

# National Youth Information Framework (NYIF) indicators

Web report | Last updated: 08 Sep 2015 | Topic: [Children & youth](#)

## About

The National Youth Information Framework (NYIF) [data visualisations](#) provide the latest available information on how Australia's young people aged 12-24 are faring. The National Youth Information Framework covers 5 key areas (or tiers), with a total of 38 indicators across 16 sub-domains in this 2015 release. Disaggregations include age, sex and Indigenous status. A quick reference guide illustrating the 38 indicators by sub-domain including the most recent data and trends for each indicator has also been included. The data in these Tableau visualisations, has been converted from a SAS VA format. No changes to the data have been made.

Cat. no: WEB 70

### Findings from this report:

- 2.7% of young people aged 12-24 years with severe or profound core activity limitation in 2012
- 30.2% of Indigenous youth aged 12-17 years had high to very high levels of psychological stress in 2013-14
- 14.4% prevalence of mental health disorders among young people aged 16-24 years
- 229.8 per 100,000 of young people aged 12-24 were hospitalised for intentional self-harm in 2013-14

## Data visualisations

This work builds on AIHW's publication [Young Australians: their health and wellbeing report released in 2011](#) and is a companion product to the existing [Children's Headline Indicators data visualisations](#).

Data visualisations are available for the 38 Youth Headline Indicators that currently have suitable data (note some indicators are combined in one display). Users can customise charts and tables according to year and where available significant population groups such as by Indigenous status. Data can be exported by right clicking on any chart/table.

Excel source data tables are available from the [Data tab](#).

### Quick reference guide for NYIF indicators

The quick reference guide below provides an overview of the 38 indicators included in the data visualisations, including trend data.

### Quick reference guide

**National Youth Information Framework 2015: quick reference guide**

Select an indicator domain from the options below:

- Education, employment and economic situation
- Factors influencing health
- Family, relationships and community
- Health status and wellbeing
- Health system performance

Disability and activity limitation	Proportion of young people aged 12-24 years with severe or profound core activity limitation	2012	2.7 %	Unfavourable
Deaths	Death rates for young people aged 12-24 years	2012	33.2 deaths per 100,000	Favourable
Mental health	Prevalence of mental disorders among young people aged 12-17 years and 16-24 years	2013-14 and 2007	14.4 % for 12-17 year olds and 26.4% for 16-24 year olds	Steady
	Psychological distress (K5) among 18-24 year olds by Indigenous status	2012-13	30.2 %	Steady
Injury and poisoning	Assault hospitalisation rate for young people aged 12-24 years	2013-14	142.9 per 100,000	Favourable
	Injury and poisoning death rate for young people aged 12-24	2012	22.8 deaths per 100,000	Favourable
	Injury and poisoning hospitalisation rate for young people aged 12-24 years	2013-14	2063.5 per 100,000	Steady
	Intentional self-harm hospitalisation rate for young people aged 12-24	2013-14	229.8 per 100,000	Unfavourable

Source: AIHW

### Sub domains

#### Health status & wellbeing

- [Disability](#)
- [Deaths](#)
- [Mental health](#)

#### Injury & poisoning

- [Injury and poisoning deaths](#)
- [Road fatalities](#)
- [Suicide](#)
- [Injury & poisoning hospitalisations](#)
- [Assault hospitalisations](#)
- [Intentional self-harm hospitalisations](#)

### Chronic health conditions

- [All chronic conditions](#)
- [Type 1 diabetes](#)

### Communicable diseases

- [Vaccine-preventable diseases](#)
- [Hepatitis](#)
- [Sexually transmissible infections](#)
- [HIV infection](#)

### Family, relationships & community

- [Social capital](#)

### Child protection

- [Child protection substantiations](#)
- [Child protection orders](#)
- [Child protection: out-of-home care](#)

### Health system performance

- [Cervical cancer prevention](#)

### Factors influencing health

- [Overweight & obesity](#)
- [Level of physical exercise](#)
- [Nutrition](#)

### Substance use

- [Smoking](#)
- [Alcohol use](#)
- [Illicit drug use](#)

### Sexual & reproductive health

- [Contraceptive use](#)
- [Teenage mothers](#)

### Education, employment & economic situation

#### Education

- [Literacy](#)
- [Numeracy](#)
- [School completion](#)
- [Post-school qualifications, apprenticeships and traineeships](#)

#### Employment

- [Not in education or employment, or training \(NEET\)](#)
- [Unemployment & underemployment](#)



## Health status & wellbeing

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## Health status & wellbeing

### Why are disability rates important?

Disability is a term used for any or all aspects of functioning impairment, activity limitation and restriction in participation in major life areas that people experience (AIHW 2014). Young people with disability can have a diverse range of physical, sensory, intellectual or psychiatric impairments. These can adversely impact on participation in the labour force, educational opportunities and participation in social or community activities (Groce 2004, UN 2006).

A disability may be present at birth, become evident early in life, or may occur as the result of an accident. Some disorders can also emerge during development in childhood and adolescence. Compared with other young people, young people with severe disability rely more heavily on parents, other family members and teachers for assistance, and many require formal intervention, including specialist health and disability services. This can place substantial strain on family relationships and is strongly associated with social and financial disadvantage for the individual and their family (Hendley & Pascall 2002, Kavanagh 2014, Mithen 2015).

Understanding the number and characteristics of young people with disability, as well as the type and number of supports they use, is essential. It allows governments to allocate resources and develop policy, programs and services which are targeted and appropriate to identified need in the community.

### Do rates vary across population groups?

Based on the ABS 2012 Survey of Disability Ageing and Carers, an estimated 321,300 young people aged 12-24 (8.1%) have some form of disability. Of those with a disability, 106,500 were estimated to have a severe disability, accounting for around a third (33%) of young people with disability, and 2.7% of all young people.

Approximately twice as many young people aged 12-17 reported having a severe disability as those aged 18-24 (3.8% compared to 1.8%). Young males (12-24 years) reported similar proportions of severe disability to young females (3.0% versus 2.3% respectively).

Based on the 2011 Census, the proportion of Indigenous young people reporting a need for assistance with core activities was 1.8 times as high as that for non-Indigenous young people (3.3% versus 1.8% respectively).

### Which conditions cause disability?

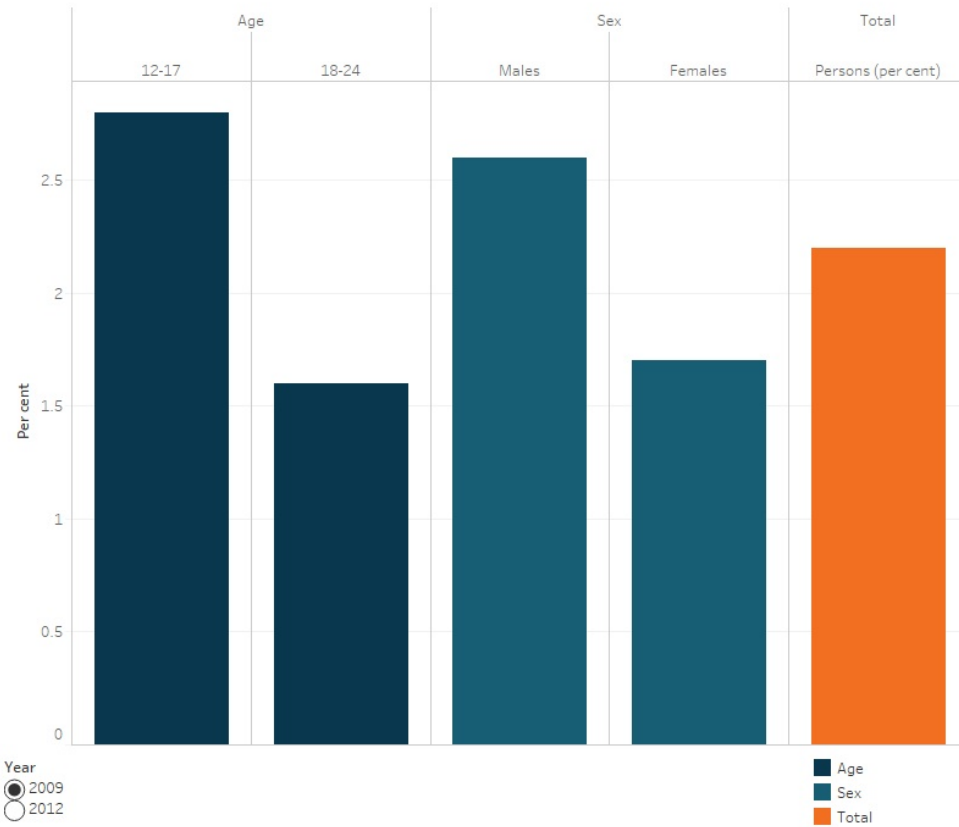
According to the ABS 2012 Survey of Disability Ageing and Carers, physical conditions (63%) and mental and behavioural disorders (52%) were the main health conditions causing disability among young people aged 12-24 years (These categories are not mutually exclusive as a person can have both a physical and mental and behavioural disorder). There were significant differences in the causes of disability within the age range of interest, with mental and behavioural disorders more common among 12-17 year olds than among 18-24 year olds (about 63% compared to 42%) and physical conditions more common in the 18-24 year olds than 12-17 year olds (about 70% compared to 52%).

### Has there been a change over time?

Between 2009 and 2012, the proportion of young people reporting a severe disability increased from 2.2% to 2.7%. The proportion of 12-17 year olds reporting a severe disability increased slightly from 2.8% to 3.8%; however, there was no statistically significant difference in the proportion of 18-24 year olds reporting severe disabilities between 2009 (1.6%) and 2012 (1.8%). The increases for males (from 2.6% in 2009 to 3% in 2012), and females (from 1.7% in 2009 to 2.3% in 2012) were not statistically significant.

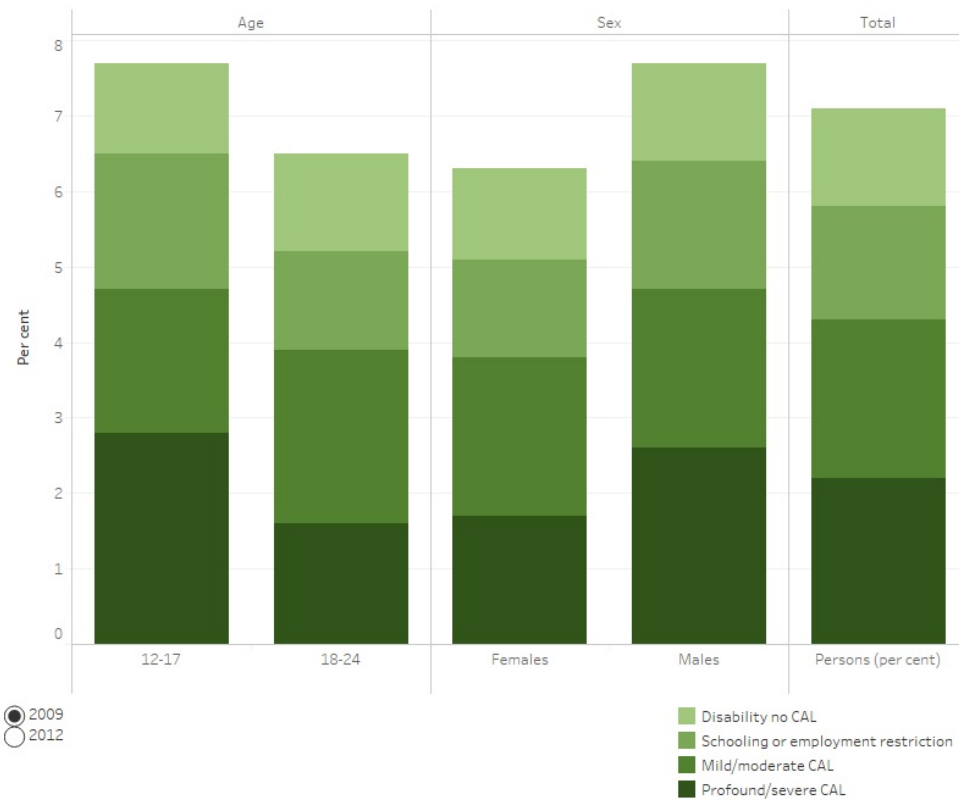
Between 2006 and 2011 the proportion of Indigenous young people reporting that they needed assistance with core activities was around 3% (2.5% in 2006 to 3.3% in 2011) and the proportion for non-Indigenous young people was just under 2% (1.5% in 2006 and 1.8% in 2011).

**Indicator: Proportion of young people aged 12-24 with a severe or profound core activity limitation**  
 Severe/profound core activity limitation (CAL) by population group



Source: ABS Survey of Disability, Ageing and Carers 2009 and 2012, customised report.

**Supplementary: Disability status and condition causing disability**  
 Disability status by age and population group



Note: CAL is Core Activity Limitation  
 Source: ABS Survey of Disability, Ageing and Carers 2009 and 2012, customised report.

**Notes**

\*This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution (marked with an asterisk). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

The ABS 2012 Survey of Disability Ageing and Carers collected information on disability, severe disability, and education and employment restrictions. Disabilities were classified into 5 broad groups: intellectual, psychiatric, sensory/speech, acquired brain injury and physical/diverse disability.

Disability may be measured in terms of level of difficulty and/or need for assistance with some or all of the core activities of daily living. These are self care, mobility and communication (AIHW 2013). Core activity limitations may present at different levels of severity—mild, moderate, severe or profound (ABS 2012). A person requiring assistance (either sometimes or always) with self care, mobility and/or communication is described as having a ‘severe or profound core activity limitation’; in the text this is referred to as ‘severe disability’ for ease of reading.

Data from the ABS 2011 Census provides information on Indigenous and non-Indigenous young people who require assistance with core activities. The data cannot be disaggregated by classification of disability or by the severity of the disability.

## Sources

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ABS Survey of Disability, Ageing and Carers 2009 and 2012, customised report

ABS Census Tablebuilder 2006 and 2011

Data quality statement: [ABS Survey of Disability Ageing and Carers](#)

## References

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ABS (Australian Bureau of Statistics) 2012. Disability Ageing and Carers, Australia: Summary of Findings 2012. ABS cat. no. 4430.0. Canberra: ABS.

AIHW (Australian Institute of Health and Welfare) 2013. Australia's welfare 2013. Australia's welfare no. 11. Cat. no. AUS 174. Canberra: AIHW.

AIHW 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

Groce N 2004. Adolescents and youth with disability: issues and challenges. *Asia Pacific Disability Rehabilitation Journal* 15(2):13-32.

Hendley N & Pascall G 2002. Disability and transition to adulthood: achieving independent living. Brighton: Pavilion and York: Joseph Rowntree Foundation.

Kavanagh AM, Krnjacki L, Aitken Z, LaMontagne AD, Beer A, Baker E, Bentley R 2014. Intersections between disability, type of impairment, gender and socio-economic disadvantage in a nationally representative sample of 33,101 working-aged Australians, *Disability and Health Journal* 8(2) 191-199.

Mithen J, Aitken Z, Ziersch A, Kavanagh 2015. Inequalities in social capital and health between people with and without disabilities. *Social Science and Medicine* 126:26-35.

United Nations 2006. [Convention on the Rights of Persons with Disabilities](#). Geneva: United Nations. Viewed 17 September 2020.

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## Health status & wellbeing

### Why are death rates important?

Mortality rates and the causes of mortality are important indicators of the health of Australia's young people. They provide insight into the circumstances around the time of death as well as insight into changes in social, environmental conditions, medical interventions, behaviours and trends in underlying risk factors during adolescence and into young adulthood.

High mortality rates among young people, as for the general population, are strongly associated with social and economic disadvantage. For all age groups, and for both males and females, the levels of mortality are higher, and life expectancy is lower among the most socioeconomically disadvantaged populations (Draper et al. 2004).

Young adults and adolescents tend to engage in more risky behaviours which can result in injury and death. These behaviours include risky driving and intentional injuries such as self-harm, suicide and assault (AIHW 2014).

This indicator reports on deaths from all causes. For information on deaths from some selected causes, see [Injury deaths](#), [Road fatalities](#) and [Suicide](#).

### Do rates vary across population groups?

According to the AIHW National Mortality Database, the death rate among all young people in 2012 was 33 deaths per 100,000. Young people aged 18-24 had a death rate more than twice as high as that for 12-17 year olds (44 per 100,000 compared to 19 per 100,000). Similarly, young males were almost twice as likely to die as young females, with rates of 43 and 22 per 100,000 respectively. The greatest disparity in death rates was for Indigenous young people, who had a death rate almost 2.5 times as high as the death rate for Other Australian young people (80 per 100,000 compared to 32 per 100,000).

The most commonly reported cause of death among young people in 2012 was the category injury, poisoning and certain other causes (22 per 100,000). This rate was considerably higher than any of the other reported causes of death, with cancer and diseases of the nervous system the second and third most commonly reported deaths (3.1 and 2.3 per 100,000 respectively).

### Has there been a change over time?

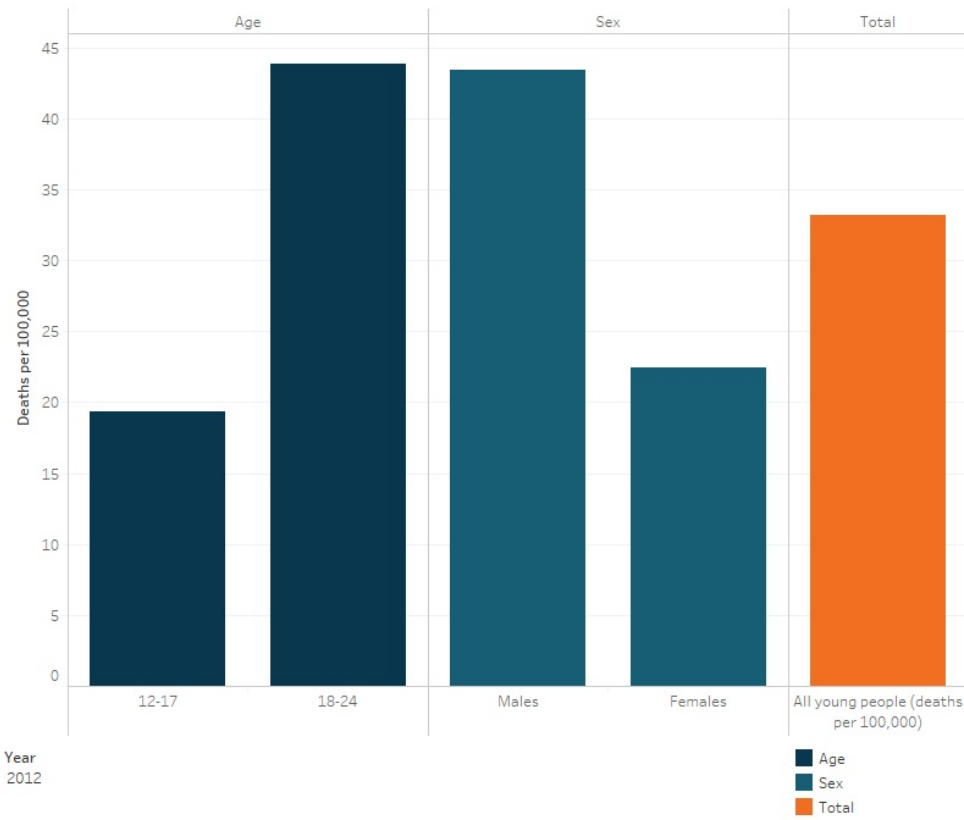
Between 2003 and 2012, there has been a steady decline in the death rate of all young people, from 44 per 100,000 to 33 per 100,000. This appears to be largely driven by a reduction in the death rate of 18-24 year olds (61 per 100,000 to 44 per 100,000). The decline in the death rate of 12-17 year olds has been less pronounced over this period (26 per 100,000 to 19 per 100,000). Similarly, there has been a large reduction in the death rate of young males over this period (62 per 100,000 to 43 per 100,000), with only slight reductions in the death rate of young females (26 per 100,000 to 22 per 100,000). There is no clear trend in the death rate of Indigenous young people with values fluctuating between 77 and 84 deaths per 100,000 from 2003-07 to 2008-12. Conversely, the death rate of Other Australian young people has steadily declined over this period from 38 per 100,000 to 32 per 100,000.

