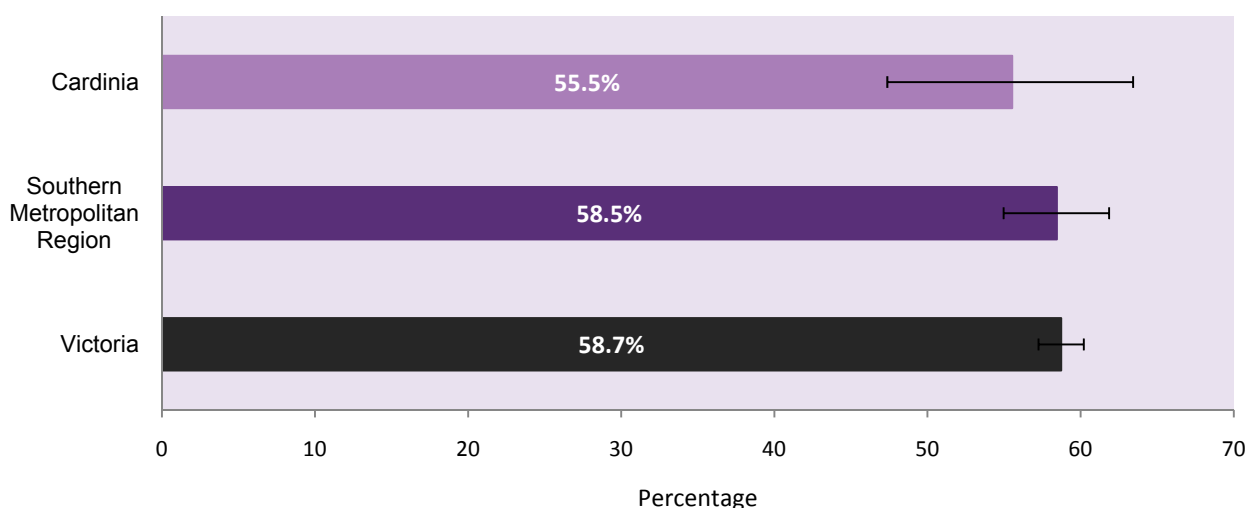
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who reported that they use electronic media for more than two hours per day on both school days and on the weekend. For more information see glossary entry for 'Electronic media' at Appendix C.

Why is it important?

Australia's physical activity guidelines state that children and young people should not spend more than two hours a day using electronic media for entertainment, particularly during daylight hours (DoHA 2004a/b). The use of electronic media is usually a sedentary activity and watching TV for more than two hours per day has been associated with being overweight, having poor fitness, smoking and raised cholesterol in adulthood (DoHA 2004b).

Figure 18: Proportion of adolescents who use electronic media for more than two hours per day in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 58.7 per cent of adolescents in Victoria reported using electronic media for more than two hours per day.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents who do use electronic media for more than the recommended 2 hours per day.
- In 2009, 55.5 per cent of adolescents surveyed in Cardinia used electronic media for more than two hours per day. This was lower than the proportion reported across Southern Metropolitan Region (58.5 per cent), with the difference being non significant.
- The proportion of adolescents in Cardinia who use electronic media for more than two hours per day was lower than the proportion reported across Victoria (58.7 per cent), with the difference being non significant.



The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Proportion of adolescents who report bullying

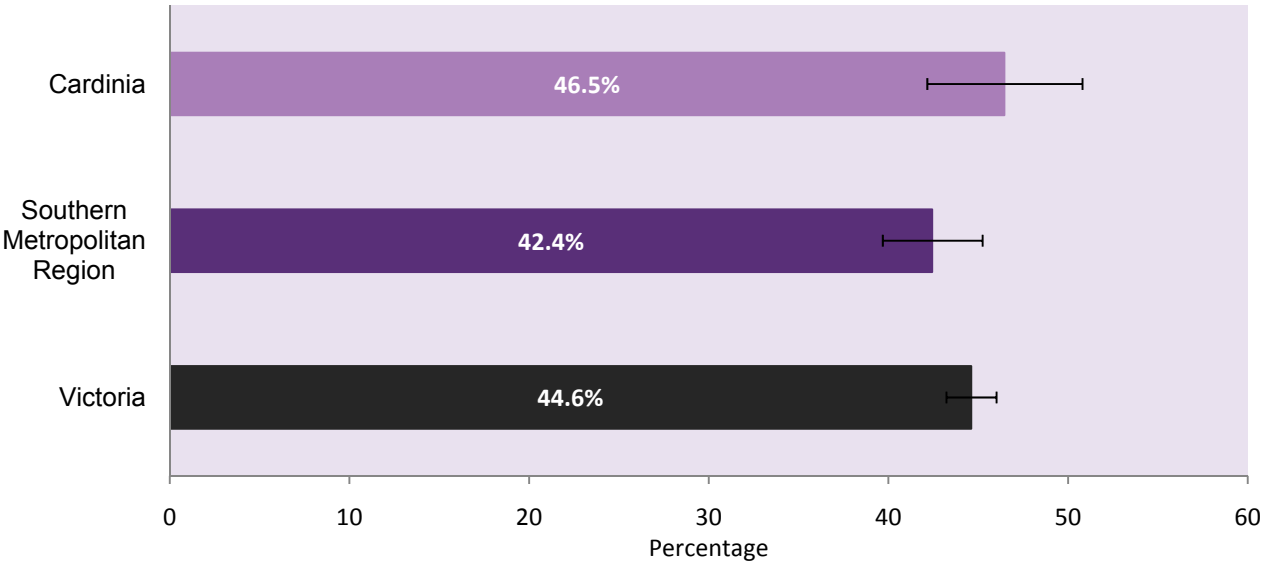
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who reported being bullied recently. Bullying is assessed using the Gatehouse Bullying Scale. See 'Bullying' in Appendix C for more information.

Why is it important?

Bullying is characterised by an imbalance of physical or psychological strength between the bully and his or her victim. Bullies repeatedly expose their victims to aggressive physical or verbal acts over time (AIHW 2009). Bullying is known to negatively impact on young people’s mental health status, including increasing risk of depression, anxiety, poor self-esteem and withdrawal.

Figure 19: Proportion of adolescents who reported being recently bullied in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 44.6 per cent of adolescents in Victoria reported being recently bullied.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents who reported being recently bullied.
- In 2009, 46.5 per cent of adolescents surveyed in Cardinia were recently bullied. This was higher than the proportion reported across Southern Metropolitan Region (42.4 per cent), with the difference being non significant.
- The proportion of adolescents in Cardinia who were recently bullied was higher than the proportion reported across Victoria (44.6 per cent), with the difference being non significant.

The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Rate of intentional self harm in young people

What is measured?

This indicator measures the number of adolescents aged 10 to 17 years admitted to hospital where the ICD principal diagnosis for hospitalisation was coded to injury and self harm, expressed as a rate per 1000 population (see 'Intentional self harm' and 'ICD-10-AM' in glossary at Appendix C for more information).

Why is it important?

Intentional self-harm refers to the deliberate infliction of injury by an individual on him/herself. Typically the intent is not suicide but it is generally understood to include those acts with greater suicidal intent. Self-harm is an important risk factor for later suicide. In those young people presenting clinically with self-harm, rates of later suicide have been estimated to be 30-fold higher (Hawton & James, 2005).

Rate of intentional self harm for adolescents in Southern Metropolitan region, the Metropolitan Victoria, and Victoria, 2004 - 2005 to 2008 - 2009.

2004 - 2005			
	Hospitalisations for intentional self harm	Adolescent population at 30 June 2004	Rate per 1000 adolescent children
Southern Metropolitan region	73	120,126	0.6
Metropolitan Victoria	226	373,884	0.6
Victoria	344	537,229	0.6
2005 - 2006			
	Hospitalisations for intentional self harm	Adolescent population at 30 June 2005	Rate per 1000 adolescent children
Southern Metropolitan region	60	121,789	0.5
Metropolitan Victoria	216	377,406	0.6
Victoria	348	541,742	0.6
2006 - 2007			
	Hospitalisations for intentional self harm	Adolescent population at 30 June 2006	Rate per 1000 adolescent children
Southern Metropolitan region	53	122,741	0.4
Metropolitan Victoria	207	378,522	0.5
Victoria	344	543,483	0.6



Rate of intentional self harm for adolescents in Cardinia, the Southern Metropolitan region, and Victoria, 2004 - 2005 to 2008 - 2009 ... continued

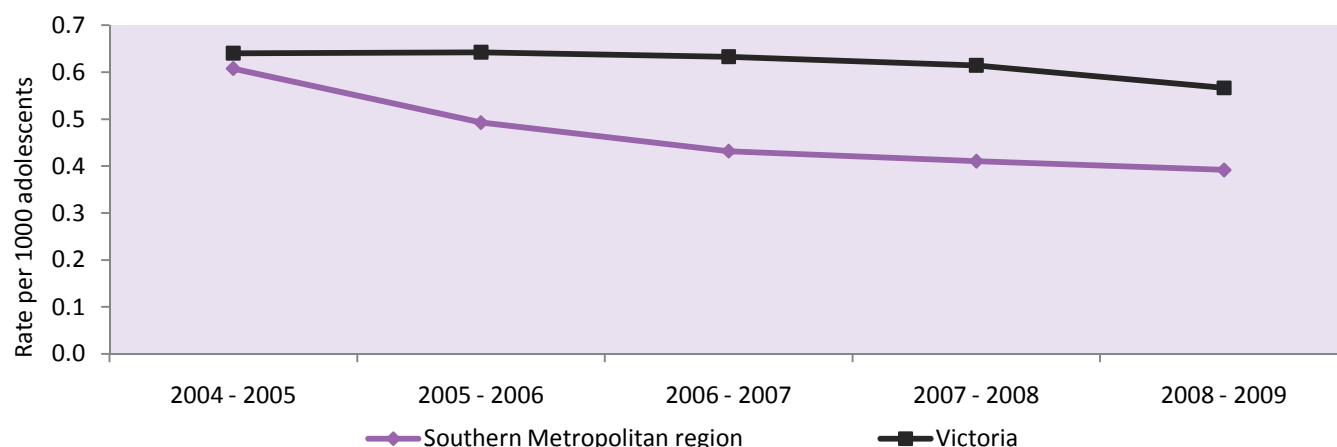
2007 - 2008			
	Hospitalisations for intentional self harm	Adolescent population at 30 June 2007	Rate per 1000 adolescent children
Southern Metropolitan region	51	124,190	0.4
Metropolitan Victoria	219	380,692	0.6
Victoria	336	546,660	0.6

2008 - 2009			
	Hospitalisations for intentional self harm	Adolescent population at 30 June 2008	Rate per 1000 adolescent children
Southern Metropolitan region	49	125,028	0.4
Metropolitan Victoria	183	381,823	0.5
Victoria	310	547,115	0.6

Source: (1) Monash University Accident Research Centre (MUARC) analysis of the Victorian Admitted Episodes Dataset (VAED), Victorian Injury Surveillance Unit (VISU), unpublished. (2) ABS Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- During 2008 - 2009, the hospitalisation rate for intentional self harm was 0.4 per 1,000 adolescents in the Southern Metropolitan region. This is similar to the hospitalisation rate for intentional self harm in Metropolitan Victoria (0.5 per 1,000 adolescents) and lower than the rate in Victoria (0.6 per 1,000 adolescents).
- Southern Metropolitan region was ranked 9 out of 9 regions in terms of the hospitalisation rate for intentional self harm during 2008 - 2009. A rank of 1 was assigned to the region with the highest rate of hospital separations. Regions with less than 5 hospital separations during 2008 - 2009 were not assigned a rank.

Figure 20: Hospitalisation rate for intentional self harm for adolescents in the Southern Metropolitan region and Victoria, 2004 - 2005 to 2008 - 2009.



Source: (1) Monash University Accident Research Centre (MUARC) analysis of the Victorian Admitted Episodes Dataset (VAED), Victorian Injury Surveillance Unit (VISU), unpublished. (2) ABS Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- The hospitalisation rate for intentional self harm for adolescents across Victoria has remained relatively unchanged over the past five years.
- The hospitalisation rate for intentional self harm in the Southern Metropolitan region was lower than that across Victoria for the five years between 2004 - 2005 and 2008 - 2009.

The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Psychiatric hospitalisation rate for young people

What is measured?

This indicator measures the number of adolescents aged 10 to 17 years admitted to hospital with an ICD coded principal diagnoses is classified to a mental and behavioural health category, expressed as a rate per 1000 population (see 'Psychiatric hospitalisations' and 'ICD-10-AM' in glossary at Appendix C for more information).

Why is it important?

Mental health problems are the leading contributor to burden of disease among young Australians with anxiety and depression being the specific leading cause in both males and females (AIHW, 2007). There are many consequences if mental health problems are not resolved. Children may experience a poorer quality of life, physical health problems, lowered academic attainment, risky behaviours, substance use, and suicidal ideation. Mental illness can also have negative impact on the family and social environment (Raphael, 2000).

Psychiatric hospitalisation rate for adolescents in Cardinia, the Southern Metropolitan region, and Victoria, 2005 - 2006 to 2009 - 2010.

2005 - 2006			
	Number of psychiatric hospital separations	Adolescent population at 30 June 2005	Rate per 1000 adolescent children
Cardinia	34	7,475	4.5
Southern Metropolitan region	1,290	121,789	10.6
Victoria	4,768	541,742	8.8
2006 - 2007			
	Number of psychiatric hospital separations	Adolescent population at 30 June 2006	Rate per 1000 adolescent children
Cardinia	27	7,841	3.4
Southern Metropolitan region	1,112	122,741	9.1
Victoria	4,351	543,483	8.0
2007 - 2008			
	Number of psychiatric hospital separations	Adolescent population at 30 June 2007	Rate per 1000 adolescent children
Cardinia	29	8,046	3.6
Southern Metropolitan region	874	124,190	7.0
Victoria	3,766	546,660	6.9



Psychiatric hospitalisation rate for adolescents in Cardinia, the Southern Metropolitan region, and Victoria, 2005 - 2006 to 2009 - 2010 ... continued

2008 - 2009

	Number of psychiatric hospital separations	Adolescent population at 30 June 2008	Rate per 1000 adolescent children
Cardinia	53	8,321	6.4
Southern Metropolitan region	823	125,028	6.6
Victoria	3,350	547,115	6.1

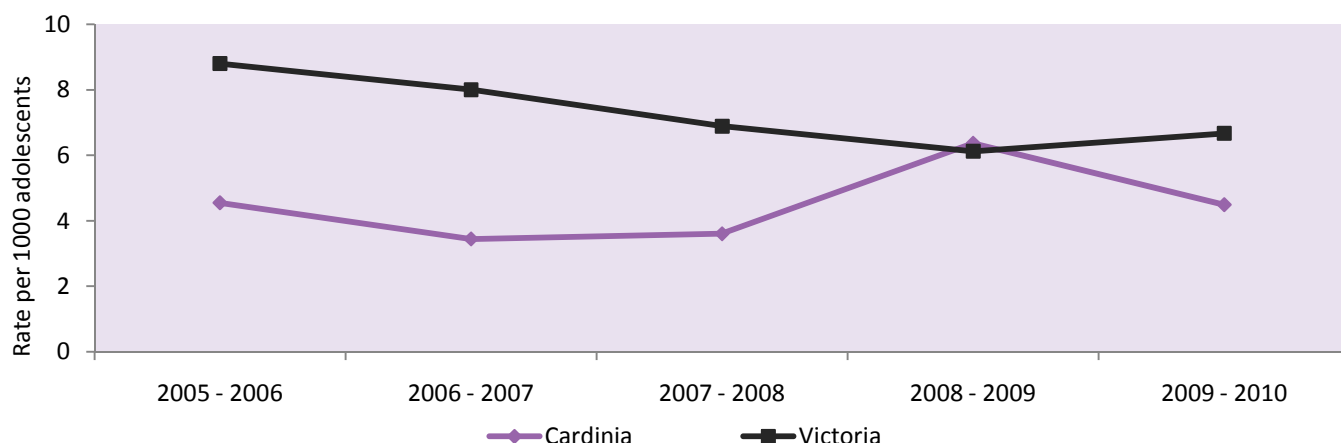
2009 - 2010

	Number of psychiatric hospital separations	Adolescent population at 30 June 2009	Rate per 1000 adolescent children
Cardinia	39	8,686	4.5
Southern Metropolitan region	896	125,916	7.1
Victoria	3,655	548,041	6.7

Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished.
Australian Bureau of Statistics, Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- During 2009 - 2010, there were 4.5 psychiatric hospitalisations per 1,000 adolescents in Cardinia. This is lower than the psychiatric hospitalisation rate in the Southern Metropolitan region (7.1 per 1,000 adolescents) and lower than the rate in Victoria (6.7 per 1,000 adolescents).
- Cardinia was ranked 56 out of 68 LGAs in terms of the psychiatric hospitalisation rate during 2009 - 2010. A rank of 1 was assigned to the LGA with the highest rate of hospital separations. LGA with less than 5 hospital separations during 2009 - 2010 were not assigned a rank.

Figure 21: Psychiatric hospitalisation rate per 1,000 adolescents in Cardinia and Victoria, 2005 - 2006 to 2009 - 2010.



Source: Department of Health, 2010, Victorian Admitted Episodes Dataset (VAED), Funding, Health Information Policy Branch, unpublished.
Australian Bureau of Statistics, Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- The psychiatric hospitalisation rate across Victoria has been decreasing at an average annual rate of 5.4 per cent per year, from 8.8 per 1000 adolescents in 2005 - 2006 to 6.7 per 1000 adolescents in 2009 - 2010.
- The psychiatric hospitalisation rate in Cardinia was lower than that across Victoria for four of the five years between 2004 - 2005 and 2008 - 2009.



The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Proportion of adolescents with the highest level of psychological distress

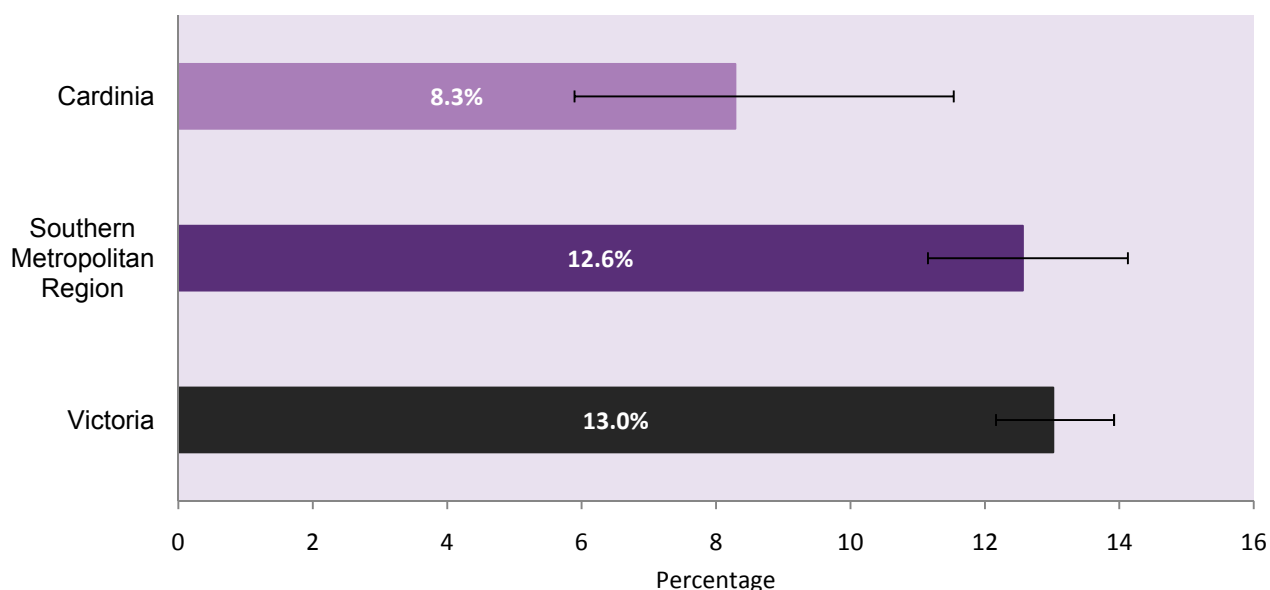
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who reported very high levels of psychological distress as measured by the Kessler K10 Scale. An adolescent is considered to have very high levels of psychological distress if their K10 continuous score is 30 or greater. For more information, refer to 'K10 Scales' in glossary at Appendix C.

Why is it important?

Psychological or emotional distress refers to an individual's overall level of psychological strain or pain, as reflected in states of depression, anxiety and anger. Psychological distress may be fairly transient, e.g. experiencing high anxiety over an upcoming exam, or sadness because of the break-up of a relationship, but may also be a continuing problem, particularly among those experiencing mental health problems and clinical disorders (AIHW 2007).

Figure 22: Proportion of adolescents who reported very high levels of psychological distress in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

Note: The K10 scale is not a clinical diagnosis of a mental disorder, but a reflection of reported levels of psychological distress in adolescents at the time of reporting. Further investigation is required to determine the prevalence of mental disorders in Victorian adolescents.

- In 2009, 13.0 per cent of adolescents in Victoria reported very high levels of psychological distress.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents reporting very high levels of psychological distress.
- In 2009, 8.3 per cent of adolescents surveyed in Cardinia reported high levels of psychological distress. This was lower than the proportion reported across Southern Metropolitan Region (12.6 per cent), with the difference being non significant.
- The proportion of adolescents reported high levels of psychological distress in Cardinia significantly lower than that reported across Victoria (13.0 per cent).



The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Proportion of adolescents with an eating disorder

What is measured?

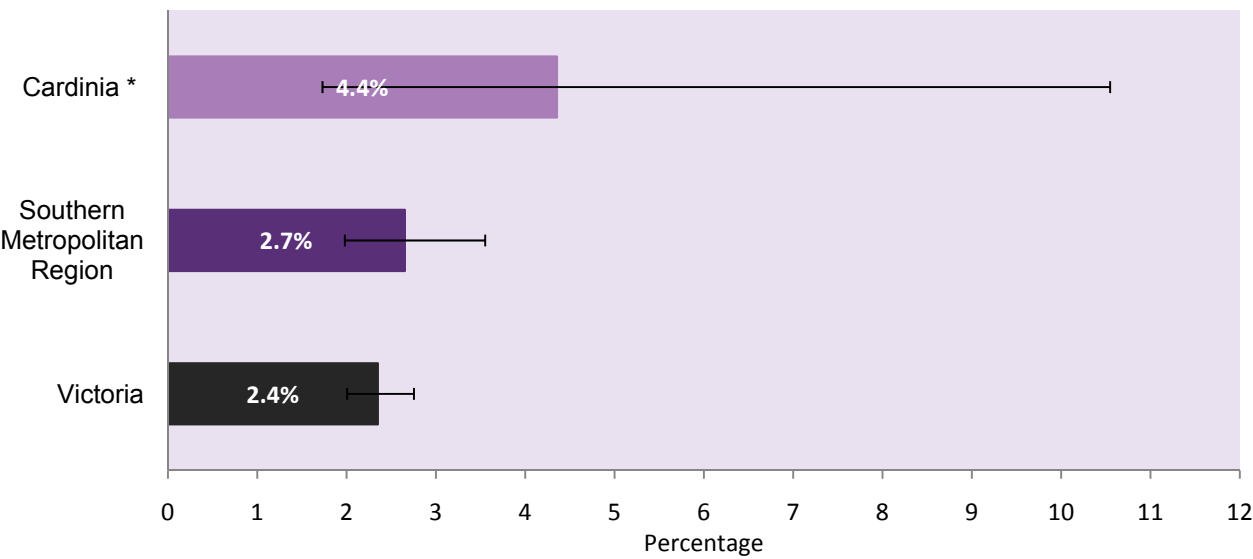
The proportion of adolescents enrolled in Years 7, 9 and 11 with partial syndrome amorexia and/or bulima as measured by the Branched Eating Disorder Test. For more information, refer to 'Eating Disorder' at Appendix C.

Why is it important?

The incidence of body image dissatisfaction, eating disorders and obesity is increasing. Eating disorders are serious conditions that can be life threatening. They usually develop during adolescence or early adulthood, but there are increasing reports of onset during childhood (Bostic et al 1997).

Psychiatric disorders such as depression, substance abuse, and anxiety disorders (APA 2000) are common in those who suffer from eating disorders. For those who develop anorexia nervosa there are a wide range of physical complications, which can include serious heart conditions and kidney failure that may lead to death. Irreversible stunting of growth is a real risk in young people whose onset of an eating disorder occurs before completion of their adolescent growth spurt.

Figure 23: Proportion of adolescents with an eating disorder in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.
* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 2.4 per cent of adolescents surveyed in Victoria had an eating disorder.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents with an eating disorder.
- In 2009, 4.4 per cent of adolescents surveyed in Cardinia had an eating disorder. This was higher than the proportion reported across Southern Metropolitan Region (2.7 per cent), with the difference being non significant.
- The proportion of adolescents surveyed in Cardinia who had an eating disorder is higher than the proportion reported across Victoria (2.4 per cent), with the difference being non significant.



The Young Person

Outcome: Positive child behaviour and mental health

Indicator: Proportion of adolescents with a high level of emotional wellbeing

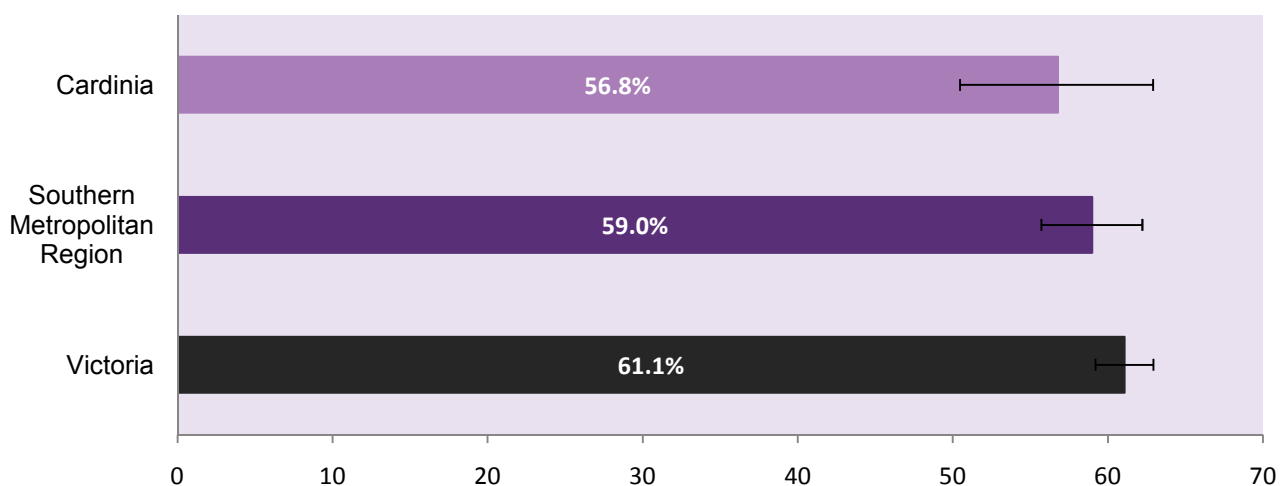
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who had a mean score of 5 or more on the Basic Psychological Needs Scale. The 9-item Basic Psychological Needs Scale is an adaption of the 21-item instrument from Ryan and Deci (2001) which assesses Positive Psychological Development (PPD) in terms of autonomy, competence and relatedness. For more information, refer to 'Positive Psychological Development' in glossary at Appendix C.

Why is it important?

Social and emotional wellbeing is important for cognitive and communication skills, learning, personal development, resilience and self-esteem.

Figure 24: Proportion of adolescents who have positive psychological development in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 61.1 per cent of adolescents surveyed in Victoria had positive psychological development.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents with positive psychological development.
- In 2009, 56.8 per cent of adolescents surveyed in Cardinia had positive psychological development. This was lower than the proportion reported across Southern Metropolitan Region (59.0 per cent), with the difference being non significant.
- The proportion of adolescents surveyed in Cardinia with positive psychological development is lower than the proportion reported across Victoria (61.1 per cent), with the difference being non significant.



The Young Person

Outcome: Successful in literacy and numeracy

Indicator: Students at or above national minimum standard in literacy (reading)

What is measured?

Percentage of Year 5, 7 and 9 students who achieved at or above the national minimum standard (NMS) for reading in the National Assessment Program – Literacy and Numeracy (NAPLAN). This measure includes all education sectors. See 'NAPLAN' in glossary at Appendix C for more information.

Why is it important?

The ability to read, write and perform mathematics is essential in day-to-day life and for educational opportunities and employment prospects. In addition, early school experiences can have a lasting impact on a person's attitude to education and training and confidence in their learning abilities (Frigo et al, 2003).

Percentage of Year 5, 7 and 9 students at or above the national minimum standard for reading in Cardinia, the Southern Metropolitan region and Victoria, 2008 to 2010.

	Cardinia			Southern Metropolitan region			Victoria		
	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9
2008	94.1	94.8	93.4	92.8	95.6	93.7	92.0	95.6	94.1
2009	93.7	93.3	93.5	93.8	94.7	92.9	93.3	94.7	93.0
2010	93.3	95.9	92.3	93.2	95.7	92.4	92.6	95.3	92.3

Source: Victorian Curriculum Assessment Authority (VCAA) NAPLAN data, 2010

Year 5 students

- The percentage of Year 5 students in Victoria at or above the NMS in reading increased from 92.0 per cent in 2008 to 93.3 per cent in 2009, before decreasing to 92.6 per cent in 2010.
- In 2010, 93.3 per cent of Year 5 students in Cardinia were at or above the NMS in reading. This was similar to the percentage in the Southern Metropolitan region (93.2 per cent) and higher than the percentage across Victoria (92.6 per cent).
- Cardinia was ranked 28 out of 79 LGAs in Victoria in terms of the percentage of Year 5 students at or above the NMS in reading in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 7 students

- The percentage of Year 7 students in Victoria at or above the NMS in reading has decreased over the past three years, from 95.6 per cent in 2008 to 95.3 per cent in 2010.
- In 2010, 95.9 per cent of Year 7 students in Cardinia were at or above the NMS in reading. This was higher than the percentage in the Southern Metropolitan region (95.7 per cent) and higher than the percentage across Victoria (95.3 per cent).
- Cardinia was ranked 31 out of 79 LGAs in Victoria in terms of the percentage of Year 7 students at or above the NMS in reading in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 9 students

- The percentage of Year 9 students in Victoria at or above the NMS in reading has decreased over the past three years, from 94.1 per cent in 2008 to 92.3 per cent in 2010.
- In 2010, 92.3 per cent of Year 9 students in Cardinia were at or above the NMS in reading. This was similar to the percentage in the Southern Metropolitan region (92.4 per cent) and similar to the percentage across Victoria (92.3 per cent).
- Cardinia was ranked 36 out of 79 LGAs in Victoria in terms of the percentage of Year 9 students at or above the NMS in reading in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.



The Young Person

Outcome: Successful in literacy and numeracy

Indicator: Students at or above national minimum standard in literacy (writing)

What is measured?

Percentage of Year 5, 7 and 9 students who achieved at or above the national minimum standard (NMS) for writing in the National Assessment Program – Literacy and Numeracy (NAPLAN). This measure includes all education sectors. See 'NAPLAN' in glossary at Appendix C for more information

Why is it important?

The ability to read, write and perform mathematics is essential in day-to-day life and for educational opportunities and employment prospects. In addition, early school experiences can have a lasting impact on a person's attitude to education and training and confidence in their learning abilities (Frigo et al, 2003).

Percentage of Year 5, 7 and 9 students at or above the national minimum standard for writing in Cardinia, the Southern Metropolitan region and Victoria, 2008 to 2010.

	Cardinia			Southern Metropolitan region			Victoria		
	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9
2008	93.2	92.8	90.7	93.2	92.8	90.4	92.7	92.8	90.3
2009	93.1	90.9	88.6	94.4	93.0	90.6	93.5	92.6	89.9
2010	94.3	92.3	83.5	94.7	93.4	90.2	93.8	92.8	89.4

Source: Victorian Curriculum Assessment Authority (VCAA) NAPLAN data, 2010

Year 5 students

- The percentage of Year 5 students in Victoria at or above the NMS in writing has increased over the past three years, from 92.7 per cent in 2008 to 93.8 per cent in 2010.
- In 2010, 94.3 per cent of Year 5 students in Cardinia were at or above the NMS in writing. This was lower than the percentage in the Southern Metropolitan region (94.7 per cent) and higher than the percentage across Victoria (93.8 per cent).
- Cardinia was ranked 32 out of 79 LGAs in Victoria in terms of the percentage of Year 5 students at or above the NMS in writing in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 7 students

- The percentage of Year 7 students in Victoria at or above the NMS in writing has remained fairly constant over the past three years.
- In 2010, 92.3 per cent of Year 7 students in Cardinia were at or above the NMS in writing. This was lower than the percentage in the Southern Metropolitan region (93.4 per cent) and lower than the percentage across Victoria (92.8 per cent).
- Cardinia was ranked 32 out of 79 LGAs in Victoria in terms of the percentage of Year 7 students at or above the NMS in writing in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 9 students

- The percentage of Year 9 students in Victoria at or above the NMS in writing has decreased over the past three years, from 90.3 per cent in 2008 to 89.4 per cent in 2010.
- In 2010, 83.5 per cent of Year 9 students in Cardinia were at or above the NMS in writing. This was lower than the percentage in the Southern Metropolitan region (90.2 per cent) and lower than the percentage across Victoria (89.4 per cent).
- Cardinia was ranked 66 out of 79 LGAs in Victoria in terms of the percentage of Year 9 students at or above the NMS in writing in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.