Between 2003 and 2012, there has been an overall decline in the death rate from all causes (44 per 100,000 to 33 per 100,000), largely driven by the reduction in deaths caused by injury, poisoning and other external causes (30 per 100,000 to 22 per 100,000). There also appears to be a reduction in the deaths caused by cancer over this period (4.0 per 100,000 to 3.1 per 100,000), although these trends are more variable. Deaths caused by nervous system diseases remained steady between 2003 and 2012, with the rate decreasing slightly from 2.3 per 100,000 to 2.1 per 100,000 between 2003 and 2004 before gradually returning to 2.3 per 100,000 in 2012.



**Indicator: Death rates for young people aged 12-24**

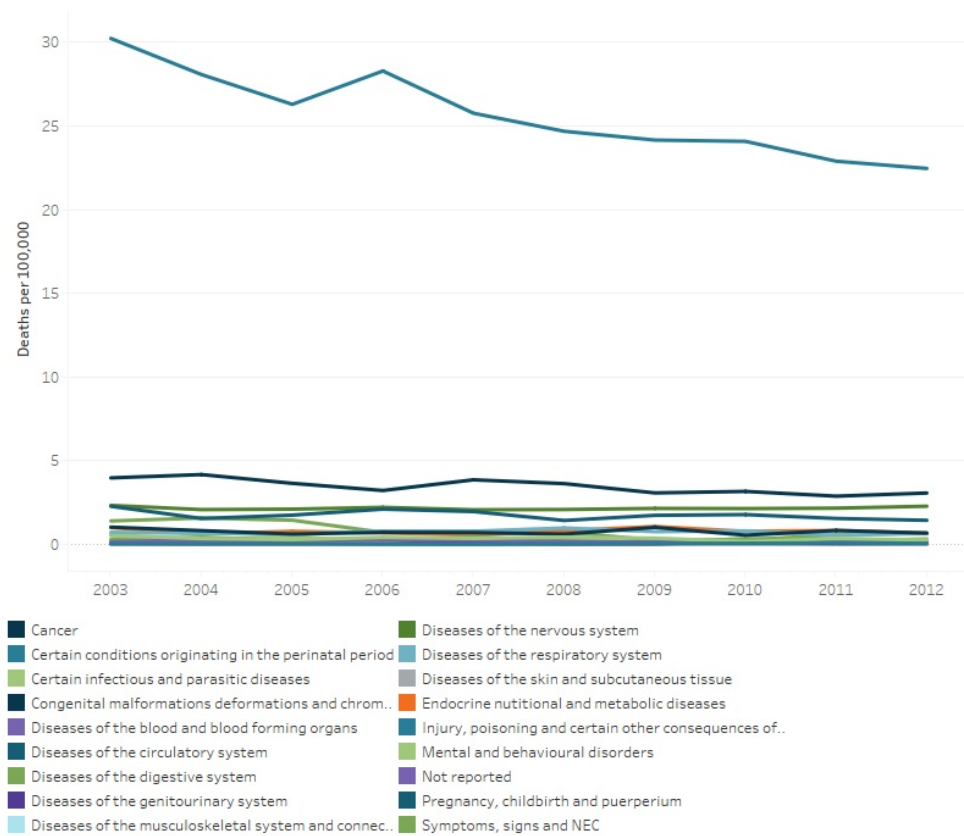
Death rate by population group



Source: AIHW National Mortality Database

**Supplementary: Causes of death among young people aged 12-24**

Selected causes of death among young people 2003-2012



Source: AIHW National Mortality Database

**Notes**

Other Australians include those who identify as non-Indigenous and those for whom Indigenous status was not stated.

Due to small numbers, Indigenous status data are reported for 5 year periods.

## Sources

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AIHW National Mortality Database

Data quality statement: [ABS, Deaths, Australia](#)

## References

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AIHW (Australian Institute of Health and Welfare) 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

Draper G, Turrell G & Oldenburg B 2004. Health Inequalities in Australia: Mortality. Health Inequalities Monitoring Series No. 1. AIHW Cat. No. PHE 55. Canberra: Queensland University of Technology and the Australian Institute of Health and Welfare.

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## Health status & wellbeing

### Why are rates of mental disorders important?

Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community (WHO 2014). Conversely, mental health problems and illnesses affect the perceptions, emotions, behaviour and resulting social wellbeing of individuals.

Poor mental health can impact on the potential of young people to live fulfilling and productive lives (WHO 2014). It is strongly related to other health and developmental concerns in young people, notably lower educational achievements and occupational attainment, substance use, violence and poor reproductive and sexual health (Bhatia & Bhatia 2007, Patel et al. 2007; Sawyer et al. 2007; Smart & Sanson 2005). Young people with mental disorders may also experience stigma, which often leads to isolation and discrimination (Corrigan 2005). Poor mental health among young people can be a precursor to self-harm, thoughts about suicide, and suicide.

There is strong evidence that mental disorders in childhood and adolescence predict mental disorders in adulthood (Lahey 2015). However, the causal links are less clear. Different explanations have been proposed for the predictive association. Experiencing mental health problems in childhood may increase the risk for adult psychopathology. Alternatively, some genetic and environmental factors that cause psychopathology across the lifespan may operate in childhood. Another explanation is that the predictive association between child and adult psychopathology could reflect chronic or intermittent exposures to conditions (for example chronic economic instability, a lack of stable social support) that give rise to psychopathology when encountered across a lifespan (Lahey 2015).

### Mental disorders amongst 12-17 year olds

According to the 2013-14 Mental Health of Children and Adolescents survey, 14% (245,000) of young people aged 12-17 had a mental disorder in the 12 months prior to the survey. Males aged 12-17 had a higher prevalence of mental disorders (16%) than females aged 12-17 years (13%), although this difference was not statistically significant.

Anxiety disorders (for example, social phobia, separation anxiety disorder, generalised anxiety disorder and obsessive-compulsive disorder) were the most common type of disorder among 12-17 year olds, accounting for almost half of all mental disorders (7.0%) in this age group. This was followed by Attention Deficit Hyperactivity Disorder (ADHD) (6.3%) and major depressive disorder (5.0%). Conduct disorders were the least common type of mental disorder (2.1%). For 44% of 12-17 year olds with a mental disorder, the impact of the disorder was mild. However, for one in three (33%) it was moderate, and for over 1 in 5 (23%) it was severe.

### Has there been a change between 1998 and 2013-14?

There were a number of significant methodological differences between the Mental Health of Children and Adolescents: Report on the Second Australian Child and Adolescent Survey of Mental Health and Wellbeing (Young Minds Matter survey) and the first child and adolescent survey conducted in 1998. However, it is possible to compare the prevalence data for three mental health disorders (major depressive disorder, ADHD and conduct disorder). Between the first (1998) and second (2013-14) national survey of the mental health and wellbeing of Australian children and adolescents, the prevalence of major depressive disorder among 12-17 year olds increased from 2.9% to 5.0%. While the prevalence of ADHD decreased from 7.1% in 1998 to 6.3% in 2013-14, the difference was not statistically significant. There was no real change in the prevalence of conduct disorders (2.2% in 1998 and 2.1% in 2013-14).

### Mental disorders amongst 16-24 year olds

According to the 2007 ABS National Survey of Mental Health and Wellbeing around one in four young people aged 16-24 (26% or 671,100) experienced a mental disorder in the 12 months prior to the survey. This was the highest of any age group in the study which looked at 16-85 year olds. Females aged 16-24 were more likely than males to have experienced a mental disorder (30% versus 23%, respectively).

Females were also more than twice as likely to report having an anxiety disorder (22%) compared to affective (8.4%) or substance use disorders (9.8%). Anxiety disorders (for example panic disorder, agoraphobia, social phobia, generalised anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder) were the most common type of disorder among 16-24 year olds (15%) followed by substance use disorders (alcohol harmful use, alcohol dependence and drug use disorders) (13%). Affective disorders (depressive episodes, dysthymia and bipolar affective disorder) were the least common (6.3%). Males were most likely to report having a substance use disorder (16%), followed by anxiety disorders (9.3%) and then affective disorders (4.3%). Note, that survey participants could have experienced more than one type of disorder, and so the sum of disorder types described above does not equal the total proportion of young people with a mental health disorder (26%).

### Psychological distress among young Indigenous 18-24 year olds

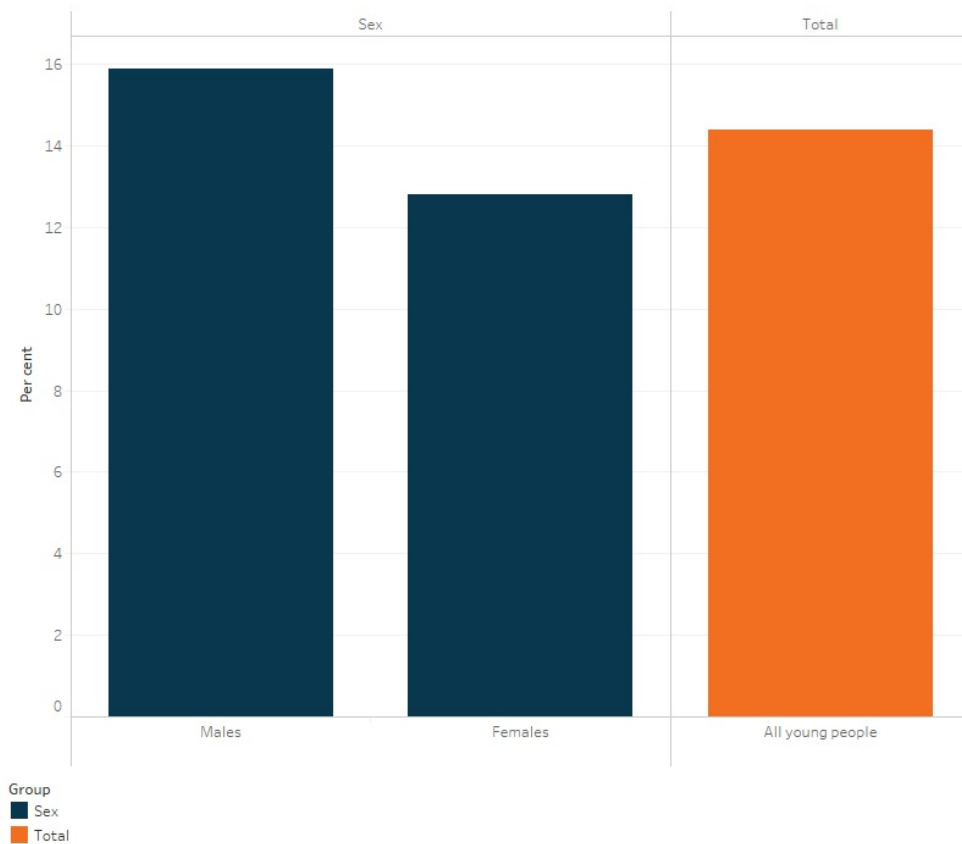
Psychological distress refers to an individual's overall level of psychological strain or pain, evidenced by psychological states such as depression, anxiety and anger. The Kessler Psychological Distress Scale can be used as a proxy for mental health status (CDC 2015).

According to the 2012-13 ABS Aboriginal and Torres Strait Islander Health Survey, based on the Kessler 5 (see below for further information), the proportion of Indigenous young adults (aged 18-24) experiencing high or very high levels of psychological distress (30%) in the 4 weeks prior to the survey was more than double the proportion of non-Indigenous young adults (13%).

Data on psychological distress for Indigenous young people is available from the 2008 ABS National Aboriginal and Torres Strait Islander Social Survey and the 2012-13 ABS Australian Aboriginal and Torres Strait Islander Health Survey. The proportion of Indigenous young people experiencing high or very high levels of psychological distress appears to have decreased slightly from 33% in 2008 to 30% in 2012-13, however this difference is not statistically significant. Prevalence of high/very high psychological distress among non-Indigenous young people remained the same (13.3% and 13.2% respectively).

**Indicator: Prevalence of mental health disorders among young people aged 12-17**

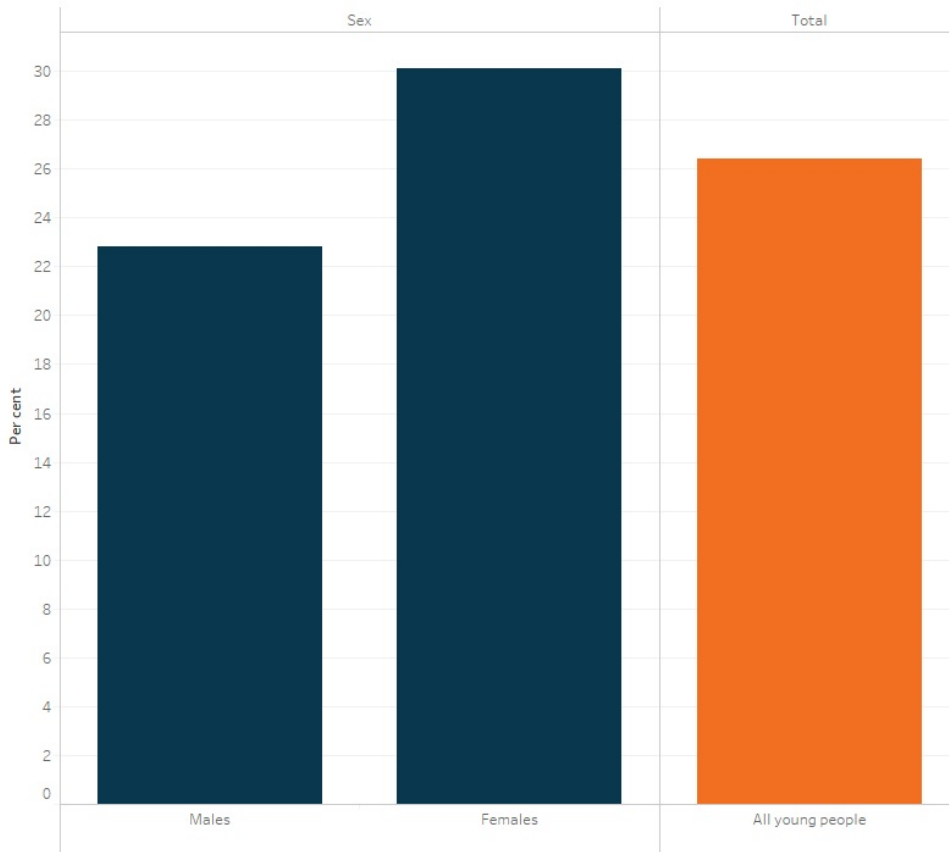
Mental health disorders (any disorder) among 12-17 year olds, 2013-14



Source: 2015 Second Australian Child and Adolescent Survey of Mental Health and Wellbeing (Young Minds Matter survey)

**Indicator: Prevalence of mental health disorders among young people aged 16 to 24**

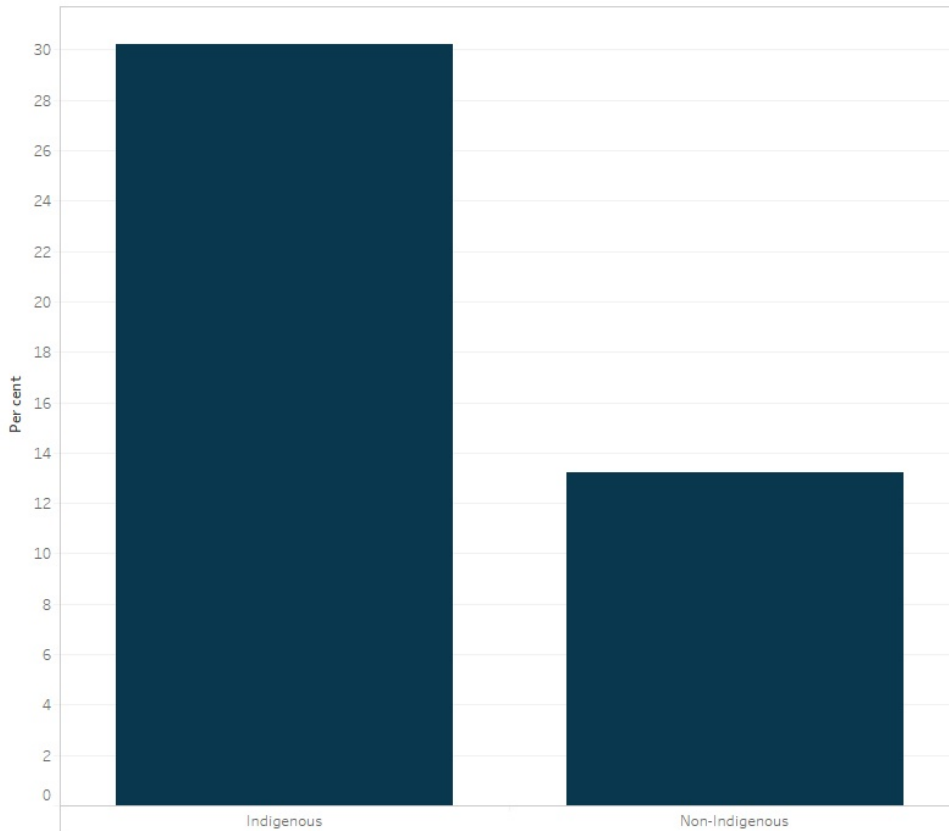
Mental health disorders among 16-24 year olds, 2007



Source: ABS 2007, Mental Health of Young People, Australia

**Indicator: Psychological distress among 18-24 year olds by Indigenous status (K-5 scale)**

Psychological distress (K-5), by Indigenous status



Source: ABS 2014, Australian Aboriginal and Torres Strait Islander Health Survey: First Results, 2012-13

**Notes**

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Significance testing: this report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#).

Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

Mental disorder status were assessed based on meeting the criteria of the Diagnostic and Statistical Manual of Mental Disorders Version IV (DSM-IV) within the 12 months prior to the survey. For more information, see [2015 Second Australian Child and Adolescent Survey of Mental Health and Wellbeing](#)

Psychological distress in the 2012-13 ABS Australian Aboriginal and Torres Strait Islander Health Survey was based on the 'Kessler-5' scale. This scale, which consists of 5 questions from the Kessler Psychological Distress Scale, measures levels of negative emotional states experienced by respondents in the 4 weeks prior to interview. A high score may be associated with the person having feelings of anxiety or depression regularly, whereas a low score indicates that the person has these feelings less often or not at all.

## Sources

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ABS 2007 Australian Survey of Mental Health and Wellbeing

ABS 2008. National Aboriginal and Torres Strait Islander Social Survey

ABS 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey

2013-14 Second Australian Child and Adolescent Survey of Mental Health and Wellbeing (Young Minds Matter survey).

Data Quality Statements: Please refer to the published sources (above) for further information.

## References

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ABS (Australian Bureau of Statistics) 2007. Mental Health of Young People, Australia. ABS cat. no. 4840.0.55.001. Canberra: ABS.

Bhatia SK & Bhatia SC 2007. Childhood and adolescent depression. *American Family Physician* 75(1):73-80.

CDC (Centers for Disease Control and Prevention) 2015. Mental Health: Non-specific Psychological Distress Surveillance Data Sources.

Corrigan PW, Editor 2005. On the stigma of mental illness: practical strategies for research and social change. Washington, DC: American Psychological Association.

Lahey BB 2015. Editorial: Why are children who exhibit psychopathology at high risk for psychopathology and dysfunction in adulthood. *JAMA Psychiatry*, July 15, 2015.

Lawrence D, Johnson S, Hafekost J, Boterhoven de Haan K, Sawyer M, Ainley J, Zubrick S 2015. [The mental health of children and adolescents: report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing](#). Department of Health, Canberra. Viewed on 11 August 2015.

Patel V, Flischer AJ, Hetrick S, & McGorry P 2007. Mental health of young people: a global public-health challenge. *The Lancet* 369(9569):1302-1313.

Sawyer MG, Miller-Lewis LR and Clark JJ 2007. The mental health of 13-17-year-olds in Australia: findings from the National Survey of Mental Health and Wellbeing. *Journal of Youth Adolescence* 36:185-94.

Smart D & Sanson A 2005. What is life like for young Australians and how well are they faring? *Family Matters* 70:46-53.

WHO (World Health Organization) 2014. Mental Health: a state of well-being.

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## Health status & wellbeing

### Why are injury and poisoning death rates important?

Injury and poisoning have a major, but largely preventable, impact on the health of young Australians and are also a leading cause of death. Adolescence and early adulthood is the stage in life where young people engage in behaviours that can put their health and wellbeing at risk, with young people being over-represented in injury and poisoning death statistics, in Australia and around the world (WHO 2014, AIHW 2015). Of particular concern are the high rates of injury deaths among young Australians caused by traffic accidents, suicide and assault (AIHW 2015). See also [Road fatalities](#) and [Suicide](#).

### Do rates vary across population groups?

In 2012 the rate of death due to injuries or poisoning among all young people was 23 per 100,000. Young people aged 18-24 had a higher injury death rate, more than 2.5 times as high as those aged 12-17 years (31 per 100,000 compared to 12 per 100,000). Similarly, males had a higher rate of injury death than females (32 per 100,000 compared to 13 per 100,000). Indigenous young people were more than 3 times as likely to die from an injury as Other Australian young people in the 5-year period 2008-12 (61 per 100,000 compared to 18 per 100,000).

In 2012, the leading causes of injury death among all young people were suicide (8.6 per 100,000) and land transport accidents (7.7 per 100,000). Other causes of death were accidental poisoning (1.5 per 100,000) and assault/homicide (1.1 per 100,000).

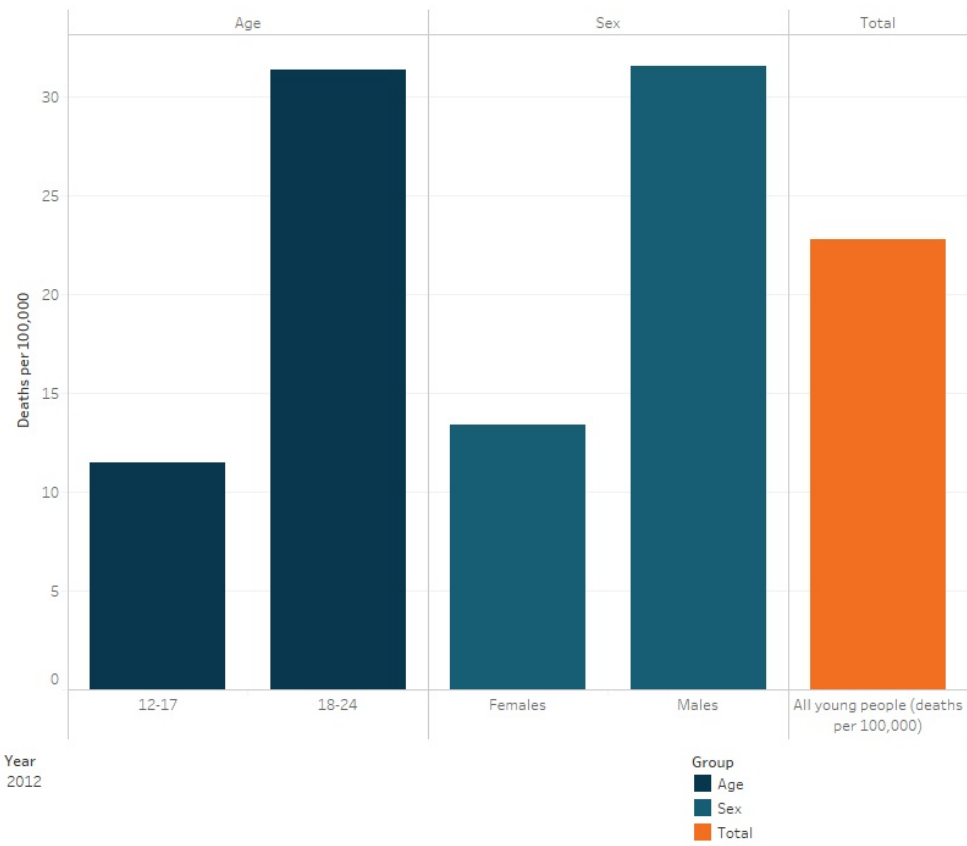
### Has there been a change over time?

From 2003 to 2012, deaths due to injury and poisoning showed a steady decline from 31 per 100,000 to 23 per 100,000. Over this period, there was a similar decline for young people aged 18-24 years (44 per 100,000 to 31 per 100,000), whereas the trend for 12-17 year olds was less pronounced (16 per 100,000 to 12 per 100,000). Similarly, there was a decline in the injury death rate among young males from 2003 to 2012 (47 per 100,000 to 32 per 100,000) whilst the rate for young females was relatively steady (14 compared to 13 per 100,000). During the period from 2003-07 to 2008-12, the injury death rate among Indigenous young people showed little change (62 compared with 61 per 100,000 respectively). The trend among Other Australian young people was more evident, with the rate declining from 28 per 100,000 to 18 per 100,000, over this period.

From 2003 to 2012, there was a decline in the rate of all injury deaths from 31 per 100,000 to 23 per 100,000. This appeared to be largely driven by a reduction in the rate of injury deaths caused by transport accidents over this period (13 per 100,000 to 7.7 per 100,000). There also appeared to be a slight reduction in the rate of injury deaths caused by accidental poisoning (2.1 per 100,000 to 1.5 per 100,000), although this trend was not strong.

**Indicator: Injury and poisoning death rate among young people aged 12-24**

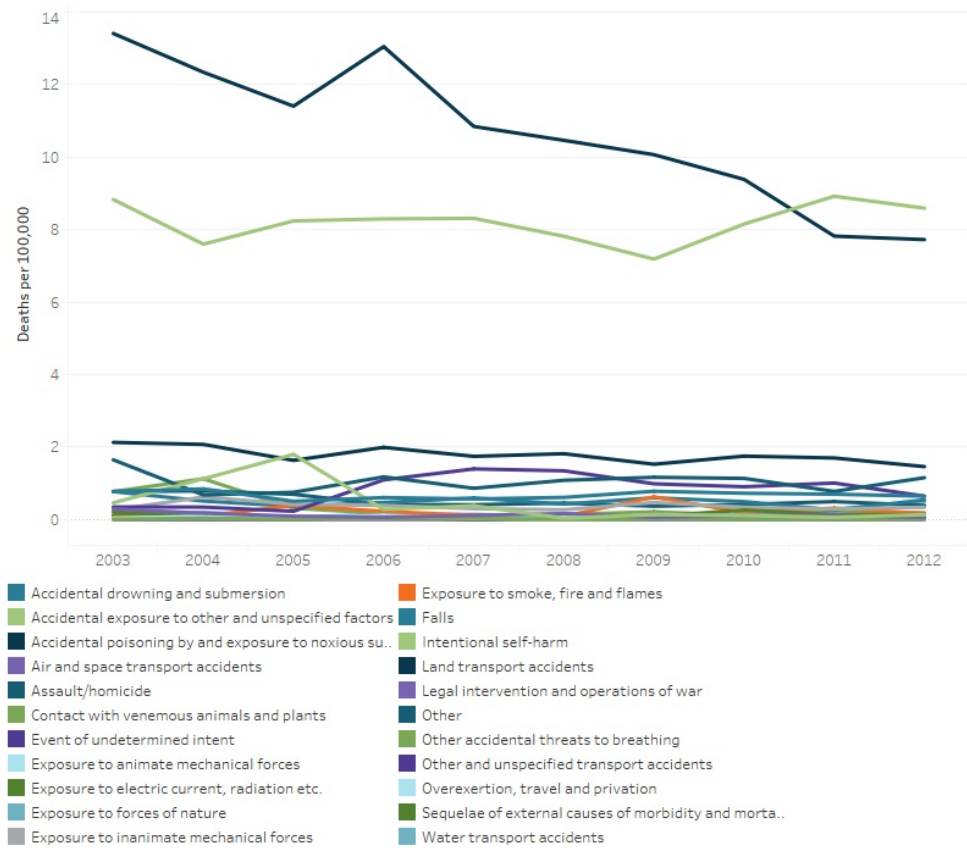
Injury deaths by population group



Source: AIHW National Mortality Database

**Supplementary: Causes of injury and poisoning deaths among young people aged 12-24**

Causes of injury deaths among all young people 2003 to 2012



Source: AIHW National Mortality Database

**Notes**



For data disaggregated by Indigenous status, 'Other Australians' includes non-Indigenous young people and those for whom Indigenous status was not stated.

Due to small numbers Indigenous status data are reported for 5 year periods.

Deaths registered in 2010 and earlier are based on the final version of cause of death data; deaths registered in 2011 and 2012 are based on revised and preliminary versions, respectively and are subject to further revision by the ABS.

The changes to the mortality data collection methodology during the period reported here means that trend data should be interpreted with caution (particularly the years where the data reported is 'preliminary'). For further information on Australian injury mortality data, including the effects of changes in methods of estimates of injury deaths see AIHW 2015 and the Data quality statement (see hyperlink below).

## Sources

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AIHW National Mortality Database

Data quality statement: [ABS, Causes of Death, Australia](#).

## References

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AIHW (Australian Institute of Health and Welfare): Harrison JE & Henley G 2015. Injury deaths data, Australia: technical report on issues associated with reporting for reference years 1999-2010. Cat. No. INJCAT 170. Canberra: AIHW.

AIHW: Henley G & Harrison JE 2015. Trends in injury deaths, Australia: 1999-00 to 2009-10. Injury research and statistics series no. 74. Cat. no. INJCAT 150. Canberra: AIHW.

World Health Organization. [Health for the world's adolescents: A second chance in the second decade](#). Viewed on 20 June 2015.

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## Health status & wellbeing

### Why are road fatality rates important?

In most countries, including Australia, young drivers are significantly over-represented among those killed or injured in road traffic accidents, as young drivers are more likely to engage in risky driving behaviours (WHO 2014). The over-representation of young people in road traffic accidents has been linked to risky driving behaviours including speeding, driving when fatigued, and driving under the influence of alcohol and other drugs (Smart et al. 2005). Young people differ from the general population in that their fatal vehicle accidents occur more often at weekends or at night (BITRE 2013).

### Do rates vary across population groups?

In 2014, the road transport accident death rate among all young people was 5.5 per 100,000. Young people aged 18-24 were over-represented with a death rate more than 4 times as high as that for 12-17 year olds (8.2 per 100,000 compared to 2.0 per 100,000). Males had a much higher death rate than their females, with 8.0 and 2.9 deaths per 100,000 respectively.

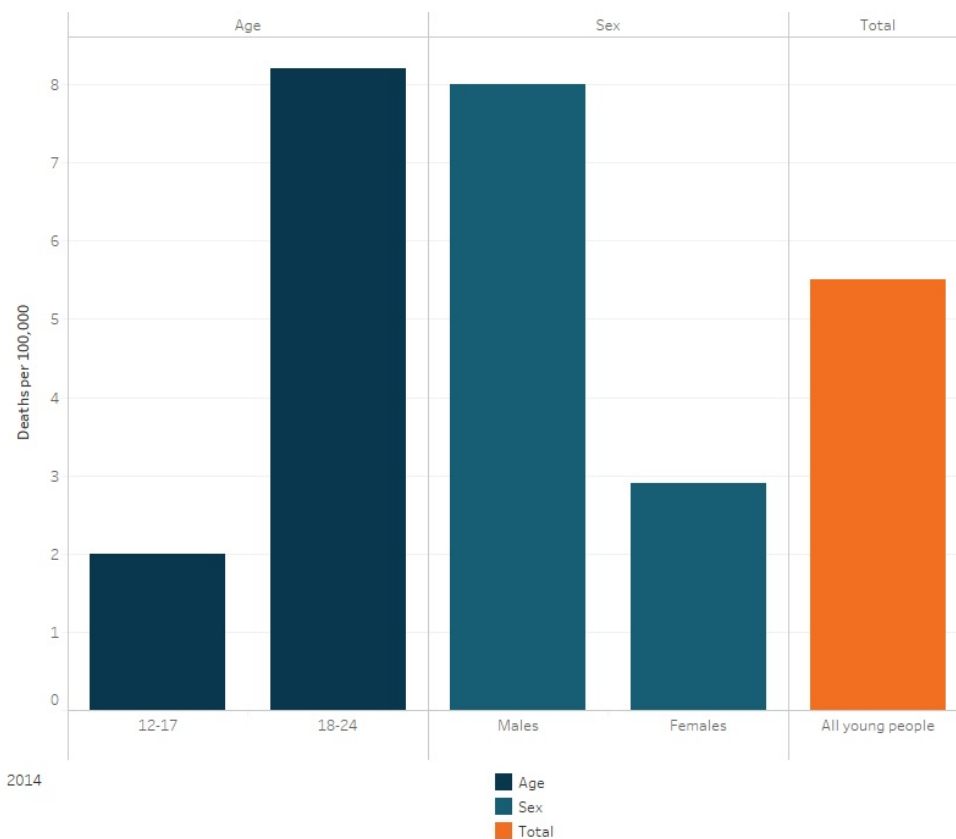
Of the different road users in 2014, the highest death rate was experienced by drivers (2.4 per 100,000), followed by passengers (1.5 per 100,000), motorcyclists (0.9 per 100,000) and pedestrians (0.6 per 100,000).

### Has there been a change over time?

There has been a steady decline in the road transport accident death rate among all young people from 2010 to 2014 (8.8 per 100,000 to 5.5 per 100,000). Over this period, a similar decline is evident for young people aged 12-17 (3.7 per 100,000 to 2.0 per 100,000) and 18-24 years (12.7 per 100,000 to 8.2 per 100,000). There has been a large reduction in the road transport death rate among young males from 13.1 per 100,000 in 2010, to 8.0 per 100,000 in 2014. There also appears to be a reduction in the death rate for females over this period (4.2 per 100,000 to 2.9 per 100,000), although this was less pronounced than the decline among males.

#### Indicator: Road transport accident death rate for young people aged 12-24

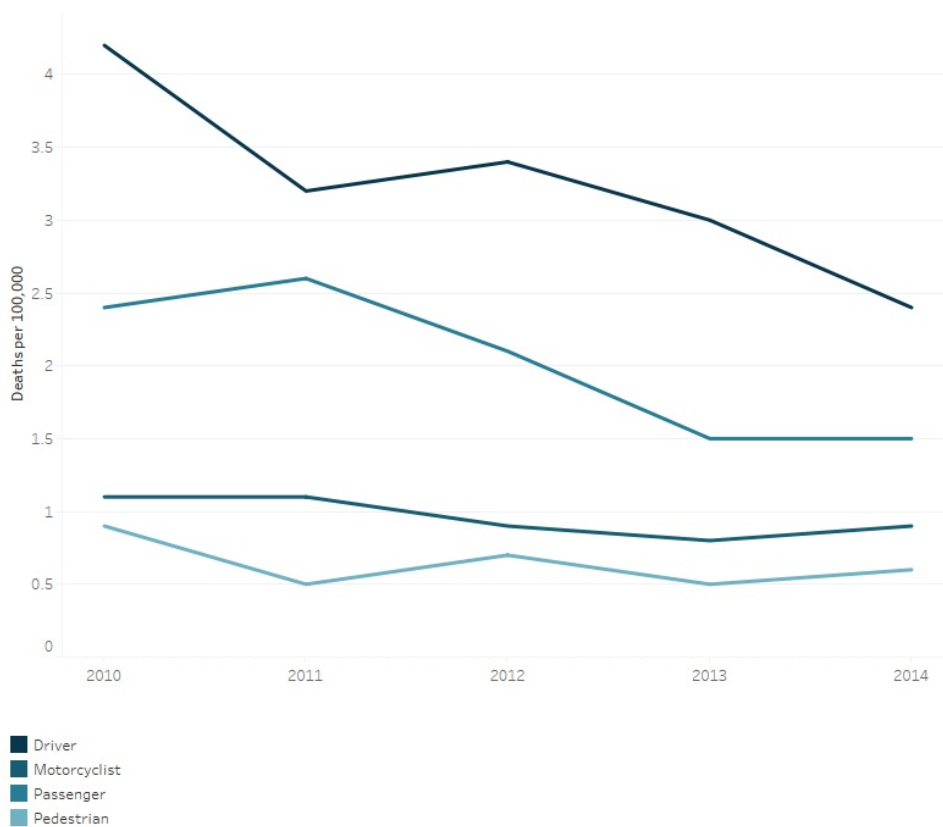
Road fatalities by population group



Source: Bureau of Infrastructure, Transport and Regional Economics (BITRE), Australian Road Deaths Database: Fatalities

## Supplementary: Road fatalities among young people aged 12-24 by road user type

Road fatalities by road user type, 2010 to 2014



Source: Bureau of Infrastructure, Transport and Regional Economics (BITRE), Australian Road Deaths Database: Fatalities

## Sources

BITRE (Bureau of Infrastructure, Transport and Regional Economics) 2015. [Australian Road Deaths Database: Fatalities](#), accessed on 16 March 2015.