The Young Person

Outcome: Successful in literacy and numeracy

Indicator: Students achieving national minimum standard in numeracy

What is measured?

Percentage of Year 5, 7 and 9 students who achieved at or above the national minimum standard (NMS) for numeracy in the National Assessment Program – Literacy and Numeracy (NAPLAN). This measure includes all education sectors. See 'NAPLAN' in glossary at Appendix C for more information

Why is it important?

The ability to read, write and perform mathematics is essential in day-to-day life and for educational opportunities and employment prospects. In addition, early school experiences can have a lasting impact on a person's attitude to education and training and confidence in their learning abilities (Frigo et al, 2003).

Percentage of Year 5, 7 and 9 students at or above the national minimum standard for numeracy in Cardinia, the Southern Metropolitan region and Victoria, 2008 to 2010.

	Cardinia			Southern Metropolitan region			Victoria		
	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9	Year 5	Year 7	Year 9
2008	95.8	97.5	94.7	94.8	97.1	94.6	94.1	96.8	94.8
2009	96.7	97.4	96.7	96.0	96.1	96.3	95.6	95.9	96.2
2010	96.5	96.3	95.7	95.6	96.6	94.7	95.1	96.2	94.4

Source: Victorian Curriculum Assessment Authority (VCAA) NAPLAN data, 2010

Year 5 students

- The percentage of Year 5 students in Victoria at or above the NMS in numeracy increased from 94.1 per cent in 2008 to 95.6 per cent in 2009, before decreasing to 95.1 per cent in 2010.
- In 2010, 96.5 per cent of Year 5 students in Cardinia were at or above the NMS in numeracy. This was higher than the percentage in the Southern Metropolitan region (95.6 per cent) and higher than the percentage across Victoria (95.1 per cent).
- Cardinia was ranked 26 out of 79 LGAs in Victoria in terms of the percentage of Year 5 students at or above the NMS in numeracy in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 7 students

- The percentage of Year 7 students in Victoria at or above the NMS in numeracy has decreased over the past three years, from 96.8 per cent in 2008 to 96.2 in 2010.
- In 2010, 96.3 per cent of Year 7 students in Cardinia were at or above the NMS in numeracy. This was lower than the percentage in the Southern Metropolitan region (96.6 per cent) and higher than the percentage across Victoria (96.2 per cent).
- Cardinia was ranked 34 out of 79 LGAs in Victoria in terms of the percentage of Year 7 students at or above the NMS in numeracy in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.

Year 9 students

- The percentage of Year 9 students in Victoria at or above the NMS in numeracy has fluctuated over the past three years, from 94.8 per cent in 2008 to 94.4 per cent in 2010.
- In 2010, 95.7 per cent of Year 9 students in Cardinia were at or above the NMS in numeracy. This was higher than the percentage in the Southern Metropolitan region (94.7 per cent) and higher than the percentage across Victoria (94.4 per cent).
- Cardinia was ranked 29 out of 79 LGAs in Victoria in terms of the percentage of Year 9 students at or above the NMS in numeracy in the 2010 NAPLAN. A rank of 1 was assigned to the LGA with the highest percentage.



The Young Person

Outcome: Young people complete secondary education

Indicator: Year 10 - 12 apparent retention rate

What is measured?

This indicator measures the number of Year 12 full time equivalent student enrolments expressed as a percentage of the number of Year 10 full time equivalent student enrolments two years earlier. Apparent retention rates are influenced by factors not taken into account by this measure. See 'Apparent retention rates' in glossary at Appendix C for more information.

LGA level retention rates are not considered reliable for use as they are more sensitive to local issues such as availability of schools offering secondary education. Further, students are more prevalent to cross LGA boundaries (particularly in metro areas) than broader regional boundaries. Therefore regional data has been presented for this indicator.

Note: the data presented on this page reflects government school retention rates, not all education sectors.

Why is it important?

There are a number of ways, both direct and indirect, that education may impact upon health. Education may directly impact upon health by providing young people with greater knowledge and understanding about health, particularly an awareness of health risk and protective factors.

Education may also indirectly affect health through its association with typically safe, secure and generally better paid and more rewarding employment. This, in turn, positively influences health-related factors such as stress level, injury risk, diet and ability to acquire quality medical care (AIHW, 2007).

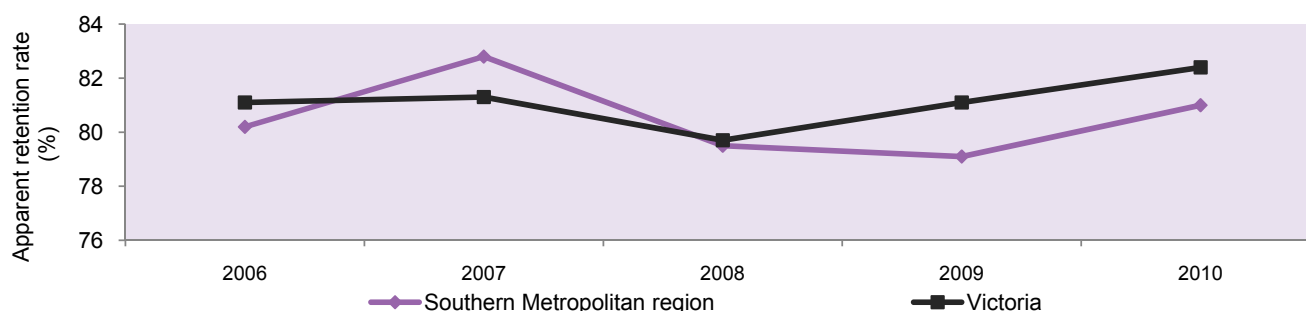
Year 10 - 12 apparent retention rates of full-time equivalent students in the Southern Metropolitan region, Metropolitan Victoria and Victoria, 2006 to 2010.

	2006	2007	2008	2009	2010	Change 2006 to 2010
Southern Metropolitan region	80.2	82.8	79.5	79.1	81.0	0.8 points
Metropolitan Victoria	85.1	85.3	83.3	85.4	86.6	1.5 points
Victoria	81.1	81.3	79.7	81.1	82.4	1.3 points

Source: DEECD, Data Outcomes and Evaluation Division, Statistical and Demographic Information unit, February school census

- Over the past five years in Victoria, the Year 10-12 apparent retention rate has increased by 1.3 percentage points, from 81.1 in 2006 to 82.4 in 2010.
- Apparent retention rates are higher for students residing in metropolitan Victoria than those in rural Victoria. This trend has been consistent over the past five years.
- In the Southern Metropolitan region, the Year 10-12 apparent retention rate has increased from 80.2 in 2006 to 81.0 in 2010 (0.8 percentage points) over the five year period between 2006 to 2010.
- The Southern Metropolitan region was ranked 4 out of 9 regions in terms of apparent retention rates. A rank of 1 was assigned to the region with the highest apparent retention rate in 2010.

Figure 25: Year 10 - 12 apparent retention rates of full-time equivalent students in the Southern Metropolitan region and Victoria, 2006 to 2010.



Note: The y-axis does not start at zero.



The Young Person

Outcome: Young people complete secondary education

Indicator: Young people aged 19 years who have attained Year 12 or equivalent

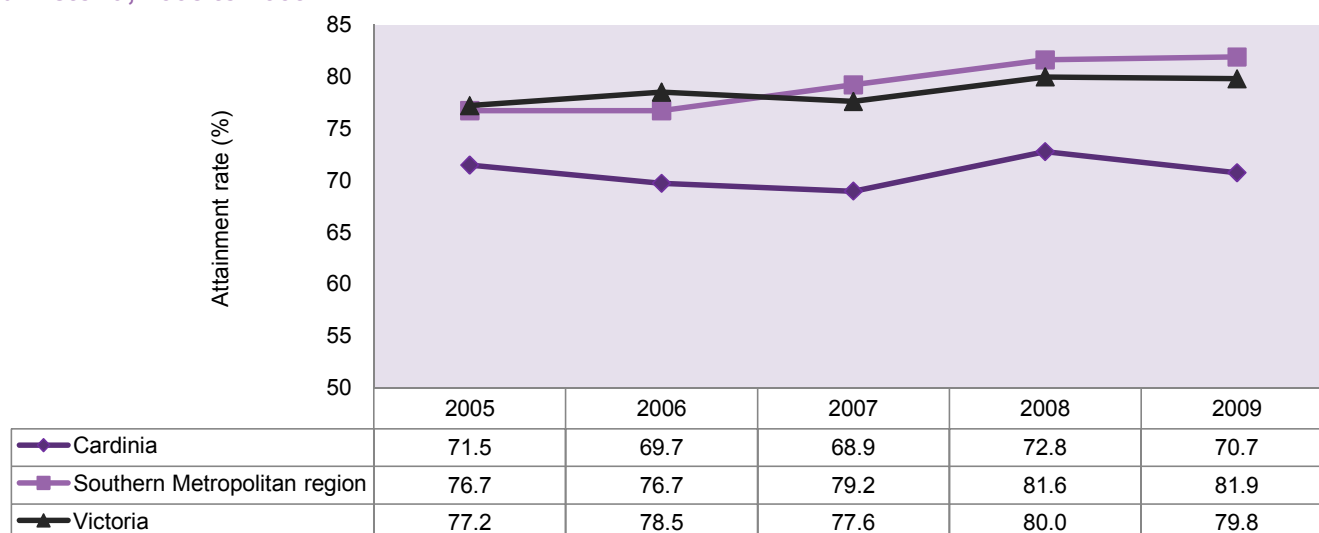
What is measured?

This indicator measures the proportion of 19 year olds in the reference year who attained a Year 12 or equivalent qualification or a Vocational Education and Training (VET) certificate at the Australian Qualification Framework (AQF) level II or higher. See 'Year 12 or equivalent attainment' in the glossary at Appendix C for more information on this measure.

Why is it important?

As the number of low-skilled jobs in the employment market decreases, the importance of educational qualifications increases. Students who fail to attain Year 12 have fewer employment opportunities and are more likely to experience extended periods of unemployment than year 12 graduates (Lamb et al. 2000). The attainment of Year 12 or an equivalent qualification, such as an apprenticeship or traineeship provides a good foundation for students to engage in further education, training or employment. Year 12 or equivalent attainment has been shown to reduce the probability of unemployment, to increase workforce participation, and to increase wages throughout life.

Figure 26: Year 12 or equivalent attainment rates at age 19 in Cardinia, the Southern Metropolitan region and Victoria, 2005 to 2009.



Source: Victorian Curriculum and Assessment Authority (VCAA) and Skills Victoria (Department of Innovation, Industry and Regional Development (DIIRD)) administrative data, and Australian Bureau of Statistics Estimated Resident Population data.

Note: The y axis does not start at zero.

- Year 12 or equivalent attainment rate in Victoria has increased over the past five years, from 77.2 per cent in 2005 to 79.8 per cent in 2009.
- Year 12 or equivalent attainment rate is higher for students residing in metropolitan Victoria than those in rural Victoria. This trend has been consistent over the past five years.
- In Cardinia, over the five year period between 2005 to 2009, the Year 12 or equivalent rates have decreased by 0.7 percentage points, from 71.5 percentage points in 2005 to 70.7 percentage points in 2009.
- In 2009, the Year 12 or equivalent attainment rates in Cardinia was lower than that in the Southern Metropolitan region (81.9 per cent) and lower than the rate across Victoria (79.8 per cent).
- Cardinia was ranked 61 out of 79 LGAs in terms of Year 12 or equivalent attainment rates. A rank of 1 was assigned to the LGA with the highest Year 12 or equivalent attainment rate in 2009.



The Young Person

Outcome: Young people complete secondary education

Indicator: Early school leavers who are unemployed six months after leaving school

What is measured?

This indicator measures the percentage of students who leave school before attaining Year 12 or equivalent and who were unemployed when contacted by *On Track* six months after the school year finished. Therefore the early school leavers data for a particular year (eg 2010) reflects those students who did not complete the previous school year (eg 2009) and were contacted by *On Track* six months later to determine their post-school destination.

Information about student pathways and transitions to post-school destinations is available from the Department for Education and Early Childhood Development's *On Track* survey. See 'On Track Survey' and 'Early school leavers' in glossary at Appendix C for more information.

Why is it important?

Secure and satisfactory employment offers young people not only financial independence, but also a sense of control, self-confidence and social contact. In contrast, the health risks associated with unemployment, particularly depression, have been found to increase with the duration of unemployment. People who experience long-term unemployment may also find it difficult to maintain and develop skills relevant to the work place, and so may have greater difficulty in finding work (AIHW, 2007).

Percentage of early school leavers in Cardinia, the Southern Metropolitan region and Victoria, who were unemployed six months after leaving school, 2006 to 2010.

2006

	Early school leavers looking for work	Total early school leavers	Percentage looking for work
Cardinia	np	82	np
Southern Metropolitan region	119	798	14.9
Victoria	683	4,606	14.8

2007

	Early school leavers looking for work	Total early school leavers	Percentage looking for work
Cardinia	5	75	6.7
Southern Metropolitan region	98	627	15.6
Victoria	593	3,878	15.3

2008

	Early school leavers looking for work	Total early school leavers	Percentage looking for work
Cardinia	8	58	13.8
Southern Metropolitan region	110	746	14.7
Victoria	638	4,548	14.0



Percentage of early school leavers in Cardinia, the Southern Metropolitan region and Victoria, who were unemployed six months after leaving school, 2006 to 2010 ... continued

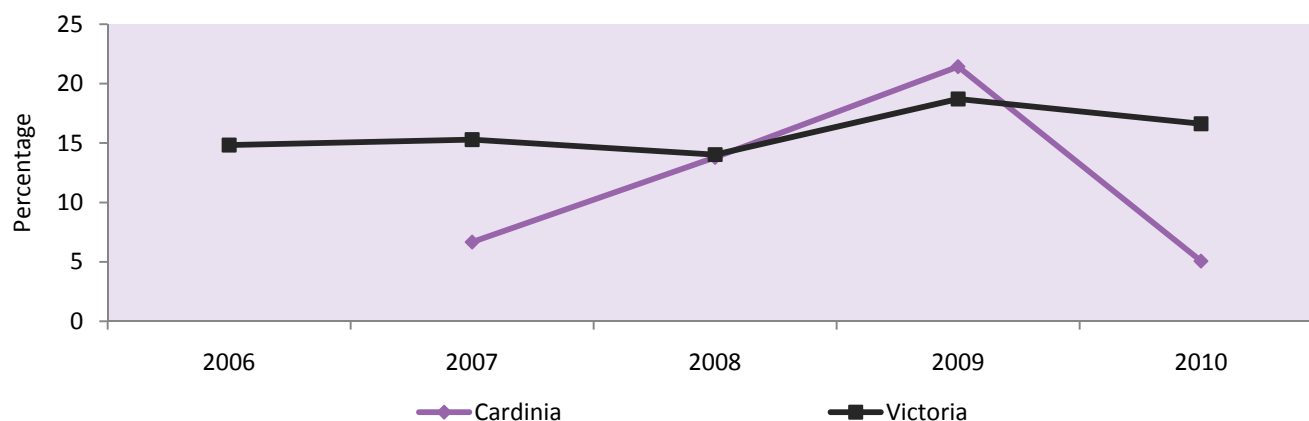
2009			
	Early school leavers looking for work	Total early school leavers	Percentage looking for work
Cardinia	12	56	21.4
Southern Metropolitan region	146	743	19.7
Victoria	837	4,473	18.7

2010			
	Early school leavers looking for work	Total early school leavers	Percentage looking for work
Cardinia	np	79	5.1
Southern Metropolitan region	120	706	17.0
Victoria	638	3,838	16.6

Source: Department of Education and Early Childhood Development, On Track Survey, unpublished.

- In Victoria, of the 3,838 early schools leavers interviewed by On Track 6 months after the end of the 2009 school year, 16.6 per cent were looking for work.
- Based on the 2010 On Track cohort, 5.1 per cent of early school leavers in Cardinia were looking for work six months later. This was less than one third of the percentage in Southern Metropolitan region (17.0 per cent) and less than one third of the percentage across Victoria (16.6 per cent).
- Cardinia was ranked 63 out of 65 LGAs in terms of the percentage of early school leavers who were looking for work in 2010. Ranks were not assigned to areas where the number of early school leavers was less than five.

Figure 27: Percentage of early school leavers in Cardinia and Victoria, who were unemployed six months after leaving school, 2006 to 2010.



Source: Department of Education and Early Childhood Development, On Track Survey, unpublished.

The Young Person

Outcome: Safe from injury and harm

Indicator: Age specific hospitalisation rates from injuries and poisoning

What is measured?

This indicator measures the number of adolescents aged 10 to 17 years admitted to hospital where the International Classification of Disease (ICD) coded principal diagnosis was related to injuries and poisoning, expressed as a rate per 1000 population (see 'Injury' and 'ICD-10-AM' in glossary at Appendix C for more information).

Why is it important?

Injury is the leading cause of death of children aged 1–14 years in every industrialised country, including Australia (Mercy et al. 2006), and is also a major cause of hospitalisation. For each death and hospitalisation due to injury, there are many more visits to emergency departments and health professionals outside hospital settings. Injuries sustained during childhood can have profound and lifelong effects on health and development, by causing permanent physical disabilities or long-term cognitive or psychological damage (for example, traumatic brain injury) (Mercy et al 2006).

Hospitalisation rate for injury and poisoning for adolescents in Cardinia, Southern Metropolitan region, and Victoria, 2004 - 2005 to 2008 - 2009.

2004 - 2005			
	Hospitalisations for injuries and poisoning	Adolescent population at 30 June 2004	Rate per 1000 adolescent children
Cardinia	54	7,129	7.6
Southern Metropolitan region	921	120,126	7.7
Victoria	4,430	537,229	8.2
2005 - 2006			
	Hospitalisations for injuries and poisoning	Adolescent population at 30 June 2005	Rate per 1000 adolescent children
Cardinia	48	7,475	6.4
Southern Metropolitan region	887	121,789	7.3
Victoria	4,509	541,742	8.3
2006 - 2007			
	Hospitalisations for injuries and poisoning	Adolescent population at 30 June 2006	Rate per 1000 adolescent children
Cardinia	74	7,841	9.4
Southern Metropolitan region	931	122,741	7.6
Victoria	4,873	543,483	9.0



Hospitalisation rate for injury and poisoning for adolescents in Cardinia, Southern Metropolitan region, and Victoria, 2004 - 2005 to 2008 - 2009 ... continued

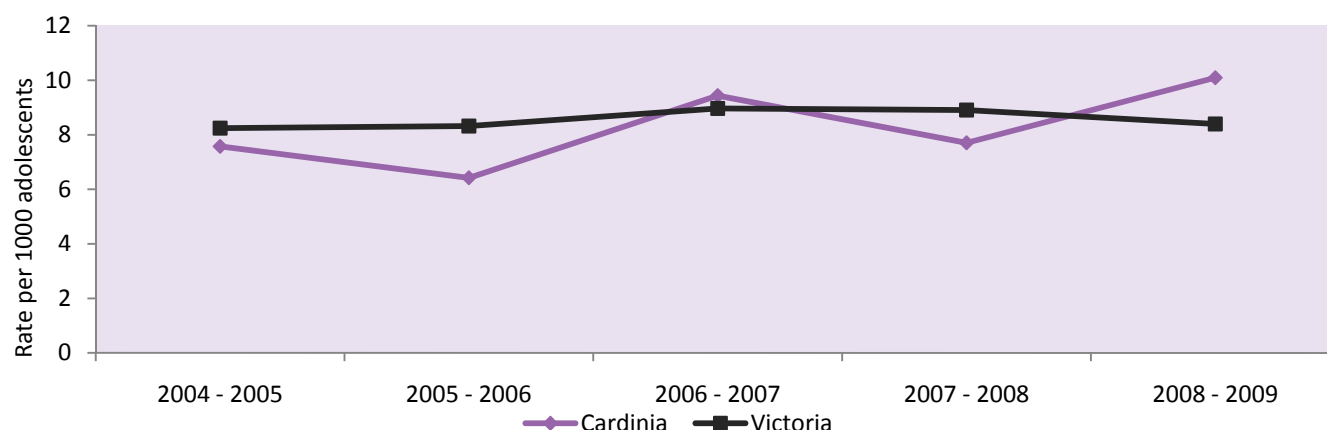
2007 - 2008			
	Hospitalisations for injuries and poisoning	Adolescent population at 30 June 2007	Rate per 1000 adolescent children
Cardinia	62	8,046	7.7
Southern Metropolitan region	998	124,190	8.0
Victoria	4,870	546,660	8.9

2008 - 2009			
	Hospitalisations for injuries and poisoning	Adolescent population at 30 June 2008	Rate per 1000 adolescent children
Cardinia	84	8,321	10.1
Southern Metropolitan region	962	125,028	7.7
Victoria	4,595	547,115	8.4

Source: (1) Monash University Accident Research Centre (MUARC) analysis of the Victorian Admitted Episodes Dataset (VAED), Victorian Injury Surveillance Unit (VISU), unpublished. (2) ABS Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- During 2008 - 2009, the hospitalisation rate for injuries and poisoning was 10.1 per 1,000 adolescents in Cardinia. This is higher than the hospitalisation rate for injuries and poisoning in the Southern Metropolitan region (7.7 per 1,000 adolescents) and higher than the rate in Victoria (8.4 per 1,000 adolescents).
- Cardinia was ranked 27 out of 77 LGAs in terms of the hospitalisation rate for injuries and poisoning during 2008 - 2009. A rank of 1 was assigned to the LGA with the highest rate of hospital separations. LGA with less than 5 hospital separations during 2008 - 2009 were not assigned a rank.

Figure 28: Hospitalisation rate for injuries and poisoning for adolescents in Cardinia and Victoria, 2004 - 2005 to 2008 - 2009.



Source: (1) Monash University Accident Research Centre (MUARC) analysis of the Victorian Admitted Episodes Dataset (VAED), Victorian Injury Surveillance Unit (VISU), unpublished. (2) ABS Population by age and sex, Australian States and Territories, June 2010 (Cat no. 3201.0)

- The hospitalisation rate for injuries and poisoning for adolescents across Victoria has increased over the past five years, from 8.2 per 1000 adolescents in 2004 - 2005 to 8.4 per 1000 adolescents in 2008 - 2009.
- The hospitalisation rate for injuries and poisoning in Cardinia was lower than that across Victoria for three of the five years between 2004 - 2005 and 2008 - 2009.



The Young Person

Outcome: Safe from injury and harm

Indicator: Crime where the victim was a young person

What is measured?

Recorded crime where the victim was an adolescent aged 10 to 17 years. See 'Crime' and 'Victim of crime' in glossary at Appendix C for more information.

Why is it important?

Crime takes many forms and can have a major impact on the wellbeing of victims, their families and friends, and the wider community. Those most directly affected may suffer financially, physically, psychologically and emotionally, while the fear of crime can affect people and restrict their lives in many ways. (ABS, 2010)

Children who are victims of violence can experience adverse consequences, affecting their health, wellbeing and their feelings of safety. There can also be long-term effects, including emotional and physical trauma, disability and even death. Children who experience violence can have difficulties at school and can feel socially isolated (DEECD, 2009).

Number of adolescents in Cardinia and Victoria who were victims of crime, by type of crime, 2005 - 2006 to 2009 - 2010.

		Crimes against the person		Crimes against property		All reported crime	
		Number	Rate per 1000 adolescents	Number	Rate per 1000 adolescents	Number	Rate per 1000 adolescents
Cardinia	2005 - 2006	105	14.0	53	7.1	160	21.4
	2006 - 2007	101	12.9	58	7.4	162	20.7
	2007 - 2008	97	12.1	39	4.8	137	17.0
	2008 - 2009	123	14.8	48	5.8	175	21.0
	2009 - 2010	136	15.7	52	6.0	191	22.0
Victoria	2005 - 2006	5,752	10.6	4,095	7.6	10,018	18.5
	2006 - 2007	6,214	11.4	4,095	7.5	10,493	19.3
	2007 - 2008	6,277	11.5	3,730	6.8	10,217	18.7
	2008 - 2009	6,109	11.2	3,523	6.4	9,820	17.9
	2009 - 2010	6,088	11.1	3,287	6.0	9,606	17.5

Source: Law Enforcement Assessment Program data, Victoria Police, unpublished, ABS Estimated Resident Population at 30 June

- In the five year period between 2005 - 2006 and 2009 - 2010, the rate of adolescents in Victoria who were victims of crime has decreased by 1.0 per 1000 adolescents, from 18.5 per 1000 adolescents in 2005 - 2006 to 17.5 per 1000 adolescents in 2009 - 2010.
- Over the past five years, the number of adolescents in Victoria reported to be victims of crime against the person has increased, while the number reported to be victims of crimes against property has decreased.
- Over the past five years in Cardinia, the rate of reported crime where the victim was an adolescent has increased by 0.6 per 1000 adolescents, from 21.4 per 1000 adolescents in 2005 - 2006 to 22.0 per 1000 adolescents in 2009 - 2010.
- In 2009 - 2010, of the total number of reported crimes in Cardinia where the victim was an adolescent, 27.2 per cent were crimes against property.
- In 2009 - 2010, the rate of crime against the person in Cardinia, where the victim was an adolescent (15.7 per 1000 adolescents), was higher than the rate in Victoria (11.1 per 1000 adolescents).
- In 2009 - 2010, the rate of crime against property in Cardinia, where the victim was an adolescent (6.0 per 1000 adolescents), was similar to the rate in Victoria (6.0 per 1000 adolescents).



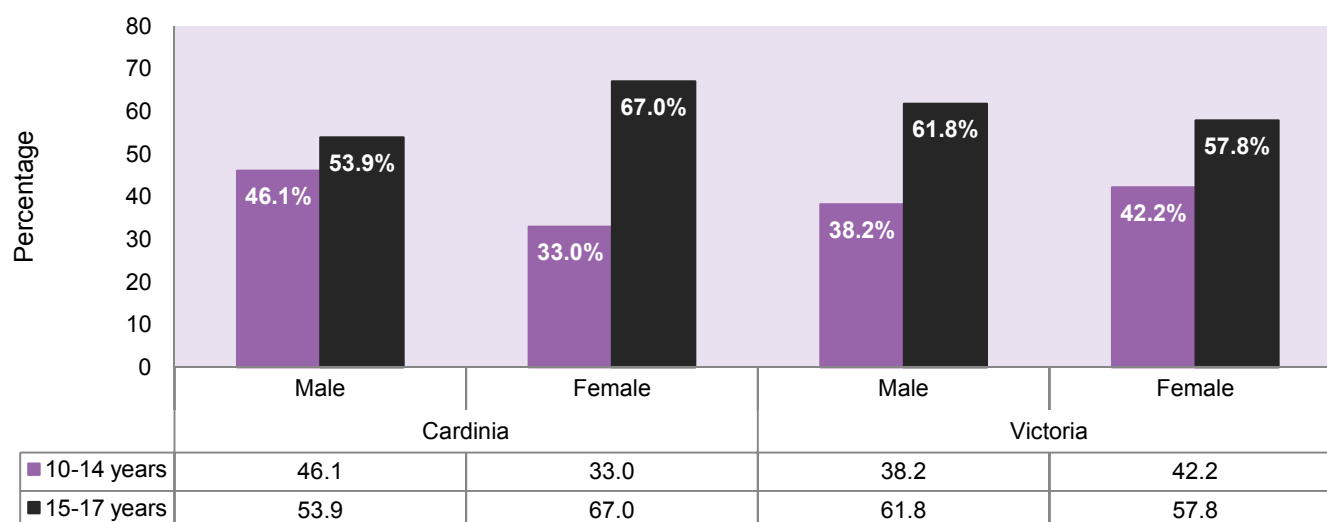
Number of adolescents in Cardinia and Victoria who were victims of crime, by age group and gender, 2005 - 2006 to 2009 - 2010.

		10 - 14 years		15 - 17 years		Total adolescents	
		Males	Females	Males	Females	Males	Females
Cardinia	2005 - 2006	42	24	58	36	100	60
	2006 - 2007	52	27	48	35	100	62
	2007 - 2008	33	23	50	31	83	54
	2008 - 2009	29	33	62	49	91	82
	2009 - 2010	41	33	48	67	89	100
Victoria	2005 - 2006	2,112	1,989	3,019	2,880	5,131	4,869
	2006 - 2007	2,149	2,197	3,229	2,907	5,378	5,104
	2007 - 2008	2,001	2,105	3,273	2,827	5,274	4,932
	2008 - 2009	1,821	2,092	3,041	2,839	4,862	4,931
	2009 - 2010	1,840	2,007	2,976	2,753	4,816	4,760

Source: Law Enforcement Assessment Program data, Victoria Police, unpublished

- In Victoria, the number of adolescent males who were reported to be victims of crime was higher than the number of females. This pattern has been evident in four of the past five years.
- In 2009-2010, more females in Victoria were reported to be victims of crime in the 10-14 year age group, but for older adolescents (aged 15-17 years), more males were reported to be victims of crime.
- In Cardinia, the number of males reported to be victims of crime has decreased over the past five years, from 100 in 2005 - 2006 to 89 in 2009 - 2010.
- The number of females reported to be victims of crime has increased over the past five years, from 60 in 2005 - 2006 to 100 in 2009 - 2010.

Figure 29: Adolescents in Cardinia and Victoria reported to be victims of crime, by age group and gender, 2009 - 2010.



Source: Law Enforcement Assessment Program data, Victoria Police, unpublished

- During 2009 - 2010, the majority of adolescent in Victoria reported to be victims of crime were aged between 15-17 years. In Cardinia, the percentage of males aged 15-17 years who reported being victims of crime (53.9 per cent) was lower than the percentage of females in this age group (67.0 per cent).
- In Cardinia, the percentage of males aged 10-14 years who reported being victims of crime during 2009 - 2010 (46.1 per cent) was higher than the percentage of females in this age group (33.0 per cent).



The Young Person

Outcome: Prosocial teenage lifestyle and law abiding behavior

Indicator: Crime where the offender was a young person

What is measured?

Recorded crime where the alleged offender was an adolescent aged 10 to 17 years. See 'Crime' and 'Offender' in glossary at Appendix C for more information.

Why is it important?

There are many factors that lead to an increased risk of involvement with the criminal justice system. Young people who offend often have one or more of the following risk factors: substance abuse issues, experiencing homelessness, poor educational attainment, poverty, unemployment, family breakdown and physical or mental health issues. The strongest predictors of involvement in the criminal justice system are lack of parental engagement, lack of adequate parental supervision and lack of parental emotional attachment in a child's life. Young people who appear in the court before they are 15 years of age are more likely to reappear in court more regularly (Chen, Matruglio et al. 2005).

Crime in Cardinia and Victoria where the offender was an adolescent, by type of crime, 2005 - 2006 to 2009 - 2010.

		Crimes against the person		Crimes against property		All reported crime	
		Number	Rate per 1000 adolescents	Number	Rate per 1000 adolescents	Number	Rate per 1000 adolescents
Cardinia	2005 - 2006	85	11.4	192	25.7	327	43.7
	2006 - 2007	57	7.3	252	32.1	367	46.8
	2007 - 2008	112	13.9	291	36.2	481	59.8
	2008 - 2009	93	11.2	495	59.5	661	79.4
	2009 - 2010	139	16.0	367	42.3	580	66.8
Victoria	2005 - 2006	4,775	8.8	18,825	34.7	28,969	53.5
	2006 - 2007	5,420	10.0	19,698	36.2	30,634	56.4
	2007 - 2008	6,629	12.1	21,958	40.2	33,739	61.7
	2008 - 2009	6,425	11.7	23,569	43.1	35,842	65.5
	2009 - 2010	6,852	12.5	23,007	42.0	35,781	65.3

Source: Law Enforcement Assessment Program data, Victoria Police, unpublished, ABS Estimated Resident Population at 30 June

- The rate of crime where the alleged offender was an adolescent has increased over the past five years, from 53.5 per 1000 adolescents in 2005 - 2006 to 65.3 per 1000 adolescents in 2009 - 2010.
- The vast majority of crimes reported in Victoria, where the alleged offender was an adolescent, were crimes against the property. In 2009 - 2010, 64.3 per cent of reported crime where the alleged offender was an adolescent were crimes against property and 19.1 per cent were crimes against the person.
- In Cardinia, the rate of reported crime where the alleged offender was an adolescent has increased over the past five years, from 43.7 per 1000 adolescents in 2005 - 2006 to 66.8 per 1000 adolescents in 2009 - 2010.
- In 2009 - 2010, of the total number of reported crimes in Cardinia where the alleged offender was an adolescent, 24.0 per cent were crimes against the person and 63.3 per cent were crimes against property.
- In 2009 - 2010, the rate of crime against the person in Cardinia, where the alleged offender was an adolescent (16.0 per 1000 adolescents), was higher than the rate in Victoria (12.5 per 1000 adolescents).
- In 2009 - 2010, the rate of crime against property in Cardinia, where the alleged offender was an adolescent (42.3 per 1000 adolescents), was higher than the rate in Victoria (42.0 per 1000 adolescents).