Data quality statement: Please refer to the published source (above).

## References

BITRE (Bureau of Infrastructure, Transport and Regional Economics) 2013. [Young adult road safety: a statistical picture](#). Information sheet 51. Canberra: BITRE.

Smart D, Vassallo S, Sanson A, Cockfield S, Harris A & Harrison W 2005. [In the driver's seat: understanding young adults driving behaviour](#). Melbourne: Australian Institute of Family Studies.

WHO 2014. [Health for the world's adolescents: A second chance in the second decade](#). Accessed 20 June, 2015

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## Health status & wellbeing

### Why are suicide rates important?

Suicide and intentional self-harm are significant public health issues in Australia (AIHW: Harrison and Henley 2014). Suicide is associated with a number of interacting factors that are related to individual mental health, family and social circumstances. Social risk factors that have been identified for adolescent suicide include parental separation, divorce and family discord, as well as child abuse, bullying and peer victimisation (Brodsky et al. 2008; Klomek et al. 2008). Adolescence and young adulthood is also the time in life when many mental illnesses develop with young people reporting highest incidence of diagnosable symptoms of mental illness (ABS 2008; Patel et al. 2007), which has been linked to an increased risk of suicidal intentions and behaviour (AIHW 2014).

### Do rates vary across population groups?

In 2012, there were 8.6 suicides per 100,000 young aged 12-24 people in Australia. The suicide rate increased with age, and among 18-24 year olds was almost 3 times as high as 12-17 year olds (11.8 per 100,000 compared to 4.3 per 100,000). The rate of suicide among young males was almost twice that of young females (10.9 and 6.1 per 100,000 respectively). The greatest disparity in suicide rates was between Indigenous and Other Australian young people. In 2008-12, the suicide rate amongst Indigenous young people was over 4 times as high as Other Australian young people (30.1 per 100,000 compared to 7.2 per 100,000).

### Has there been a change over time?

In 2012 the rate was similar (8.6 per 100,000) to that in 2003 (8.8 per 100,000). In the intervening years the rate was lowest in 2009 at 7.2 per 100,000 and highest in 2011 at 8.9 per 100,000. The suicide rate for 12-17 year olds was lowest in 2004 (2 per 100,000) and highest in 2010 (4.7 per 100,000). For 18-24 year olds, the rate was lowest in 2009 (10.3 per 100,000) and highest in 2003 (13.3 per 100,000).

The suicide rate for young males varied from 14.2 per 100,000 in 2003 to its lowest point in 2009 (10.5 per 100,000). The rate among young females ranged from 3.2 per 100,000 in 2003 to 6.1 per 100,000 in 2012.

The suicide rate among Indigenous young people has increased from 25 per 100,000 in 2003-07 to 30 per 100,000 in 2008-12. Comparative rates for Other Australian young people were 7.6 per 100,000 in 2003-2007 and 7.2 per 100,000 in 2008-12.

It should be noted that data for 2011 and 2012 are based on revised and preliminary versions of the cause of death data, and are subject to revision (see [Source data tables: NYIF indicators](#) for more information).

### Suicidal behaviours

According to the Second Australian Child and Adolescent Survey of Mental Health and Wellbeing, about 1 in 13 (7.5%) 12-17 year olds (equivalent to around 128,000 young people) had seriously considered attempting suicide in the previous 12 months. The rate was twice as high for females (10.7%) as males (4.5%). These rates may be an underestimate, as in response to the question on suicidal ideation 4.7% of males and 6.6% of females aged 12-17 year olds 'preferred not to say'. The equivalent of 41,000 12-17 year olds (2.4%) reported having attempted suicide in the previous 12 months (Lawrence et al. 2015). Suicidal behaviours were strongly associated with mental disorder, particularly major depressive disorder (Lawrence et al. 2015).

Similarly, the 2007 Mental Health Survey found that young females (aged 16-24) were the group most suicidal (5.1%) in the previous 12 months (Slade et al. 2009).

### Helpline services available to assist young people at risk of suicide include:

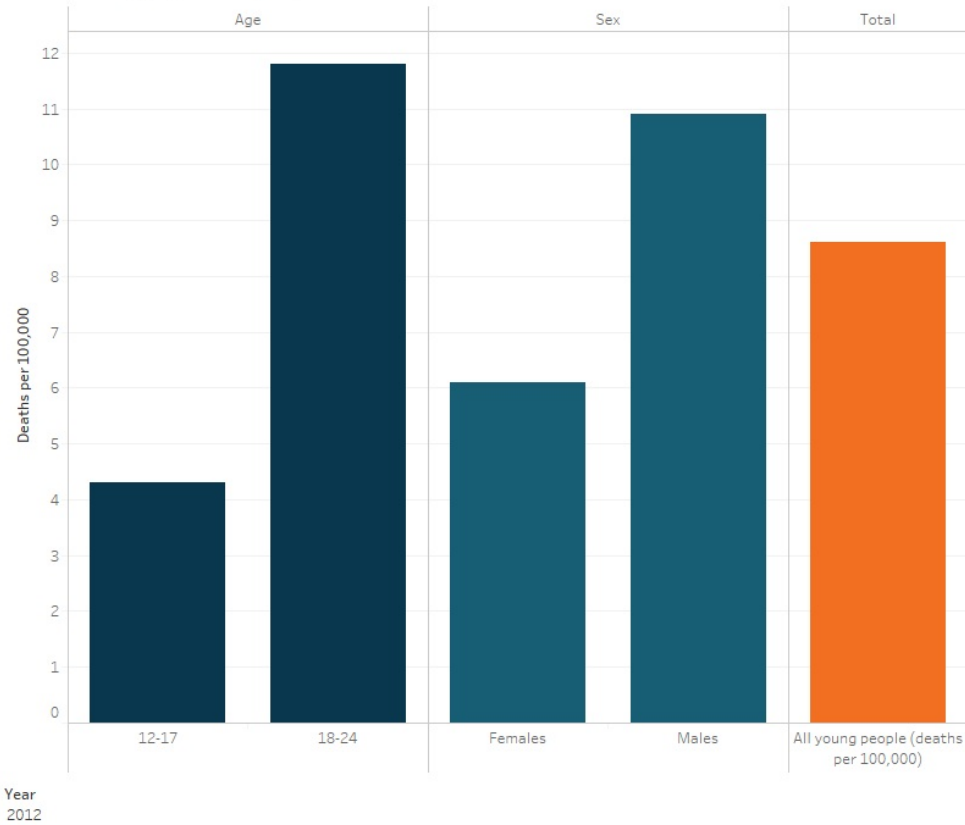
Lifeline Australia: 13 11 14

Kids Helpline: 1800 55 1800

Suicide Call Back Service: 1300 659 467.

## Indicator: Suicide rates for young people aged 12-24

Suicide rate by population group



Source: AIHW National Mortality Database

### Notes

The suicide deaths reported here have the ICD-10 code-block X60-X84. Deaths coded to this range are commonly referred to as suicide, a practice followed here, although this ICD-10 code-block has the title *Intentional self-harm*. The code-block includes 'purposely self-inflicted poisoning or injury', suicide and attempted suicide.

For data disaggregated by Indigenous status, 'Other Australians' includes non-Indigenous young people and those for whom Indigenous status was not stated.

Due to small numbers, Indigenous status data are reported for 5 year periods.

Causes of death data from 2006 onwards are subject to a revision process. Deaths registered in 2010 and earlier are based on the final version of cause of death data; deaths registered in 2011 and 2012 are based on revised and preliminary versions, respectively and are subject to further revision by the ABS.

The introduction of the revision process during the period reported here constitutes a change to the mortality data collection methodology, and means that trend data should be interpreted with caution (particularly the years where the data reported is 'preliminary'). For further information on Australian suicide data, including the effects of changes in methods of estimates of suicides see AIHW 2015 and the Data quality statement (see hyperlink below).

### Sources

AIHW National Mortality Database

Data quality statement: [ABS, Causes of Death, Australia](#)

### References

ABS (Australian Bureau of Statistics) 2008. National Survey of Mental Health and Wellbeing: summary of results, 2007. ABS cat. no. 4326.0. Canberra: ABS.

AIHW (Australian Institute of Health and Welfare): Harrison JE & Henley G 2014. Suicide and hospitalised self-harm in Australia: trends and analysis. Injury research and statistics series no. 93. Cat. no. INJCAT 169. Canberra: AIHW.

AIHW: Harrison JE & Henley G 2015. Injury deaths data, Australia: technical report on issues associated with reporting for reference years 1999-2010. Cat. No. INJCAT 170. Canberra: AIHW.

Brodsky BS, Mann JJ & Stanley B 2008. Familial transmission of suicidal behaviour: factors mediating the relationship between childhood abuse and offspring suicide attempts. *Journal of Clinical Psychiatry* 69:584-96.

Klomek AB, Marocco F & Kleinman M 2008. Peer victimisation, depression and suicidality in adolescents. *Suicide and Life-threatening Behaviour* 38(2):166-80.

Lawrence D, Johnson S, Hafekost J, Boterhoven de Haan K, Sawyer M, Ainley J, Zubrick S 2015. The mental health of children and adolescents: report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Department of Health, Canberra.

Patel V, Flischer AJ, Hetrick S, & McGorry P 2007. Mental health of young people: a global public-health challenge. *The Lancet* 369(9569):1302-1313.

Slade T, Johnston A, Teesson M, Whiteford H, Burgess P, Pirkis J, Saw S 2009. The mental health of Australians 2: report on the 2007 National Survey of Mental Health and Wellbeing. Canberra: Department of Health and Ageing.

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## Health status & wellbeing

### Why are injury and poisoning hospitalisation rates important?

Injury and poisoning have a major, but largely preventable, impact on the health of young Australians. They are a leading cause of hospitalisation among young people and can leave many with serious disability or long-term conditions, such as acquired brain injury or spinal cord injury. This can severely affect their future health and wellbeing as well as their employment, educational and recreational opportunities (AIHW: Pointer 2014; NPHP 2004).

### Do rates vary across population groups?

In 2013-14, the rate of hospitalisation due to injury or poisoning among all young people aged 12-24 in Australia was 2,064 per 100,000. Those in the 18-24 age group had a higher rate (2,190 per 100,000) of injury and poisoning hospitalisation than those aged 12-17 years (1,896 per 100,000). Males had a higher rate of hospitalisation than females, with 2,744 per 100,000 and 1,348 per 100,000, respectively. Indigenous young people were more likely to be hospitalised due to injury and poisoning with a rate of 3,153 per 100,000, compared to Other Australians with a rate of 1,986 per 100,000.

### What are the leading causes of injury and poisoning hospitalisations?

In 2013-14, the leading causes of injury and poisoning hospitalisations among young people were falls (385 per 100,000), transport accidents (380 per 100,000) and injury from inanimate mechanical forces (such as being struck or cut by something, exposure to an explosion, or having a foreign body entering through the eye, skin or other orifice) (326 per 100,000).

### Has there been a change over time?

From 2004-05 to 2013-14, hospitalisation rates due to injury and poisoning were relatively stable for all young people and among young people of different age groups.

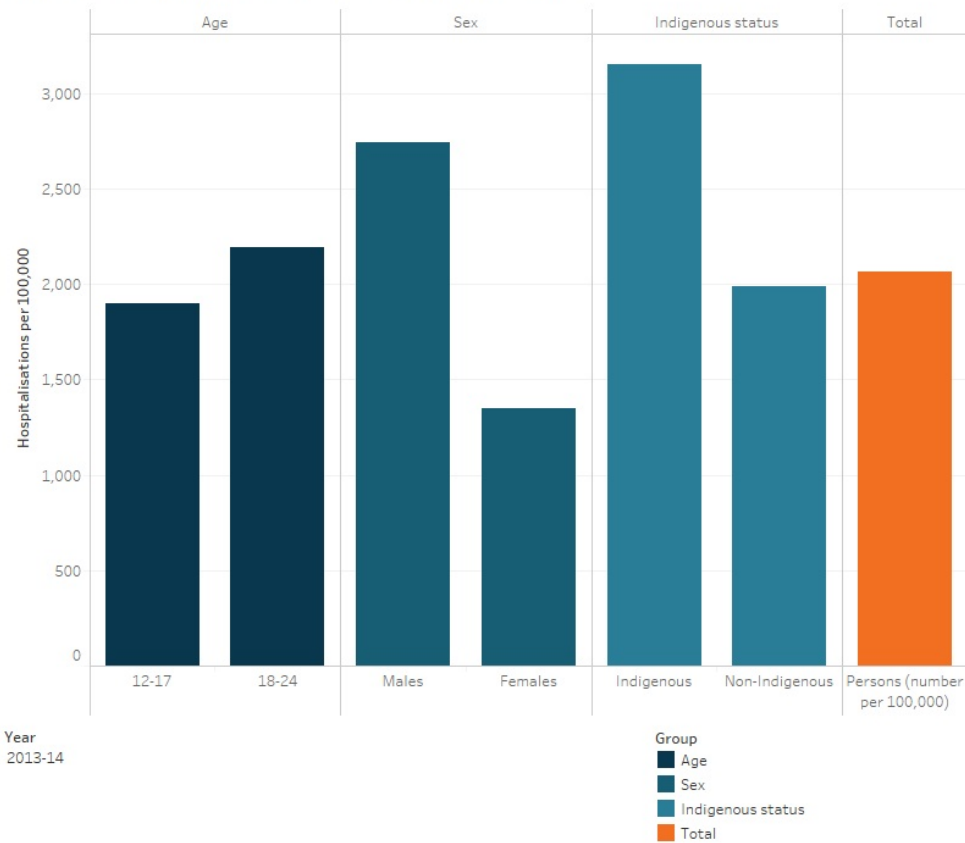
The injury and poisoning hospitalisation rate for males has been declining in recent years, having reached a peak of 3,169 per 100,000 in 2007-08, before decreasing to 2,745 per 100,000 in 2013-14. In contrast, the trend in hospitalisation rate for young females was less pronounced though steadily increasing from 1,236 per 100,000 in 2004-05 to 1,348 per 100,000 in 2013-14.

From 2004-05 to 2013-14, injury hospitalisation rates for Indigenous young people have increased from 2,698 per 100,000 to 3,153 per 100,000. During the same period, injury hospitalisation rates for young Other Australians were 2,100 per 100,000.

The leading causes of injury and poisoning hospitalisations among young people have remained similar since 2004-05.

**Indicator: Injury and poisoning hospitalisation rates among young people aged 12-24**

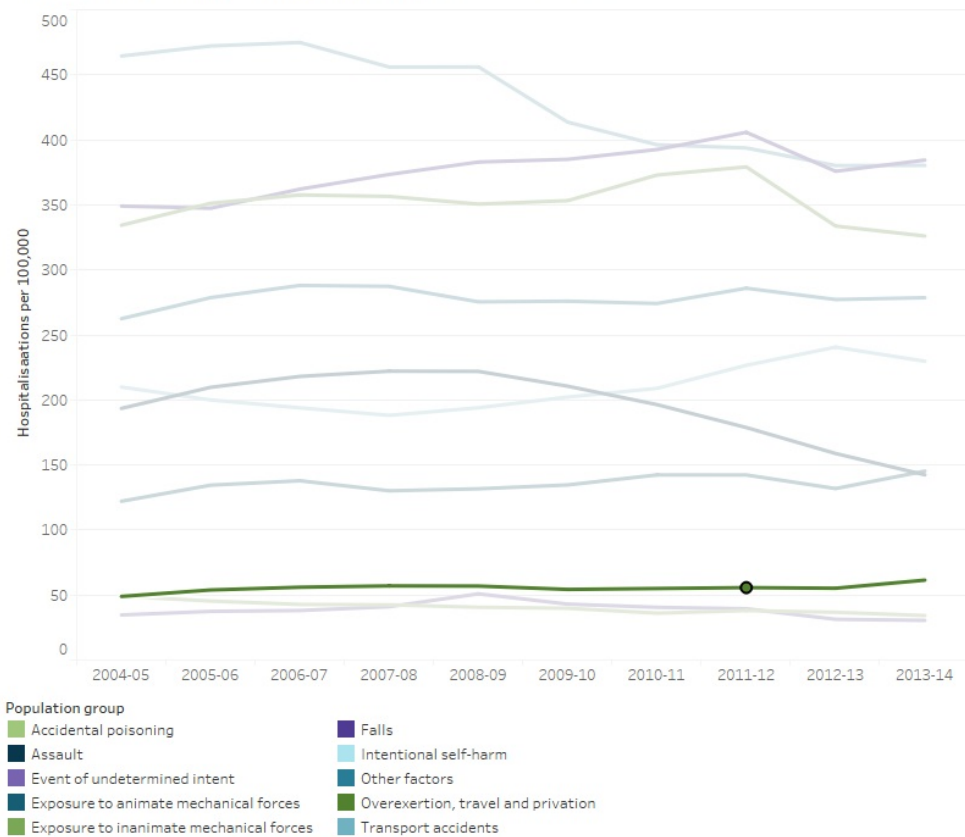
Injury and poisoning hospitalisation rate by population group



Source: AIHW National Hospital Morbidity Database

**Supplementary: Causes of injury among young people aged 12-24**

Selected causes of injury among young people, 2004-05 to 2013-14



Source: AIHW National Hospital Morbidity Database

**Notes**



Injury from inanimate mechanical forces includes injuries sustained from striking against or being stuck by other objects, exposure to other and unspecified inanimate mechanical forces, contact with knife, sword or dagger, contact with glass window. For more detailed information, see ICD-10-AM (International statistical classification of diseases and related health problems, tenth revision, Australian Modification), codes W20-W49. In 2013-14, diagnoses and external cause injury and poisoning were recorded using the eighth edition of the ICD-10-AM. Data from 2004-05 to 2012-13 were coded to earlier editions.

Hospitalisations (referred to elsewhere as hospital separations) refer to episodes of admitted patient care which can be a total hospital stay or a portion of a hospital stay, beginning or ending in a change of type of care (for example, from acute care to rehabilitation). To reduce over-counting of injury cases, records have been omitted where the mode of admission is recorded as a transfer from another acute-care hospital.

Indigenous data is for 6 States (NSW, Vic, Qld, WA, SA and public hospitals in the NT) as these states are considered to have sufficient completeness of Indigenous identification for analysis from 2004-05 onwards. ACT and Tasmania are considered to have sufficient completeness of Indigenous identification from 2010-11 onwards; however, they are excluded for the purposes of time series analysis. Consequently, the Indigenous data may not necessarily be representative of the excluded jurisdictions.

Changes in the quality of the Indigenous identification over time may affect the time series for data presented for data by Indigenous status (i.e. categories 'Indigenous' and 'Other Australians').

'Other Australians' includes records for persons identified as not Indigenous as well as records where Indigenous status was not stated.

The hospitals admitted patient care data do not include non-admitted presentations to hospital (eg non-admitted patients in emergency departments).