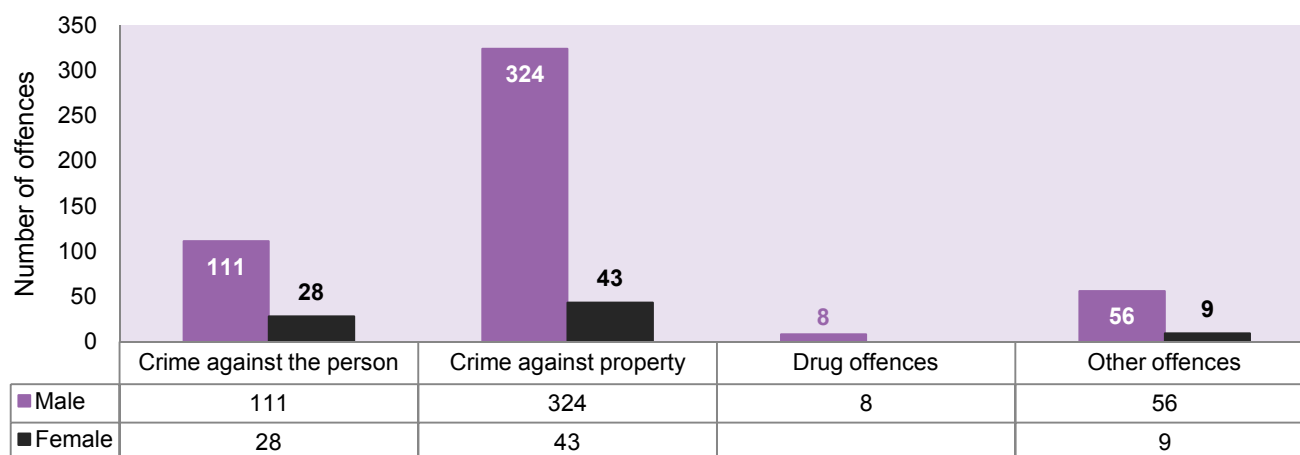
Crime in Cardinia and Victoria where the offender was an adolescent, by age group, 2005 - 2006 to 2009 - 2010.

		10 - 14 years		15 - 17 years	
		Number	Rate per 1000 adolescents	Number	Rate per 1000 adolescents
Cardinia	2005 - 2006	134	27.6	193	73.7
	2006 - 2007	142	27.9	225	81.9
	2007 - 2008	167	32.3	314	109.3
	2008 - 2009	226	42.6	435	144.3
	2009 - 2010	156	28.3	424	133.9
Victoria	2005 - 2006	8,271	24.5	20,698	101.2
	2006 - 2007	9,858	29.3	20,776	100.3
	2007 - 2008	10,939	32.5	22,800	108.6
	2008 - 2009	11,019	32.8	24,823	117.7
	2009 - 2010	10,945	32.5	24,836	117.3

Source: Law Enforcement Assessment Program data, Victoria Police, unpublished, ABS Estimated Resident Population at 30 June

- In Victoria, the rate of alleged offenders who were aged 10-14 years has increased by 8.0 per 1000 adolescents over the past five years, while the rate of offences by older adolescents has increased by 16.1 per 1000 adolescents.
- The rate of crime in Victoria where the alleged offender was an adolescent aged between 10-14 years was greater than the rate for older adolescents (aged 15-17 years). This trend has been evident for the past five years.
- In 2009 - 2010, 28.3 per 1000 adolescents aged 10 -14 years in Cardinia were reported to have committed an offence. This was lower than the rate in Victoria (32.5 per 1000 adolescents aged 10 -14 years).
- In 2009 - 2010, 133.9 per 1000 adolescents aged 15 - 17 years in Cardinia were reported to have committed an offence. This was higher than the rate in Victoria (117.3 per 1000 adolescents aged 15 - 17 years).

Figure 30: Type of crime reported to be committed by adolescent offenders in Cardinia, 2009 - 2010.



Source: Law Enforcement Assessment Program data, Victoria Police, unpublished

Note: Where there are less than five offences recorded for adolescents in the above categories, the data will not be displayed in the figure above and will appear blank.

- In Victoria, there were more adolescent male offenders than females across all types of recorded crime. Further, the most common type of crime committed by adolescents was crime against property.



The Young Person

Outcome: Prosocial teenage lifestyle and law abiding behavior

Indicator: Young people convicted and placed on a community order

What is measured?

Rate of adolescents convicted and placed on community based supervision. See 'Community based supervision' in glossary at Appendix C for more information.

Why is it important?

This is important to know as the number of young people placed on a community order represents the majority of young people under statutory supervision in the youth justice system, and highlights trends over time. Approximately 85% of those on statutory orders are being supervised in the community with the remainder in custody (DEECD, 2008).

Adolescents convicted and placed on a community order in Cardinia, the Southern Metropolitan region and Victoria, 2005 - 2006 to 2009 - 2010.

2005 - 2006			
	Adolescents placed on community order	Adolescent population at 30 June 2005.	Rate per 1000 adolescents
Cardinia	5	7,475	0.7
Southern Metropolitan region	111	121,789	0.9
Victoria	551	541,742	1.0
2006 - 2007			
	Adolescents placed on community order	Adolescent population at 30 June 2006.	Rate per 1000 adolescents
Cardinia	12	7,841	1.5
Southern Metropolitan region	110	122,741	0.9
Victoria	605	543,483	1.1
2007 - 2008			
	Adolescents placed on community order	Adolescent population at 30 June 2007.	Rate per 1000 adolescents
Cardinia	16	8,046	2.0
Southern Metropolitan region	157	124,190	1.3
Victoria	690	546,660	1.3
2008 - 2009			
	Adolescents placed on community order	Adolescent population at 30 June 2008.	Rate per 1000 adolescents
Cardinia	10	8,321	1.2
Southern Metropolitan region	134	125,028	1.1
Victoria	751	547,115	1.4



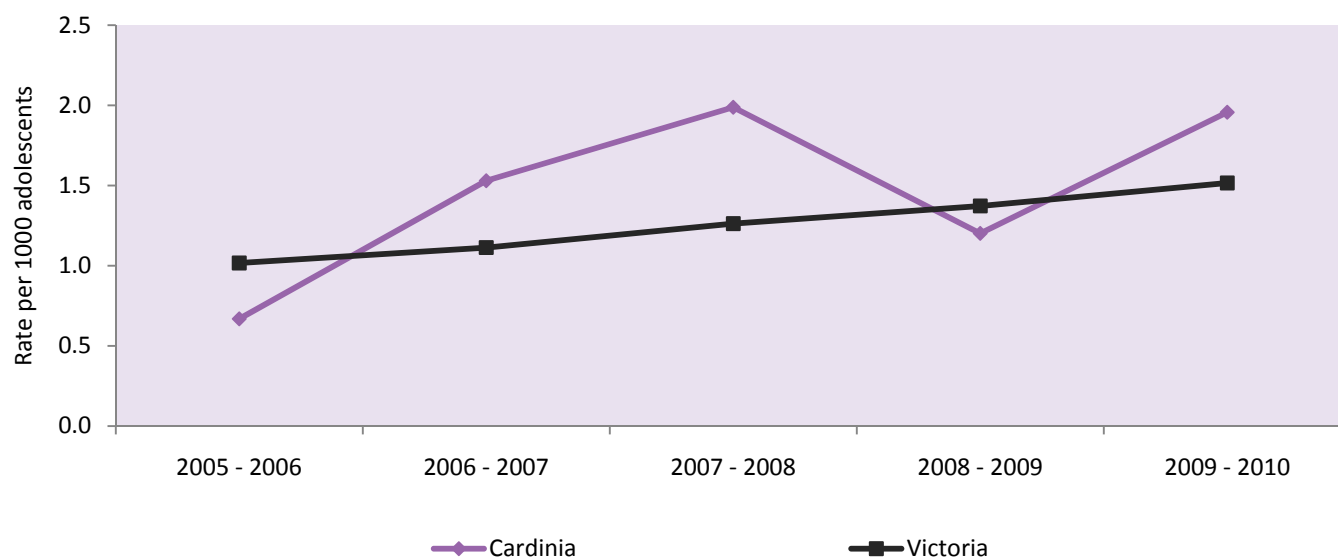
Adolescents convicted and placed on a community order in Cardinia, the Southern Metropolitan region and Victoria, 2005 - 2006 to 2009 - 2010 ... continued

2009 - 2010			
	Adolescents placed on community order	Adolescent population at 30 June 2009.	Rate per 1000 adolescents
Cardinia	17	8,686	2.0
Southern Metropolitan region	161	125,916	1.3
Victoria	831	548,041	1.5

Source: Department of Human Services, 2010, Client Relationship Information System, Children, Youth & Families Division, unpublished.

- During 2009 - 2010, 2.0 per 1000 adolescents in Cardinia were placed on community based orders. This was higher than the rate in Southern Metropolitan region (1.3 per 1000 adolescents) and higher than the rate across Victoria (1.5 per 1000 adolescents).
- Cardinia was ranked 20 out of 45 LGAs in terms of the rate of adolescents convicted and placed on community orders during 2009 - 2010. A rank of 1 was assigned to the LGA with the highest rate. LGAs with less than 5 adolescents placed on community orders were not assigned a rank.

Figure 31: Adolescents convicted and placed on a community order in Cardinia and Victoria, 2005 - 2006 to 2009 - 2010.



Source: Department of Human Services, 2010, Client Relationship Information System, Children, Youth & Families Division, unpublished.

- Over the past five years, the rate of adolescents placed on community orders in Victoria has increased by 0.5 per 1000 adolescents, from 1.0 per 1000 adolescents in 2005 - 2006 to 1.5 per 1000 adolescents in 2009 - 2010.
- The rate of adolescents convicted and placed on a community order in Cardinia was higher than that across Victoria for three of the five years between 2004 - 2005 and 2008 - 2009.

The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Teenage fertility (rate)

What is measured?

This indicator measures the number of confinements (pregnancies) that result in a live birth, to women aged 15 to 19 years. The teenage fertility rate is this number of confinements per 1000 women aged 15 to 19 years. See 'Teenage births' in glossary at Appendix C for more information.

Why is it important?

Teenage childbearing is often related to increased adverse health, social and economical outcomes for teenagers and their children (AAP 1999). Young mothers may be more likely to drop out of school, be unemployed or low paid, to live in poor housing conditions, to suffer from depression and require government assistance (UNCF, 2001). It has been reported that children born to teenage mothers develop more behaviour problems, tend to be more impulsive than older mothers' children and are more likely to be born into, and continue to live in, social and economic disadvantage (Ambert, 2006).

However, it is also important to recognise that not all teenagers pregnancies are unplanned or unwanted and that many teenage parents and children of teenage parents report positive experiences (Centre for Community Child Health et al, 2009).

Number of women aged 15 to 19 years who had a livebirth in Cardinia, the Southern Metropolitan region and Victoria, 2004 to 2008.

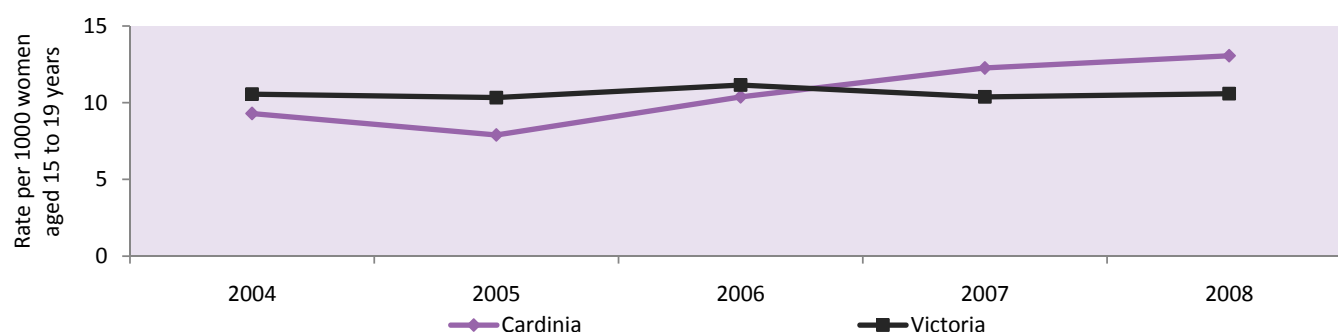
	Cardinia		Southern Metropolitan region		Victoria	
	Live births	Rate per 1000 teenage women	Live births	Rate per 1000 teenage women	Live births	Rate per 1000 teenage women
2004	18	9.3	362	9.9	1,761	10.6
2005	16	7.9	317	8.6	1,740	10.3
2006	22	10.4	358	9.6	1,893	11.2
2007	27	12.3	328	8.6	1,790	10.4
2008	30	13.1	358	9.2	1,857	10.6

Source: Department of Health, 2010, Victorian Perinatal Data Collection, unpublished, ABS, Population by age and sex (Cat. No. 3201.0)

Note: The statewide total includes women who live outside Victoria but give birth at a Victorian hospital.

- In 2008, the teenage birth rate in Victoria was the same as the rate in 2004 (10.6 per 1000 teenage women), but has increased from 10.4 per 1000 teenage women in 2007.
- In 2008, the teenage birth rate in Cardinia was 13.1 per 1000 women aged 15 to 19 years. This rate was higher than the rate in the Southern Metropolitan region (9.2 per 1000 teenage women) and higher than the rate in Victoria (10.6 per 1000 teenage women).
- Cardinia was ranked 35 out of 67 LGAs in terms of the teenage birth rate. A rank of 1 was assigned to the LGA with the highest teenage birth rate during 2008. Ranks were not assigned to areas where there were less than five live births to women aged 15 to 19 years during 2008.

Figure 32: Teenage birth rate in Cardinia and Victoria, 2004 to 2008.



Source: Department of Health, 2010, Victorian Perinatal Data Collection, unpublished, ABS, Population by age and sex (Cat. No. 3201.0)



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Proportion of adolescents who drink alcohol

What is measured?

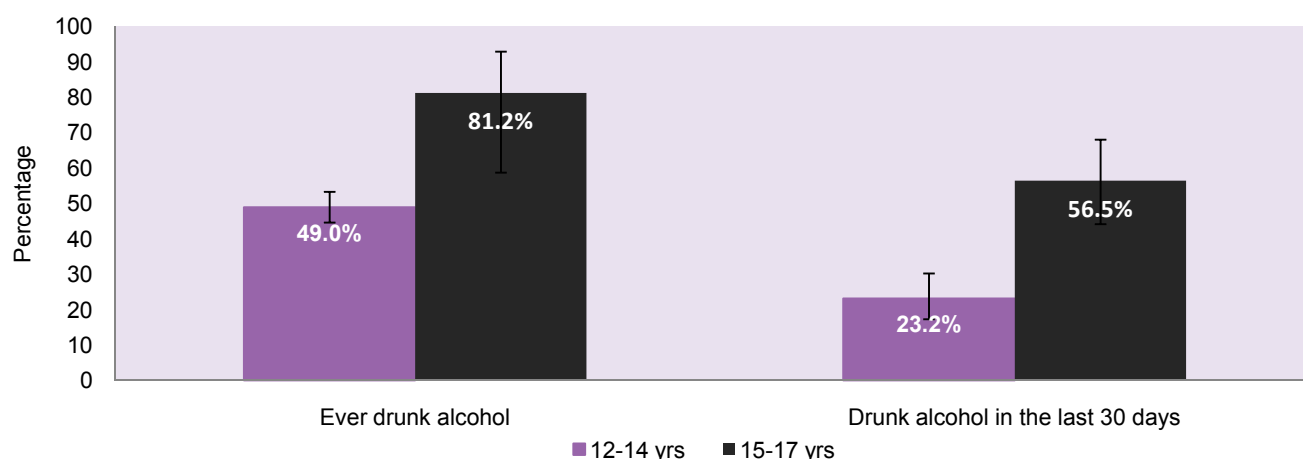
The proportion of adolescents enrolled in Years 7, 9 and 11 who have ever drunk alcohol in their lifetime or drunk alcohol in the last 30 days. Having drunk alcohol means having more than just a few sips of an alcoholic beverage. Survey questions are derived from the 1999 Health and Wellbeing Survey (Bond et al, 2000).

Why is it important?

Alcohol use is a major contributor to preventable health problems. It substantially contributes to death, injury, illness, mental health and social problems for both the users and the wider community. Alcohol use in adolescents is common, threatens health and can have both short term and longer term consequences. Alcohol is responsible for the majority of drug-related deaths and substance-related hospital episodes recorded in young people (NDRI 2000, Makkai & McAllister 1998).

Adolescents are at greater risk of acute harm from alcohol use as a result of road trauma, violence, accidents and acute intoxication compared with older age groups (Degenhardt et al 2000). Frequency of use in adolescence and the age of initiation of alcohol use are important indicators for both short- and long-term health and social outcomes.

Figure 33: Proportion of adolescents in Cardinia aged 12-14 years and 15-17 years who have ever drunk alcohol or have drunk alcohol in the last 30 days, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 46.4 per cent of adolescents aged 12 to 14 surveyed in Victoria had ever drunk alcohol, while 23.8 per cent had drunk alcohol in the past 30 days. Among older adolescents aged 15 to 17 years, the proportions were significantly higher, with 74.1 per cent having ever consumed alcohol and 52.3 per cent having done so in the last 30 days.
- In Cardinia, 49.0 per cent of adolescents aged 12 to 14 years had consumed alcohol, which was higher than, but not significantly different to the proportion in Victoria. Among the same age group, 23.2 per cent had drunk alcohol in the past 30 days, which was lower than, but not significantly different to the proportion in Victoria.
- Among adolescents surveyed in Cardinia aged 15 to 17 years, 81.2 per cent had consumed alcohol at some point. This was higher than, but not significantly different to the proportion across Victoria. Within the same age group, 56.5 per cent had drunk alcohol in the past 30 days, which was higher than, but not significantly different to the proportion in Victoria.
- The proportion of adolescents aged 12 to 14 in Cardinia who had ever drunk alcohol (49.0 per cent) was significantly lower than for 15 to 17 year olds (81.2 per cent). Within the last 30 days, 23.2 per cent of 12 to 14 year olds had drunk alcohol, which was significantly lower than for older adolescents aged 15 to 17 (56.5 per cent).

The Young Person

Outcome: Healthy teenage lifestyle

Indicator: The proportion of adolescents who use tobacco

What is measured?

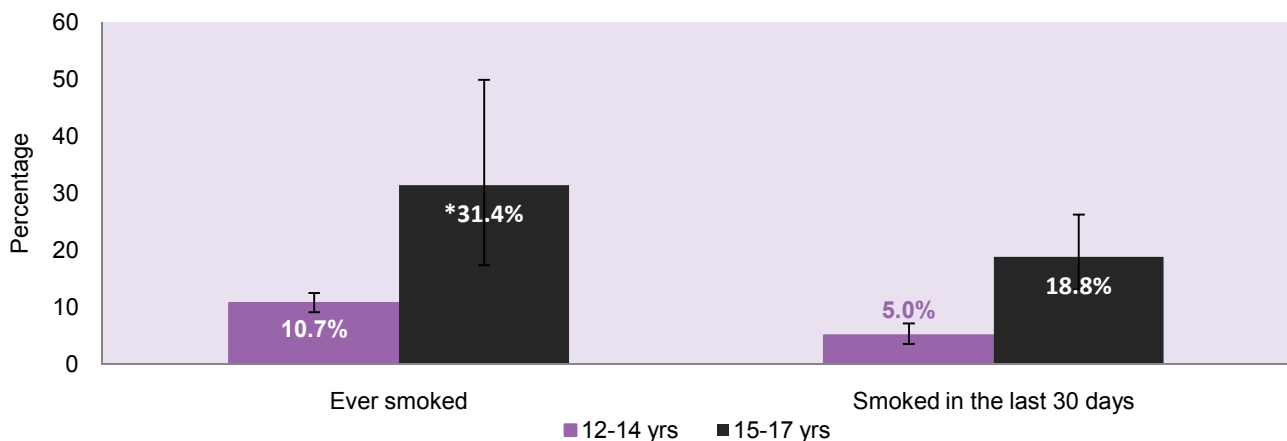
The proportion of adolescents enrolled in Years 7, 9 and 11 who have ever smoked cigarettes in their lifetime or smoked cigarettes in the last 30 days. Survey questions are derived from the 1999 Health and Wellbeing Survey (Bond et al, 2000).

Why is it important?

Tobacco is the leading cause of premature death and hospitalisation among Australians (ADCA 2003, Ridolfo 2001). It has been estimated to cause 15 per cent of all deaths, typically through chronic health conditions resulting from long-term smoking.

Smoking in adolescence has immediate and long-term effects on health. Children and adolescents who smoke are more likely to experience respiratory problems than non-smokers and these smoking-related respiratory problems become apparent within weeks of initiation of smoking. Adolescent smokers cough more; have more asthma and allergy symptoms; more respiratory infections and experience shortness of breath with exertion (Bewley 1976, Adams 1984, USDHHS 1984, Townsend 1991, VicHealth CTC 2001). There is growing evidence that adolescents, especially females, are more easily addicted to nicotine than adults (ASHA 2002).

Figure 34: Proportion of adolescents in Cardinia aged 12-14 years and 15-17 years who have ever smoked cigarettes or have smoked cigarettes in the last 30 days, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 13.4 per cent of adolescents aged 12 to 14 surveyed in Victoria had ever smoked cigarettes, while 5.6 per cent had smoked cigarettes in the past 30 days. Among older adolescents aged 15 to 17 years, the proportions were significantly higher, with 36.4 per cent having ever smoked cigarettes and 17.7 per cent having done so in the last 30 days.
- In Cardinia, 10.7 per cent of adolescents aged 12 to 14 years had smoked cigarettes which was lower than, but not significantly different to the proportion in Victoria. Among the same age group, 5.0 per cent had smoked cigarettes in the past 30 days, a proportion lower than, but not significantly different to Victoria.
- Among adolescents surveyed in Cardinia aged 15 to 17 years, 31.4 per cent had smoked cigarettes at some time in their lives. This was lower than, but not significantly different to Victoria. Within the same age group, 18.8 per cent had smoked cigarettes in the past 30 days, which was higher than, but not significantly different to Victoria.
- The proportion of adolescents aged 12 to 14 in Cardinia who had ever smoked cigarettes (10.7 per cent) was significantly lower than for 15 to 17 year olds (31.4 per cent). Within the last 30 days, 5.0 per cent of 12 to 14 year olds had smoked cigarettes, which was significantly lower than for older adolescents aged 15 to 17 (18.8 per cent).



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: The proportion of adolescents who use drugs

What is measured?

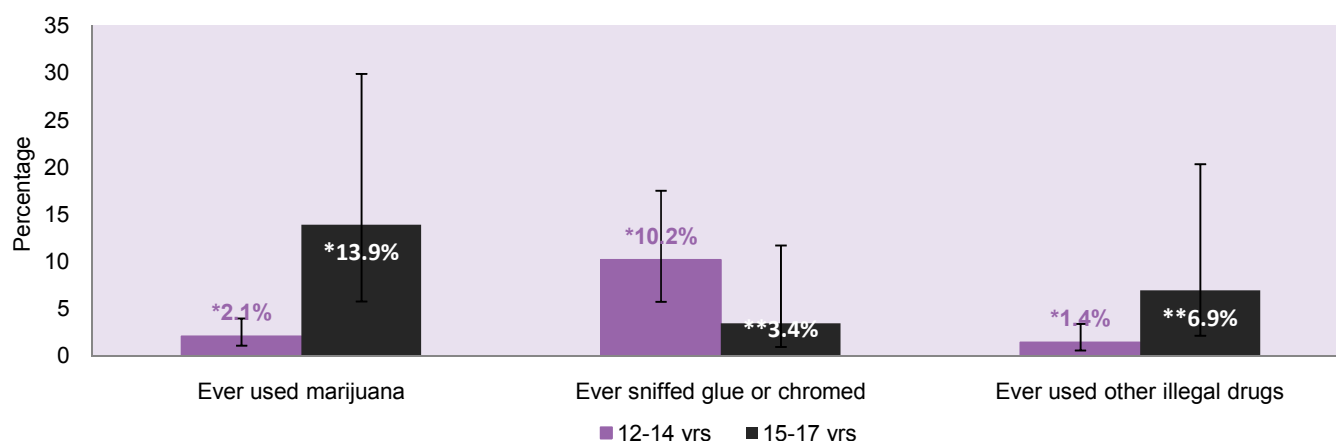
The proportion of adolescents enrolled in Years 7, 9 and 11 who have ever used marijuana, sniffed glue or chromed, or ever used other illegal drugs. Chroming includes breathing the contents of an aerosol spray or inhaling other gasses or sprays to get high. Survey questions are derived from the 1999 Health and Wellbeing Survey (Bond et al, 2000).

Why is it important?

Intoxication of marijuana can cause distorted perceptions, impaired coordination, difficulty in thinking and problem solving, and problems with learning and memory, often lasting for days or weeks after the acute effects of the drug wear off (NIDA 2009). Long term marijuana abuse can lead to addiction and chronic use has been associated with increased rates of anxiety, depression, suicidal ideation, and schizophrenia, as well as an increased risk of heart attack in the first hour after use (NIDA 2009).

Illicit drug use adversely impacts individual physical health, mental health and personal and social adjustment while also undermining the security and wellbeing of families and the broader community. Adolescence is a critical period for the initiation of illicit drug use which includes non-medical use of prescription drugs and volatile substance use involving the inhalation of common chemicals.

Figure 35: Proportion of adolescents in Cardinia aged 12-14 years and 15-17 years who have ever used marijuana, sniffed glue/chromed or used illegal drugs, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

** Estimate has a relative standard error of greater than 50 per cent and is not considered fit for use.

* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 3.7 per cent of Victoria adolescents aged 12 to 14 surveyed had ever used marijuana. A significantly higher proportion of 15 to 17 year olds (16.0 per cent) had used marijuana. Among adolescents aged 12 to 14 years, 7.9 per cent had ever sniffed glue or chromed. A lower proportion of 15 to 17 year olds (7.0 per cent) reported having sniffed glue or chromed although the difference was not significant. A significantly higher proportion of 15 to 17 year olds reported having used other illegal drugs (4.7 per cent) compared with adolescents aged 12 to 14 years (1.0 per cent).
- In Cardinia, 2.1 per cent of adolescents aged 12 to 14 years had used marijuana in their lifetime. This was lower than, but not significantly different to the proportion of adolescents the same age surveyed in Victoria (3.7 per cent). 13.9 per cent of 15 to 17 year olds had used marijuana in their lifetime, which was lower than, but not significantly different to the proportion in Victoria (16.0 per cent).
- 10.2 per cent of adolescents aged 12 to 14 years in Cardinia had sniffed glue or chromed. This was higher than, but not significantly different to the proportion of adolescents aged 12 to 14 surveyed in Victoria (7.9 per cent). In comparison, 3.4 per cent of 15 to 17 year olds had sniffed glue or chromed, which was lower than, but not significantly different to the proportion in Victoria (7.0 per cent).
- In Cardinia, 1.4 per cent of adolescents aged 12 to 14 years had ever used other illegal drugs. This was higher than, but not significantly different to the proportion of 12 to 14 year olds surveyed in Victoria (1.0 per cent). In comparison, 6.9 per cent of 15 to 17 year olds had used other illegal drugs, which was higher than, but not significantly different to the proportion in Victoria (4.7 per cent).



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Proportion of young people who have had sexual intercourse

What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who reported that they have had sexual intercourse.

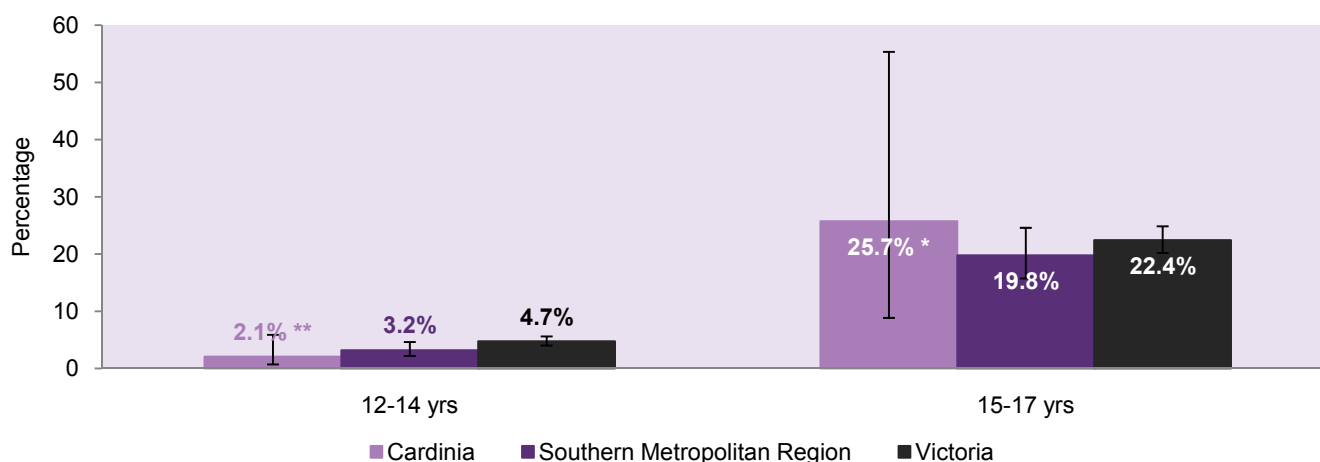
Note: This survey question was omitted from some school questionnaires, therefore the data presented here may underestimate the real proportion of sexually active young people in Victoria.

Why is it important?

The timing of first sexual intercourse and the context in which it occurs have important implications for health. Sexually active young people are at risk of unplanned pregnancy and sexually transmitted infections (STIs), as well as a range of other important health and life outcomes (Quinlivan 1999). Sexually transmitted infections (STIs) can cause acute illness, infertility, and can have severe medical and psychological consequences.

Teenage births carry a higher rate of medical complications, including prematurity, low birthweight, the need for neonatal intensive care, and neonatal death (van der Klis et al 1999). The association between teenage pregnancy and poor health outcomes for the infant (and poor life outcomes in terms of educational interruption for the mother) are well recognised in Australia and internationally.

Figure 36: Proportion of adolescents in Cardinia, Southern Metropolitan Region and Victoria who have had sexual intercourse, by age group, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

** Estimate has a relative standard error of greater than 50 per cent and is not considered fit for use.

* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 4.7 per cent of 12-14 year old students and 22.4 per cent of 15-17 year old students in Victoria reported that they have had sexual intercourse.
- The mean age of initiation of sexual intercourse for adolescents in Victoria who reported that they have had sex was 15 years old. The youngest mean age of initiation of sexual intercourse was in Western Metropolitan region (mean age of 14.7 years) and the oldest in the Gippsland region (mean age of 15.2 years).
- In 2009, 2.1 per cent of 12-14 year old students in Cardinia reported that they had sexual intercourse. This was lower than, but not significantly different to that reported in Southern Metropolitan Region (3.2 per cent) and lower than, but not significantly different to that reported across Victoria (4.7 per cent).
- In 2009, 25.7 per cent of 15-17 year old students in Cardinia reported that they had sexual intercourse. This was higher than, but not significantly different to that reported in Southern Metropolitan Region (19.8 per cent) and higher than, but not significantly different to that reported across Victoria (22.4 per cent).



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Proportion of young people practicing safe sex by using a condom

What is measured?

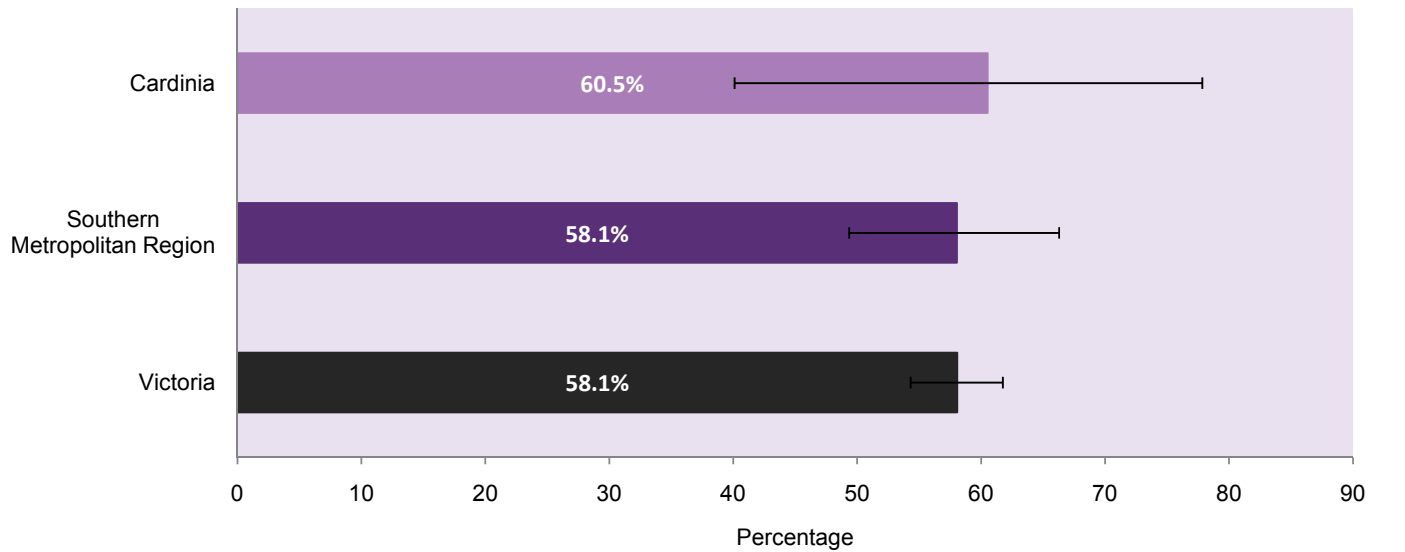
This indicator measures the number of sexually active adolescents who reported that they practised safe sex by using a condom, expressed as a percentage of Year 7, 9 and 11 students who reported that they have had sexual intercourse.

Why is it important?

Unsafe sex has been described as the second highest cause of the global burden of disease (Ezzati et al 2002). It is therefore a high priority to promote sexual practices that are known to be effective in reducing this burden, including barrier methods such as condom use, that protect against both unplanned pregnancy and sexually transmissible diseases. As the use of condoms has a profound effect on the rate of STIs including the prevention of HIV (Davis & Weller 1999), it is important to monitor condom usage in order to measure the effectiveness of public health initiatives aimed at increasing condom usage in young people.

Condom use at sexual debut increases the likelihood of condom use at most recent sex (Shafii 2004). This highlights the importance of sexual health promotion about condoms starting before the onset of sexual activity.

Figure 37: Proportion of sexually active adolescents who practice safe sex by using a condom in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 58.1 per cent of sexually active adolescents in Victoria reported that they practice safe sex by using a condom.
- The proportion of sexually active adolescents in Rural Victoria reported to practice safe sex by using a condom (59.9 per cent) was higher than, but not significantly different to that reported in Metropolitan Victoria (56.9 per cent).
- In 2009, 60.5 per cent of sexually active adolescents surveyed in Cardinia reported that they practiced safe sex by using a condom. This was higher than, but not significantly different to that reported in Southern Metropolitan Region (58.1 per cent) and higher than, but not significantly different to that reported across Victoria (58.1 per cent).



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Proportion of young women who have used contraception to avoid pregnancy

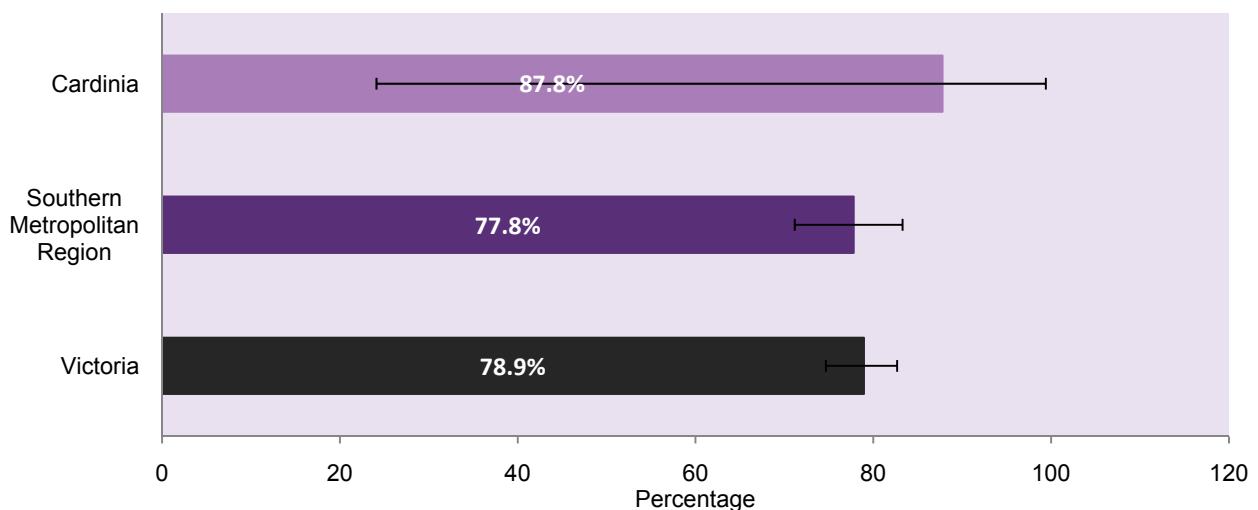
What is measured?

This indicator measures the number of sexually active female Year 7, 9 and 11 students who report using contraception to avoid pregnancy, expressed as a proportion of all females who reported that they have had sexual intercourse.

Why is it important?

Early child rearing is associated with a variety of poor maternal and infant outcomes. Indeed, negative associations between early child rearing and economic, social and health outcomes are well described, with early child rearing carrying tremendous social and financial costs (Benussen-Walls & Saewck, 2001, Brown et al, 1991, Felice et al, 1999, Fraser et al, 1995).

Figure 38: Proportion of sexually active adolescent females who have used contraception to avoid pregnancy in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 78.9 per cent of sexually active adolescents females in Victoria have used contraception to avoid pregnancy.
- The proportion of sexually active adolescent females in Rural Victoria who have used contraception to avoid pregnancy (82.1 per cent) was higher than, but not significantly different to that reported in Metropolitan Victoria (76.8 per cent).
- In 2009, 87.8 per cent of sexually active adolescent females in Cardinia have used contraception to avoid pregnancy. This was higher than, but not significantly different to that reported in Southern Metropolitan Region (77.8 per cent).
- The proportion of sexually active adolescent females in Cardinia who have used contraception to avoid pregnancy was higher than, but not significantly different to that reported across Victoria (78.9 per cent).



The Young Person

Outcome: Healthy teenage lifestyle

Indicator: Sexually transmissible infections in young people (Rate)

What is measured?

Number of sexually transmissible infections (STIs) among young people aged 10 to 17 years, expressed as a rate per 1000 adolescents. See 'Sexually Transmissible Infections' in glossary at Appendix C for more information.

Why is it important?

Monitoring trend rates for specific STIs in young people is important for many different reasons. Rising rates of chlamydia are of particular concern to individual women because of the longer-term risks to fertility from pelvic inflammatory disease (DEECD, 2008).

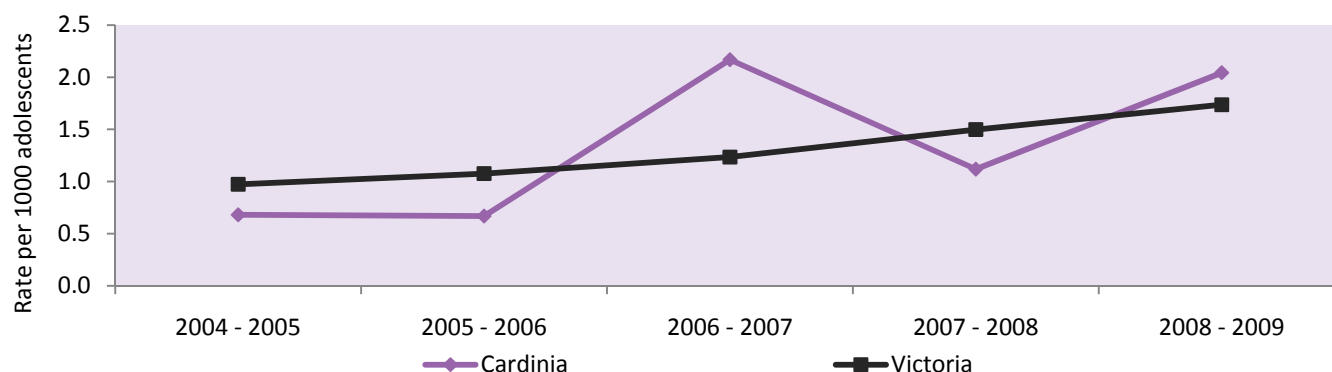
Rate of sexually transmissible infections among adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2004 - 2005 to 2008 - 2009.

	Cardinia		Southern Metropolitan region		Victoria	
	STIs in adolescents	Rate per 1000 adolescents	STIs in adolescents	Rate per 1000 adolescents	STIs in adolescents	Rate per 1000 adolescents
2004 - 2005	11	1.5	103	0.9	523	1.0
2005 - 2006	5	0.7	115	0.9	583	1.1
2006 - 2007	17	2.2	146	1.2	671	1.2
2007 - 2008	9	1.1	164	1.3	819	1.5
2008 - 2009	17	2.0	213	1.7	950	1.7

Source: Department of Health, 2010, Victorian National Infectious Disease Surveillance System, unpublished, ABS, Population by age and sex (Cat. No. 3201.0)

- The rate of STIs among adolescents has increased over the past five years, from 1.0 per 1000 adolescents in 2004 - 2005 to 1.7 per 1000 adolescents in 2008 - 2009. The most commonly notified STI was chlamydia in females.
- In 2008 - 2009, the rate of STIs among adolescents in Cardinia was 2.0 per 1000 adolescents. This rate was higher than the rate in the Southern Metropolitan region (1.7 per 1000 adolescents) and higher than the rate in Victoria (1.7 per 1000 adolescents).
- Cardinia was ranked 25 out of 52 LGAs in terms of the rate of STIs among adolescents. A rank of 1 was assigned to the LGA with the highest rate of STIs among adolescents during 2008 - 2009. Ranks were not assigned to areas where there were less than five adolescents with STIs during 2008 - 2009.

Figure 39: Rate of STIs among adolescents in Cardinia and Victoria, 2004 - 2005 to 2008 - 2009.



Source: Department of Health, 2010, Victorian National Infectious Disease Surveillance System, unpublished, ABS, Population by age and sex (Cat. No. 3201.0)

The Young Person

Outcome: Teenagers able to rely on supportive adults

Indicator: Proportion of adolescents who have a trusted adult in their life

What is measured?

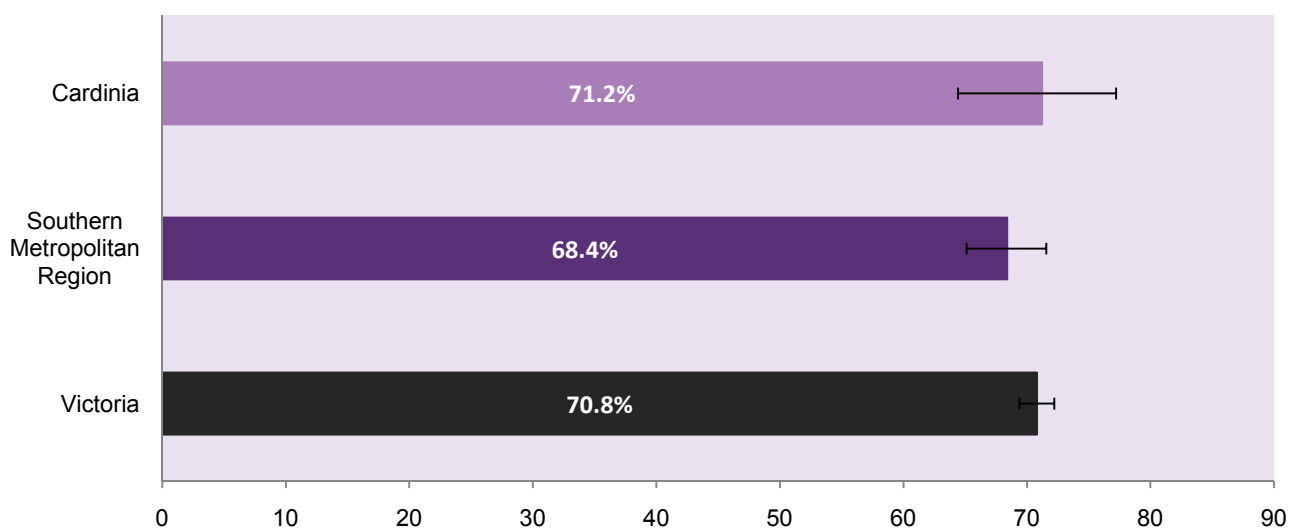
The proportion of adolescents enrolled in Years 7, 9 and 11 who had a trusted adult in their life to whom they would turn if they were having problems. The adolescent needed to have responded that they 'agree', 'strongly agree' or 'very strongly agree'.

Why is it important?

A supportive relationship with an adult who encourages and models healthy and prosocial behaviour can contribute to improving health, wellbeing, security, learning and development outcomes for children and young people. The evidence that adults can have this influence comes from both longitudinal studies that have followed children and young people over time and from intervention studies that have shown that adult mentorship can contribute to improved outcomes for young people.

Having a close relationship with a supportive adult mentor appears to act as a protective influence, for example moderating and mediating better outcomes for children and young people who may have a high number of risk factors in other life contexts. The higher the number of close adult social relationships an adolescent reported ('connectedness') the less likely they were to subsequently experience health and social problems (Resnick et al 1997).

Figure 40: Proportion of adolescents who have a trusted adult in their life in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 70.8 per cent of adolescents surveyed in Victoria indicated that they had a trusted adult in their life.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents with a trusted adult in their lives.
- In 2009, 71.2 per cent of adolescents surveyed in Cardinia had a trusted adult in their life. This was higher than, but not significantly different to the proportion in Southern Metropolitan Region (68.4 per cent).
- The proportion of adolescents surveyed in Cardinia with a trusted adult in their life is higher than, but not significantly different to that reported across Victoria (70.8 per cent).



The Family

Outcome: Healthy adult lifestyle

Indicator: Proportion of adolescents who are exposed to tobacco smoke in the home

What is measured?

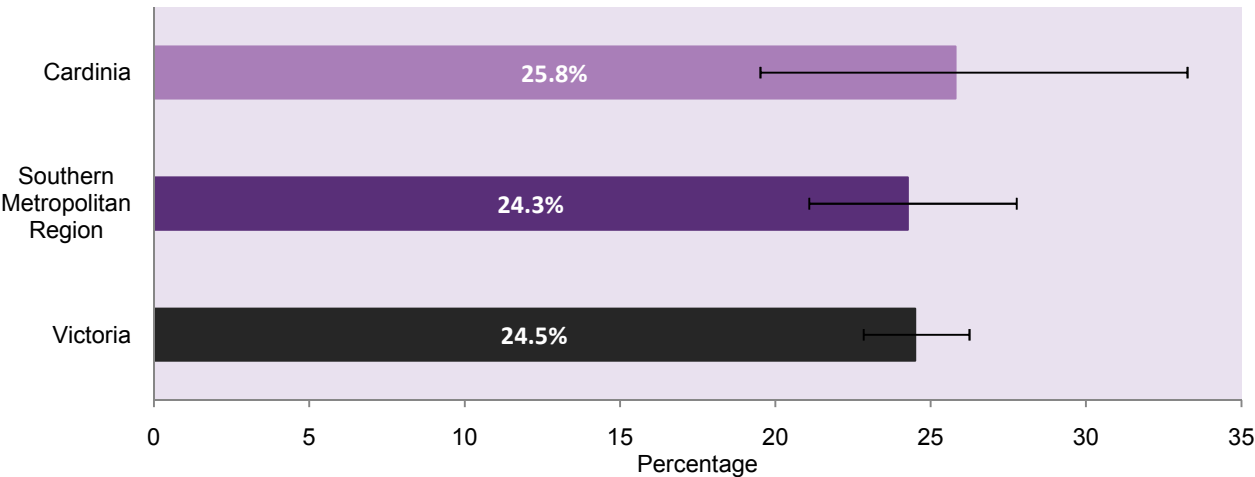
The proportion of adolescents enrolled in Years 7, 9 and 11 who are exposed to cigarette smokers (people occasionally smoke in the house or people frequently smoke in the house).

Why is it important?

Passive smoking, or the inhalation of second-hand smoke, may lead to childhood respiratory infections, increased severity of asthma, inflammation and allergic responses. It is also known to be associated with an increase in risk for a range of adverse health conditions including, asthma and wheezing illnesses, SIDS, infant mortality, croup, bronchiolitis and pneumonia in infancy, otis media (glue ear) and tonsillitis, serious bacterial infection (USDHHS 2006).

Children in households with a smoker are also more likely to take up smoking themselves, with a threefold increase in daily smoking among young people with any second-hand smoke exposure (Darling & Reeder 2003).

Figure 41: Proportion of adolescents exposed to tobacco smoke in the home Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 24.5 per cent of adolescents surveyed in Victoria indicated that they were exposed to tobacco smoke in the home.
- There was no significant difference between Rural and Metropolitan Victoria in terms of the proportion of adolescents exposed to tobacco smoke.
- In 2009, 25.8 per cent of adolescents surveyed in Cardinia were exposed to tobacco smoke in the home. This was higher than, but not significantly different to the proportion in Southern Metropolitan Region (24.3 per cent).
- The proportion of adolescents surveyed in Cardinia exposed to tobacco smoke in the home is higher than, but not significantly different to that reported across Victoria (24.5 per cent).



The Family

Outcome: Free from abuse and neglect

Indicator: Number of adolescents who are the subject of a child abuse substantiation

What is measured?

This indicator measures substantiated child protection reports concerning adolescents aged 10 to 17 years, expressed as a rate per 1000 adolescents. A report is 'substantiated' where it is concluded that the young person is in need for protection. See 'child abuse substantiation' in glossary at Appendix C for more information.

Why is it important?

Childhood trauma, abuse and neglect is one of the most significant factors impacting on child health, wellbeing and development (DHS, 2001). Abuse and neglect have short- and long-term adverse consequences for children (Shonkoff & Phillips, 2000). Children who are subjected to maltreatment may experience fear and bodily harm, poor school performance, learning disorders, poor peer relations, anti-social behaviour and mental health disorders (Paolucci et al, 2001). Furthermore, in severe cases the abuse can lead to injury or serious harm and hospitalisation.

Number and rate of substantiated child protection reports for adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2005 - 2006 to 2009 - 2010.

	Cardinia		Southern Metropolitan region		Victoria	
	Number of substantiations	Rate per 1000 adolescents	Number of substantiations	Rate per 1000 adolescents	Number of substantiations	Rate per 1000 adolescents
2005 - 2006	27	3.6	515	4.2	2,574	4.8
2006 - 2007	28	3.6	414	3.4	2,331	4.3
2007 - 2008	41	5.1	506	4.1	2,306	4.2
2008 - 2009	29	3.5	455	3.6	2,372	4.3
2009 - 2010	56	6.4	550	4.4	2,434	4.4

Source: Department of Human Services, 2010, Client Relationship Information System, Children, Youth & Families Division, unpublished. ABS Estimated Resident Population

- The rate of child protection substantiations in adolescents across Victoria has decreased over the past five years, from 4.8 per 1000 adolescents in 2005 - 2006 to 4.4 per 1000 adolescents in 2009 - 2010.
- The rate of child protection substantiations in Cardinia has increased over the past five years, from 3.6 per 1000 adolescents in 2005 - 2006 to 6.4 per 1000 adolescents in 2009 - 2010.
- In 2009 - 2010, the rate of child protection substantiations in Cardinia was higher than the rate in the Southern Metropolitan region (4.4 per 1000 adolescents) and higher than the rate across Victoria (4.4 per 1000 adolescents).
- Cardinia was ranked 16 out of 67 LGAs in terms of the rate of child protection substantiations in adolescents. A rank of 1 was assigned to the LGA with the highest rate of substantiations during 2009 - 2010. Ranks were not assigned to areas where there were less than five child protection substantiations recorded during 2009 - 2010.



The Family

Outcome: Adequate family housing

Indicator: Public housing retention rate for families with young people

What is measured?

This indicator measures the number of households with children in allocated public housing (rebated housing) over the financial year, and the proportion of these households that have remained in public housing 12 months following the initial allocation. This measure tracks allocations 12 months forward, so there was a 12 month lag between the numerator and denominator data. See 'public housing' and 'public housing retention rate' in glossary at Appendix C for more information.

Why is it important?

Housing is considered a basic necessity for children and impacts upon them through both the quality and physical environment and the extent to which it is a secure environment. Transience and homelessness are known to be significant risk factors for children (DHS, 2005). Parental stress can be increased if tenure is unknown or short-term, as can be the case for low-income families (DHS, 2001).

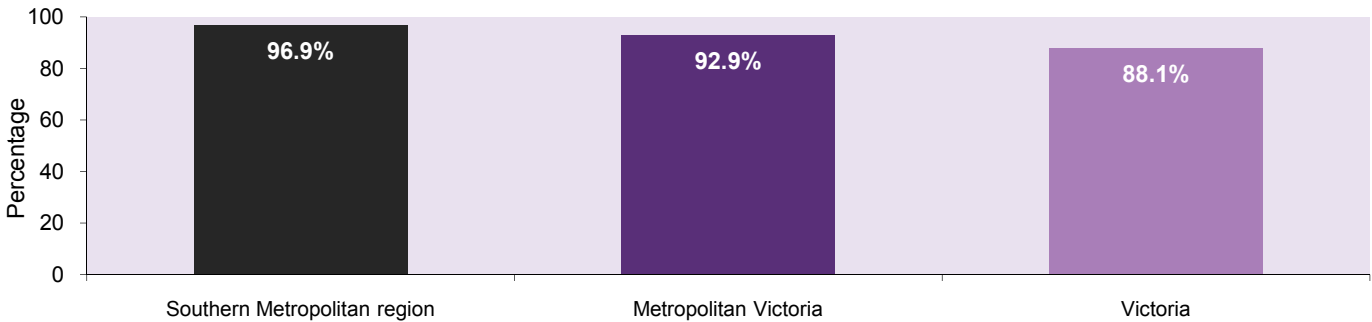
Public housing retention rate for families with adolescent children in the Southern Metropolitan region and Victoria, 2006 - 2007 to 2008 - 2009.

	Southern Metropolitan region			Victoria		
	Number of public housing allocations	Retention 12 months after initial allocation	Public housing retention rates (%)	Number of public housing allocations	Retention 12 months after initial allocation	Public housing retention rates (%)
2006 - 2007	227	210	92.5	1,660	1,446	87.1
2007 - 2008	230	219	95.2	1,457	1,298	89.1
2008 - 2009	162	157	96.9	1,125	991	88.1

Source: Department of Human Services, Office for Housing, unpublished

- The public housing retention rate in Victoria has increased over the past three years, from 87.1 per cent in 2006 - 2007 to 88.1 per cent in 2008 - 2009. However, it should be noted that the number of public housing allocations to household with adolescents has also decreased during this period.
- In Southern Metropolitan region, there were 162 public housing allocations to household with adolescents during 2008 - 2009. Of these, 96.9 per cent remained in that public housing allocation 12 months after the initial allocation.
- The Southern Metropolitan region was ranked 1 out of 9 regions in terms of the public housing retention rate. A rank of 1 was assigned the area with highest public housing retention rate during 2008 - 2009. Areas with less than 10 public housing allocations to households with adolescents during 2008 - 2009 were not assigned a rank.

Figure 42: Public housing retention rate for families with adolescent children in the Southern Metropolitan region, Metropolitan Victoria and Victoria, 2008 - 2009.



Source: Department of Human Services, Office for Housing, unpublished



The Family

Outcome: Positive family functioning

Indicator: Proportion of adolescents living in families with healthy family functioning

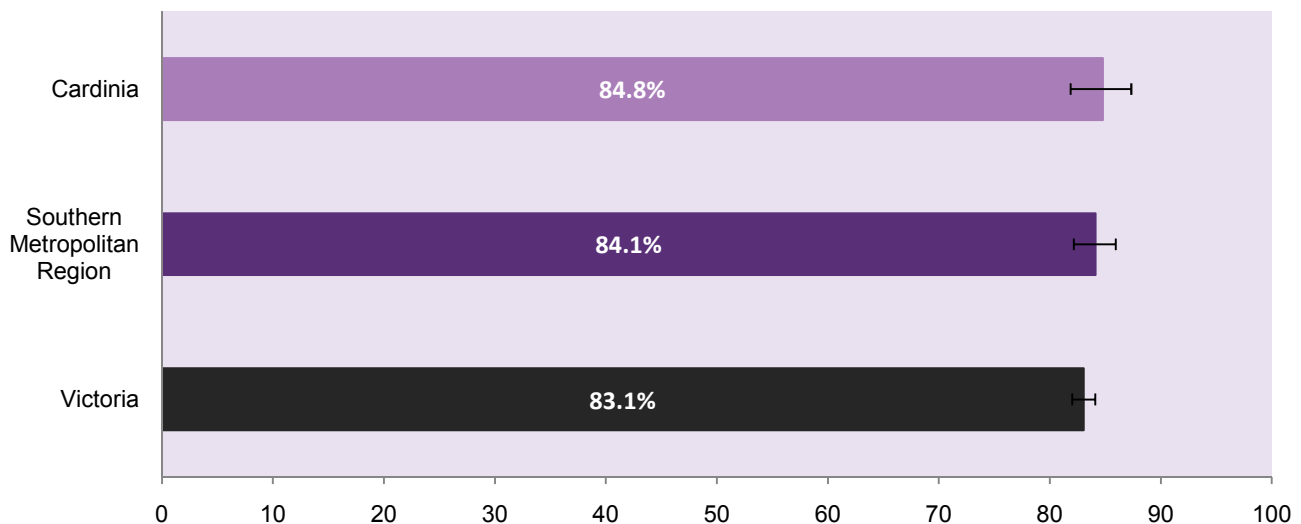
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who are not exposed to either family conflict or poor family management or both. For more information, refer to 'Healthy family functioning' in glossary at Appendix C.

Why is it important?

The relationship that children maintain with their family is one of the most important influences on healthy child development (Shonkoff & Phillips, 2000). In families where cohesion is high there are benefits for the child, including having positive role models for building relationships, the ability to cope with stressful events in life and the development of high self-esteem. In contrast, in families where there is discord and high levels of conflict there can be adverse effects on the wellbeing of children and young people (AIHW, 2007).

Figure 43: Proportion of adolescents living in families with healthy family functioning in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 83.1 per cent of adolescents surveyed in Victoria lived in families with healthy family functioning.
- There was no significant difference between the proportion of adolescents in Rural Victoria living in families with healthy family functioning compared with Metropolitan Victoria.
- In 2009, 84.8 per cent of adolescents surveyed in Cardinia were living in families with healthy family functioning. This was higher than, but not significantly different to Southern Metropolitan Region (84.1 per cent).
- The proportion of adolescents surveyed in Cardinia who were living in families with healthy family functioning was higher than, but not significantly different to that reported across Victoria (83.1 per cent).



The Community

Outcome: Safe from environmental toxins

Indicator: Proportion of adolescents living in clean neighbourhoods

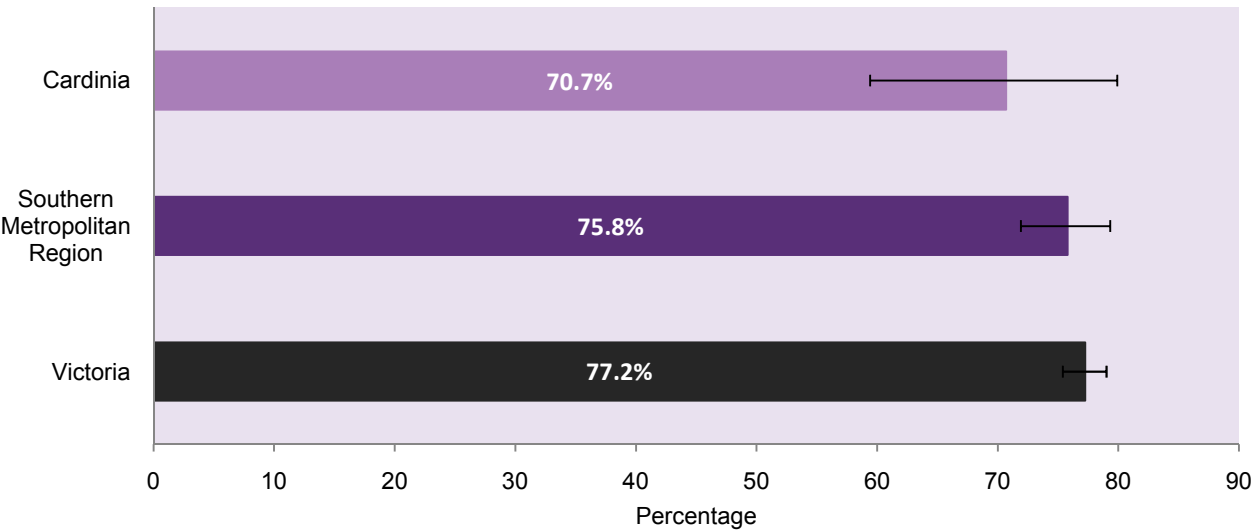
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who 'agreed' or 'strongly agreed' with the perception that their neighbourhood is clean. Respondents were asked to report on the area that they considered to be their neighbourhood.

Why is it important?

The World Health Organisation (WHO) recognises the influence the physical urban environment has on health (WHO 2003). Adults with positive perceptions of their environment are less likely to be obese or to rate their own health negatively (Poortinga 2006). The physical characteristics of a neighbourhood, such as the quality of the homes, the presence or absence of graffiti or litter influence people's perceptions of neighbourhood safety and willingness to exercise.

Figure 44: Proportion of adolescents who perceived their neighbourhood to be clean in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, the majority of adolescents surveyed in Victoria (77.2 per cent) perceived their neighbourhood to be clean.
- There was no significant difference between Rural Victoria compared with Metropolitan Victorian in terms of the proportion of adolescents who perceived their neighbourhood to be clean.
- In 2009, 70.7 per cent of adolescents surveyed in Cardinia perceived their neighbourhood was clean. This was lower than, but not significantly different to the proportion in Southern Metropolitan Region (75.8 per cent).
- The proportion of adolescents surveyed in Cardinia who perceived their neighbourhood was clean was lower than, but not significantly different to that reported across Victoria (77.2 per cent).



The Community

Outcome: Safe from environmental toxins

Indicator: Proportion of adolescents living in neighbourhoods with heavy traffic

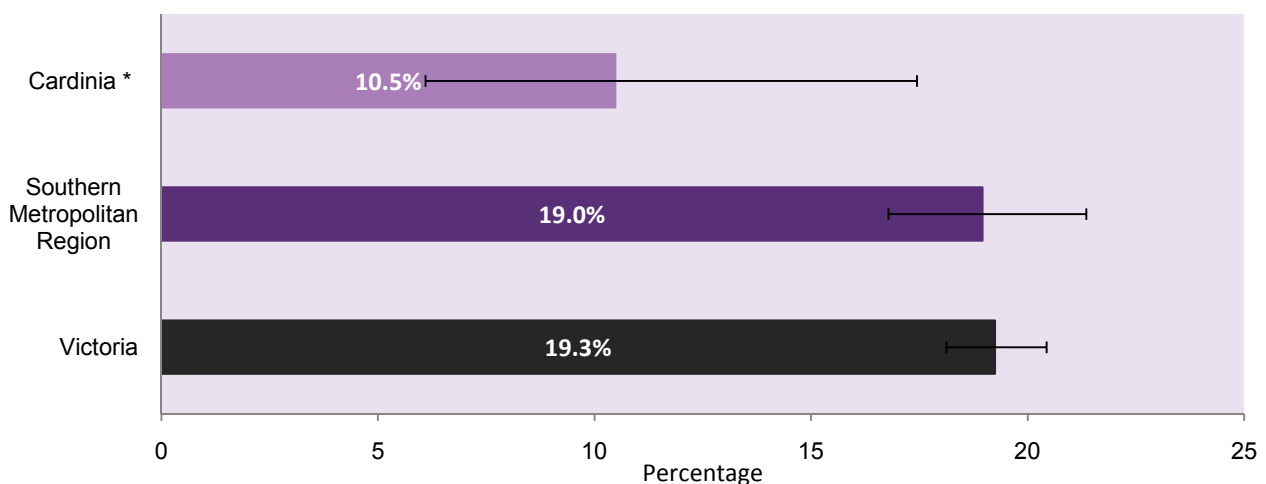
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who 'agreed' or 'strongly agreed' that there was heavy traffic on their street or road.

Why is it important?

Exposure to heavy road traffic has been linked to increased prevalence of respiratory symptoms with studies indicating that children and young people living next to busy roads have an increased risk of suffering from respiratory disease (WHO 2002). Living in areas of heavy traffic can also contribute to parent's fears of traffic accidents, restricting children's freedom to walk or cycle (WHO 2002, Ziviani et al 2004). This in turn may: hinder the development of independence, reduce social contact and lead to unhealthy levels of inactivity.