## Sources

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AIHW National Hospital Morbidity Database

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare): Pointer S 2014. Hospitalised injury in children and young people 2011-12. Injury research and statistics series no. 91. Cat. no. INJCAT 167. Canberra: AIHW.

NPHP (National Public Health Partnership) 2004. The National Injury Prevention and Safety Promotion Plan: 2004-2014. Canberra: NPHP.

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## Health status & wellbeing

### Why are assault hospitalisation rates important?

Both fatal and non-fatal assaults involving young people contribute significantly to the burden of premature death, injury and disability. Violence among young people affects the victims and their families, friends and communities, contributing to increased health and welfare costs, reduced productivity, decreased value of property and disrupted essential services (Krug et al. 2002). Harmful and hazardous alcohol use are risk factors both for being victimised and perpetrating youth violence, and are therefore priority areas for intervention (WHO 2006; Pilgrim et al. 2014).

### Do rates vary across population groups?

In 2013-14, the rate of hospitalisations due to assaults among all young people aged 12-24 in Australia was 143 per 100,000. Young people aged 18-24 had a rate of assault hospitalisation that was three times as high as the rate for 12-17 year olds (202 per 100,000 compared to 66 per 100,000). Males had a higher rate of hospitalisation than females, with 205 per 100,000 and 78 per 100,000, respectively. Indigenous young people were much more likely to be hospitalised due to assault with a rate 7 times as high as the rate for Other Australians (733 per 100,000 compared to 112 per 100,000).

### Has there been a change over time?

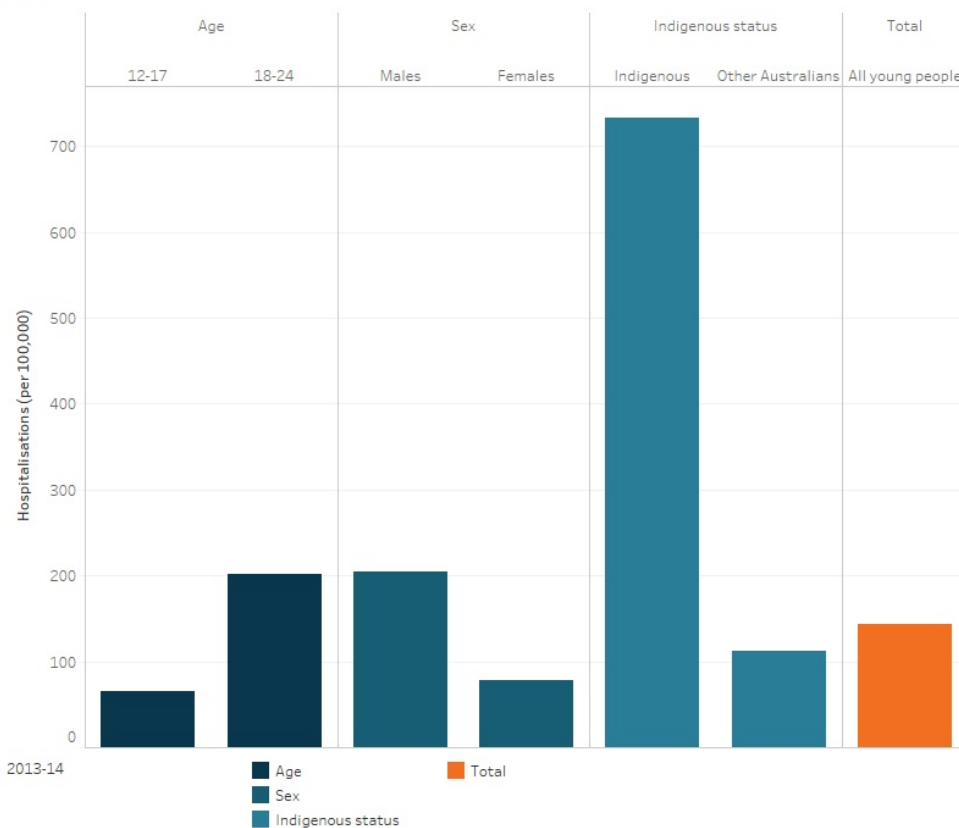
Prior to 2007-08 there was a steady increase in the rate of assault hospitalisations for all young people aged 12-24, peaking at 223 per 100,000 in 2007-08. Since then there has been a decline in the rate of assault hospitalisations to 143 per 100,000 in 2013-14. Similar trends were evident for 12-17 year olds and 18-24 year olds.

Trends in assault hospitalisations among young males is similar to that of all young people, rising between 2004-05 to 2007-08, and declining from 358 per 100,000 in 2007-08 to 205 per 100,000 in 2013-14. There are no strong trends observed among young females with the rate of assault hospitalisations remaining steady at 80 per 100,000 from 2003 to 2013.

For young Indigenous Australians, the rate of assault hospitalisation has decreased in recent years, from 886 per 100,000 in 2009-10 to 733 per 100,000 in 2013-14. Over this period there has also been a decline in the rate among Other Australians to 112.2 per 100,000 in 2013-14.

**Indicator: Assault hospitalisation rate for young people aged 12-24 (hospitalisations per 100,000) - 2004-05 to 2013-14**

None



Source: AIHW National Hospital Morbidity Database

### Notes

Injury hospitalisations are coded based on principal diagnosis, using the ICD-10-AM range S00-T75 or T79. Cases using this criterion are referred to as community injury. In 2013-14, diagnoses and external cause injury and poisoning were recorded using the 8th edition of the ICD-10-AM. Data from 2004-05 to 2012-13 were coded to earlier editions.

Assault hospitalisations includes injury cases in which the first reported external cause is Assault (ICD-10-AM X85-Y09) or Legal intervention and operations of war (Y35-Y36) as per AIHW: Pointer S 2013. Trends in hospitalised injury, Australia, 1999-00 to 2010-11. Injury research and statistics series no. 86. Cat. no. INJCAT 162. Canberra: AIHW.

Hospitalisations (referred to elsewhere as hospital separations) refer to episodes of admitted patient care which can be a total hospital stay or a portion of a hospital stay, beginning or ending in a change of type of care (for example, from acute care to rehabilitation). To reduce over-counting of injury cases, records have been omitted where the mode of admission is recorded as a transfer from another acute-care hospital.

Indigenous data is for 6 States (NSW, Vic, Qld, WA, SA and public hospitals in the NT) as these states are considered to have sufficient completeness of Indigenous identification for analysis from 2004-05 onwards. ACT and Tasmania are considered to have sufficient completeness of Indigenous identification from 2010-11 onwards; however, they are excluded for the purposes of time series analysis. Consequently, the Indigenous data may not necessarily be representative of the excluded jurisdictions.

Changes in the quality of the Indigenous identification over time may affect the time series for data presented for data by Indigenous status (i.e. categories 'Indigenous' and 'Other Australians').

'Other Australians' includes records for persons identified as not Indigenous as well as records where Indigenous status was not stated.

The hospitals admitted patient care data do not include non-admitted presentations to hospital (e.g. non-admitted patients in emergency departments).

## Sources

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AIHW National Hospital Morbidity Database

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare): Pointer S 2014. Hospitalised injury in children and young people 2011-12. Injury research and statistics series no. 91. Cat. no. INJCAT 167. Canberra: AIHW.

Krug EG, Dahlberg LL & Mercy JA 2002. World Report on violence and health. Geneva: World Health Organization.

Pilgrim JL, Gerostamoulos D, Drummer OH 2014. "King hit" fatalities in Australia, 2000-2012: The role of alcohol and other drugs. Drug and Alcohol Dependence 135:119-132.

WHO 2006. Youth violence and alcohol. Geneva: World Health Organization.

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## Health status & wellbeing

### Why are rates of intentional self-harm hospitalisations important?

Intentional self-harm and suicide are significant public health issues in Australia (AIHW: Harrison and Henley 2014). Intentional self-harm is associated with a number of interacting factors that are related to individual mental health, family and social circumstances. Social risk factors that have been identified for adolescent suicide include parental separation, divorce and family discord, as well as child abuse, bullying and peer victimisation (Brodsky et al. 2008; Klomek et al. 2008). This is also the time in life when many mental illnesses develop and young people have the highest incidence of diagnosable symptoms of mental illness (ABS 2008; Patel et al. 2007), which may increase the risk of suicidal intentions and behaviour.

### Do rates vary across population groups?

In 2013-14, the rate of hospitalisations due to intentional self-harm among all young people aged 12-24 in Australia was 230 per 100,000. Young people aged 12-17 had a slightly higher rate (232 per 100,000) of intentional self-harm hospitalisation than those aged 18-24 (229 per 100,000). Females had a much higher rate of hospitalisation than males, with 352 per 100,000 and 114 per 100,000, respectively. Indigenous young people were almost twice as likely to be hospitalised due to intentional self-harm (391 per 100,000) as Other Australian young people (220 per 100,000).

### Has there been a change over time?

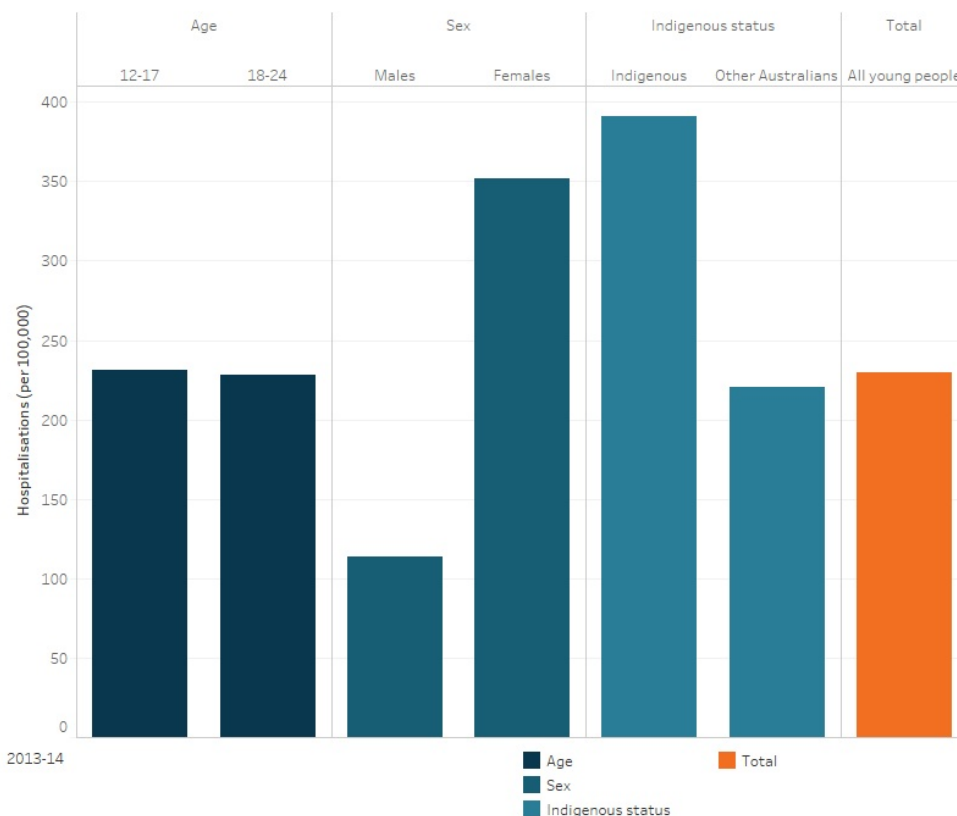
There has been a gradual increase in hospitalisation rates for all young people aged 12-24 from 188 per 100,000 in 2007-08, to 230 per 100,000 in 2013-14. This appears to be largely driven by a steep increase in hospitalisation rates for youths aged 12-17 from 139 per 100,000 to 232 per 100,000, over the same period. In contrast, there are no strong trends observed for intentional self-harm hospitalisation rates for young people aged 18-24, with rates remaining steady at 230 per 100,000.

There has been a notable increase in hospitalisation rates for young females from 267 per 100,000 in 2007-08, to 352 per 100,000 in 2013-14. There is no clear trend in the intentional self-harm hospitalisation rate for males with rates of around 115 per 100,000 from 2004-05 to 2013-2014.

For young Indigenous Australians, the rate of intentional self-harm hospitalisations has grown considerably from 240 per 100,000 in 2006-07, to 391 per 100,000 in 2012-13. The rate for Other Australian young people has been markedly lower than Indigenous Australians over this period and has largely mirrored the trend observed for all young people aged 12-24.

**Indicator: Intentional self-harm hospitalisation rate for young people aged 12-24 (hospitalisations per 100,000) - 2004-05 to 2012-13**

Intentional self-harm hospitalisations



## Notes

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Injury hospitalisations are coded based on principal diagnosis, using the ICD-10-AM range S00-T75 or T79. Cases using this criterion are referred to as community injury. In 2013-14, diagnoses and external cause injury and poisoning were recorded using the 8th edition of the ICD-10-AM. Data from 2004-05 to 2012-13 were coded to earlier editions.

Intentional self-harm hospitalisations includes injury cases in which the first reported external cause is in the ICD-10-AM range X60-X84 as per AIHW: Pointer S 2013. Trends in hospitalised injury, Australia, 1999-00 to 2010-11. Injury research and statistics series no. 86. Cat. no. INJCAT 162. Canberra: AIHW.

Hospitalisations (referred to elsewhere as hospital separations) refer to episodes of admitted patient care which can be a total hospital stay or a portion of a hospital stay, beginning or ending in a change of type of care (for example, from acute care to rehabilitation). To reduce over-counting of injury cases, records have been omitted where the mode of admission is recorded as a transfer from another acute-care hospital.

Indigenous data is for 6 States (NSW, Vic, Qld, WA, SA and public hospitals in the NT) as these states are considered to have sufficient completeness of Indigenous identification for analysis from 2004-05 onwards. ACT and Tasmania are considered to have sufficient completeness of Indigenous identification from 2010-11 onwards; however, they are excluded for the purposes of time series analysis. Consequently, the Indigenous data may not necessarily be representative of the excluded jurisdictions.

Changes in the quality of the Indigenous identification over time may affect the time series for data presented for data by Indigenous status (i.e. categories 'Indigenous' and 'Other Australians').

'Other Australians' includes records for persons identified as not Indigenous as well as records where Indigenous status was not stated.

The hospitals admitted patient care data do not include non-admitted presentations to hospital (eg non-admitted patients in emergency departments).

## Sources

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AIHW National Hospital Morbidity Database

Data quality statement: [AIHW METeOR](#)

## References

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ABS 2008. National Survey of Mental Health and Wellbeing: summary of results, 2007. ABS cat. no. 4326.0. Canberra: ABS.

AIHW: Harrison JE & Henley G 2014. Suicide and hospitalised self-harm in Australia: trends and analysis. Injury research and statistics series no. 93. Cat. no. INJCAT 169. Canberra: AIHW.

Brodsky BS, Mann JJ & Stanley B 2008. Familial transmission of suicidal behaviour: factors mediating the relationship between childhood abuse and offspring suicide attempts. *Journal of Clinical Psychiatry* 69:584-96.

Klomek AB, Marocco F & Kleinman M 2008. Peer victimisation, depression and suicidality in adolescents. *Suicide and Life-threatening Behaviour* 38(2):166-80.

Patel V, Flischer AJ, Hetrick S, & McGorry P 2007. Mental health of young people: a global public-health challenge. *The Lancet* 369 (9569): 1302-1313.

## Health status & wellbeing

### Why are chronic health condition rates important?

A chronic health condition is an ongoing impairment characterised by a physical or mental condition, functional limitation, and service use or need beyond routine care. Typically these are long-lasting conditions with persistent effects, and arise from complex causes (AIHW 2014). The effect of a chronic condition on a young person's life depends on many factors, such as the actual condition, its severity and effects on daily living, how well it can be managed or treated, care received and social support (Jackson 2013; Varni et al. 2007; Sawyer et al. 2007; Suris et al. 2008).

### Do rates vary across population groups?

In 2011-12, 64% of young people aged 12-24 years had at least one long-term health condition (see definition in Notes section below). Young people aged 18-24 (71%) and females (69%) were more likely to have at least one long term health condition than 12-17 year olds (55%) and males (59%), respectively. Interestingly, 18-24 year olds and females were also more likely to have multiple (two and three or more) medical conditions than 12-17 year olds and males, respectively. There was no statistically significant difference between the proportions of Indigenous and non-Indigenous young people with long term health conditions (63% compared to 64%).

In 2011-12, short sightedness (17%) was the most common long-term condition among all young people, followed by asthma (10.1%), long-sightedness (9.1%) and mood problems (which includes depression) (7.3%). In 2011-13, the most common long-term condition among Indigenous young people was asthma (16.4%), followed by short sightedness (9.6%), long-sightedness (8.0%) and back problems (6.4%). Indigenous young people were more likely to be affected by deafness and asthma, while non-Indigenous young people were more likely to be affected by short sightedness.

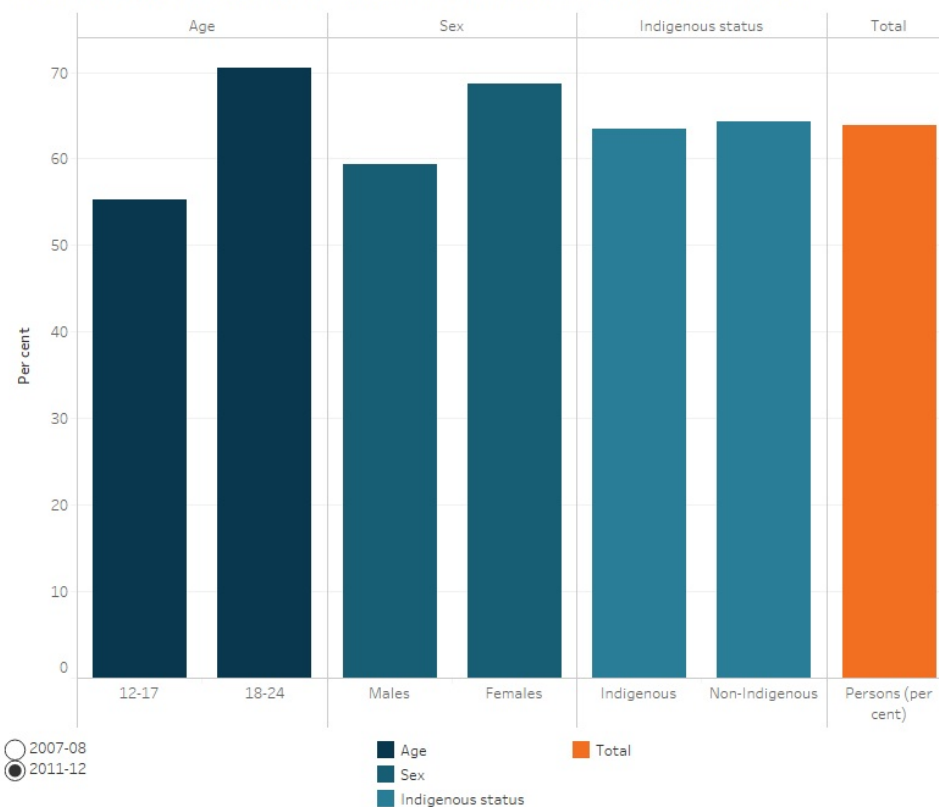
### Has there been a change between 2007-08 and 2011-12?