Figure 45: Proportion of adolescents living in neighbourhoods with heavy traffic in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

* Estimate has a relative standard error of between 25 - 50 per cent and should be used with caution.

- In 2009, 19.3 per cent of adolescents surveyed in Victoria reported living in neighbourhoods with heavy traffic.
- There was no significant difference between the proportion of adolescents in Rural Victoria who lived in a neighbourhood with heavy traffic compared with the proportion in Metropolitan Victoria.
- In 2009, 10.5 per cent of adolescents surveyed in Cardinia reported living in a neighbourhood with heavy traffic. This was lower than, but not significantly different to the proportion reported in Southern Metropolitan Region (19.0 per cent).
- The proportion of adolescents surveyed in Cardinia who were living in neighbourhoods with heavy traffic was significantly lower than that reported across Victoria (19.3 per cent).



The Community

Outcome: Communities that enable parents, children and young people to build connections

Indicator: Proportion of adolescents who have someone to turn to for advice when having problems

What is measured?

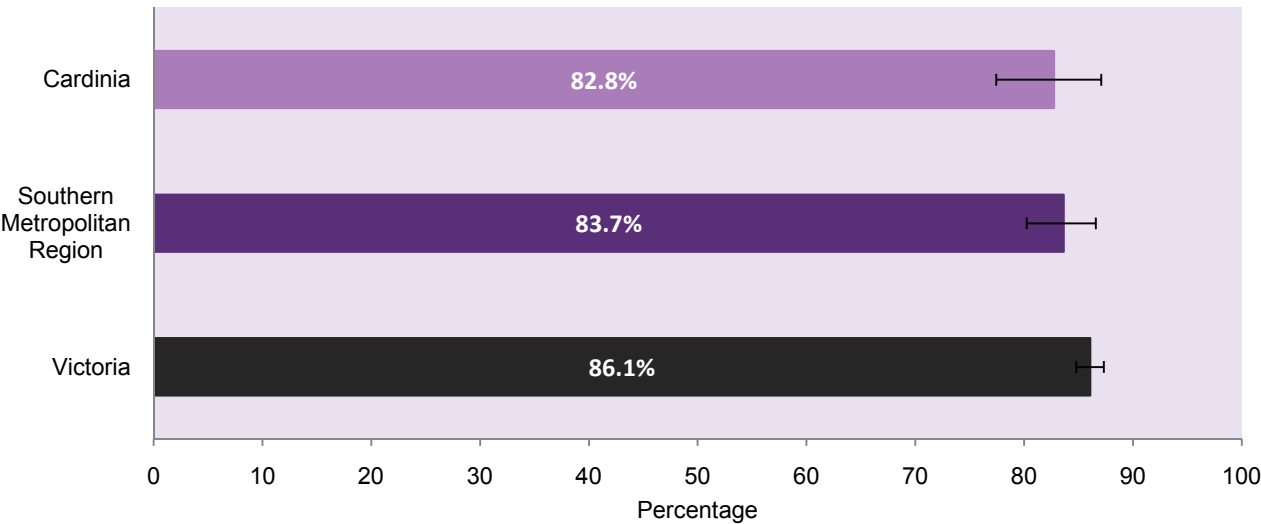
The proportion of adolescents enrolled in Years 7, 9 and 11 who 'agreed', 'strongly agreed' or 'very strongly agreed' that they have someone to turn to for advice when having problems. For more information, refer to 'Social Support' in glossary at Appendix C.

Why is it important?

Social support is an important positive contributory factor to the health and wellbeing of people. Social support includes feeling there are other people to share problems with and feeling close to someone. For example, helping people to better cope with stress and illness may be a positive psychological or emotional influence of social support (AIHW 2007).

Studies have specifically investigated the link between social support and adolescent health. Adolescents fare better when the level of social support is strong (AIHW, 2005). A relationship between a young person's social support and some health risk factors has been identified, including physical inactivity, depression and smoking (Beets et al 2006, Vilhjalmsen 1994).

Figure 46: Proportion of adolescents who have someone to turn to for advice when having problems in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 86.1 per cent of adolescents surveyed in Victoria reported that they have someone to turn to for advice when having problems.
- There was no significant difference between the proportion of adolescents in Rural Victoria with someone to turn to for advice compared with the proportion in Metropolitan Victoria.
- In 2009, 82.8 per cent of adolescents surveyed in Cardinia said they had someone to turn to for advice. This was lower than, but not significantly different to that reported in Southern Metropolitan Region (83.7 per cent).
- The proportion of adolescents surveyed in Cardinia with someone to turn to for advice was lower than, but not significantly different to that reported across Victoria (86.1 per cent).



The Community

Outcome: Communities that enable parents, children and young people to build connections

Indicator: Proportion of adolescents who are satisfied with their quality of life

What is measured?

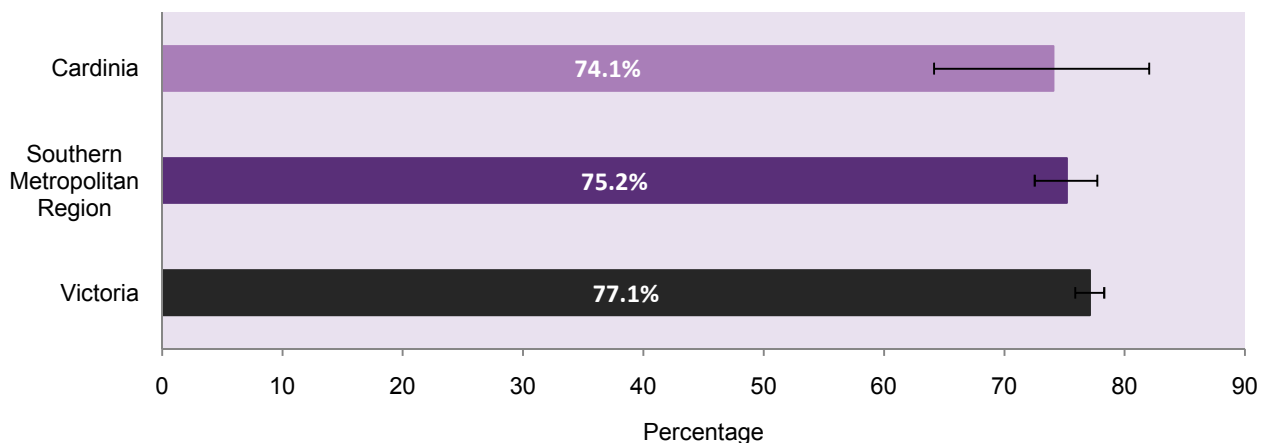
The proportion of adolescents enrolled in Years 7, 9 and 11 with a Mental Health Index - Psychological wellbeing scale score of 43 or higher. For more information, refer to 'Health Related Quality of Life' in glossary at Appendix C.

Why is it important?

In 1948 the World Health Organization developed its concept of health as a multidimensional construct incorporating physical, mental, and social health dimensions (WHO 1948). This is essentially the modern construct of Health Related Quality of Life (HRQoL), yet measures of child HRQoL suitable for large-scale epidemiological use have only recently been developed.

Short HRQoL measures discriminate among population groups known to have different levels of health, and child HRQoL and that of their parents appears closely linked (Ronen et al. 2001).

Figure 47: Proportion of adolescents who are satisfied with their quality of life Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 77.1 per cent of Victorian adolescents surveyed reported being satisfied with their quality of life.
- There was no significant difference between the proportion of adolescents in Rural Victoria satisfied with their quality of life compared with the proportion in Metropolitan Victoria.
- In 2009, 74.1 per cent of adolescents surveyed in Cardinia were satisfied with the quality of their life. This was lower than, but not significantly different to that reported in Southern Metropolitan Region (75.2 per cent).
- The proportion of adolescents surveyed in Cardinia satisfied with their quality of life was lower than, but not significantly different to that reported across Victoria (77.1 per cent).



The Community

Outcome: Communities that enable parents, children and young people to build connections

Indicator: Young people who believe they have the opportunity to have a say on issues that matter to them

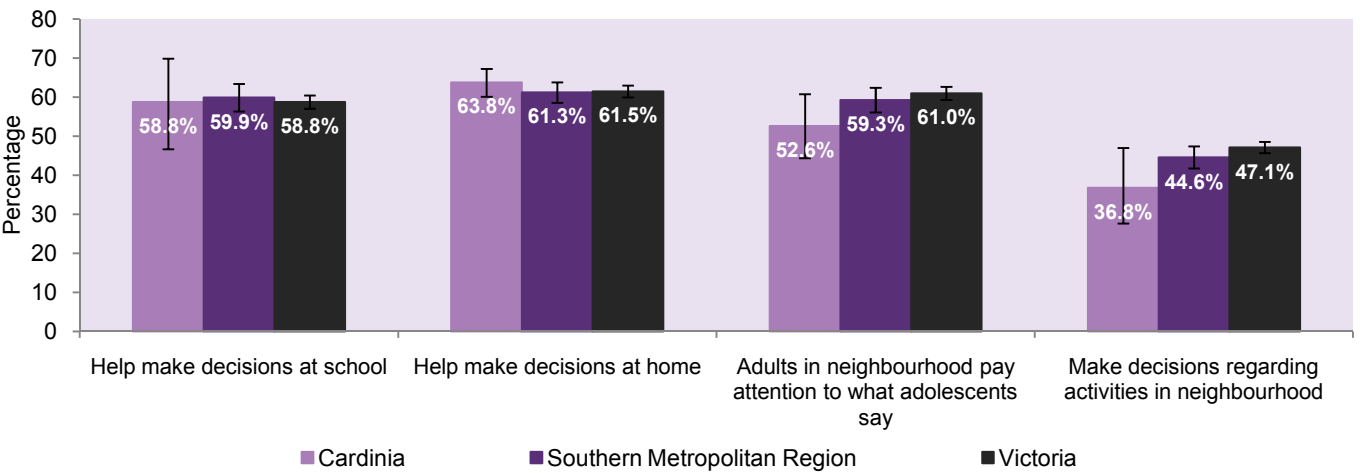
What is measured?

This indicator measures the proportion of adolescents enrolled in Years 7,9 and 11 who report that they have opportunities to have a real say on issues that are important to them. Output categories include helping make decisions at school, at home and in their neighbourhood and whether adults in their neighbourhood pay attention to what adolescents say.

Why is it important?

Feeling there are opportunities to have a real say on issues is used as an indicator of people’s engagement with the decision-making processes that affect their lives. Strong and inclusive decision-making networks (governance networks) give a community the ability to identify and assess issues, enter into public debates and take action to get things done (DVC 2006). One of the benefits of people feeling there are opportunities to have a say is that they feel valued by society.

Figure 48: Proportion of adolescents who report opportunities to have a real say on issues that are important to them, Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In Victoria, 58.8 per cent of adolescents reported that they help make decisions at school, while 61.5 per cent reported that they helped make decisions at home.
- 61.0 per cent of adolescents in Victoria felt that adults in their neighbourhood pay attention to what young people say, while 47.1 per cent make decisions regarding activities in their neighbourhood.
- In Cardinia, 58.8 per cent of adolescents reported that they help make decisions at school. This was lower than, but not significantly different to the proportion reported in Southern Metropolitan Region (59.9 per cent) and higher than, but not significantly different to the proportion reported across Victoria (58.8 per cent).
- 63.8 per cent of adolescents in Cardinia felt that they helped make decisions at home. This proportion was higher than, but not significantly different to that reported in Southern Metropolitan Region (61.3 per cent) and higher than, but not significantly different to that reported across Victoria (61.5 per cent).
- In Cardinia, 52.6 per cent of adolescents reported that adults in their neighbourhood pay attention to what young people say. This was lower than, but not significantly different to the proportion reported in Southern Metropolitan Region (59.3 per cent) and lower than, but not significantly different to the proportion reported across Victoria (61.0 per cent).
- 36.8 per cent of adolescents in Cardinia made decisions regarding activities in their neighbourhood. This proportion was lower than, but not significantly different to that reported in Southern Metropolitan Region (44.6 per cent) and lower than, but not significantly different to that reported across Victoria (47.1 per cent).

The Community

Outcome: Accessible local recreation spaces, activities and community facilities

Indicator: Young people living in neighbourhoods with basic shopping facilities

Indicator: Young people living in neighbourhoods with basic services

Indicator: Young people living in neighbourhoods with good parks, playgrounds and play-spaces

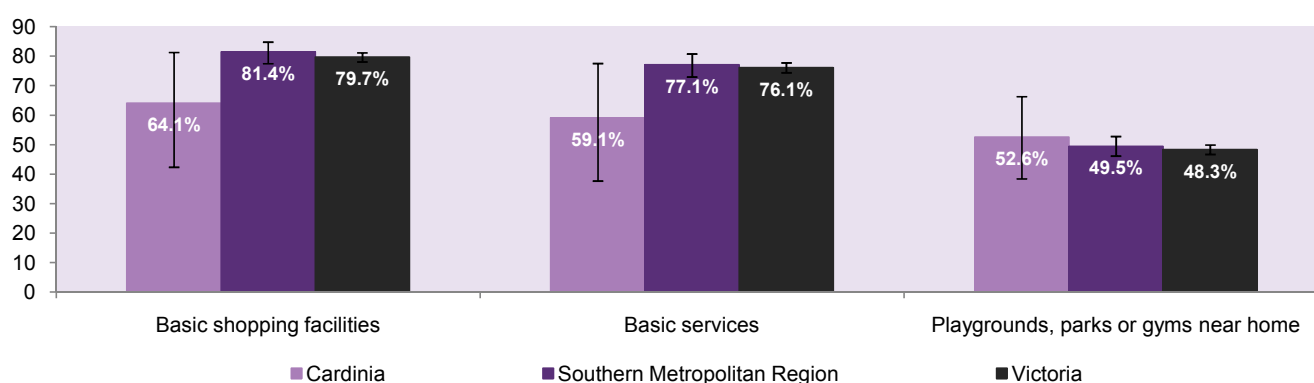
What is measured?

The proportion of adolescents enrolled in Years 7,9 and 11 who 'agreed' or 'strongly agreed' with the perception that their neighbourhood has basic shopping facilities and basic services and that there are playgrounds, parks or gyms close to their home that they can access.

Why is it important?

Local amenities, such as shops, banks and recreation facilities can help to create a 'sense of place', and provide opportunities for members of the local community to interact (Butterworth 2000). Urban planning that incorporates local shops and recreational opportunities promotes walking and activity within the neighbourhood. Local facilities are particularly important for children and young people who are likely to have restrictions placed upon how far away from home they can travel unsupervised and who are reliant on adults for transport outside of their local area. Access to green and open spaces is thought to be beneficial to general health and mental health (Sustainable Development Committee 2008).

Figure 49: Proportion of adolescents who 'agreed' or 'strongly agreed' that they have access to local facilities and services in their neighbourhood, Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

Young people living in neighbourhoods with basic shopping facilities

- Approximately four in five adolescents in Victoria (79.7 per cent) felt they had access to basic shopping facilities in their neighbourhood. The proportion of adolescents in Rural Victoria who 'agreed' or 'strongly agreed' with this statement (69.9 per cent) was significantly lower than that reported in Metropolitan Victoria (83.7 per cent).
- In Cardinia, 64.1 per cent of adolescents felt they had access to basic shopping facilities in their neighbourhood. This was lower than, but not significantly different to the proportion in Southern Metropolitan Region (81.4 per cent) and lower than, but not significantly different to that reported across Victoria (79.7 per cent).

Young people living in neighbourhoods with basic services

- Over one quarter (76.1 per cent) of adolescents in Victoria felt they had access to basic services in their neighbourhood. The proportion of adolescents in Rural Victoria who 'agreed' or 'strongly agreed' with this statement (66.8 per cent) was significantly lower than that reported in Metropolitan Victoria (80.0 per cent).
- In Cardinia, 59.1 per cent of adolescents felt they had access to basic services in their neighbourhood. This was lower than, but not significantly different to the proportion in Southern Metropolitan Region (77.1 per cent) and lower than, but not significantly different to that reported across Victoria (76.1 per cent).

Young people living in neighbourhoods with playgrounds, parks or gyms near home

- Less than half (48.3 per cent) of adolescents in Victoria felt they were living in a neighbourhood with playgrounds, parks or gyms near their home. The proportion of adolescents in Rural Victoria who 'agreed' or 'strongly agreed' with this statement was lower than, but not significantly different to that reported in Metropolitan Victoria.
- In Cardinia, 52.6 per cent of adolescents felt they were living in a neighbourhood with playgrounds, parks or gyms near their home. This was higher than, but not significantly different to the proportion in Southern Metropolitan Region (49.5 per cent) and higher than, but not significantly different to that reported across Victoria (48.3 per cent).



The Community

Outcome: Accessible local recreation spaces, activities and community facilities

Indicator: Young people whose lack of access to transport impacts on their capacity to achieve key work and / or life goals

What is measured?

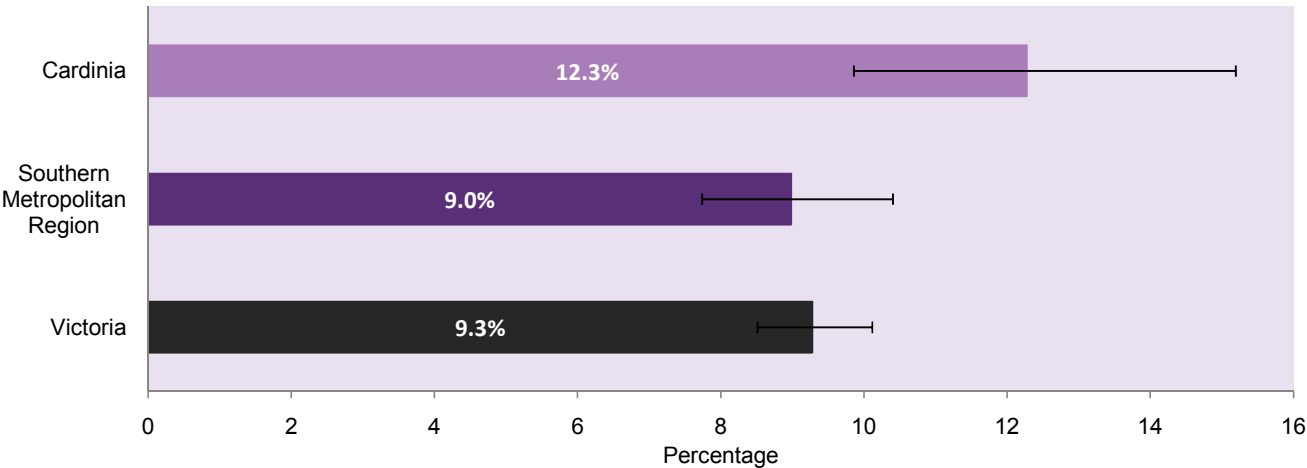
The proportion of adolescents enrolled in Years 7,9 and 11 who reported that lack of access to transport impacts on their capacity to work, study, see a doctor or socialise.

Why is it important?

Good access to public transport has the potential to decrease the risk of social exclusion among vulnerable families, by increasing accessibility to services and employment or training opportunities (Sustainable Development Committee 2008).

While family characteristics and socioeconomic status are known to be important influences on child development, new evidence suggests that neighbourhood influences can also impact on children’s physical and emotional development (Puttnam 2000, Vinson 2004).

Figure 50: Proportion of adolescents whose lack of access to transport impacts on their capacity to work, study, see a doctor or socialise in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, approximately one in ten (9.3 per cent) adolescents in Victoria felt that lack of access to transport impacted on their ability to work, study, see a doctor or socialise.
- The proportion of adolescents residing in Rural Victoria (10.5 per cent) who felt that lack of access to transport impacted on their ability to work, study, see a doctor or socialise was higher than, but not significantly different to that reported in Metropolitan Victoria (8.8 per cent).
- In 2009, 12.3 per cent of adolescents in Cardinia felt that lack of access to transport impacted on their ability to work, study, see a doctor or socialise. This was higher than, but not significantly different to that reported across Southern Metropolitan Region (9.0 per cent).
- The proportion of adolescents who felt that lack of access to transport impacted on their ability to work, study, see a doctor or socialise in Cardinia was higher than, but not significantly different to the proportion reported across Victoria (9.3 per cent).

The Community

Outcome: Low levels of crime in the community

Indicator: Young people who feel safe

What is measured?

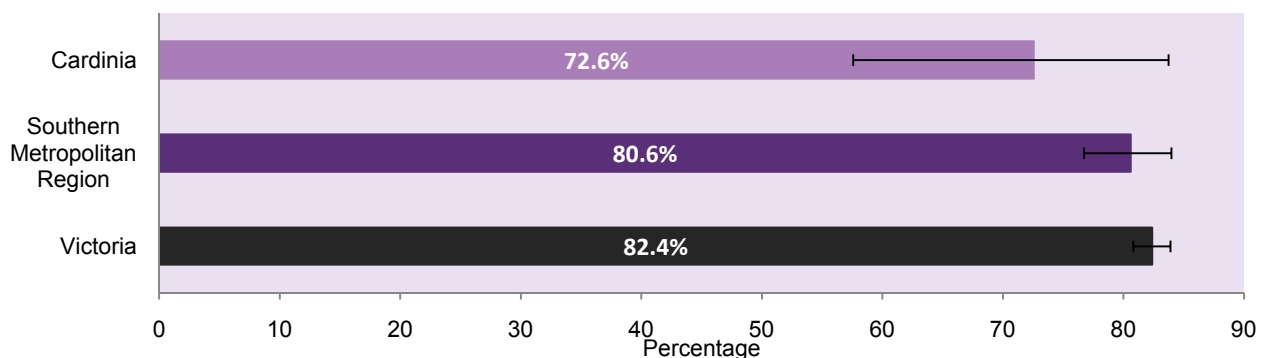
The proportion of adolescents enrolled in Years 7,9 and 11 who reported that they feel that they feel 'safe' or 'very safe' in their neighbourhood and in various situations.

Why is it important?

It is important that young people have the ability to access safe public space for relaxation, socialising, and interaction, free from parental supervision. Multiple studies have found benefits to young people's wellbeing as a result of 'hanging out' (Youth Action and Policy Association NSW, 2002).

An individual's perceptions of how safe their neighbourhood is, closely relates to their overall level of satisfaction with their community (Butterworth 2000). Having negative neighbourhood perceptions can deter individuals from building and maintaining social networks in their local area, and from accessing local services and recreational facilities (AIHW 2005). There is evidence that it is perceived levels of safety rather than actual levels of crime that are most likely to influence activity levels within neighbourhoods (Harrison et al 2007). Parents who consider their neighbourhood to be unsafe are likely to put greater constraints on their child's activities.

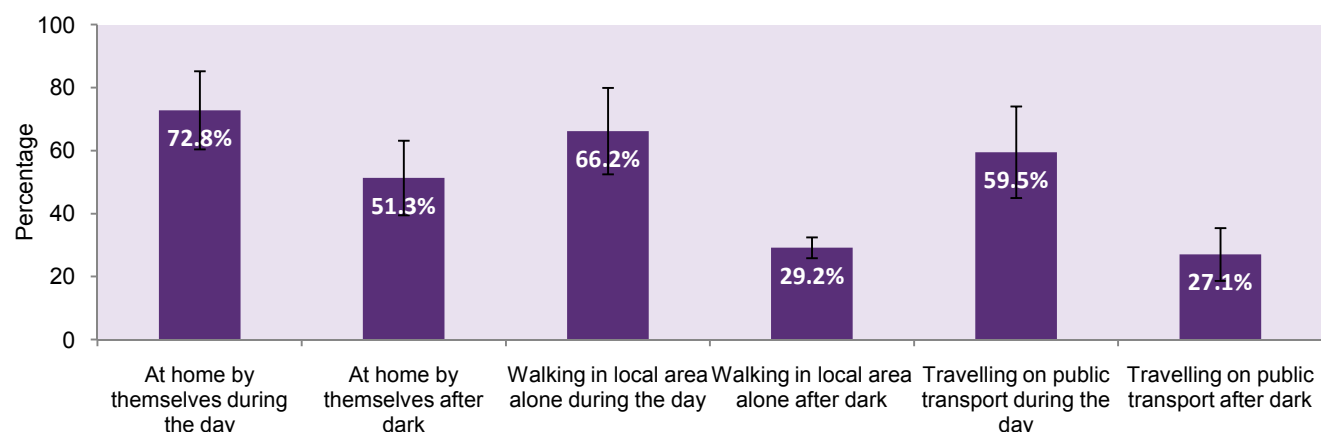
Figure 51: Proportion of adolescents who feel safe in their neighbourhood in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, 82.4 per cent of adolescents in Victoria reported that they feel safe in their neighbourhood.
- In 2009, 72.6 per cent of adolescents in Cardinia reported feeling safe in their neighbourhood. This was lower than, but not significantly different to that reported across Southern Metropolitan Region (80.6 per cent) and lower than, but not significantly different to that reported across Victoria (82.4 per cent).

Figure 52: Proportion of adolescents in Cardinia who feel safe in various situations, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.



The Community

Outcome: Low levels of crime in the community

Indicator: Recorded crimes in the community (Rate)

What is measured?

Recorded crime in the community presented as a rate per 1000 population. *Note:* This measure is not specific to the adolescent cohort. See 'Recorded crime' in glossary at Appendix C for more information.

Why is it important?

An individual's perceptions of how safe their neighbourhood is, closely relates to their overall level of satisfaction with their community (Butterworth, 2000). Having negative neighbourhood perceptions can deter individuals from building and maintaining social networks in their local area, and from accessing local services and recreational facilities (AIHW 2005). There is evidence that it is perceived levels of safety rather than actual levels of crime that are most likely to influence activity levels within neighbourhoods (Harrison et al, 2007). Parents who consider their neighbourhood to be unsafe are likely to put greater constraints on their child's activities.

Rate (per 1000 population) of reported crime in Cardinia and Victoria, by type of crime, 2005 - 2006 to 2009 - 2010.

		Crimes against property		Crimes against the person		Drug offences		Other offences		All Reported Crime	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cardinia	2005 - 2006	2,337	42.0	396	7.1	106	1.9	283	5.1	3,122	56.0
	2006 - 2007	2,758	47.1	465	7.9	92	1.6	347	5.9	3,662	62.6
	2007 - 2008	2,855	46.8	531	8.7	175	2.9	447	7.3	4,008	65.8
	2008 - 2009	3,092	48.0	629	9.8	104	1.6	443	6.9	4,268	66.2
	2009 - 2010	2,707	39.4	778	11.3	103	1.5	465	6.8	4,053	59.0
Victoria	2005 - 2006	280,824	55.6	40,727	8.1	13,531	2.7	41,162	8.2	376,244	74.5
	2006 - 2007	283,220	55.2	42,400	8.3	14,601	2.8	38,653	7.5	378,874	73.9
	2007 - 2008	283,063	54.2	43,295	8.3	14,334	2.7	38,760	7.4	379,452	72.7
	2008 - 2009	280,263	52.6	44,122	8.3	14,954	2.8	43,509	8.2	382,848	71.9
	2009 - 2010	260,863	47.9	45,384	8.3	14,583	2.7	45,331	8.3	366,161	67.3

Source: Law Enforcement Assessment Program data, Victoria Police, unpublished, ABS Estimated Resident Population at 30 June

- The crime rates in Victoria have decreased over the past five years, from 74.5 per 1000 population in 2005 - 2006 to 67.3 per 1000 population in 2009 - 2010.
- The most prevalent form of crime in Victoria was crime against property, representing over 70 per cent of Victoria's reported crime.
- In 2009 - 2010, there were 4,053 reported crimes in Cardinia, representing a rate of 59.0 per 1000 population. This was lower than the crime rate in Victoria during this period.
- Cardinia was ranked 42 out of 79 LGAs in terms of the rate of crime per 1000 population during 2009 - 2010. A rank of 1 was assigned to the LGA with the highest crime rate during 2009 - 2010.
- Of the 4,053 crimes reported during 2009 - 2010 in Cardinia, 66.8 per cent were crimes against property, 19.2 per cent were crimes against the person and 11.5 per cent were other reported offences.
- The rate of crimes against property in Cardinia has decreased over the past five years, from 42.0 per 1000 population in 2005 - 2006 to 39.4 per 1000 population in 2009 - 2010.



Supports and Services

Outcome: Children attend and enjoy school

Indicator: Average absence days in secondary school

What is measured?

This indicator measures the average absence days in each school year for adolescents attending government primary or secondary schools in each local government area.

Why is it important?

Regular attendance at school is crucial for a student's education and social skills. Students that do not attend are at a disadvantage both academically and socially and miss out on key stages of interaction with their peers and reduce the likelihood of academic progress and success. This can compound issues of low self-esteem, social isolation and dissatisfaction which may have triggered the absenteeism (Bond 2004). Prolonged non-attendance can also have serious effects for young people in later life.

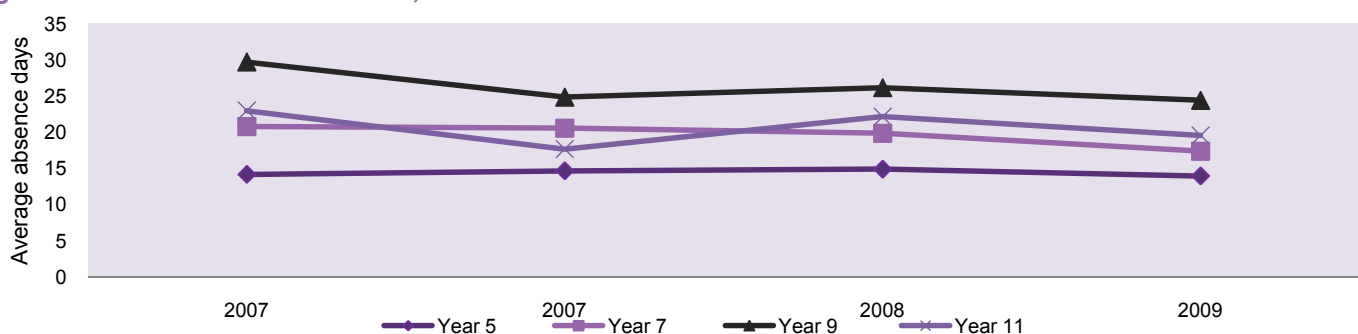
Average absence days of students enrolled in government schools in Cardinia and Victoria, 2006 to 2009.

		Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Cardinia	2006	14.2	13.6	20.8	26.7	29.7	23.7	23.0	17.4
	2007	14.7	15.1	20.6	23.0	24.9	21.7	17.7	16.0
	2008	14.9	15.0	19.9	26.0	26.2	23.2	22.2	13.7
	2009	14.0	16.8	17.4	22.1	24.4	21.9	19.6	17.7
Victoria	2006	12.9	13.4	14.8	18.1	19.9	18.1	14.1	11.0
	2007	13.1	13.4	14.9	18.3	20.2	18.4	13.5	10.9
	2008	13.6	13.8	15.2	18.8	21.2	19.6	14.9	11.7
	2009	14.0	14.4	16.2	19.8	22.5	20.9	15.8	13.0

Source: DOED, 2010, Schools & Children's Services Performance Data, unpublished

- In Victoria, the average number of absence days of students attending government schools increases from Year 5 to reach a maximum in Year 9. After this point, the average number of absence days decreases, reaching the lowest level by Year 12. This pattern has been evident for the past four years.
- In 2009, the average number of absence days of students attending government schools in Cardinia was highest for Year 9 students (24.4 average absence days), and lowest for Year 5 students (14.0 average absence days). This pattern in average absence days was different to that across Victoria in 2009.
- On average, adolescent students attending government schools in Cardinia were absent 19.2 days during the 2009 school year. This was higher than the average absence days for adolescent students in government schools across Victoria (average of 17.1 absence days).

Figure 53: Average absence days for adolescent Year 5, Year 7, Year 9 and Year 11 students, attending government schools in Cardinia, 2007 to 2009.



Source: DOED, 2010, Schools & Children's Services Performance Data, unpublished.



Supports and Services

Outcome: Children attend and enjoy school

Indicator: Student perception of connectedness to school

What is measured?

Mean score for students' perception of connectedness with their school, as measured on a 5-point scale where 5 is the best possible score. For more information, please refer to 'School Connectedness' in the glossary at Appendix C.

Why is it important?

Connectedness with school is a key component of student wellbeing, and student wellbeing together with student achievement are considered important outcomes of schooling (DEECD 2008).