From 2007-08 to 2011-12, the only significant differences were increased proportions of males (from 54% to 59%) and all young people (from 60% to 64%) who had at least one long-term condition.

Of the types of long term conditions among all young people, the only significant change was a decrease in the proportion of all young people with back pain/problems from 7.0% in 2007-08 to 4.9% in 2011-12.

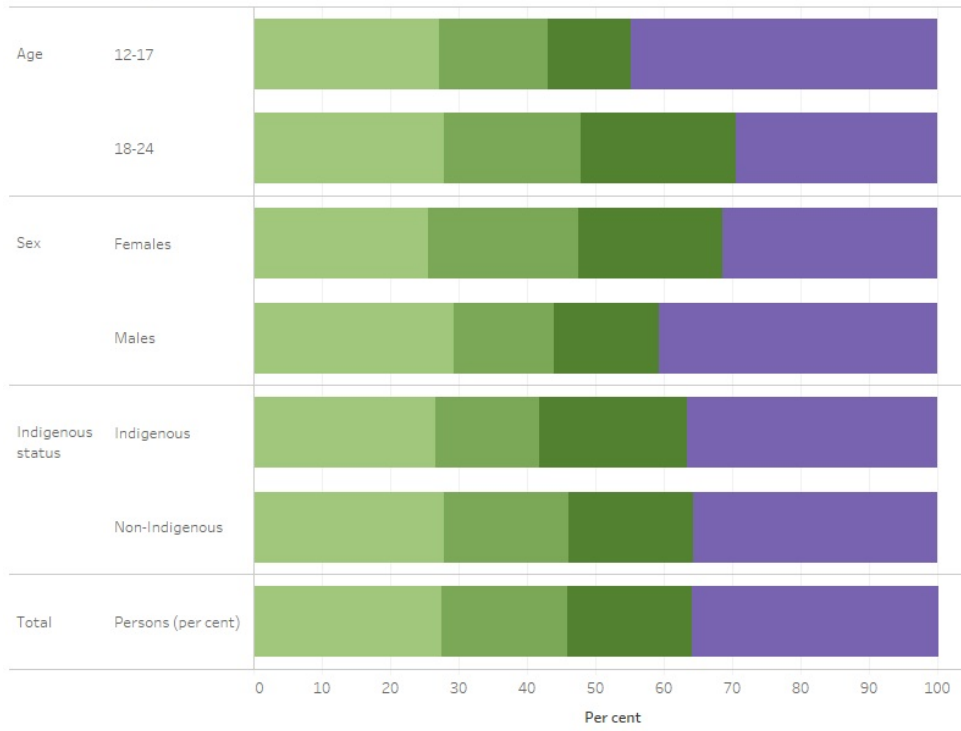
#### Indicator: Prevalence of long-term conditions among young people aged 12-24

Proportion of young people with at least one long-term condition, by population group



**Supplementary: Number of long-term conditions among young people aged 12-24**

Number of long term conditions



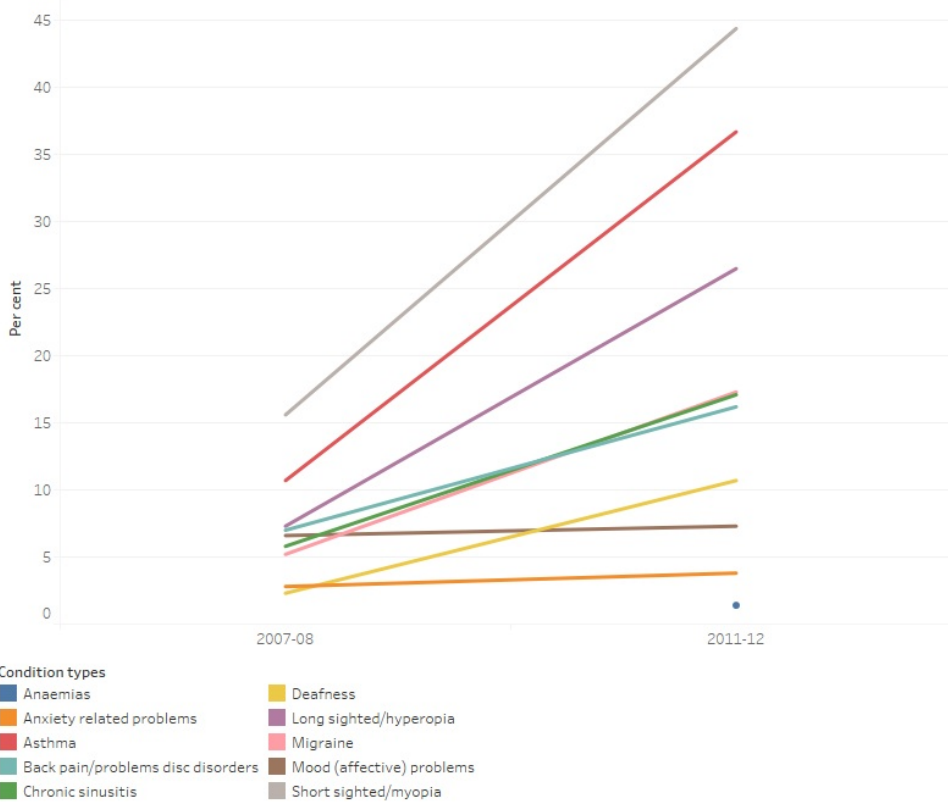
Year  
2011-12

Number of long-term conditions  
 One (light green), Two (medium green), Three or more (dark green), None (purple)

Source: Customised report from: ABS National Health Survey 2007-08, ABS Australian Health Survey 2011-12 (National Health Survey components).

**Selected chronic health condition types**

All young people aged 12-24, 2007-08 to 2011-12



Source: Customised report from: ABS National Health Survey 2007-08, ABS Australian Health Survey 2011-12 (National Health Survey components).

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more (ABS 2013).

## Sources

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Customised report from: ABS National Health Survey 2007-08, ABS Australian Health Survey 2011-12 (National Health Survey component); ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13

Data quality statement: Not available, please see [Australian Health Survey 2011-13](#) for further information

## References

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ABS (Australian Bureau of Statistics) 2013. Australian Health Survey: Users' Guide 2011-13. Long-term conditions (Other). Cat. no. 4363.0.55.001. Canberra: ABS

AIHW (Australian Institute of Health and Welfare) 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

Jackson 2013. The special educational needs of adolescents living with chronic illness: a literature review. *International Journal of Inclusive Education* 17(6):543-554.

Sawyer SM, Drew S, Yeo MS & Britto MT 2007. Adolescents with a chronic condition: challenges living, challenges treating. *The Lancet* 369:1481-9.

Suris JC, Michaud PA, Akre C, Sawyer SM 2008. Health risk behaviours in adolescents with chronic conditions. *Pediatrics* 122(5):e1113-8.

Varni JW, Limbers CA & Burwinkle TM 2007. Impaired health related quality of life in children and adolescents with chronic conditions: a comparative analysis of 10 disease clusters and 33 disease categories/severities utilizing the PedsQL™ 4.0 Generic Core Scales. *Health and Quality of Life Outcomes* 5(43):1-15.

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## Health status & wellbeing

### Why is incidence of type 1 diabetes important?

Type 1 diabetes is a chronic autoimmune condition that develops when the immune system destroys the insulin-producing cells of the pancreas. It typically develops during childhood and adolescence, although the condition can occur at any age (Craig et al. 2011). Type 1 diabetes is characterised by the almost complete inability to produce insulin, meaning that those affected require life-long insulin replacement for survival (Shaw & Tanamas 2012). The inability to produce insulin means that glucose cannot be adequately taken up by the body's cells (where they would be stored for future energy use) which results in elevated blood glucose levels. While the cause of type 1 diabetes is unknown, it is believed to arise from a complex interaction of genetic predisposition and environmental factors. While there is no cure for the condition, it can be managed through a careful balance of diet, exercise, regular blood glucose testing and administration of insulin to keep blood glucose levels within a safe range.

### Do rates vary across population groups?

In 2013, there were 490 new cases of type 1 diabetes among all young people aged 15-24 in Australia, which translates to an incidence of 16 per 100,000. Young people aged 15-19 were almost 1.5 times as likely as 20-24 year olds to be newly diagnosed with type 1 diabetes, with incidences of 19 and 13 per 100,000 respectively. Males were also around 1.5 times as likely to be newly diagnosed with type 1 diabetes as females (19 and 12 per 100,000 respectively).

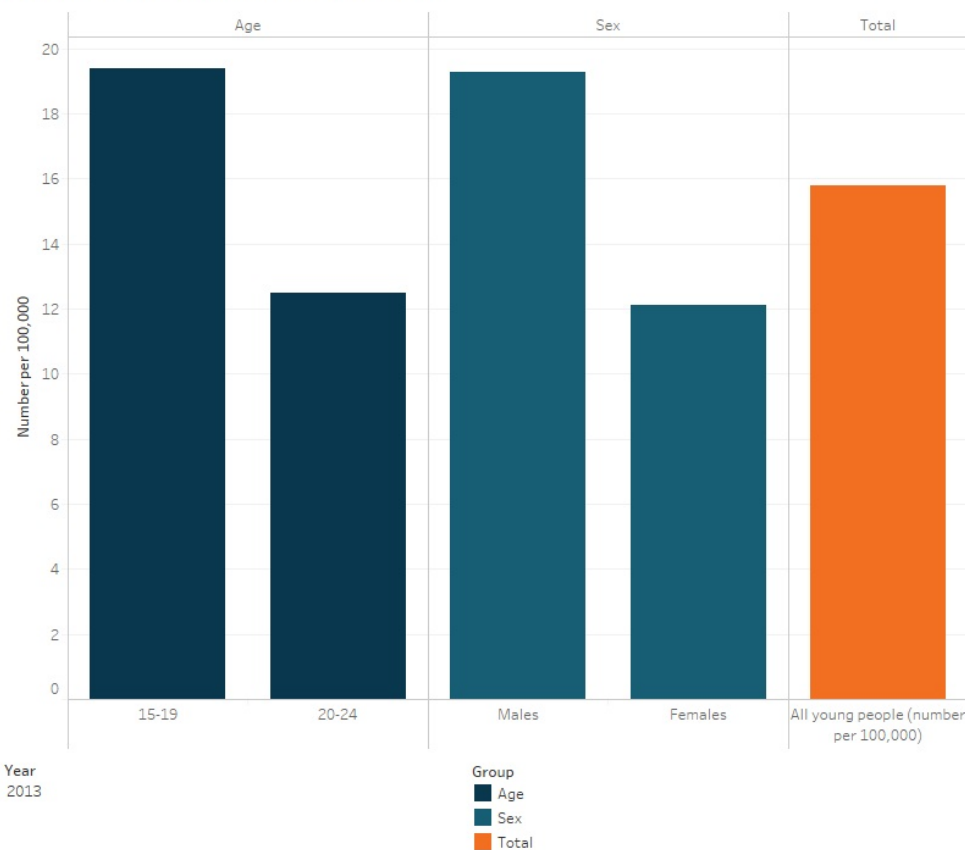
In the period 2005-2013 there were 105 new cases of type 1 diabetes among Indigenous young people aged 15-24. However, data quality issues concerning Indigenous status in the NDR, make it difficult to provide accurate comparisons of Indigenous and non-Indigenous rates (See 'Notes' below for more information).

### Has there been a change over time?

Incidence of type 1 diabetes among young people aged 15-24 remained relatively stable from 2000 to 2013, with rates remaining 15 per 100,000 young people per year. For different population groups over this period rates of new diagnoses remained largely unchanged for 15-19 year olds (17 per 100,000), 20-24 year olds (13 per 100,000), males (18 per 100,000) and females (12 per 100,000).

#### Indicator: Incidence of type 1 diabetes among young people aged 15-24

Incidence of type 1 diabetes by population group



Source: Based on AIHW 2015. Incidence of type 1 diabetes in Australia 2000-2013. Diabetes series no.23. Cat. no. CVD 69. Canberra: AIHW

### Notes

It should be noted that the incidence of type 1 diabetes is much higher in the 0-14 than in the 15-24-year-old age group (see AIHW 2015 for more information). This means that prevalence of type 1 diabetes among 15-24 year olds would be substantially higher than the incidence rate. Regular national prevalence data for 15-24 year olds are not currently available, although are expected to be in the future at which time this indicator will be reviewed.

In the period 2005-2013, Indigenous status was not stated in 16% of records, which made it difficult to provide accurate comparisons of Indigenous and non-Indigenous rates. Aboriginal and Torres Strait Islander people may also be under-represented on the National Diabetes Services Scheme (NDSS) from which data for the National Diabetes Register is sourced. This may be because Indigenous people choose not to identify themselves when they register on the NDSS, or because there are low rates of registration among Indigenous Australians due to the ability of Indigenous people to access diabetes supplies through other targeted programs.

## Sources

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National (insulin-treated) Diabetes Register 2013, with calculations based on NDR data reported in [AIHW Incidence of type 1 diabetes in Australia 2000-2013](#).

Data quality statement: [AIHW METeOR](#)

## References

---

AIHW (Australian Institute of Health and Welfare) 2015. [Incidence of type 1 diabetes in Australia 2000-2013: supplementary detailed tables](#). Diabetes series no. 23. Cat. no. CVD 69. Canberra: AIHW. Viewed 21 July 2015.

Craig M, Twigg S, Donaghue K, Cheung N, Cameron F, Conn J et al. 2011. National evidence-based clinical care guidelines for type 1 diabetes in children, adolescents and adults. Canberra: Department of Health and Ageing

Shaw, J, Tanamas, S 2012. [Diabetes: the silent pandemic and its impact on Australia](#). Baker IDI Heart & Diabetes Institute 2012. Viewed 23 June 2015.

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## Health status & wellbeing

### Why are vaccine preventable disease notification rates important?

Vaccination is one of the most effective public health interventions to prevent disease worldwide. Large-scale immunisation programs, such as the Immunise Australia program, have had a substantial influence on rates of illness from a wide variety of communicable diseases. In Australia, many diseases either do not occur or are extremely rare, as a result of successful vaccination programs (ATAGI 2013). Despite this progress, outbreaks of vaccine preventable diseases (VPDs) can still occur.

The National Notifiable Diseases Surveillance System (NNDSS) compiles information on the incidence of all notifiable diseases in Australia. The quality and completeness of data compiled in the NNDSS are influenced by multiple factors. Therefore, the proportion of diagnosed cases of a particular disease that is notified to health authorities is not known with certainty and may vary among diseases, between jurisdictions and over time.

### Do rates vary across population groups?

In 2013, the most commonly notified VPDs were laboratory confirmed cases of influenza (commonly known as the flu), varicella zoster infection (also known as chicken pox or shingles) and pertussis (also known as whooping cough).

In 2013, for influenza (laboratory confirmed) there were 81 notifications per 100,000 young people aged 12-24 years. The notification rate was 1.5 times as high among 12-17 year olds as 18-24 year olds (100 compared to 67 per 100,000). The rate for males was a little lower than for females (74 compared to 88 per 100,000) and was also lower for Indigenous than Other Australian young people (60 compared to 82 per 100,000).

In 2013, the notification rate for varicella zoster infection was 56 per 100,000 for all young people. The notification rate was slightly lower for 12-17 year olds than 18-24 year olds (54 compared to 57 per 100,000). The rate for males was a little lower than for females (53 compared to 58 per 100,000) and Indigenous young people had lower notification rates than Other Australian young people (44 compared to 56 per 100,000).

In 2013, the pertussis notification rate was 39 per 100,000 for all young people. Notification rates were 3 times as high among 12-17 as 18-24 year olds (63 compared to 21 per 100,000). The difference between males and females was less pronounced (35 compared to 43 per 100,000). Indigenous young people had lower rates than Other Australian young people (24 per 100,000 compared to 39 per 100,000).

### Has there been a change over time?

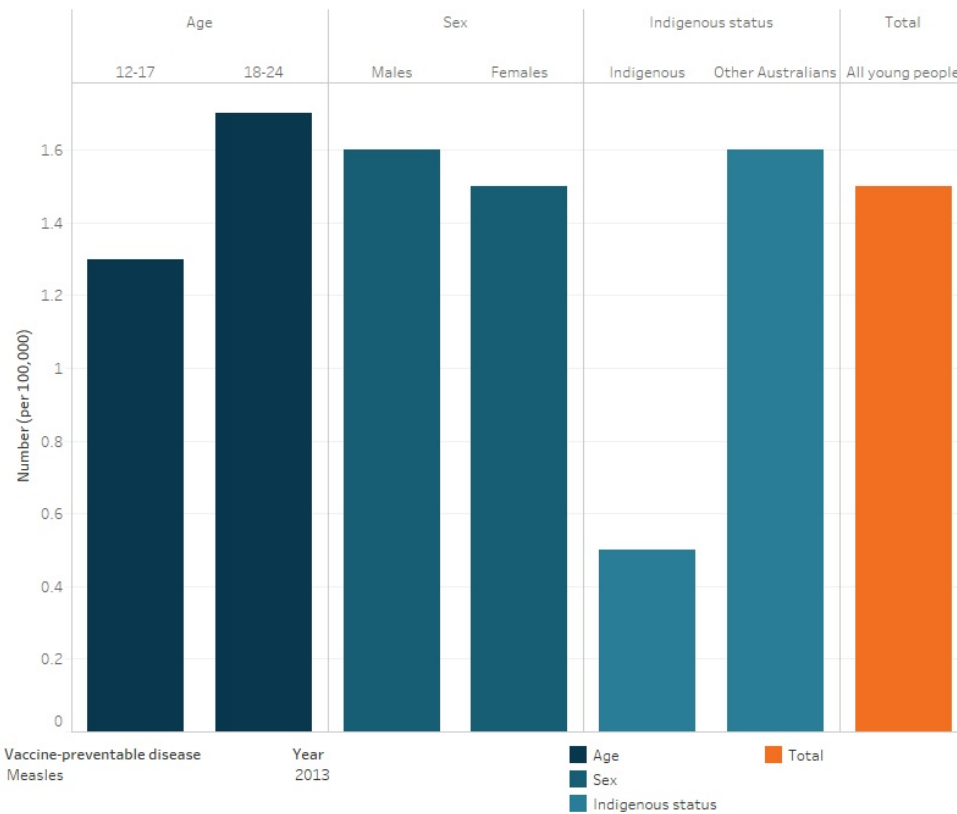
Following the 2009 pandemic, when the influenza (laboratory confirmed) notification rate rose to 462 per 100,000 young people, the rate dropped sharply to 67 per 100,000 young people in 2010. Since then, it has fluctuated, increasing to 152 per 100,000 in 2012 before declining to 81 notifications per 100,000 in 2013. Similar trends are observed across population groups for age, sex and Indigenous status.

There have been increasing notification rates for Varicella zoster infections among young people over recent years, with rates increasing between 2009 and 2013 from 41 to 56 per 100,000. This trend is largely conserved across different population groups for age, sex and Indigenous status. However, this upward trend has been attributed, at least in part, to the increased awareness of the requirement to notify cases and diagnostic laboratory testing by healthcare practitioners (NNDSS 2012). Since 2006, three categories of Varicella zoster infections have been made nationally notifiable diseases, and by 2009 all jurisdictions were notifying these cases to the NNDSS with the exception of NSW (NNDSS 2012).

There were numerous cases of pertussis associated with the Australia-wide epidemic which began in 2008 and peaked in 2010 (NNDSS 2012). Since 2010, the notification rate for all young people has declined from 111 to 39 per 100,000. These trends are consistent across all population groups for age, sex and Indigenous status, although 12-17 year olds had notably higher notification rates than 18-24 year olds between 2007 and 2011.

**Indicator: Vaccine-preventable disease notification rate among young people aged 12-24 (number per 100,000) - 2005 to 2013**

Selected disease



Source: National Notifiable Diseases Surveillance System (NNDSS)

**Notes**

**Influenza** is commonly referred to as flu. Annual influenza vaccines are available for free to Indigenous young people.

**Varicella zoster** infections cause chicken pox and shingles. Varicella zoster infection notification rates are only presented from 2009 onwards as this was the first year in which all states and territories (except NSW) notified data to the NNDSS. No varicella zoster infection notification rates were available for NSW in any year reported.

**Pertussis** is commonly referred to as whooping cough.

In interpreting these data it is important to note that changes in notifications over time may not solely reflect changes in disease prevalence or incidence. Changes in testing policies; screening programs, including the preferential testing of high risk populations; the use of less invasive and more sensitive diagnostic tests; and periodic awareness campaigns, may influence the number of notifications that occur over time.

Determination of Indigenous status is by descent, self-identification and community. The 'Other Australians' population group includes both non-Indigenous youths and youths whose Indigenous status was unknown. For further information on the determination of Indigenous status, see [Source data tables: NYIF indicators](#).

Indigenous status data were only presented in instances where the completeness of the data was greater than 50%. For more information please see [Source data tables: NYIF indicators](#).

**Sources**

National Notifiable Diseases Surveillance System, unpublished data

**References**

Australian Technical Advisory Group on Immunisation (ATAGI) 2013. The Australian Immunisation Handbook. 10th edn. Canberra, Australia: National Health and Medical Research Council and the Department of Health and Ageing.

NNDSS (National Notifiable Diseases Surveillance System) 2012. NNDSS annual report writing group 2012. Australia's notifiable disease status, 2012: annual report of the National Notifiable Diseases Surveillance System. Canberra: NNDSS.

## Health status & wellbeing

### Why are viral hepatitis infection notification rates important?

Hepatitis infections (inflammation of the liver) are a significant public health problem in Australia and can lead to a number of liver diseases including cirrhosis, cancer and liver failure. Hepatitis B and C are spread through exposure to infected body fluids or from parent to child. Hepatitis B and C disproportionately affects Indigenous people, those born overseas or those with a history of injecting drug use (The Kirby Institute, 2013).

In Australia, prevention of hepatitis B infection is primarily achieved through vaccination, which has been routinely performed for infants since 2000 (DoH 2014a). Currently, there is no vaccine for hepatitis C and infection does not provide immunity to future infections. Preventative strategies are directed at minimising transmission of the virus through unsafe injecting practices (DoH 2014b).

In 2012 across all ages, of the newly-acquired hepatitis B cases that had at least one risk factor recorded, sexual exposure was the most frequently reported potential source of infection (around 41%), followed by injecting drug use (around 31%) (NNDSS 2012). For newly-acquired hepatitis C infection notifications, approximately 98% had a history of injecting drug use, of which almost 65% reported injecting drug use in the 24 months prior to diagnosis (NNDSS 2012).

### Do rates vary across population groups?

In 2013, there were 26 hepatitis B notifications per 100,000 young people. Hepatitis B notification rates for 18-24 year olds were almost 4 times as high as 12-17 years old (38 compared to 11 per 100,000). The notification rate for males was higher than the rate for females (33 compared to 20 per 100,000) and there were lower rates among Indigenous young people than Other Australian young people (20 compared to 27 per 100,000).

In 2013, the hepatitis C notification rate among all young people was 35 per 100,000. Hepatitis C notification rates were almost ten times as high in young people aged 18-24 compared to 12-17 year olds (56 per 100,000 compared to 6 per 100,000). The rate of hepatitis C infections for males was higher than females (43 per 100,000 compared to 26 per 100,000) and Indigenous young people had much higher rates than Other Australian young people (132 per 100,000 compared to 30 per 100,000).

### Has there been a change over time?

The overall notification rate for hepatitis B has declined by almost 25% from 2005 to 2013 (35 per 100,000 compared to 26 per 100,000). Over this period, notification rates have declined for 18-24 year olds (from 53 per 100,000 to 38 per 100,000) whereas the rate has remained steady in 12-17 year olds at 11 per 100,000. The notification rates for males and females were similar until 2011 when the rate for males began to increase (from 26 per 100,000 to 33 per 100,000) and the rate for females continued to decrease to 19 per 100,000 in 2013. From 2005 to 2013, hepatitis B notification rate exhibited a steady decline in Other Australian young people from 33 per 100,000 to 27 per 100,000.

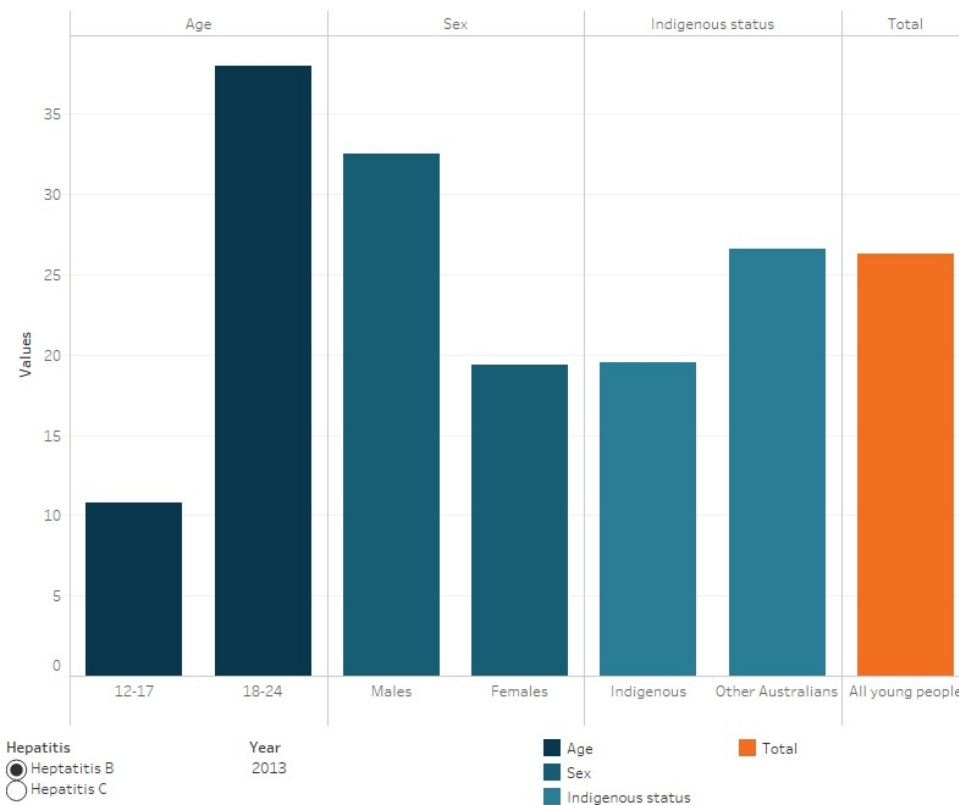
In 2013, the notification rate for Indigenous young people was much lower than in 2005 (20 per 100,000 compared with 72 per 100,000). Note that Indigenous coverage for years 2009 to 2011 was less than 50%, only years 2012 and 2013 are displayed in the 'Trend by Indigenous status' graph. Rates for years 2005 to 2008 can be seen by using the year drop down menu for the 'Population group' graph. The decline in hepatitis B notifications may be attributed to the national vaccination of newborns since 2000 and the adolescent vaccination program since 1997 (NNDSS, 2012).

The notification rate for hepatitis C also declined between 2005 and 2013. These trends appear to be largely driven by a decrease in the notification rate for 18-24 year olds from 86 per 100,000 to 56 per 100,000. Whilst there was a reduction in the notification rate for 12-17 year olds over this period, the rate has remained steady at 6 per 100,000 since 2008. The notification rates for males and females showed an overall decline between 2005 and 2013; however, since 2011 the rates have increased for males from 32 to 43 per 100,000 in 2013. The rate for females fluctuated between 2011 and 2013.

Between 2005 and 2013, hepatitis C notifications showed a steady decline in Other Australian young people from 47 per 100,000 to 30 per 100,000. Over this period the notification rate have been much more variable for Indigenous young people, but appear to have increased in recent years from 91 per 100,000 in 2009 to 132 per 100,000 in 2013.

## Indicator: Hepatitis B and C notification rates for young people aged 12-24 (number per 100,000) - 2005 to 2013

### Hepatitis



Source: National Notifiable Diseases Surveillance System (NNDSS)

### Notes

Hepatitis B and C notification rates include both 'newly acquired' and 'unspecified' notifications.

In interpreting these data it is important to note that changes in notifications over time may not solely reflect changes in disease prevalence or incidence. Changes in testing policies; screening programs, including the preferential testing of high risk populations; the use of less invasive and more sensitive diagnostic tests; and periodic awareness campaigns, may influence the number of notifications that occur over time.

Determination of Indigenous status is by descent, self-identification and community. The 'Other Australians' population group includes both non-Indigenous youths and youths whose Indigenous status was unknown. For further information on the determination of Indigenous status, see [Source data tables: NYIF indicators](#).

Indigenous status data were only presented in instances where the completeness of the data was greater than 50%. For more information see [Source data tables: NYIF indicators](#).

### Sources

National Notifiable Diseases Surveillance System, unpublished data

### References

Department of Health (DoH), 2014a. The Second National Hepatitis B Strategy 2014-2017. Canberra: Commonwealth of Australia.

Department of Health, 2014b. The Fourth National Hepatitis C Strategy 2014-2017. Canberra: Commonwealth of Australia.

The Kirby Institute, 2013. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2013. The Kirby Institute, The University of New South Wales, Sydney NSW 2052.

NNDSS (National Notifiable Diseases Surveillance System), 2012. NNDSS annual report writing group 2012. Australia's notifiable disease status, 2012: annual report of the National Notifiable Diseases Surveillance System. Canberra: NNDSS.

## Health status & wellbeing

### Why are sexually transmissible infection rates important?

Sexually transmissible infections (STIs) remain a major public health concern, contributing to significant long-term morbidity (Bowden et al. 2002; DoH 2014). A number of factors put adolescents at higher risk of STIs, including a lack of knowledge about them, inconsistent condom use, lack of communication and negotiation skills which can make condom use difficult. Biologically, young people may be more vulnerable to STIs due to immature reproductive and immune systems (Sales & DiClemente 2010).

Australia has made progress in the management of STIs with successful education campaigns and safe and effective treatments available for many types. However, some STIs are increasing, indicating that messages about safer sexual practices are not always meeting their mark. The Third National Sexually Transmissible Infections Strategy 2014-2017 aims to reduce sexually transmissible infections (STI) and blood borne viruses (BBV), and the morbidity, mortality and personal and social impacts they cause.

The STIs reported to the NNDSS and included in this portal are chlamydia, gonorrhoea and syphilis. Donovanosis is now rare in Australia (NNDSS 2012) and is not included.

### Do rates vary across population groups?

Chlamydia is the most commonly notified STI among young people in Australia. In 2013, the notification rate was 1,275 per 100,000 for all young people. The rate was 4 times as high among 18-24 year olds as 12-17 year olds (1,889 compared to 468 per 100,000). Notifications for females were twice as high as males (1,726 compared to 846 per 100,000).

The notification rate for gonorrhoea all young people in 2013 was 149 per 100,000. The rate for 18-24 year olds was almost 3 times as high as that for 12-17 year olds (207 compared to 72 per 100,000). Males had a higher notification rate than females (168 compared to 129 per 100,000). Of the different population groups, the greatest disparity in gonorrhoea notification rates was between Indigenous and Other Australian young people (1,359 per 100,000 compared to 88 per 100,000 respectively).

In 2013, there were 12 notifications for syphilis per 100,000 young people. The rate for 18-24 year olds was almost 6 times as high as that for 12-17 year olds (19 per 100,000 compared to 3 per 100,000). The rate for males was 3 times as high as the rate for females (18 per 100,000 compared to 6 per 100,000). Indigenous youths had notably higher rates of syphilis infection compared to Other Australian youths (62 per 100,000 compared to 9.5 per 100,000).

### Has there been a change over time?

Between 2005 and 2013 the notification rate for chlamydia among all young people peaked at 1,338 per 100,000 in 2011 and declined to 1,275 per 100,000 in 2013. These trends are largely consistent across all population groups.

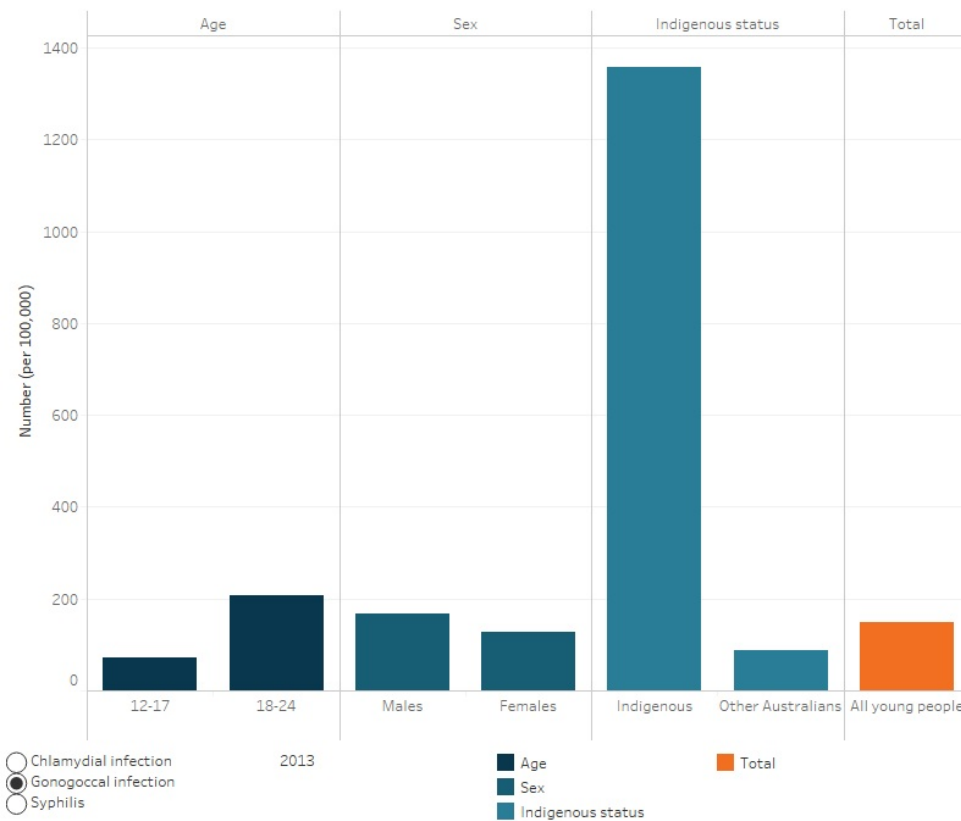
Notification rates for gonorrhoea increased from 94 per 100,000 in 2008 and to a peak of 150 per 100,000 in 2012 where the rate has plateaued. For different age groups and sexes, there appears to be an increase in the notification rates in 18-24 year olds and young males since 2012, whereas there has been a decrease in the notification rates for 12-17 year olds and females over this period. From 2005 to 2013, there has been a steady increase in gonorrhoea notification rates among Other Australian young people (from 36 in 2005 to 88 per 100,000 in 2013). Trends for Indigenous young people are less evident due to large fluctuations between years, although the rate appears to have decreased from 1,648 per 100,000 in 2011 to 1,359 per 100,000 in 2013.

The notification rate for syphilis increased in recent years from 7 per 100,000 in 2010 to 12 per 100,000 in 2013. This trend is also apparent in 18-24 year olds over this period, whereas the notification rate for has relatively steady for 12-17 year olds since 2011. The notification rate for males increased from 10 per 100,000 in 2010 to 18 per 100,000 in 2013, while the rate among young females has declined from 7 per 100,000 in 2011 to 6 per 100,000 in 2013.

Between 2005 and 2013 there has been a steady increase in the syphilis notification rate for Other Australian young people from 4 to 10 per 100,000. Over the same period, the notification rate for Indigenous young people has fluctuated, with values ranging from 140 to 42 per 100,000. In recent years the syphilis notification rate for Indigenous young people has declined from 78 per 100,000 in 2011 to 62 per 100,000 in 2013.

**Indicator: Sexually transmissible infection notification rate among young people aged 12-24 (number per 100,000) - 2005 to 2013**

Sexually transmitted infection



Source: National Notifiable Diseases Surveillance System (NNDSS)

**Notes**

Syphilis notification rates include both infectious syphilis (primary, secondary or early latent) of less than 2 years duration and syphilis of more than 2 years or unknown duration. Syphilis notification rates exclude congenital syphilis.

In interpreting these data it is important to note that changes in notifications over time may not solely reflect changes in disease prevalence or incidence. Changes in testing policies; screening programs, including the preferential testing of high risk populations; the use of less invasive and more sensitive diagnostic tests; and periodic awareness campaigns, may influence the number of notifications that occur over time.

Determination of Indigenous status is by descent, self-identification and community. The 'Other Australians' population group includes both non-Indigenous youths and youths whose Indigenous status was unknown. For further information on the determination of Indigenous status, see [Source data tables: NYIF indicators](#).

Indigenous status data were only presented in instances where the completeness of the data was greater than 50%. For more information see [Source data tables: NYIF indicators](#).

Due to the high proportion of asymptomatic presentations of STI infections, diagnoses are heavily influenced by testing patterns. High rates of STI diagnoses in Indigenous populations may be due to higher levels of screening and not necessarily associated with increased levels of transmission among Indigenous persons.

Additionally, the differences in rates between females and males should be interpreted with caution, as rates for testing for STI infections, symptom status, health care-seeking behaviours, and partner notification differ between the sexes.

**Sources**

National Notifiable Diseases Surveillance System, unpublished data

**References**

Bowden FJ, Tabrizi SN, Garland SM & Fairley CK 2002. Infectious diseases. 6: sexually transmitted infections: new diagnostic approaches and treatments. *Medical Journal of Australia* 176(11):551-7.

Department of Health (DoH) 2014. *Third National Sexually Transmissible Infections Strategy 2014-2017*. Canberra: Commonwealth of Australia.