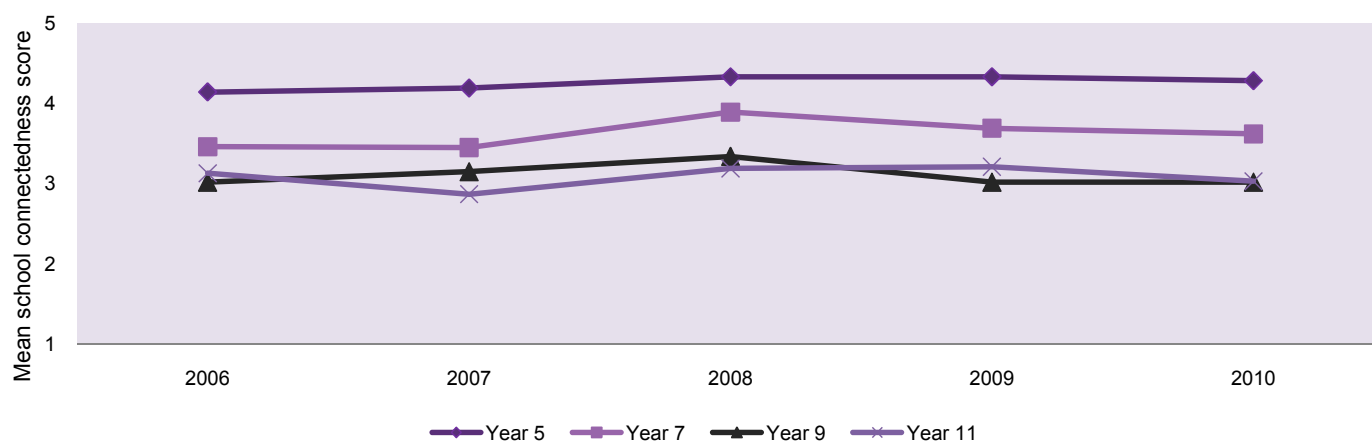
Mean school connectedness score for adolescent students attending government schools in Cardinia and Victoria, 2006 to 2010.

		Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Cardinia	2006	4.14	4.01	3.46	3.21	3.02	2.89	3.13	3.34
	2007	4.19	4.25	3.45	3.12	3.15	2.95	2.87	3.30
	2008	4.33	4.31	3.89	3.10	3.34	3.29	3.19	3.37
	2009	4.33	4.37	3.69	3.30	3.02	3.07	3.21	3.44
	2010	4.28	4.24	3.62	3.22	3.02	2.86	3.03	3.29
Victoria	2006	4.15	4.12	3.75	3.35	3.23	3.21	3.29	3.38
	2007	4.21	4.21	3.80	3.40	3.26	3.24	3.30	3.44
	2008	4.26	4.26	3.92	3.47	3.34	3.30	3.36	3.46
	2009	4.30	4.30	3.90	3.50	3.37	3.34	3.38	3.50
	2010	4.34	4.33	3.92	3.53	3.42	3.35	3.42	3.53

Source: DOED, Attitudes to School Survey 2010, Schools & Children's Services Performance Data, unpublished

- Across Victoria, mean school connectedness scores are higher among younger students. In 2010, the highest mean score was observed for Years 5 students (mean school connectedness score of 4.34) and the lowest observed for Year 9 and Year 11 students (mean school connectedness score of 3.42).
- In 2010, the highest mean school connectedness results for adolescent students in Cardinia was observed for Year 5 students (mean school connectedness score of 4.28) and the lowest mean score observed for Year 10 students (mean school connectedness score of 2.86).

Figure 54: Mean school connectedness score for adolescents in Year 5, Year 7, Year 9 and Year 11 attending government schools in Cardinia, 2006 to 2010.



Source: DOED, Attitudes to School Survey 2010, Schools & Children's Services Performance Data, unpublished



Supports and Services

Outcome: Adequate Supports for Vulnerable Teenagers

Indicator: Young people who feel that they can access physical health services when needed

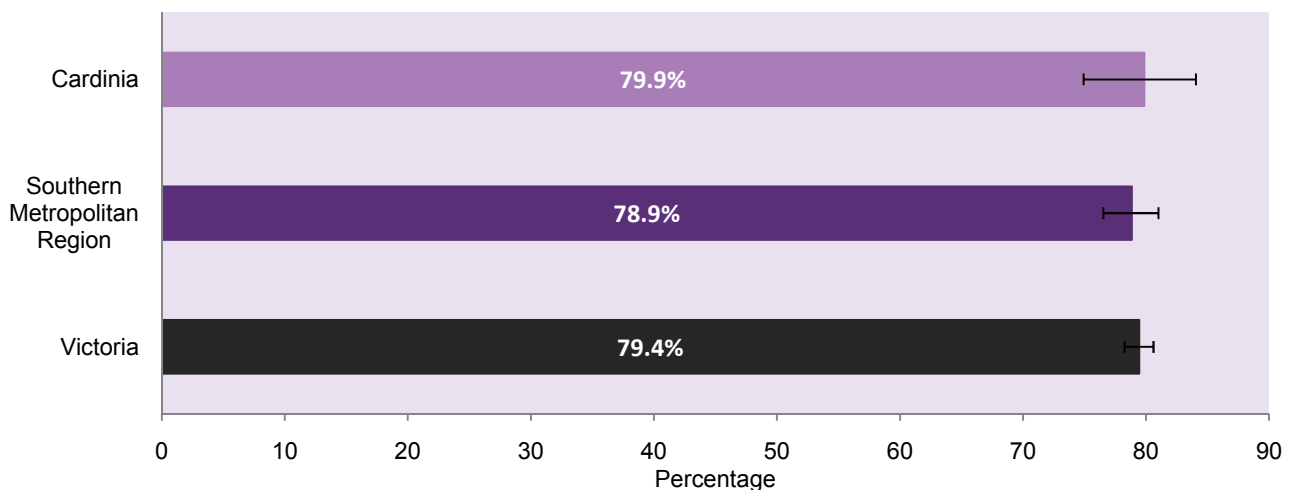
What is measured?

The proportion of adolescents enrolled in Years 7, 9 and 11 who are reported that they feel that they can access physical health services if needed. See 'Physical health services' in glossary at Appendix C for more information.

Why is it important?

Health services have an important role to play in promoting young people's health and wellbeing and ensuring the best health outcomes. Access to high quality, affordable services is important for all young people, and can have a particularly important role to play in promoting the health of those from more disadvantaged and at-risk groups.

Figure 55: Proportion of adolescents who feel that they can access physical health services if needed in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, almost four in five (79.4 per cent) adolescents in Victoria felt that they could access physical health services if needed.
- The proportion of adolescents residing in Rural Victoria who felt that they could access physical health services if needed was lower than, but not significantly different to that reported in Metropolitan Victoria.
- In 2009, 79.9 per cent of adolescents in Cardinia felt that they could access physical health services if needed. This was higher than, but not significantly different to that reported across Southern Metropolitan Region (78.9 per cent).
- The proportion of adolescents who felt that they could access physical health services if needed in Cardinia was higher than, but not significantly different to the proportion reported across Victoria (79.4 per cent).



Supports and Services

Outcome: Adequate Supports for Vulnerable Teenagers

Indicator: Young people who feel that they can access mental health services when needed

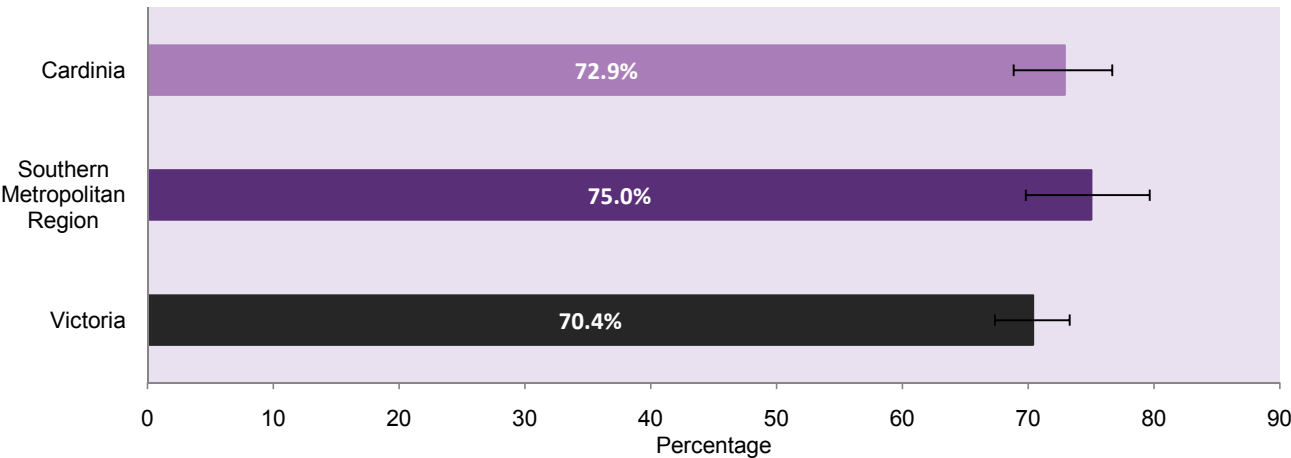
What is measured?

The proportion of adolescents, enrolled in Years 7, 9 and 11 and identified as needing mental health services, who reported that they feel they can access mental health services if needed.

Why is it important?

Health services have an important role to play in promoting young people's health and wellbeing and ensuring the best health outcomes. Access to high quality, affordable services is important for all young people, and can have a particularly important role to play in promoting the health of those from more disadvantaged and at-risk groups.

Figure 56: Proportion of adolescents who feel that they can access mental health services if needed in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, approximately seven in ten (70.4 per cent) adolescents in Victoria felt that they could access mental health services if needed.
- The proportion of adolescents residing in Rural Victoria who felt that they could access mental health services if needed was lower than, but not significantly different to that reported in Metropolitan Victoria.
- In 2009, 72.9 per cent of adolescents in Cardinia felt that they could access mental health services if needed. This was lower than, but not significantly different to that reported across Southern Metropolitan Region (75.0 per cent).
- The proportion of adolescents who felt that they could access mental health services if needed in Cardinia was higher than, but not significantly different to the proportion reported across Victoria (70.4 per cent).



Supports and Services

Outcome: Adequate Supports for Vulnerable Teenagers

Indicator: Young people who feel that they can access dental services when needed

What is measured?

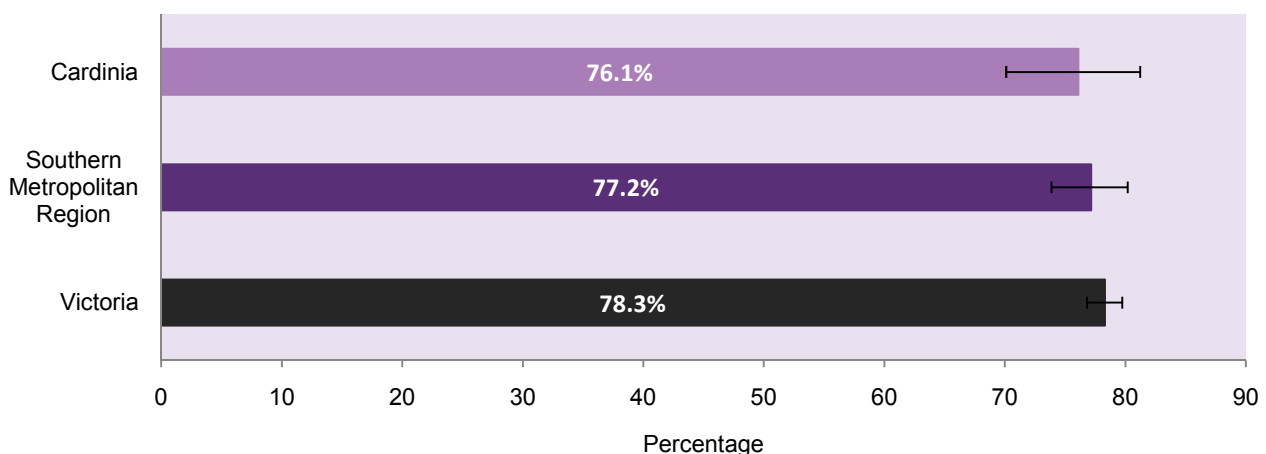
The proportion of adolescents enrolled in Years 7, 9 and 11 who reported that they feel that they can access dental health services if needed.

Why is it important?

Good dental health in childhood contributes to good dental health in adulthood, with less decay and reduced loss of natural teeth. A range of preventive factors (water fluoridation, improved diet and oral hygiene, and regular brushing) contributes to child dental health. Availability and affordability of dental health services may also influence the dental health of children (DHS 2006).

Almost a quarter of youths in an Australian survey reported avoiding or delaying a visit to the dentist because of cost. Young people also reported problems completing a recommended course of care owing to the cost of treatment.

Figure 57: Proportion of adolescents who feel that they can access dental health services if needed in Cardinia, Southern Metropolitan Region and Victoria, 2009.



Source: Adolescent Health and Wellbeing Survey, DEECD, 2009, unpublished.

- In 2009, almost four in five (78.3 per cent) of adolescents in Victoria felt that they could access dental health services if needed.
- The proportion of adolescents residing in Rural Victoria who felt that they could access dental health services if needed was higher than, but not significantly different to that reported in Metropolitan Victoria.
- In 2009, 76.1 per cent of adolescents in Cardinia felt that they could access dental health services if needed. This was lower than, but not significantly different to that reported across Southern Metropolitan Region (77.2 per cent).
- The proportion of adolescents who felt that they could access dental health services if needed in Cardinia was lower than, but not significantly different to the proportion reported across Victoria (78.3 per cent).

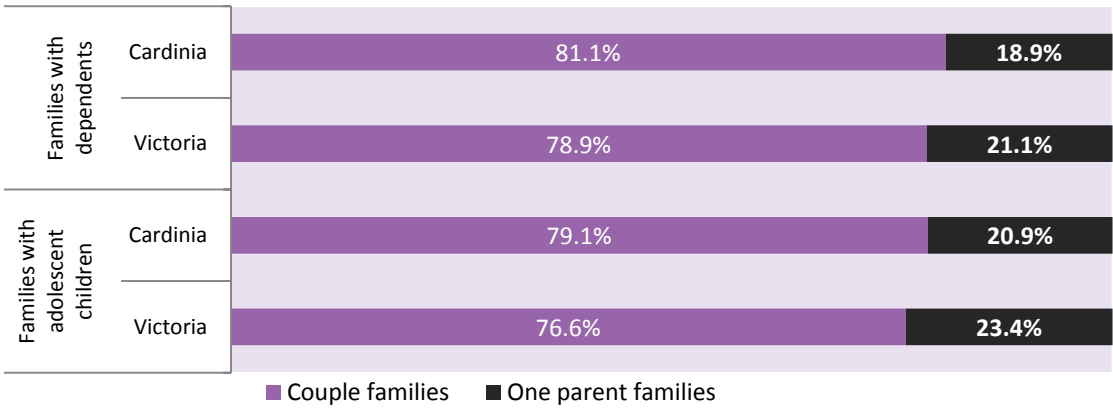


Adolescent and Family Demographics

Family type

- At the 2006 Census, 1,294,388 families were recorded in Victoria. Families with dependents accounted for just under half (48.2 per cent or 623,647 families) of all families in Victoria.
- There were 325,289 families in Victoria with adolescents aged 10 to 17 years, representing 25.1 per cent of all families counted in Victoria. Of these, 76.6 per cent were couple families and 23.4 per cent were one parent families.
- Based on the 2006 Census, there were 8,287 families with dependents in Cardinia. Of these families, 4,633, or 55.9 per cent, have adolescent children.

Figure 2: Composition of families with children in Cardinia and Victoria, 2006.



Source: ABS 2006 Census of Population and Housing

- Of the 8,287 families with dependents in Cardinia, 81.1 per cent were couple families and 18.9 per cent were one parent families.
- Of the 4,633 families in Cardinia with adolescent children, 79.1 per cent were couple families and 20.9 per cent were one parent families.

Families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2006.

	Couple families		One parent families		All families with young people aged 10 to 17 years
	Number	Percentage	Number	Percentage	
Cardinia	3,663	79.1	970	20.9	4,633
Southern Metropolitan Region	56,781	76.3	17,592	23.7	74,373
Victoria	249,114	76.6	76,175	23.4	325,289

Source: ABS 2006 Census of Population and Housing



Adolescent and Family Demographics

Family Income

- Couple families across Victoria with adolescents reported a gross median weekly income of \$1,522, while one parent families in Victoria reported a gross median income of \$622 per week.

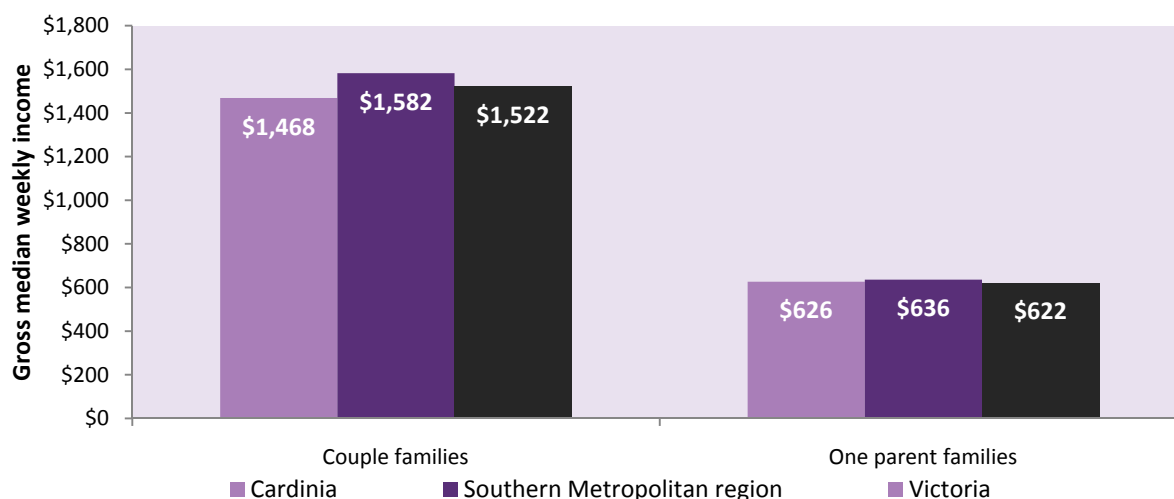
Median weekly income for families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, by family type, 2006.

	Couple families		One parent families	
	No. of families	Median weekly income	No. of families	Median weekly income
Cardinia	3,126	\$1,468	852	\$626
Southern Metropolitan region	47,525	\$1,582	15,414	\$636
Victoria	208,611	\$1,522	66,605	\$622

Source: ABS 2006 Census of Population and Housing. Note: only those families that reported income are represented in this table.

- Based on the 2006 Census, the gross median weekly income for couple families with adolescents in Cardinia is \$1,468. This is less than the gross median weekly income for couple families in Victoria with adolescents (\$1,522).
- Cardinia was ranked 29 out of 79 LGAs on the gross median income for couple families with adolescents. A rank of 1 was assigned to the LGA with the highest median income.
- Based on the 2006 Census, the gross median weekly income for one parent families with adolescents in Cardinia is \$626. This is similar to the gross median weekly income for one parent families in Victoria with adolescents (\$622).
- Cardinia was ranked 23 out of 79 LGAs on the gross median income for one parent families with adolescents. A rank of 1 was assigned to the LGA with the highest gross median income.

Figure 3: Gross Median weekly income of couple and one parent families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2006.



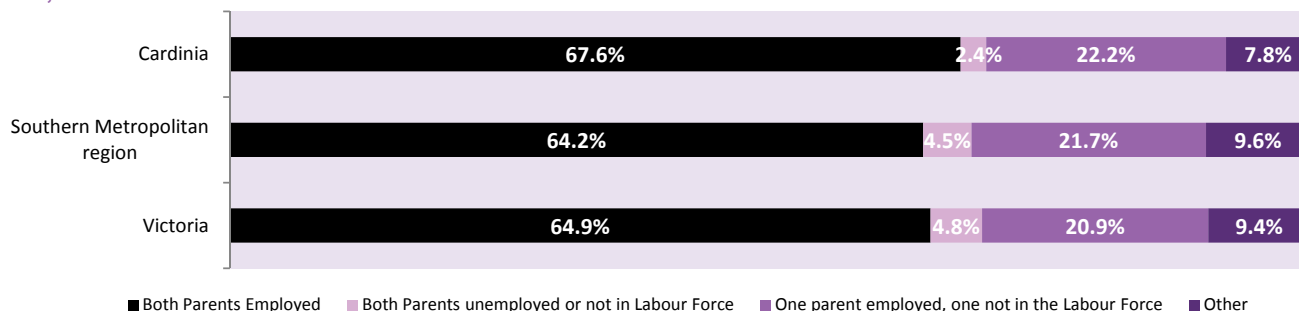
Source: ABS 2006 Census of Population and Housing. Note: only those families that reported income are represented in this table.



Adolescent and Family Demographics

Family employment

Figure 4: Employment status of couple families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2006.



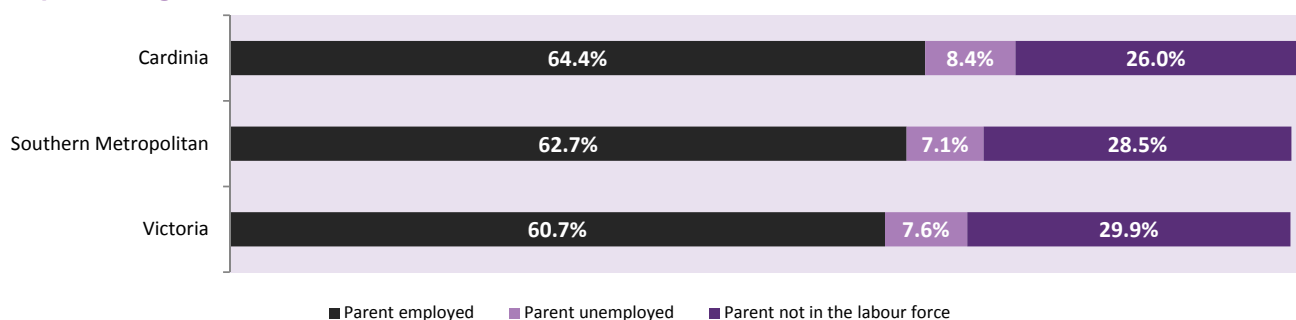
Source: ABS 2006 Census of Population and Housing

Notes:

1. Where there are less than five families within the relevant category, data is not reported for confidentiality reasons and will not be plotted in the figure above.
2. Percentages will not sum to 100% as not all families reported employment status.
3. Other includes: One parent employed, other parent unemployed and One parent unemployed and other not in the labour force.

- Based on the 2006 Census, 67.6 per cent of couple families with adolescents in Cardinia had both parents employed. This is higher than the percentage of couple families with adolescents in Victoria, with both parents employed (64.9%).
- Based on the 2006 Census, 2.4 per cent of couple families with adolescents in Cardinia had both parents unemployed or not in the labour force. This is less than one half of the percentage of couple families, with adolescents in this age-group, with neither parent in the labour force in Victoria (4.8%).
- Cardinia was ranked 69 out of 79 LGAs in terms of the percentage of couple families with both parents unemployed or not in the labour force. A rank of 1 was assigned to the LGA with the highest percentage of couple families with both parents unemployed or not in the labour force.

Figure 5: Employment status of one parent families with adolescent children in Cardinia, the Southern Metropolitan region and Victoria, 2006.



Source: 2006 Census. Note: only those families that reported employment status are represented in this table.

Notes:

1. Where there are less than five families within the relevant category, data is not reported for confidentiality reasons and will not be plotted in the figure above.
2. Percentages will not sum to 100% as the other category is not represented in the figure above.

- Based on the 2006 Census, 64.4 per cent of one parent families with adolescents in Cardinia had the parent employed. This is higher than the percentage of one parent families, with adolescents, with the parent employed in Victoria (60.7 per cent).
- Based on the 2006 Census, 8.4 per cent of one parent families with adolescents in Cardinia had the parent unemployed. This is higher than the percentage of one parent families with adolescents, with the parent unemployed in Victoria (7.6 per cent).
- Cardinia was ranked 30 out of 70 LGAs in terms of the percentage of one parent families with the parent unemployed. A rank of 1 was assigned to the LGA with the highest percentage of one parent families with the parent unemployed. Ranks were not assigned to LGAs where the number of one parent families in the area with the parent unemployed was less than five.
- Based on the 2006 Census, there were 26.0 per cent of one parent families with adolescent children with the parent not in the labour force in Cardinia. This is lower than the percentage of one parent families with adolescents, with the parent not in the labour force in Victoria (29.9 per cent).



Adolescent and Family Demographics

Educational level of families

Families with adolescent children in Cardinia and Victoria where the parents highest school qualification was less than Year 12 or equivalent, 2006.

	Couple families where both parents have not completed Year 12 or its equivalent		One parent families where the parent has not completed Year 12 or its equivalent	
	Number	Percent	Number	Percent
Cardinia	641	17.5	443	45.7
Victoria	37,824	15.2	31,478	41.3

Source: ABS 2006 Census of Population and Housing. Note: not all families report education information

- Both parents had not completed Year 12 or equivalent in 17.5 per cent of couple families with adolescents in Cardinia. This is higher than the percentage of couple families in Victoria in this category (15.2 per cent).
- Cardinia was ranked 44 out of 79 LGAs on the percentage of couple families where both parents have not completed Year 12 or equivalent. A rank of 1 was assigned to the LGA with the highest percentage of families.
- The parent in 45.7 per cent of one parent families with adolescents in Cardinia, had not completed Year 12 or its equivalent. This is higher than the percentage of one parent families with adolescents in this category across Victoria (41.3 per cent).
- Cardinia was ranked 39 out of 79 LGAs on the percentage of one parent families with adolescents, where the parent had not completed Year 12 or its equivalent. A rank of 1 was assigned to the LGA with the highest percentage of one parent families where the parent had not attained Year 12 or its equivalent.

Families with adolescents in Cardinia and Victoria where the parent(s) has a non-school qualification, 2006.

	Couple families where both parents have a non-school qualification		One parent families where the parent has a non-school qualification	
	Number	Percent	Number	Percent
Cardinia	304	8.3	147	15.2
Victoria	43,225	17.4	16,567	21.7

Source: ABS 2006 Census of Population and Housing. Note: not all families report education information

- Both parents have a non-school qualification in 8.3 per cent of couple families with adolescents in Cardinia. This is less than one half of the percentage of couple families with adolescents in this category across Victoria (17.4 per cent).
- 77 of the 79 LGAs in Victoria were ranked on the percentage of couple families with adolescent children, where both parents had a non-school qualification. A rank of 1 was assigned to the LGA with the highest percentage of couple families in this category. Cardinia was ranked 43 out of 77.
- In 15.2 per cent of one parent families with adolescents in Cardinia, the parent had attained a non-school qualification. This is lower than the percentage of one parent families in this category across Victoria (21.7 per cent).
- Cardinia was ranked 39 out of 79 LGAs on the percentage of one parent families with adolescents, where the parent had a non-school qualification. A rank of 1 was assigned to the LGA with the highest percentage of one parent families in this category.



Adolescent and Family Demographics

Aboriginal adolescents and families

Aboriginal population of Cardinia, the Southern Metropolitan region and Victoria, 2006.

	Aboriginal population			Total Population		
	Adolescent children	Total population	Percentage adolescent	Adolescent children	Total population	Percentage adolescent
Cardinia	50	235	21.3	7,748	57,114	13.6
Southern Metropolitan Region	733	4,268	17.2	120,406	1,173,501	10.3
Victoria	5,826	30,144	19.3	531,601	4,932,422	10.8

Source: ABS 2006 Census of Population and Housing. Extracted from CDATA 18/08/2010

- At the 2006 Census, approximately 4,932,422 persons were enumerated in Victoria. Of these, 30,144 were Aboriginal, representing 0.6 per cent of Victoria's population.
- According to the 2006 Census, there were 235 Aboriginal persons in Cardinia. This represents 0.4 per cent of the total population of Cardinia. This was lower than the percentage of Aboriginal persons in Victoria (0.6 per cent).
- In Victoria, 531,601 adolescents were counted at the 2006 Census, representing 10.8 per cent of Victoria's total population. Of these, 5,826 (1.1 per cent) were Aboriginal adolescents.
- In 2006, 21.3 per cent of the Aboriginal population in Cardinia were adolescents, compared to 13.6 per cent in the total population.
- Cardinia was ranked 20 out of 77 LGAs in terms of the proportion of Aboriginal population aged 10 to 17 years. A rank of 1 was assigned to the LGA with the highest proportion of Aboriginal adolescents. Only LGAs with more than five Aboriginal adolescents in the area were included in the ranking.

Aboriginal families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2006.

	Families with dependents			Families with adolescents		
	Aboriginal families	All families	Percentage Aboriginal	Aboriginal families	All families	Percentage Aboriginal
Cardinia	59	8,287	0.7	38	4,633	0.8
Southern Metropolitan Region	1,024	147,527	0.7	539	74,373	0.7
Victoria	7,222	623,647	1.2	3,953	325,289	1.2

Source: ABS 2006 Census of Population and Housing

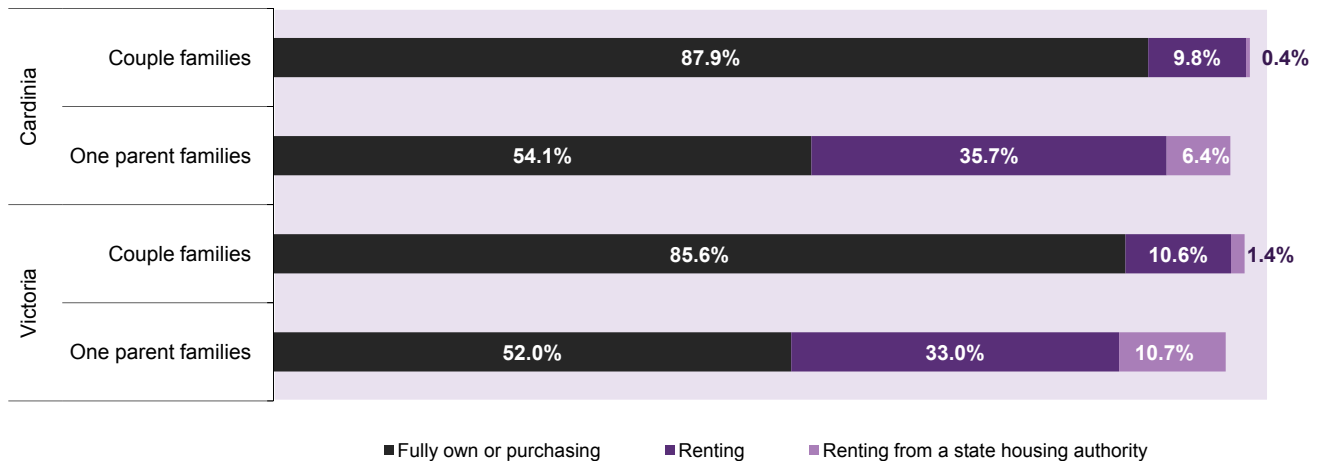
- Of the 8,287 families counted in Cardinia with dependents, 59 were Aboriginal families, representing 0.7 per cent of all families with dependent children in Cardinia.
- The percentage of Aboriginal families with dependents in Cardinia (0.7 per cent) was similar to that in the Southern Metropolitan Region (0.7 per cent) and lower than that in Victoria (1.2 per cent).
- Of the 8,287 families counted in Cardinia with dependents, 55.9 per cent had at least one adolescent.



Adolescent and Family Demographics

Family tenure

Figure 6: Tenure type of families with adolescents in Cardinia and Victoria, 2006.



Source: ABS 2006 Census of Population and Housing

Notes:

1. Where there are less than five families within the relevant category, data is not reported for confidentiality reasons and will not be plotted in the figure above.

2. Percentages may not sum to 100% as not all families reported their tenure status in the Census.

- In Victoria, 85.6 per cent of couple families with adolescents were living in dwellings that were either fully owned or being purchased, 10.6 per cent were renting and 1.4 per cent were renting from a state housing authority.
- Based on the 2006 Census, more couple families with adolescents in Cardinia were living in dwellings that were either fully owned or being purchased (87.9 per cent), compared to couple families with adolescents in Victoria (85.6 per cent).
- 0.4 per cent of couple families with adolescents in Cardinia were renting their dwellings from a state housing authority. This is less than one third of the percentage for couple families in Victoria with adolescents (1.4 per cent).
- Cardinia was ranked 60 out of 65 LGAs in terms of the percentage of couple families with adolescents who were living in state housing. A rank of 1 was assigned to the LGA with the highest percentage of couple families who are in state housing. Ranks were not assigned to LGAs with less than 5 families in this category.
- In Victoria, 52.0 per cent of one parent families with adolescents were living in dwellings that were either fully owned or being purchased, 33.0 per cent were renting and 10.7 per cent were renting from a State housing authority.
- Based on the 2006 Census, more one parent families in Cardinia with adolescents were living in dwellings that were either fully owned or being purchased (54.1 per cent), compared to one parent families with adolescents in Victoria (52.0 per cent).
- 6.4 per cent of one parent families with adolescents in Cardinia were renting from a state housing authority. This is lower than the percentage for all one parent families in Victoria with adolescents who were renting from a state housing authority (10.7 per cent).
- Cardinia was ranked 54 out of 70 LGAs across Victoria in terms of the percentage of one parent families with adolescents who were renting from a state housing authority. A rank of 1 was assigned to the LGA with the highest percentage of one parent families with adolescents who were living in state housing. LGAs with less than 5 one parent families in this category were not assigned a rank.



Adolescent and Family Demographics

Cultural and linguistic diversity - language other than English spoken at home

Language other than English spoken at home in families with adolescents in Cardinia, Southern Metropolitan region and Victoria, 2006.

	Couple families				One parent families	
	Both parents speak a language other than English at home		Mother speaks a language other than English at home		Parent speaks language other than English at home	
	Number	Percentage	Number	Percentage	Number	Percentage
Cardinia	133	3.6	185	5.1	57	5.9
Southern Metropolitan Region	13,552	23.9	14,741	26.0	3,666	20.8
Victoria	54,641	21.9	59,448	23.9	14,802	19.4

Source: ABS 2006 Census of Population and Housing. Note: not all families report on language spoken

- According to the 2006 Census, 54,641 couple families with adolescents in Victoria reported that both parents speak a language other than English at home, representing 21.9 per cent of all couple families with adolescents. Almost a quarter (23.9 per cent) of couple families with adolescents in Victoria reported that the mother speaks a language other than English at home.
- Both parents speak a language other than English at home in 3.6 per cent of couple families with adolescents in Cardinia. This is less than a quarter of the percentage in the Southern Metropolitan region (23.9 per cent) and less than a quarter of the percentage in Victoria (21.9 per cent).
- 70 of the 79 LGAs in Victoria were ranked on the percentage of couple families with adolescents, where both parents spoke a language other than English at home. Cardinia was ranked 36 out of 70 LGAs. A rank of 1 was assigned to the LGA with the highest percentage of couple families with adolescent children, where both parents spoke a language other than English at home.
- The mother speaks a language other than English at home in 5.1 per cent of couple families with adolescents in Cardinia. This is less than a quarter of the percentage of couple families in this category in the Southern Metropolitan region (26.0 per cent) and less than a quarter of the percentage in Victoria (23.9 per cent).
- Based on the 2006 Census, 14,802 one parent families with adolescent children in Victoria reported that the parent speaks a language other than English at home, representing 19.4 per cent of all one parent families in Victoria with adolescent children.
- In 5.9 per cent of one parent families with adolescents in Cardinia, the parent speaks a language other than English at home. This is less than one third of the percentage of one parent families in this category in the Southern Metropolitan region (20.8 per cent) and less than one third of the percentage across Victoria (19.4 per cent).
- 62 of the 79 LGAs in Victoria were ranked on the percentage of one parent families with adolescents, where the parent spoke a language other than English. Cardinia was ranked 33 out of 62 LGAs. A rank of 1 was assigned to the LGA with the highest percentage of one parent families with adolescents, where the parent spoke a language other than English at home.



Adolescent and Family Demographics

Cultural and linguistic diversity - English speaking proficiency

English proficiency of families with adolescents in Cardinia, the Southern Metropolitan region and Victoria, 2006.

	Couple families				One parent families	
	Both parents speak other language and speak English not well or not at all		Mother speaks other language and speak English not well or not at all		Parent speaks other language and speaks English not well or not at all	
	Number	Percentage	Number	Percentage	Number	Percentage
Cardinia	7	0.2	11	0.3	np	np
Southern Metropolitan Region	1,799	3.2	3,049	5.4	982	5.6
Victoria	6,131	2.5	10,978	4.4	3,959	5.2

Source: ABS 2006 Census of Population and Housing. Note: not all families report on English proficiency

- There were 6,131 (2.5 per cent) couple families with adolescents in Victoria where both parents were not proficient in English. The mother was not proficient in English in 4.4 per cent of couple families with adolescents across Victoria.
- Both parents were not proficient in English in 0.2 per cent of couple families with adolescents in Cardinia. This is more than ten times lower than the percentage of couple families in this category in the Southern Metropolitan region (3.2 per cent) and more than ten times lower than the percentage of couple families with adolescents who were not proficient in English in Victoria (2.5 per cent).
- The mother was not proficient in English in 0.3 per cent of couple families with adolescents in Cardinia. This is more than ten times lower than the percentage of couple families with adolescents in this category in the Southern Metropolitan region (5.4%) and more than ten times lower than the percentage of couple families with adolescents in this category across Victoria (4.4%).
- Cardinia was ranked 35 out of 38 LGAs on the percentage of couple families where both parents speak a language other than English. A rank of 1 was assigned to the LGA with the highest percentage of couple families where both parents were not proficient in English. A rank was not assigned to LGAs where there were less than five couple families with adolescents where both parents were not proficient in English.
- In Victoria, 3,959 one parent families with adolescents reported that the parent was not proficient in English, representing 5.2 per cent of all one parent families with adolescents.
- Due to the small number of one parent families with adolescents in Cardinia, where the parent was not proficient in English, a percentage could not be calculated. In 5.6 per cent of one parent families with adolescents in the broader Southern Metropolitan region, the parent was not proficient in English.
- 33 of the 79 LGAs in Victoria were ranked on the percentage of one parent families with adolescents, where the parent was not proficient in English. A rank of 1 was assigned to the LGA with the highest percentage. As there were less than five one parent families with adolescents in this category in Cardinia, a rank was not assigned.



Adolescent and Family Demographics

Need for assistance with core activities

The 2006 Census is the first to collect data on need for assistance with core activities. The *need for assistance with core activities* variable has been developed to measure the number of people with a profound or severe disability. Please refer to 'need for assistance with core activities' in the glossary for more information.

Adolescents in Cardinia, the Southern Metropolitan region and Victoria, with a need for assistance with core activities, 2006.

	Adolescents aged 10 to 17 years	Adolescents with a need for assistance with core activities	Percentage of adolescents with a need for assistance with core activities
Cardinia	7,749	116	1.5
Southern Metropolitan Region	120,409	1,974	1.6
Victoria	531,599	9,404	1.8

Source: Census of Population and Housing, ABS, 2006

- According to the 2006 Census, there were 9,404 adolescents in Victoria with a need for assistance with core activities. This represents 1.8 per cent of all adolescent children in Victoria.
- In Cardinia, there were 116 adolescents with a need for assistance with core activities, representing 1.5 per cent of all adolescents in the area. This was lower than the percentage of adolescents in the Southern Metropolitan region with a need for assistance (1.6 per cent) and lower than the percentage of adolescents in Victoria with a need for assistance (1.8 per cent).
- Cardinia was ranked 61 out of 78 LGAs on the percentage of adolescents with a need for assistance with core activities. A rank of 1 was assigned to the LGA with the highest percentage.

Figure 7: Percentage of children aged 0 to 8 with a need for assistance with core activities in the Metropolitan and Rural regions of Victoria



Source: Census of Population and Housing, ABS, 2006

- The Gippsland region in Rural Victoria had the highest percentage of adolescents with a need for assistance with core activities (2.34 per cent). The Eastern Metropolitan region in Metropolitan Victoria had the lowest percentage of adolescents with a need for assistance with core activities (1.58 per cent).



Appendix A: The Adolescent Health and Wellbeing Survey (HowRU?)

About HowRU?

The Victorian Adolescent Health and Wellbeing Survey (HOWRU?) was conducted for the first time in 2009 for the Office for Children and Portfolio Coordination in the Department of Education and Early Childhood Development (DEECD) by the Centre for Adolescent Health (CAH) at the Royal Children's Hospital.

The HowRU? survey was designed to provide data on key indicators of adolescent health and wellbeing, identified as data gaps through the Victorian Child and Adolescent Monitoring System (VCAMS), thus enabling a more comprehensive understanding of how Victorian adolescents are faring.

Survey Methodology

Students in years 7, 9, and 11 were sampled from randomly selected government and non-government secondary schools across Victoria, and analysis is based on a final sample of 10,273 adolescents. The sampling frame was designed to allow Local Government Area (LGA) level reporting in metropolitan Victoria, and Government Region level in non-metropolitan Victoria.

Data collection was undertaken in classroom settings using computers where possible, and took approximately one hour for students to complete.

Population weights have been applied to the HowRU? survey data to account for:

- a) the probability of the selection of adolescents; and
- b) the age, sex and geographic distribution of Victoria's children.

Survey Contents

The HowRU? survey consists of a core instrument and four modules – an Aboriginal module completed by all students identifying as being of Aboriginal or Torres Strait Islander origin, and three topic specific modules (on Behaviour, feelings and opinions; Diet and exercise; and the Internet), assigned randomly to the remainder of the sample.

The core content of the survey, completed by all participants, included demographics, school experiences (including engagement with school, teachers and peers, and bullying), family structure and relationships, health and personal experiences (medication, general health, physical activity, dieting, sexual activity), experience of smoking, alcohol and drugs, thoughts and feelings, neighbourhood amenities, access to services, and safety.

Where available, existing scales with proven reliability and validity were used as a basis for collection, including the Kessler-10 (Kessler et al 2002), the Children with Special Health Care Needs Screener (Berthel et al 2002), and the Gatehouse Bullying Scale (Bond et al 2007). To maximise opportunities for comparison of results, questions and output categories were aligned with those used in existing surveys.

How to interpret the survey data

These profiles present data summarised from the final sample of 10,273 adolescents surveyed across Victoria (aged 11 years to 18 years). Due to the large number of adolescents surveyed, we would expect the mean estimates to be representative of the population. Since the survey estimates are obtained from a sample of adolescents, these estimates are subject to sampling variability, that is, the estimates may differ from the 'true' value that would have been obtained had every adolescent within the LGA or region been surveyed for this collection.



How to interpret the survey data ... continued

Confidence intervals

Confidence intervals are used when presenting the HowRU? survey results to indicate the precision of the survey estimates. A confidence interval is a range of values within which the 'true' value (had every adolescent within the LGA been surveyed) is expected to fall. The confidence interval is a range of values around the estimated mean and provides a level of confidence of the precision of this point estimate.

In this report, all confidence intervals are reported at the 95% confidence level. This means that if we were to repeat the survey 100 times, the estimates from 95 of the surveys would lie within the confidence interval.

For example, if the true population mean is 50% and we were to draw 100 independent, random samples of the same size from the population and calculate the 95% confidence interval for each of these studies, then we would expect, on average, 95 out of 100 (95%) of these confidence intervals to contain the true population mean.

A narrow confidence interval indicates high precision which is associated with a large sample size and low sampling variability. The 'whiskers' on the graphs sourcing the HowRU? data depict the confidence intervals for

Statistical significance

As significance tests have not been conducted in this analysis to compare difference between the means, it is better to avoid making statements as to whether differences are statistically significant based on confidence intervals. However, we are able to comment on the similarities or differences between groups in of the population, with reference to whether the confidence intervals of the estimates overlap or not.

The estimates provided are based on sample data, and the confidence intervals indicate that there is a 95% probability that the true values lies between the upper and lower limits of the confidence interval. Therefore, if the confidence intervals of two population groups do not overlap, we can assume that the true values of the two estimates are unlikely to fall within the same distribution and there may be a significant difference between the survey estimates.

We have made two judgements based on the relevant confidence intervals when comparing estimates throughout these profiles:

- 1 Where the relevant 95% confidence intervals do not overlap, we infer that mean estimates are different and this difference **may be** statistically significant ; and
- 2 Where the relevant 95% confidence intervals do overlap, we infer that the mean estimates have no difference or minimal difference, and this difference **is not** statistically significant.

Quality of estimates

To determine the reliability of the estimates produced from the HowRU? survey, the relative standard errors associated with each estimate was used. The RSE is the standard error divided by the estimate, then multiplied by 100 to be expressed as a percentage.

The lower the RSE, the more reliable the estimate. In these profiles the following judgements have been made based on the RSE of the estimate:

- 1 Where the RSE is lower than 25 per, the estimate is considered reliable.
- 2 Where the RSE is higher than or equal to 25 per cent but less than 50 per cent, the estimate is to be used with caution.
- 3 Where the RSE is higher than or equal to 50 per cent the estimate is not considered to be reliable and should not be used.

Within these profiles, the local area data is compared to data at the broader region level and the statewide estimate and tested for overlap in the confidence intervals. Reliability of the estimates is also tested using the relative standard errors and appropriate caveat information provided.



Appendix B: HowRU? survey respondents and characteristics for Cardinia

HowRU? Survey respondents

- For general information on the Adolescent Health and Wellbeing Survey (known as HowRU?) and how to interpret the survey data, please refer to Appendix B.
- Students in years 7, 9 and 11 were sampled from randomly selected government and non-government secondary schools across Victoria, and analyses were based on a final sample of 10,273 adolescents.
- The sampling frame was designed to allow Local Government Area (LGA) level reporting in metropolitan Victoria and Government Region level for all remaining non-metropolitan LGAs.
- Sample weights were calculated to adjust for differences between the final sample and the Victorian population, in terms of adolescent gender, year level (Year 7, Year 9, and Year 11) and LGA (or non-metropolitan region).

Profile of the HowRU? survey respondents in Cardinia and Victoria, 2009

Selected characteristics	Percentage of respondents	
	Cardinia	Victoria
Gender		
Male	50.5	50.4
Female	49.5	49.6
Age		
11 years	0.0	0.2
12 years	16.8	17.0
13 years	18.6	15.5
14 years	19.9	18.8
15 years	16.5	15.3
16 years	18.7	19.0
17 years	9.5	12.9
18 years	0.0	1.2
19 years	0.0	0.0
Year level		
Year 7	36.9	33.1
Year 9	34.8	34.1
Year 11	28.3	32.8
Education sector		
Catholic	28.3	18.7
Government	52.2	62.9
Independent	19.4	18.4
Country of birth		
Australia	94.7	86.4
Born overseas	4.1	12.9
Language spoken at home		
English	91.6	76.4
Other language	0.8	3.2
English and other language	7.3	20.0
Aboriginal or Torres Strait Islander		
	0.8	1.5



Appendix C: Technical glossary

Aboriginal and Torres Strait Islander

Aboriginal and Torres Strait Islanders are those who identify themselves as either:

- Aboriginal
- Torres Strait Islander
- Both Aboriginal and Torres Strait Islander

Throughout this profile, Aboriginal and Torres Strait Islanders have been referred to as 'Aboriginal'.

Aboriginal families

A family which had at least one usual resident enumerated at home on Census night who was of Aboriginal and/or Torres Strait Islander origin.

Aboriginal families with at least one adolescent child

An Aboriginal family with at least one child aged 10 to 17 years enumerated at home on Census night. That enumerated child was not necessarily aboriginal.

Ambulatory care sensitive conditions (ACSCs)

ACSCs are defined as those conditions for which hospitalisation are considered to be avoidable with the application of preventative care and early disease management. Rates of hospitalisation for ACSCs can be considered an indirect measure of patient access to primary health care.

Apparent retention rates

Year 10–12 apparent retention rates refer to Year 12 enrolment of students in full-time school education (FTE) expressed as a proportion of Year 10 FTE enrolments two years earlier. For example, the apparent retention rate for 2010 was calculated by using the following formula:

$$\text{Apparent Retention Rate Years 10-12} = \frac{\text{Year 12 enrolments in 2010}}{\text{Year 10 enrolments in 2008}} \times \frac{100}{1}$$

The term "apparent" retention rate reflects that retention rates are influenced by factors not taken into account by this measure such as:

- students repeating year levels;
- interstate and overseas migration;
- transfer of students between education sectors or schools; and
- students who have left school previously, returning to continue their school education

Because apparent retention rates are derived from school enrolment information they do not include young people undertaking secondary senior studies in non-school locations such as TAFE colleges or the Centre for Adult Education. Apparent retention rates do not track individual students nor do they take into account changes due to students repeating year levels, interstate and overseas migration, transfer of students between schools and returning students. Nevertheless these rates are a commonly used indicator of underlying progression rates in schools.

Asthma

Adolescents with current asthma are defined in the Adolescent Health and Wellbeing Survey (HowRU?) as those who have ever been diagnosed by a doctor as having asthma and has displayed symptoms of asthma in the last 12 months.

Source: HowRU? Technical Report



Asthma hospitalisations

Asthma is a chronic respiratory disease characterised by sudden recurring attacks of laboured breathing, chest constriction and coughing. This is caused by the narrowing of the small air passages (breathing tubes/bronchi) of the lungs. The air passages become swollen and inflamed reducing the flow of air in and out of the lungs.

The hospital separations for asthma shown in these profiles are counted based on a principal diagnosis of one of the following ICD-10-AM coded conditions:

- J440 - COPD(a) with acute lower respiratory infection
- J441 - COPD(a) with acute exacerbation unspecified
- J448 - other specified COPD(a)
- J449 - COPD(a) unspecified
- J450 - predominantly allergic asthma
- J451 – non-allergic asthma
- J458 - mixed asthma
- J459 - asthma unspecified
- J46 - status asthmaticus

(a) COPD = Chronic Obstructive Pulmonary Disease.

Asthma is one of the Ambulatory care sensitive conditions (ACSC) where hospitalisation is considered avoidable.

See also: International Classification of Diseases (ICD-10-AM).

See also: Ambulatory care sensitive conditions.

Asthma plan

Adolescents in the HowRU? survey who were identified as having current asthma were asked “*Do you have a written asthma action plan that is written instructions of what to do if your asthma is worse or out of control?*”. Those who responded ‘Yes’ to this questions were defined as ‘students with current asthma who have a written asthma plan’. The proportions presented in these profiles reflect the number of students with a written asthma plan as a proportion of all students with current asthma.

Source: HowRU? Technical Report

See also: Asthma

Bullying

Physical, psychological and verbal bullying is common in all schools (Bond et al 2001), however, it’s measurement is often hampered by the lack of a universally accepted definition.

Bullying is assessed in the HowRU survey using the Gatehouse Bullying Scale. Information about bullying is elicited by asking the student if they have been recently teased or called names, had rumours spread about them, been deliberately left out of things or threatened physically or actually hurt by another student.

Source: HowRU? Technical Report

Child abuse substantiation

Substantiations of reports received during the year refer to child protection reports during the year ended 30 June, which were investigated and the investigation was finalised by 31 August, and it was concluded that there was reasonable cause to believe that the child had been, was being or was likely to be abused or neglected or otherwise significantly harmed.



Substantiation does not necessarily require sufficient evidence for a successful prosecution and does not imply that treatment or case management was, or is to be, provided. A report is 'substantiated' where it is concluded that the child or young person is in need of protection.

Note: The number of child protection notifications and substantiations is greater than the number of children who were the subject of a notification or substantiation. This is because some children are the subject of more than one notification and/or substantiation in any one year.

Community based supervision

Community based supervision are defined supervised orders including: probation, youth supervision order, youth attendance order and parole. Supervised deferrals of sentence, supervised bail and periods of pre-sentence report preparation are excluded.

Crime

Crime is the breach of rules or laws for which some governing authority (via mechanisms such as legal systems) can ultimately prescribe a conviction.

See also: Recorded crime, Type of Crime

Cultural and linguistic diversity (CALD)

The Australian Bureau of Statistics (ABS) defines CALD by three variables:

- Country of birth (COB)
- Language other than English (LOTE) spoken at home
- English language proficiency

Because CALD is a combination of factors, it is acknowledged that there is no one definition of CALD. Within the Australian context, the following description is used:

'Individuals from a CALD background are those who identify as having a specific cultural or linguistic affiliation by virtue of their place of birth, ancestry, ethnic origin, religion, preferred language, language(s) spoken at home, or because of their parents' identification on a similar basis' (Department of Human Services, Multicultural Strategy Unit).

In these profiles, two variables have been used to describe the CALD of the LGA:

- Language other than English (LOTE) spoken at home; and
- English language proficiency.

Early school leavers

Early school leavers are Year 10, 11 and 12 students who enrolled in a VCE or VCAL unit and who left school before completing a certificate (VCE, IB or VCAL Senior/Intermediate). Early leavers are interviewed by *On Track* in April/May, 6 months after the year they left school to determine their post-school destination.

The total number of 'early school leavers' included in these profiles are:

- those with an education/training destination (Bachelor degree, TAFE, Apprenticeship, Traineeship) ; and
- those with a valid employment destination (Employed Full-time, Employed Part-time, Looking for work) were included in 'Total early school leavers'

Early school leavers who identified as **not** having a valid destination (not in the labour force, education or training) were **excluded** from the 'Total early school leavers' count.

Percentage looking for work

The percentage of early school leavers looking for work is the number of 'Early school leavers looking for work' divided by the 'Total early school leavers'.

See: *On Track* survey

Eating Disorders

The proportion of adolescents with an eating disorder (anorexia, bulimia, any eating disorder) is assessed in HowRU? using the Branched Eating Disorder Test. This diagnosis is considered "sub-clinical" and is indicative rather than definitive. The clinical diagnosis of bulimia and anorexia using DSM (Diagnostic and Statistical Manual of Mental Disorders) is rare.

Bulimia

A partial syndrome of bulimia nervosa was defined as meeting at least two of the following three criteria:

1. Objective bingeing at least weekly for at least 3 months
2. Use of any of the following for at least 3 months: self induced vomiting at least once per week, laxative at least once per week, diuretics at least once per week, fasting (12 hours or longer) on 4 or more days per week, or vigorous daily exercise to control weight.
3. Report of body weight as very important to the adolescent's sense of self.

Anorexia

For males (and females that have not started menstruating): A partial syndrome of anorexia nervosa was defined at meeting at least two of the following three criteria:

1. Very low body weight – defined as having a thinness grade 2 or 3
2. Intense fear of gaining weight or becoming fat when have low body weight (defined as thinness grades 1, 2 or 3).
3. Disturbance in the experience of body weight, size and shape when have low body weight (defined as thinness grades 1, 2 or 3).

For females (who have started menstruating): A partial syndrome of anorexia nervosa was defined at meeting at least two of the following four criteria:

Criteria 1, 2 and 3 as above.

4. Have not had a menstrual period within the past 3 months (if not pregnant).

Source: Source: Cole TJ, et. al. 2007, *HowRU? Technical Report*

Electronic Media

Electronic media is defined as television, DVD's, computer (not for educational purposes) and game consoles. The survey administrators acknowledge a potential response issue if students include time spent on a computer at school or for homework. No attempt has been made to quantify the size of this potential effect.

Source: *HowRU? Technical Report*



Employment status

Employed

For Census purposes, employed includes people aged 15 years and over who:

- work for payment or profit, or as an unpaid helper in a family business, during the week prior to census night;
- have a job from which they are on leave or otherwise temporarily absent; or
- are on strike or stood down temporarily

Unemployed

Includes people aged 15 years and over who do not have a job but are actively looking for work and are available to start work.

Not in the labour force

People aged 15 years and over who are neither employed nor unemployed are classified as 'not in the labour force'. This includes people who are retired, pensioners and people engaged solely in home duties.

Estimated Resident Population (ERP)

ERP is the official ABS estimate of the Australian population. Among its many uses, are the determination of the number of representatives from each State (and Territory) to sit in the House of Representatives, and the annual allocation of Commonwealth funds for state governments and local government. The ERP is based on Census of Population and Housing usual residence counts. It is compiled as at 30 June of each census year and updated quarterly between censuses. These intercensal estimates of the resident population are revised after each census is conducted. In compiling 30 June ERP for a census year, three important factors are taken into account:

- Census net underenumeration (or undercount): The level of underenumeration is derived from the Census Post Enumeration Survey which is conducted soon after the Census, and from estimates based on demographic analysis
- Australian residents who are temporarily overseas on Census Night and are therefore not covered by the Australian Census. The number of such people is obtained from statistics on overseas arrivals and departures
- The Census does not fall on 30 June. For example, the 2006 Census was held on 8 August. Backdating of population estimates from 8 August to 30 June is accomplished using data from birth and death registrations, overseas arrivals and departures, and estimates of interstate migration, for the period 1 July to 8 August

The population base used to derive rate based measures have been revised since the last edition of these profiles. ERP to 2006 are based on final ERP, 2007 ERP are based on revised estimates and 2008 ERP are based on preliminary estimates.

Family

A family is defined as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. A household may contain more than one family. Non-related persons living in the same household are not counted as family members (unless under 15 years of age).

Families with Aboriginal children

A family which had at least one usual resident enumerated at home on Census night who was a child of Aboriginal and/or Torres Strait Islander origin.



Family composition (couple/one parent families)

Also referred to as *Family Type*.

Families are classified in terms of the relationships that exist between one individual who is nominated as the 'family reference person' and each other member of that family. The family type variable distinguishes between different types of families based on the presence or absence of couple relationships, parent-child relationships, child dependency relationships or other blood relationships, in that order of preference.

The family type variable is derived from people enumerated in the household who usually reside there, and who share a familial relationship. Partners and dependent children usually present but temporarily absent are also included in this derivation. Boarders and other non-family members are excluded.

Couple family

A census variable; a couple family is based on two persons who are in a registered or de facto marriage and who are usually resident in the same household. The family may or may not include any number of dependents, non-dependents and other related individuals, thus a couple family can consist of a couple without children present in the household.

One parent family

A one-parent family consists of a single parent with at least one child (regardless of age) who is also usually resident in the family household. The family may also include any number of other related individuals.

A single parent is a person who has no spouse or partner usually present in the household, but who forms a parent-child relationship with at least one child usually resident in the household. The child may be either dependent or non-dependent.

Family income

This variable is the sum of the usual gross individual weekly incomes of each family member present in the household on census night. Family income only applies to classifiable families in occupied private dwellings. If any person aged 15 and over is temporarily absent, or does not state their income, then the family income is not derived for that family. Family income is not applicable to non-family households such as group households or single person households, or to people in non-private dwellings. Individual incomes are collected as ranges by the census. To enable these range values to be summed, information from the Survey of Income and Housing Costs, which collects income as individual values, is used to estimate the median income within each bracket collected by the census. The relevant median value for each family member is then summed to produce the family income figure.

Good Health

This global self-reported health rating is obtained by asking students to describe their health in general. 'Good health' is a composite of "Good", "Very Good" and "Excellent" response categories.

Source: *HowRU? Technical Report*

Health Family Functioning

Healthy family functioning is assessed in HowRU using two risk factors: *family conflict*; and *poor family management*. If the adolescent has not been exposed to either one of these factors, they are considered to live in a family with healthy family functioning.



Family conflict is a composite measure derived from the following questions:

- *We argue about the same things in my family over and over?*
- *People in my family have serious arguments?*
- *People in my family often insult and yell at each other?*

Poor family management is also derived from a number of questions:

- *My parents ask me if I have done my homework?*
- *My parents would know if I did not come home on time?*
- *The rules in my family are clear?*
- *When I am not at home, one of my parents knows where I am and who I am with?*
- *My parents want me to call if I'm going to be late getting home?*
- *My family has clear rules about alcohol and drug use?*
- *If you drank some alcohol without your parents permission, would you be caught by your parents?*
- *If you carried a weapon without your parent's permission, would you be caught by your parents?*
- *If you skipped or wagged school without your parents permission, would you be caught by your parents?*

Source: HowRU? Technical Report

Health Related Quality of Life

Health Related Quality of Life is a construct measured using the Mental Health Inventory (Veit 1983). Respondents who were at or above a cut-off score of 43 on the Mental Health Inventory (MHI) were considered to be satisfied with the quality of their life.

The MHI questions asked in HowRU? are:

During the past month, how much of the time:

- *Have you felt that the future looks hopeful and promising?*
- *Has your daily life been full of things that were interesting to you?*
- *Did you feel relaxed and free of tension?*
- *Have you generally enjoyed the things you do?*
- *Have you felt loved and wanted?*
- *When you got up in the morning how often did you expect to have an interesting day?*
- *Have you felt calm and peaceful?*
- *Were you able to relax without difficulty?*
- *Has living been a wonderful adventure for you?*
- *Have you felt cheerful, light-hearted?*
- *Were you a happy person?*
- *Did you feel that your love relationships, loving and being loved were full and complete?*
- *How often during the past month, have you been waking up feeling fresh and rested?*
- *How happy, satisfied or pleased have you been with your personal life during the past month?*

Source: HowRU? Technical Report

Hospital separations

This refers to a completed episode of care in a hospital. Therefore, by counting separations, one is in fact counting episodes of care. A separation is counted when a phase of treatment or care ends within a patient's hospital stay due to the patient's need for a different type of care, or when a patient is discharged from hospital, leaves against medical advice, dies or goes on leave of absence for more than seven days.



Episode of care

The start and completion of a type of care in an acute hospital. One patient may have several episodes of care or only a single episode of care within their one hospital stay. The start and completion of an episode of care are defined, respectively, as the admission and separation of the patient.

Injury

A wider term used for any unintentional or intentional damage to the body, defined as “tissue damage resulting from either the acute transfer to individuals of the five forms of physical energy (kinetic or mechanical, thermal, chemical, electrical or radiation) or from the sudden interruption of normal energy patterns to maintain life patterns” (Waller, 1985).

For the purpose of these profiles, injury is classified as records with a primary injury or poisoning diagnosis code in the range of S00-T89 AND an external cause in the range V01-Y98. Same-day admissions (admissions where the admission date is the same as the separation date), deaths in hospital and transfers in and between hospitals are excluded. Injuries resulting from medical causes (adverse events and medical misadventure) are also excluded.

Intentional self harm

Intentional self harm: Injuries that are the result of intended acts of self harm, for example using pharmaceuticals, sharp objects etc.

For the purpose of these profiles, intentional self harm is classified as records with a primary injury or poisoning diagnosis code in the range of S00-T89 AND an external cause in the range X60-X 84(WHO, 2007). Same-day admissions (admissions where the admission date is the same as the separation date), deaths in hospital and transfers in and between hospitals are excluded.

International Classification of Diseases (ICD-10-AM)

The ICD-10-AM is the classification system of diseases used in Victorian hospitals. It stands for the International Classification of Diseases, Version Ten, Australian Modification.

Introduced random error

Under the Census and Statistics Act it is an offence to release any information collected under the Act that is likely to enable identification of any particular individual or organisation. Introduced random error is used to ensure that no data are released which could risk the identification of individuals in the statistics.

Random adjustment of the data is considered to be the most satisfactory technique for avoiding the release of identifiable Census data. When the technique is applied, all cells are slightly adjusted to prevent any identifiable data being exposed. These adjustments result in small introduced random errors. However the information value of the table as a whole is not impaired.

The totals and subtotals in summary tables are also subjected to small adjustments. These adjustments of totals and subtotals include modifications to preserve the summability within tables. Although each table of this kind is internally consistent, comparisons between tables which contain similar data may show some minor discrepancies. Small variances associated with derived totals can, for the most part, be ignored. However, no reliance should be placed on small cells as they are impacted by random adjustment, respondent and processing errors (Australian Bureau of Statistics 2006, Census Dictionary).

K10 and K6 Scales

Different short measures are often used to assess psychological distress in population-health surveys. These include the K-10 (Andrews & Slade 2001). The K10, which incorporates the shorter K6 (the K10 with 4 questions omitted), was used in the HowRU survey.



To assess that an adolescent respondent is under serious psychological distress, the sum of responses to the ten K6 Likert scale questions must be 30 or greater.

For more information about the K10 and K6, see http://www.hcp.med.harvard.edu/ncs/k6_scales.php

Source: *HowRU? Technical Report*

Parental education attainment

Parental education attainment is measured using the Census variable *Level of highest educational attainment*. This is a new variable for the 2006 Census which records the highest educational achievement a person has attained. It lists qualifications and other educational attainments regardless of the particular field of study or the type of institution in which the study was undertaken.

Less than Year 12 or its equivalent

This variable counts those whose highest educational attainment is Year 11 or below. This includes Year 11, 10, 9, 8 or below, Certificate 1 and those with no educational attainment. It does not include educational attainment inadequately described, or not stated and Certificate level not further defined

Non-school qualification

This variable describes the level of education of the highest completed non-school qualification (for qualifications higher than Year 12 attainment). This includes: Advanced Diploma, Diploma, Bachelor, Grad Certificate/Diploma and postgraduate

National Assessment Program – Literacy and Numeracy (NAPLAN)

The National Assessment Program – Literacy and Numeracy (NAPLAN) commenced in Australian schools in 2008. All students in Years 3, 5, 7 and 9 are assessed annually using common national tests in Reading, Writing, Language Conventions (Spelling, Grammar and Punctuation) and Numeracy.

The purpose of NAPLAN is to assess the literacy and numeracy learning of students in all Australian schools at years 3, 5, 7 and 9. NAPLAN is designed to provide information on student performance across a number of levels of achievement.

NAPLAN uses the National Assessment Program Scale. Five domains are measured on the National Assessment Program Scale: Reading, Writing, Spelling, Grammar and Punctuation, and Numeracy.

The National Minimum Standard (NMS) is defined for each domain as the second lowest National Assessment Program (NAP) Band reported for a year level. A student at the NMS has typically demonstrated the basic elements of Literacy and Numeracy to participate at their year level. The national minimum standard should not be compared with the previous national benchmark.

Year Level	Below NMS	At NMS	Above NMS
Year 3	Band 1	Band 2	Band 3-6
Year 5	Band 3	Band 4	Band 5-8
Year 7	Band 4	Band 5	Band 6-9
Year 9	Band 5	Band 6	Band 7-10

Questions for NAPLAN tests are developed with reference to the nationally agreed Statements of Learning which reflect the core elements of the curriculum documents used in the different states and territories. Although the National Assessment Program Scale is not explicitly linked to the Victorian Essential Learning Standards (VELS), all NAPLAN questions are consistent with VELs.

All government and non-government education authorities have contributed to the development of NAPLAN materials.

For these profiles, the percentage of students at or above the national minimum standard is presented for Year 5, 7 and 9 students. Results are presented for students attending both government and non-government schools within each LGA.

Definitions used throughout these profiles relating to NAPLAN data:

Participation - Number of students who sat for the test and number of students who were exempted.

Total number of students - Include students who sat for the test, and students who were exempted, absent and withdrawn.

At or above NMS - Number of students at or above National Minimum Standard expressed as a percentage of those who participated.

Note: Publication of NAPLAN data at the LGA level is subject to the following requirements:

- There must be more than one school provider within the LGA; and
- There must be more than 5 students within each NAPLAN domain and year level.

There are some LGAs which do not meet both these requirements. As such, information for these LGAs were suppressed and data for the broader DEECD region substituted.

For more information on the NAPLAN, visit http://www.naplan.edu.au/home_page.html

Need for assistance with core activities

The 2006 Census is the first Census to have the variable Core Activity Need for Assistance. The Core Activity Need for Assistance variable has been developed to measure the number of people with a profound or severe disability. The Census of Population and Housing defines the profound or severe disability population as: 'those people needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a long-term health condition (lasting six months or more), a disability (lasting six months or more), or old age'.

Offender

Offenders are usually referred to as 'alleged offenders'.

Alleged offenders are persons who have allegedly committed a criminal offence and have been processed for that offence by either arrest, summons, caution or warrant of apprehension during the corresponding financial year, regardless of when the offence occurred.

Those persons who for legal or other reasons were apprehended but were not charged are also included. Persons are counted on each occasion they are processed and for each offence counted in recorded offences (e.g. a person processed on three occasions will be counted three times). Only the offence in recorded offences for which the offender has been processed is included.

Only the most serious offence which best describes a distinct course of criminal conduct is recorded in official crime statistics, even though an offender may be charged with other offences resulting from the one incident. For example, an offender carrying a firearm commits an armed robbery - only the offence of armed robbery is recorded although the offender would be charged with armed robbery and possession of a firearm.

The number of distinct courses of criminal conduct occurring within an incident will generally be one unless there is a break in time and/or location. For example, if an offender presents three valueless cheques to a teller only one offence would be recorded but if the three cheques were presented at different times or at different branches then three offences would be recorded.



On Track survey

On Track is a Victorian Government initiative designed to ensure that Year 10 to 12 government and non government school students are on a pathway to further education, training or employment after leaving school.

On Track builds on the Managed Individual Pathways (MIPs) program available in Government schools. MIPs assists 15-19 year old students with individual career and education plans and support to implement those plans.

On Track will ensure that Year 10-12 students are:

- contacted after leaving school
- assisted with further advice if they are not studying or in full time employment

On Track also includes a longitudinal research component to provide a comprehensive picture of what happens to young people up to four years after they leave school.

The *On Track* data provides an accurate snapshot of what young people are doing in the months after the end of the school year. It recognises that not all young people attend university, or wish to do so, and that there is a range of other possible successful outcomes available. It must be noted that the data only reflects the destination of young people at the date of the survey. This may differ from their expectations at the time of finishing school or their circumstances since the survey.

On Track Survey is conducted annually for Year 12 completers and early school leavers

For more information on the *On Track* survey, visit <http://www.education.vic.gov.au/sensecyouth/ontrack/default.htm>

Physical health services

The Adolescent Health and Wellbeing Survey defines physical health services as the following:

- GP services
- Physiotherapist / osteopath / chiropractor
- Optometrist
- Medical specialists

Population Projections

Population projections are not predictions or forecasts, but are simply illustrations of the growth and change in population which would occur if certain assumptions about future levels of fertility, mortality, internal migration and overseas migration were to prevail over the projection period. The assumptions incorporate recent trends which indicate increasing levels of fertility and net overseas migration for Australia.

The Australian Bureau of Statistics (ABS) produce three main series of projections, Series A, B and C, which have been selected from a possible 72 individual combinations of the various assumptions. Series B largely reflects current trends in fertility, life expectancy at birth, net overseas migration and net interstate migration, whereas Series A and Series C are based on high and low assumptions for each of these variables respectively.

Projections for Victoria are sourced from Department of Planning and Community Development (DPCD), Victoria in Future 2008 projections and use very similar assumptions to the Australian Bureau of Statistics Series B projections published in September 2008.

DPCD compiles population projections for all 79 local government areas for the period 2006 to 2026 and for regions for 2006 to 2036. The projections are based on Australian Bureau of Statistics population estimates derived from the 2006 census and other recent demographic trends. To develop the projections in Victoria in Future 2008 the department analyses:

- demographic data and housing development information;

- Victoria's economic, social and demographic trends; and
- detailed local knowledge gained through consultation with local governments, regional service providers, peers and stakeholders.

Victoria in Future 2008 projections analyse changing economic and social structures and other drivers of demographic trends to indicate possible future populations if present identified demographic and social trends continue. The assumptions behind Victoria in Future are regularly monitored. If necessary, the assumptions and the projections they generate will be revised.

Positive Psychological Development

Positive Psychological Development (PPD) is assessed using an adaption of the 21 item scale developed by Ryan and Deci (2001) which assesses autonomy, competence and relatedness.

Positive Psychological Development refers to an adaptive and healthy state of social and emotional functioning. PPD is indicated by perceptions of autonomy (sense of personal agency), relatedness (positive connections with others) and competence (feeling capable or masterful)."

For the purposes of this indicator, an adolescent is deemed to have a positive psychological wellbeing if the mean of the responses to following Likert scale questions is 5 or greater:

- *I feel like I am free to decide for myself how to live my life*
- *I generally feel free to express my ideas*
- *I feel like I can pretty much be myself in my daily situations*
- *People I know tell me I am good at what I do*
- *Most days I feel a sense of accomplishment from what I do*
- *I often do not feel capable (reverse coded)*

Source: HowRU? Technical Report

Psychiatric hospitalisations

Psychiatric hospitalisations have been classified where any diagnosis (not just the principal diagnosis) is listed as one of the following ICD-10-AM coded conditions, in the category of mental and behavioural disorders (F00–F99):

- (F00–F09): Organic, including symptomatic, mental disorders;
- (F10–F19): Mental and behavioural disorders due to psychoactive substance use;
- (F20–F29): Schizophrenia, schizotypal and delusional disorders;
- (F30–F39): Mood [affective] disorders;
- (F40–F48): Neurotic, stress-related and somatoform disorders;
- (F50–F59): Behavioural syndromes associated with physiological disturbances and physical factors;
- (F60–F69): Disorders of adult personality and behaviour;
- (F70–F79) Mental retardation;
- (F80–F89): Disorders of psychological development;
- (F90–F98): Behavioural and emotional disorders with onset usually occurring in childhood and adolescence;
- (F99): Unspecified mental disorder.

Public Housing

Public housing is stock that is owned and managed by Housing and Community Building. Public housing tenants in Victoria pay a reduced amount of rent, known as a rebated rent, equivalent to 25 per cent of the tenants total household income. The amount of rent to be paid is capped at the market rent of the property.



Public housing retention rate

In these profiles, public housing retention rates are derived from the proportion of households with adolescents aged 10 to 17 years in allocated public housing (rebated housing) who have remained in public housing 12 months following initial allocation. This measure tracks public housing allocations 12 months forward, hence there is a 12 month lag between the denominator and numerator data.

Recorded crime

Crimes in Victoria are recorded through the Law Enforcement Assistance Program (LEAP), which is a database for case management and data storage. Recorded crime consists of those offences recorded on LEAP during the reporting period, regardless of when the offence occurred or when it was reported to police.

Caution should be exercised when interpreting recorded crime statistics, as only those offences which become known to police and for which a crime report has been completed are included in the statistics.

Victoria Police uses three methods of counting crime depending on the particular offence. For all crime against the person, and most crime against property, the counting unit is the number of principal victims for each separate occurrence of the offence. For example, if three offenders assault two persons, then two offences of assault are recorded.

See also: Type of Crime

School connectedness

Each year students in Victorian government schools are surveyed about their opinions on aspects of school life, including their 'school connectedness', using the Department of Education and Early Childhood Development's Attitudes to School Survey.

In order to measure this students are asked to rate (1 being strongly disagree to 5 being strongly agree) how far they agree with the following statements:

- I feel good about being a student at this school
- I like school this year
- I am happy to be at this school
- I feel I belong at this school
- I look forward to going to school.

Student responses to these statements provide a good indication of their engagement with, and enjoyment of school.

Sexually Transmissible Infections (STIs)

STIs include *Chlamydia trachomatis infection*, *Neisseria Gonorrhoea*, Donovanosis, Syphilis Infectious <2years, Syphilis Infectious >2years /unknown duration and Syphilis congenital.

Social Support

The proportion of adolescents with someone to turn to for advice when having problems is derived from four questions which relate to whether the young person has a "special person" in their life:

- *There is a special person who is around when I am in need*
- *There is a special person with whom I can share my joys and sorrows*
- *I have a special person who is a real source of comfort to me;*
- *There is a special person in my life who cares about my feelings*

The young person is considered to have someone to turn to for advice if they answered 'agree' 'strongly agree', or 'very strongly agree' on three or more of these questions.

Source: HowRU? Technical Report



Socio-Economic Index for Areas (SEIFA)

SEIFA is a suite of four summary measures that have been created by the Australian Bureau of Statistics (ABS) from the Census of Population and Housing information. The indexes can be used to explore different aspects of socio-economic conditions by geographic areas. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia.

Each index summarises a different aspect of the socio-economic conditions of people living in an area. They each summarise a different set of social and economic information. The four indexes in SEIFA 2006 are:

Index of Relative Socio-economic Disadvantage (IRSED): is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles.

Index of Relative Socio-economic Advantage and Disadvantage (IRSEAD): a continuum of advantage (high values) to disadvantage (low values) which is derived from Census variables related to both advantage and disadvantage, like household with low income and people with a tertiary education.

Index of Economic Resources (IER): focuses on Census variables like the income, housing expenditure and assets of households.

Index of Education and Occupation (IEO): includes Census variables relating to the educational and occupational characteristics of communities, like the proportion of people with a higher qualification or those employed in a skilled occupation.

SEIFA uses a broad definition of relative socio-economic disadvantage in terms people's access to material and social resources, and their ability to participate in society. While SEIFA represents an average of all people living in an area, SEIFA does not represent the individual situation of each person. Larger areas are more likely to have greater diversity of people and households.

A SEIFA score is created using information about people and households in a particular area. This score is standardised against a mean of 1000 with a standard deviation of 100. This means that the average SEIFA score will be 1000 and the middle two-thirds of SEIFA scores will fall between 900 and 1100 (approximately).

The IRSED SEIFA index scores have been presented in these profiles.

Special health care need

A child with a special health care need (CSHCN) is defined as:

1. Having or being at risk of having a physical, developmental, behavioural, or emotional condition and
2. Requires health or related services of a type or amount beyond that required by children generally

A special health care need is not based on a specific medical diagnosis as it is designed to identify children who require increased service needs regardless of their specific diagnoses. Children who have conditions such as asthma, diabetes, birth defects, autism, cerebral palsy and mental illness are all regarded as children with special health care needs.

Special health care need is assessed using the Children with Special Health Care Needs Screener.

There are five screener questions. If a participant answers yes to any of the screeners they are asked for additional information. All parts of at least one screen question plus the associated additional questions must be answered 'yes' for the adolescent to meet CSHCN Screener criteria for having a chronic condition or special health care need.

For more information (p6): http://www.markle.org/resources/facct/doclibFiles/documentFile_446.pdf

Source: McPherson et al 1998, *HowRU? Technical Report*



Teenage births

Number of pregnancies in women aged 15 to 19 years that result in a live birth.

Live birth

The birth of an infant, regardless of maturity or birth weight, who breathes or shows any other signs of life after being born.

Tenure type

Tenure type describes whether a household is purchasing, rents or owns the dwelling in which it was enumerated on census night, or whether the household occupies it under another arrangement. Tenure type is applicable to occupied private dwellings. For the purposes of these profiles, the census output categories have been aggregated into:

- Fully owned or purchasing - fully owned, being purchased or being purchased under a rent/buy scheme
- Renting – rented or being occupied rent-free
- Renting from a state housing authority or
- Other – includes other tenure type, not stated or not applicable (unoccupied private dwellings; non-private dwellings; migratory and off-shore CDs)

Type of crime

Crimes against the person

Crimes against the person includes: homicide, rape, sex (non-rape), robbery, assault and abduction / kidnap.

Crimes against property

Crimes against property: includes arson, property damage, burglary (aggravated/residential and other), deception, handling stolen goods, and theft (from motor vehicle, shops, of motor vehicle, of bicycle, other).

Other crimes

Other crimes: includes going equipped to steal, justice procedures, regulated public order, weapons/explosives, harassment, behaviour in public and other crime.

Victorian Child & Adolescent Monitoring System (VCAMS)

VCAMS is a comprehensive, across government, monitoring system that reports on the safety, health, development, learning and wellbeing of children and young people, aged 0 to 18, in Victoria. It is intended to underpin planning for improvement at a program, local government and statewide level, as well as to inform research and evaluation to generate new evidence on effectiveness.

Victim of Crime

A victim of crime may be either the person who is directly injured, a witness to the crime, or in certain cases a person directly related to the primary crime victim.

Crimes can include physical assault, sexual assault, rape, domestic violence, domestic abuse, violent robbery, aggravated burglary, childhood sexual abuse, stalking, threats to kill, workplace assault, murder, culpable driving, dangerous driving, bullying, breach of an Intervention Order and any other crime that is committed against a person.

An injury sustained as the result of being a crime victim may be either a physical and/or a psychological injury.

The crime should have occurred within Victoria during the past two years and have been reported to the police by the victim of crime within a reasonable time period and a police statement made available. There may be exceptions, though, to these requirements, such as matters of childhood sexual abuse and ongoing domestic violence.



For all crime against the person, and most crime against property, the counting unit is the number of principal victims for each separate occurrence of the offence (e.g. if two person are assaulted but there are three offenders, two offences of assault are recorded).

Year 12 or equivalent attainment

The Year 12 or equivalent attainment rates presented in these profiles are calculated using the following formula:

- The count of 19 year olds in the reference year who attained:
 - VCE, VCAL (Intermediate and Senior) and International Baccalaureate (IB) certificates (*sourced from VCAA data*) or
 - a Vocational Education and Training (VET) certificate at Australian Qualification Framework (AQF) Level II or higher (*sourced from Skills Victoria*);
- Divided by the Estimated Resident Population of 17 year olds two years prior (*based on the ABS ERP*).

The estimate of the population two years earlier is used to mitigate the impact of young people migrating after attaining Year 12 or equivalent.

It is important to note that:

- Certificates are allocated to an area based on the residential postcode of students, rather than the location of the school or provider.
- Where multiple certificates have been issued across or within sectors, each person is counted against their first certificate attainment.

Measurement Issues

The accuracy and volatility of Year 12 attainment data:

- The accuracy of attainment rates decrease at finer geographic levels, largely due to the reliance on small area ABS population estimates and geographic correspondence files in the methodology.
- Attainment rates can also vary significantly from year to year, particularly in areas with small youth populations. A small change in either the count of attainers or corresponding ERP can have a marked effect on the attainment rate from one year to the next.
- A small area rate may exceed 100 per cent if administrative data shows more 19 year-old attainers in that particular area than the ABS estimate of the population. This is more likely to occur in areas with small populations of young people.

Change of Skills Victoria reporting process

- For 1999-2002, an estimate of AQF Level II or above attainment was based upon the 2001 Census of Population and Housing. Due to ongoing improvements in Skills Victoria data collections, figures for 2003 onwards include actual attainments provided by Skills Victoria.
- The reporting of AQF Level II or above attainments was brought forward by six weeks from 2007 to bring it in line with end-of-year reporting. Skills Victoria has advised that this has lead to a one off decrease in attainments for the 2007 reference year. The reference year has remained constant for the entire time series i.e. the calendar year.



Appendix D: Bibliography

- AAP (American Academy of Pediatrics) 1999, 'Adolescent pregnancy: current trends and issues, 1998', *Pediatrics*, vol 103(2), pp 516–20.
- ABS (Australian Bureau of Statistics) 2006, *National Health Survey 2004–05*, ABS data available on request.
- ABS (Australian Bureau of Statistics) 2007 National survey of Mental Health and Wellbeing, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4326.0>
- ABS (Australian Bureau of Statistics) 2010, *Measure's of Australia's Progress 2010*, cat. no. 1370.0, Australian Bureau of Statistics, Canberra.
- ACAM (Australian Centre for Asthma Monitoring) 2007, *Survey questions for monitoring national asthma indicators*, cat. no. ACM 9, Australian Institute of Health and Welfare, Canberra.
- Adams L, Lonsdale D, Robinson M, Rawbone R & Guz A 1984, 'Respiratory impairment induced by smoking in children in secondary schools', *British Medical Journal*, vol 288, pp 891–5.
- ADCA (Alcohol and other Drugs Council of Australia) 2003, Policy Positions of the Alcohol and other Drugs Council of Australia at: http://www.adca.org.au/policy/policy_positions/1.1Tobacco_31.10.03.pdf
- AIHW (Australian Institute of Health and Welfare) 2005, *A picture of Australia's children*, cat. no. PHE 58, AIHW, Canberra.
- AIHW (Australian Institute of Health and Welfare) 2007, *Young Australians: their health and wellbeing 2007*, cat. no. PHE 87, AIHW, Canberra.
- AIHW (Australian Institute of Health and Welfare) 2008, *Asthma in Australia 2008*, AIHW cat. no. ACM 14.
- AIHW (Australian Institute of Health and Welfare) 2009, *A Picture of Australia's children 2009*, cat. no. PHE 112, AIHW, Canberra.
- Ambert A, 2006, *One Parent Families: Characteristics, Causes, Consequences and Issues*. The Vanier Institute of the Family: Ontario.
- Andrews G & Slade T, 'Interpreting scores on the Kessler Psychological Distress Scale (K10)', 2001, *Australian & New Zealand Journal of Public Health*; vol 25, pp 494–97.
- APA (American Psychiatric Association) Work Group on Eating Disorders 2000, 'Practice guideline for the treatment of patients with eating disorders (revision)', *American Journal of Psychiatry*, vol 157(1 Suppl), pp 1–39.
- ASHA (Action on Smoking and Health Australia) 2002, *Kids hooked on tobacco more quickly, and on smaller amounts . . . and girls more vulnerable: new research*, media release, Action on Smoking and Health Australia, Sydney. http://www.ashaust.org.au/mediareleases/mr_20020830K.htm
- Beets M W, Vogel R, Forlaw L, Pitetti KH & Cardinal BJ 2006, 'Social support and youth physical activity: the role of provider and type', *American Journal of Health Behaviour*, vol 30, pp 278–89.
- Benussen-Walls, W and Saewck, E. 2001, 'Teen-focused care versus adult focused care for three high risk pregnant adolescents: an outcome evaluation', *Public Health Nursing* 18, pp. 424–435.



- Bewley BR & Bland JM 1976, 'Smoking and respiratory symptoms in two groups of school children,' *Preventative Medicine*, vol 5, pp 63-9.
- Bond L, Thomas L, Toumbourou J, Patton G & Catalano R 2000, *Improving the lives of young Victorians in our community: a survey of risk and protective factors*, Centre for Adolescent Health, Melbourne.
- Bond L, Carlin JB, Thomas L, Rubin K & Patton G 2001, 'Does bullying cause emotional problems? A prospective study of young teenagers'. *British Medical Journal*; vol 323, pp 480-84.
- Bond G 2004, *Tackling student absenteeism: research findings and recommendations for school and local communities*. A Report written for Hume/Whittlesea Local Learning and Employment Network (LLEN) and Inner Northern LLEN.
<http://www.hwllen.com.au/Text/1062829817063-3396/uploadedFiles/1112325248500-2929.doc>
- Bostic JQ, Muriel AC, Hack S, Weinstein S & Herzog D 1997, 'Anorexia nervosa in a 7-year-old girl', *Journal of Developmental & Behavioral Pediatrics* vol 18(5), pp 331-33.
- Brown, HL. Fan, YD and Gonsoulin, WJ. 1991, 'Obstetric complications in young teenagers', *Southern Medical Journal* 84(1), pp. 46-48.
- Butterworth I 2000, *The relationship between the built environment and wellbeing: a literature review*, VicHealth Promotion Foundation.
- Centre for Adolescent Health 2010, *Adolescent Health and Wellbeing Survey (HowRU?) Technical report, 2010*, unpublished.
- Centre for Community Child Health and Telethon Institute for Child Health Research 2009, *A Snapshot of Early Childhood Development in Australia—AEDI National Report 2009*, Australian Government, Canberra.
- Chen S, Matruglio T, Weatherburn D & Hua J 2005, 'The Transition from Juvenile to Adult Criminal Careers', *Crime and Justice Bulletin*, vol 86, NSW Bureau of Crime and Statistics, Sydney.
- Cole TJ, Flegal KM, Nicholls D & Jackson AA 2007, 'Body Mass Index Cut Offs to Define Thinness in Children and Adolescents: International Survey'. *British Medical Journal*; vol 335, p 194.
- Darling, H & Reeder, A 2003, 'Is exposure to second hand tobacco smoke in the home related to daily smoking among youth?', *Australian & New Zealand Journal of Public Health*, vol. 27, pp. 655-6.
- Davis KR & Weller SC 1999, 'The Effectiveness of Condoms in Reducing Heterosexual Transmission of HIV', *Family Planning Perspectives*, vol 31(6), pp 272-9.
- DEECD (Department of Education and Early Childhood Development) 2007, *Evidence Manual for Indicators*, Victorian Department of Education and Early Childhood Development, Melbourne (unpublished).
- DEECD (Department of Education and Early Childhood Development) 2008, *The State of Victoria's Children 2008, A report on how children and young people in Victoria are faring*, Victorian Department of Education and Early Childhood Development, Melbourne.
- DEECD (Department of Education and Early Childhood Development) 2009, *The State of Victoria's Children 2009, A report on how Aboriginal children and young people in Victoria are faring*, Victorian Department of Education and Early Childhood Development, Melbourne.



Degenhardt L, Lynskey M & Hall W 2000, 'Cohort Trends in the Age of Initiation of Drug Use in Australia', *Australian & New Zealand Journal of Public Health*; vol 24(4), pp 421-26.

DHS (Department of Human Services) 2001, *The 'Best Start' Indicators Project*, Victorian Department of Human Services, Melbourne.

DHS (Department of Human Services) 2005, *Draft Indicators of Victorian Children's Health and Wellbeing*, Victorian Department of Human Services, Melbourne (unpublished).

DHS (Department of Human Services) 2006, *The State of Victoria's children report 2006*, Victorian Department of Human Services, Melbourne.

DoH (Department of Health), Victoria's mental health services, Victorian Government: Melbourne, 2008.
<http://www.health.vic.gov.au/mentalhealth/services/child/>

DoHA (Department Of Health and Ageing) 2004a, *Australia's Physical Activity Recommendations for 5–12 year olds*, Australian Government, Canberra.

DoHA (Department of Health and Ageing) 2004b, *Australia's Physical Activity Recommendations for 12-18 year olds*. Australian Government, Canberra.

DVC (Department for Victorian Communities) 2006, *Indicators of Community Strength: a framework and evidence*, DVC, Melbourne

Ezzati M, Lopez AD, Rodgers A, Vander Hoorn S & Murray CJL 2002, 'Selected major risk factors and global and regional burden of disease', *Lancet*, vol 360, pp 1347-60.

Frigo T, Corrigan M, Adams I, Hughes P, Stephens M. & Woods D 2003, *Supporting English literacy and numeracy for Indigenous students in the early years*, ACER Research Monograph Series no 57, ACER, Melbourne.

Feinberg ME, Ridenour TA & Greenberg MT 2007, 'Aggregating indices of risk and protection for adolescent behavior problems: the Communities That Care Youth Survey', *Journal of Adolescent Health*, vol 40(6), pp 506-13.

Felice, ME. Feinstein, RA. Fisher, MM. Kaplan, DW. Olmedo, LF. Rome, ES and Staggers, BC. 1999, 'Adolescent pregnancy--current trends and issues: 1998 American Academy of Pediatrics Committee on Adolescence, 1998-1999', *Pediatrics* 103(2), pp. 516-520.

Fergusson DM, Horwood J & Ridder EM 2006, 'Abortion in young women and subsequent mental health', *Journal of Child Psychology and Psychiatry*, vol 47, pp 16–24.

Fraser, AM. Brockert, JE and Ward, RH. 1995, 'Association of young maternal age with adverse reproductive outcomes.[see comment]', *New England Journal of Medicine* 332(17), pp. 1113-1117.

Global Initiative for Asthma 2005, *Global strategy for asthma management and prevention*.

Hardy LL, Booth ML & Okely AD 2007, 'The reliability of the Adolescent Sedentary Activity Questionnaire (ASAQ)', *Preventive Medicine*, vol 45, pp71–74.

Harrison RA, Gemmell I & Heller RF 2007, 'The population effect of crime and neighbourhood on physical activity: an analysis of 15,461 adults', *Journal of Epidemiology and Community Health*, vol 61, pp 34–9.

Hawton, K. & James, A. 2005, *Suicide and deliberate self harm in young people*. *British Medical Journal*, vol 330, pp 891–4.

- Lamb S, Dwyer P & Wyn J 2000, *Non compliance of school in Australia: the changing patterns of participation and outcomes*, Longitudinal Surveys of Australian Youth Research Report no 16, Australian Council for Educational Research, Melbourne.
- Makkai T & McAllister I 1998, *Patterns of drug use in Australian, 1985-1995*, Australian Government Publishing Service, Canberra.
- McCormick M 1985, 'The contribution of low birth weight to infant mortality and childhood morbidity', *The New England Journal of Medicine*, vol 312, pp 82–90.
- McDermott L, Russell A & Dobson A 2002, *Cigarette smoking in Australian women in Australia 2002*, Australian Commonwealth Department of Health and Ageing, National Tobacco Strategy 1999 to 2002, Canberra.
- McPherson M, Arango P & Fox H 1998, A new definition of children with special health care needs, *Pediatrics*, vol 102, pp 137–140
- Mercy JA, Sleet DA & Doll L 2006, *Applying a developmental and ecological framework to injury and violence prevention*. In: Liller K (ed.) *Injury prevention for children and adolescents: research, practice and advocacy*. Washington, DC: American Public Health Association, 1–14.
- NDRI (National Drug Research Institute) 2000, *Current Inquiry: Substance abuse in Australian communities*, National Drug Research Institute, Curtin University of Technology, Perth.
- NHMRC (National Health and Medical Research Council) 2003, *Dietary Guidelines for Children and Adolescents in Australia incorporating the Infant Feeding Guidelines for Health Workers*, NHMRC, Canberra.
- NIDA (National Institute of Drug Abuse) 2009, *NIDA InfoFacts: Marijuana*, National Institute of Drug Abuse, National Institute for Health, Maryland. <http://www.drugabuse.gov/Infofacts/marijuana.html>
- Paolucci EO, Genuis ML & Violato C 2001, 'A meta-analysis of the published research on the effects of child sexual abuse', *Journal of Psychology*, vol 135, pp 17–36.
- Poortinga W 2006, 'Perceptions of the Environment, Physical Activity and Obesity', *Social Science and Medicine*, vol 63, pp 2835–46.
- Puttnam R., 2000, *Bowling Alone: The Collapse and Revival of American Community*, Simon and Shuster, New York.
- Quinlivan JA, Petersen RW & Gurrin LC 1999, 'Adolescent pregnancy: psychopathology missed', *Australian & New Zealand Journal of Psychiatry*, vol 33, pp 864–8.
- Quinlivan J 2004, 'Impact of Demographic Factors, Early Family Relationships and Depressive Symptomatology in Teenage Pregnancy', *Australian and New Zealand Journal of Psychiatry*, vol 38(4), pp 197–203.
- Raphael L, B. 2000, *Promoting the Mental Health and Wellbeing of Children and Young People. Discussion Paper: Key Principles and Directions*. National Mental Health Working Group, Department of Health and Aged Care.
- Resnick MD, Bearman PS, Blum RW, Bauman KE, Harris KM, Jones J, Tabor J, Beuhring T, Sieving RE, Shew M, Ireland M, Bearinger, LH & Udry JR 1997, 'Protecting adolescents from harm', Findings from the National Longitudinal Study on Adolescent Health, *Journal of the American Medical Association*; vol 278(10), pp 823-32.
- Ridolfo B, Stevenson C 2001, *The Quantification of drug-caused mortality and morbidity in Australia, 1998* AIHW cat no. PHE 29. (Drug Statistic Series no. 7), Australian Institute of Health and Welfare, Canberra.



Robinson PG, Deacon SA, Deery C, Heanue M, Walmsley AD, Worthington HV, Glenny AM & Shaw WC 2005, 'Manual versus powered toothbrushing for oral health', *Cochrane Database of Systematic Reviews 2005*, Issue 2, Art. No CD002281, DOI:10.1002/14651858.CD002281.pub2.

Ronen, G., Rosenbaum, P., Law, M. & Streiner, D., 2001, Health-related quality of life in childhood disorders: A modified focus group technique to involve children. *Qual Life Res*, 10, 71–79.

Ryan RM & Deci EL 2001, 'On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Wellbeing', *Annual Review Psychology*, vol 52, pp 141-66.

Shafii T, Stovel K, Davis R & Holmes K 2004, 'Is condom use habit forming? Condom use at sexual debut and subsequent condom use'. *Sexually Transmitted Diseases*, vol 31(6), pp 366–72.

Shonkoff JP & Phillips D 2000, *From neurons to neighbourhoods: the science of early childhood development*, National Academy Press, Washington D.C.

Sustainable Development Committee 2008, *Health, Place, Nature. How outdoor environments influence health and wellbeing: a knowledge base*, Sustainable Development Committee, UK.

The Cancer Council Australia 2004, *National Cancer Prevention Policy 2004-06*, The Cancer Council Australia, NSW.

Townsend J, Wikes H, Haines A & Jarvis M 1991, 'Adolescent smokers seen in general practice: Health, lifestyle, physical measurements and response to anti-smoking advice', *British Medical Journal*, vol 303, pp 947-50.

UNCF (United Nations Children's Fund), 2001, *A league table of teenage births in rich nations*. Innocenti Report Card no. 3 UNICEF Innocenti Research Centre: Florence.

USDHHS (US Department of Health and Human Services) 1984, *The health consequences of smoking: Chronic obstructive lung disease*, PHS 84-50204, Office on Smoking and Health, Atlanta, CDC.

USDHHS (US Department of Health and Human Services) 2006, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A report of the Surgeon General*, USDHHS, Public Health Service, Center for Disease Control, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, GA.

Van der Klis KAM, Westenberg L, Chan A, Dekker G & Keane RJ 1999, 'Health Inequalities: Teenage pregnancy: trends, characteristics and outcomes in South Australia and Australia', *Australian & New Zealand Journal of Public Health*; vol 26(2), pp 125–31.

VicHealth CTC (Centre for Tobacco Control) 2001, *Environmental tobacco smoke in Australia*, Commonwealth Department of Health and Ageing, Canberra.

Viet CT & Ware JE 1983, 'The structure of psychological distress and well-being in general populations', *Journal of Consulting and Clinical Psychology*, vol 5, pp 730-42.

Vilhjalmsson R 1994, 'Effects of social support on self-assessed health in adolescence', *Journal of Youth and Adolescence*, vol 23, pp 437–52.

Vinson T 2004, *Community adversity and resilience: the distribution of social disadvantage in Victoria and New South Wales and the mediating role of social cohesion*, Jesuit Social Services Richmond, NSW.

WHO (World Health Organisation), International Classification of Diseases (ICD) website
<http://www.who.int/classifications/icd/en>



WHO (World Health Organization) 1948, *Constitution of the World Health Organization basic document*, World Health Organization, Geneva, Switzerland.

WHO (World Health Organisation) 2002, *Children's health and environment: a review of the evidence*. A joint report from the European Environment Agency and the WHO Regional Office for Europe, Copenhagen.

WHO (World Health Organisation) 2003, *Healthy Urban Planning in Practice: Experience in European Cities*, Report of the World Health Organisation City Action Group on healthy urban planning. Eds Barton H, Mitcham C & Tsourou C, WHO Regional Office for Europe, Copenhagen.

Youth Action and Policy Association NSW 2002, *ACTivate: young people in NSW having a say*, NSW: Youth Action and Policy Association, NSW.

Ziviani J, Scott J & Wadley D 2004, 'Walking to school: incidental physical activity in the daily occupations of Australian children, *Occupational Therapy International*, vol 11(1), pp 1–11.



Notes

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