Sales JM & DiClemente RJ 2010. *Research facts and findings*. New York: ACT for Youth Center of Excellence.





## Health status & wellbeing

### Why are HIV infection rates important?

HIV can be transmitted by sexual contact with an infected person, through infected blood products, to the fetus during pregnancy and to infants through breastfeeding by an infected mother. Those infected can remain without symptoms for many years but are still able to infect others. In most untreated cases, the virus will progressively damage the immune system over many years (by destroying white blood cells), which can lead to a person becoming susceptible to a number of serious infections and cancers. This stage is known as the acquired immune deficiency syndrome (AIDS). The prevalence of HIV in Australia is very low compared with other countries, 0.12% compared with 17.3% in South Africa and 14.9% in Zimbabwe (The Kirby Institute, 2014).

Infection with HIV cannot be cured and currently there is no vaccine to prevent it, although research into a vaccine continues. However, a wider variety of more effective antiviral medications has allowed people with HIV to lead relatively normal lives.

Research on heterosexual couples has shown that HIV treatment also acts as prevention when the HIV-positive partner is receiving anti-retroviral therapy (cART) and has an undetectable viral load. In these situations the risk of transmitting HIV to their HIV-negative partner is greatly reduced. Preliminary results from research looking at whether this also applies to gay men are promising. However, more evidence is needed to better understand the risk involved in having sex without condoms when an HIV-positive partner has undetectable viral load (Grulich et al. 2015).

### Do rates vary across population groups?

In 2013, there were 3.5 notifications per 100,000 reported for all young people aged 12-24 years, with rates rising with increasing age (0.7 per 100,000 for 12-17 year olds compared with 5.7 per 100,000 for 18-24 year olds). Males were more likely to be infected with HIV than females (5.5 per 100,000 compared to 1.5 per 100,000). For the period 2004-2013, non-Indigenous young people had higher rates of HIV infections notifications than Indigenous young people (2.9 per 100,000 compared to 2.5 per 100,000).

### What is the most common mode of infection?

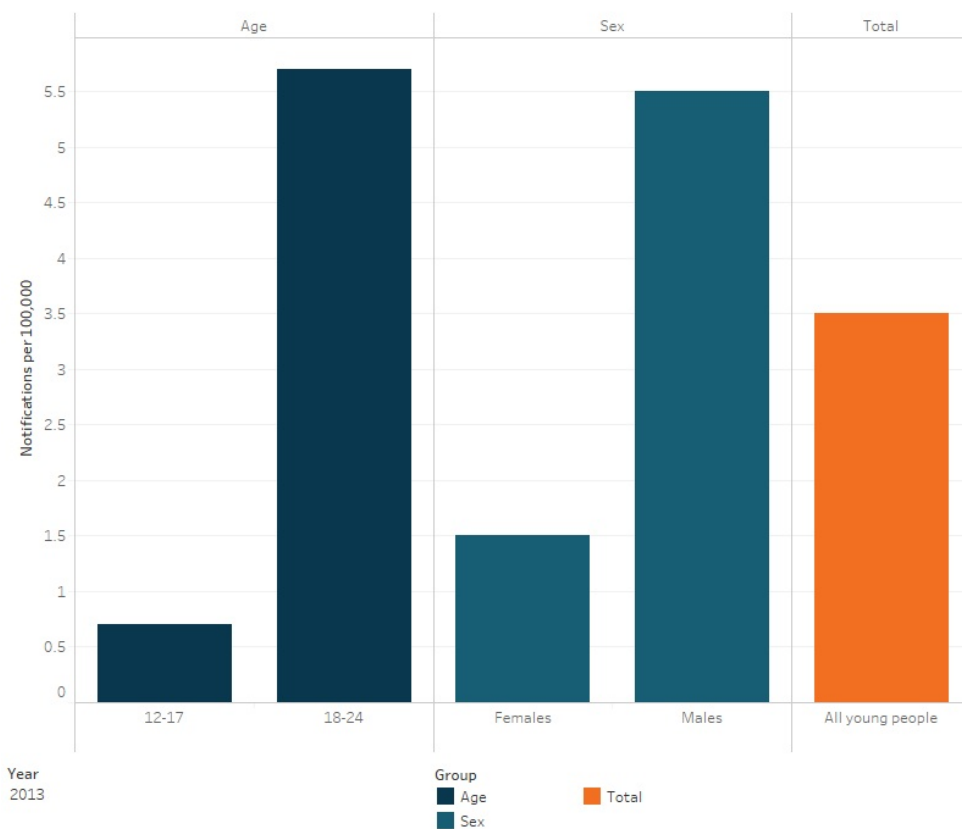
In 2013, the most common source of HIV infection was through male homosexual contact (2.3 per 100,000), followed by heterosexual contact (0.6 per 100,000) and coming from a high prevalence country (0.3 per 100,000).

### Has there been a change over time?

From 2004 to 2013 the HIV notification rate has remained steady for young people aged 12-17 and females. From 2009 to 2012 there was an increasing HIV notifications rate for 18-24 year olds (4.2 per 100,000 to 6.8 per 100,000) and males (4.1 per 100,000 to 6.4 per 100,000). However, from 2012 to 2013 the HIV notification rate for young people aged 18-24 (5.7 per 100,000) and males (5.5 per 100,000) have declined. Although the 2013 HIV notification rates for young people aged 18-24 (5.7 per 100,000) and males (5.5 per 100,000) were lower than in 2012, it is too early to determine whether this constitutes a reversal of the trend.

### Indicator: HIV infection notification rate for young people aged 12-24

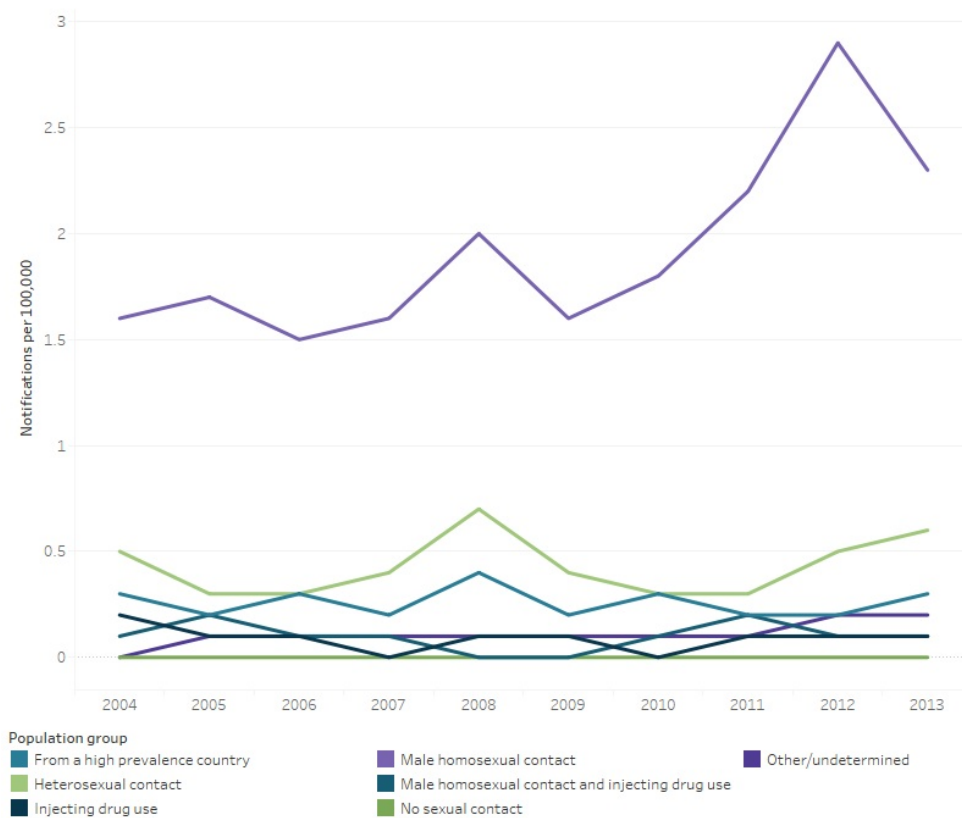
HIV infection notification rate by population group



Source: National HIV registry, The Kirby Institute, customised report

### Supplementary: Source of HIV infection notifications for young people aged 12-24

Source of HIV infection 2004 to 2013



Source: National HIV registry, The Kirby Institute, customised report

### Notes

The number of HIV infection notifications for Indigenous data were not large enough to be reported for individual years. Therefore, these data have been aggregated for 2004 to 2013.

Note that non-Indigenous includes both those born in Australia, and those born overseas. This is different to the non-Indigenous data in the Kirby Institute Annual Surveillance Report of HIV which includes non-Indigenous people born in Australia only.

## Sources

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National HIV Registry, The Kirby Institute, customised report

Data quality statement: Please refer to the [Kirby Institute Annual Surveillance Report of HIV, viral hepatitis, STIs](#) for further information

## References

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Grulich AE, Bavinton BR, Jin F, Prestage G, Zablotska I, Grinsztejn B, Phanuphak N, Moore R, Koelsch KK 2015. HIV transmission in male serodiscordant couples in Australia, Thailand and Brazil. Poster presentation at the Conference on Retroviruses and Opportunistic Infections (CROI 2015), Seattle, Washington 23-26 February 2015.

The Kirby Institute, 2014. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2013. The Kirby Institute, The University of New South Wales, Sydney NSW 2052.

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# Health system performance

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## Health system performance

### What is cervical cancer and how can it be prevented?

Cervical cancer affects the cells of the uterine cervix, which is the lower part (or 'neck') of the uterus where it joins the inner end of the vagina. Cervical cancer develops when abnormal cells in the lining of the cervix begin to multiply out of control and form precancerous lesions. If undetected, these lesions can develop into tumours and spread into the surrounding tissue (AIHW 2015).

Cervical cancer is a rare outcome of persistent infection with one or more oncogenic (cancer-causing) types of human papillomavirus (HPV) (Bosch et al. 2002; Walboomers et al. 1999). Infection with one or more of these oncogenic types of HPV (known as 'high-risk' HPV) is the underlying cause of almost all cases of cervical cancer (AIHW 2015).

Currently 15 high-risk types of HPV are recognised. HPV types 16, 18, and 45 are most predominantly associated with cervical cancer, with HPV types 16 and 18 detected in 70-80% of cases of cervical cancer in Australia (Brotherton 2008).

Overall, Australia has a low incidence of cervical cancer and one of the lowest mortality rates from cervical cancer in the world (AIHW 2015). In Australia, primary prevention of cervical cancer is through vaccination against high-risk HPV types 16 and 18 (National HPV Vaccination Program). Secondary prevention is through cervical screening (the National Cervical Screening Program). From 1 May 2017 a HPV test will replace the Pap test and women will be advised to commence cervical screening from age 25. Cervical cancer in women under the age of 25 is rare, and screening women under the age of 25 has not changed the number of cervical cancer amongst this age group. HPV vaccination will continue to reduce the risk of cervical cancer in young women.

### Vaccinations

The National HPV Vaccination Program was introduced in 2007 and initially targeted 12-13 year old females delivered through an ongoing school-based program, with a catch up program for females aged 13-26 years in place until 2009. Males aged 12-13 years have also been included in the program since 2013, with a two-year catch-up for males aged to 14-15 years. Data on males was not available at the time of preparing this portal.

### Screening

Cervical cancer is one of the few cancers that has a precancerous stage that lasts for many years prior to the development of invasive disease. The National Cervical Screening Program provides an opportunity to treat abnormalities in their precancerous stage, before any possible progression to cervical cancer. Some rare (and often aggressive) cervical cancers, however, do not have a precancerous stage, and therefore are simply unable to be detected by cervical screening.

### Are vaccination and screening rates improving over time?

According to the National HPV Vaccination Program Register, the national HPV 3 dose vaccination coverage for all females turning 15 years of age has remained relatively stable since the introduction of the vaccination in 2007 to 2014 (around 73%).

Early data on cervical abnormalities, genital warts and HPV prevalence in cervical specimens suggest the impact of this program has been rapid and substantial, and that it also provided some indirect protection for young unvaccinated females and young males (National HPV Vaccination Program 2015).

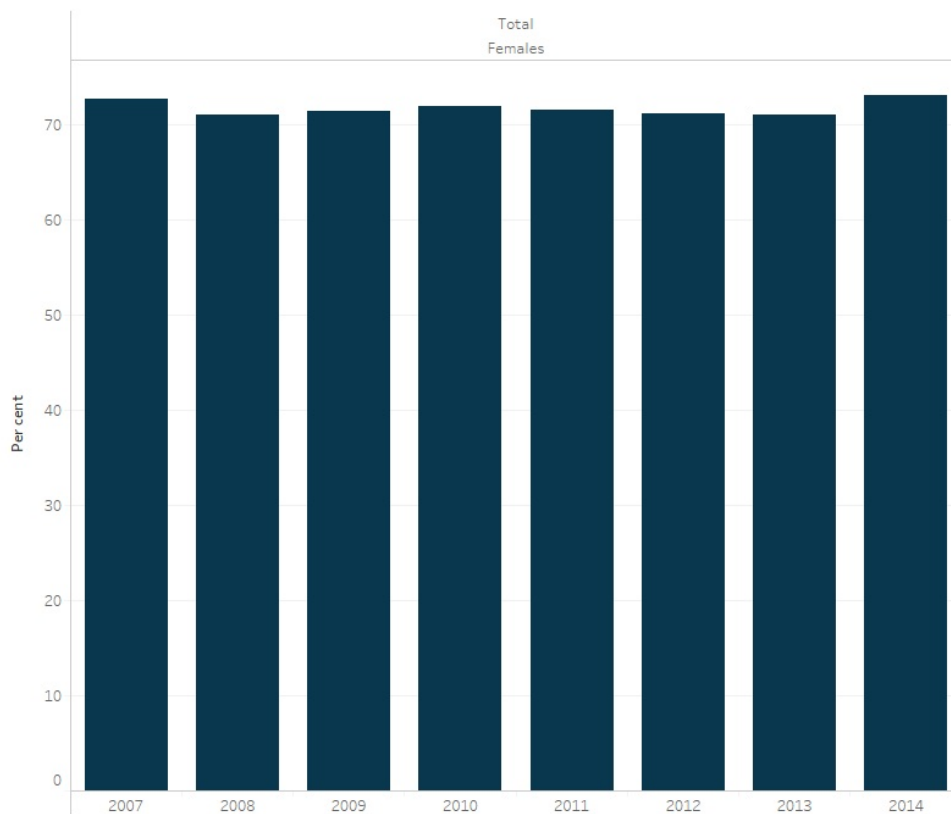
According to the State and Territory Cervical Cytology Register, the rate of participation among young women aged 20-24 in the National Cervical Cancer Screening Program rose from 50% in 1996-97 to its highest point in 1998-99 at 54%. In the last 3 reporting periods (2010-11 to 2012-13) the rate has remained relatively stable at around 43%. In 2012-13 cervical screening rates were lower among 20-24 year olds (43%) than older age groups (AIHW 2015).

### What is the level of awareness of HPV among young people?

Based on data from the Fifth National Survey of Secondary Students and Sexual Health (2013), HPV knowledge among young people in Years 10, 11 and 12 is very poor. In most cases more than half the sample reported that they were 'unsure' of the correct answer to questions about HPV knowledge. On most of the items relating to HPV knowledge, young women had higher rates of knowledge than young men. This has been attributed to the vaccine having been offered to young women for a longer period of time than to young men (Mitchell et al. 2014).

**Indicator: National HPV3 dose vaccination coverage for all females turning 15 years of age (per cent)  
2007 to 2014**

Cervical cancer prevention



Source: National HPV Vaccination Program Register

## Notes

Consistent with the World Health Organisation recommendations the age used to report on HPV coverage in Australia is 15 years (which allows time for all doses to be administered and to account for different age at entry to high school in different states and territories) (National HPV Vaccination Program Register 2015).

Since 2013, males aged 12-13 years have also been included in the National HPV Vaccination Program, with a two-year catch-up for males aged to 14-15 years. At the time of preparing this portal, comprehensive data on males was not yet available.

National Indigenous data is not available for HPV vaccination coverage, with the only states reporting by Indigenous status with sufficient accuracy for publication being NT and Qld.

Not all women are sexually active and therefore at risk of cervical cancer. However, as there are no data on the group at risk (that is, those that are sexually active) screening rates are calculated using the ABS estimated resident population.

National participation rates in cervical screening for Aboriginal and Torres Strait Islander women are not available due to Indigenous status information not being collected on pathology forms in all jurisdictions, although there is evidence that this population group is under-screened (AIHW 2015).

For more information, see the National HPV Vaccination Program Register 2015, and Cervical screening in Australia 2012-13.

## Sources

[National HPV Vaccination Program Register](#)

State and Territory Cervical Cytology Register

[National Survey of Australian Secondary Students and Sexual Health 2008](#)

[National Survey of Australian Secondary Students and Sexual Health 2013](#)

Data quality statements: Please see the published sources (above) for further information

## References

Australian Institute of Health and Welfare (AIHW) 2015. Cervical screening in Australia 2012-2013. Cancer series no. 93. Cat. no. CAN 91. Canberra: AIHW.

Bosch FX, Lorincz A, Muñoz N, Meijer CJ & Shah KV 2002. The causal relation between human papillomavirus and cervical cancer. *Journal of Clinical Pathology* 55(4):244-65.

Brotherton JM 2008. How much cervical cancer in Australia is vaccine preventable? A meta-analysis. *Vaccine* 26(2): 250-56.

Mitchell A, Patrick K, Heywood W, Blackman P, Pitts M 2014. 5th National Survey of Australian Secondary Students and Sexual Health 2013 (ARCSHS Monograph Series No. 97), Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne, Australia.

National HPV Vaccination Program Register 2015. Walboomers JM, Jacobs MV, Manos MM, Bosch FX, Kummer JA, Shah KV et al. 1999. Human papillomavirus is a necessary cause of invasive cervical cancer worldwide. *Journal of Pathology* 189(1):12-19.

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# Factors influencing health

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## Factors influencing health

### Why is reporting overweight and obesity rates important?

Overweight and obesity in young people is a risk factor for many serious health conditions in the short and long term (NHMRC 2013).

Overweight and obese young people are at increased risk of diabetes, stroke, coronary heart disease, hypertension and cancer in later life (Reilly & Kelly 2011). They are also at higher risk of adverse psychosocial outcomes, resulting from teasing, bullying, poor body image and depression (Latzer & Stein 2013). Many obese young people also grow to become obese adults (AIHW 2011).

### Do rates vary across population groups?

In 2011-12, around one third (32%) of young people aged 12-24 had a Body Mass Index (BMI) above the cut-off points for 'overweight' and 'obese' for their age (see Notes for more details). A significantly higher proportion of young people aged 18-24 were overweight or obese (36%) compared with 12-17 year olds (26%).

A greater proportion of males aged 12-24 were either overweight or obese compared with females aged 12-24 (35% and 29% respectively). However, in relation to obesity only, the rate was higher among young females (13%) than among young males (11%).

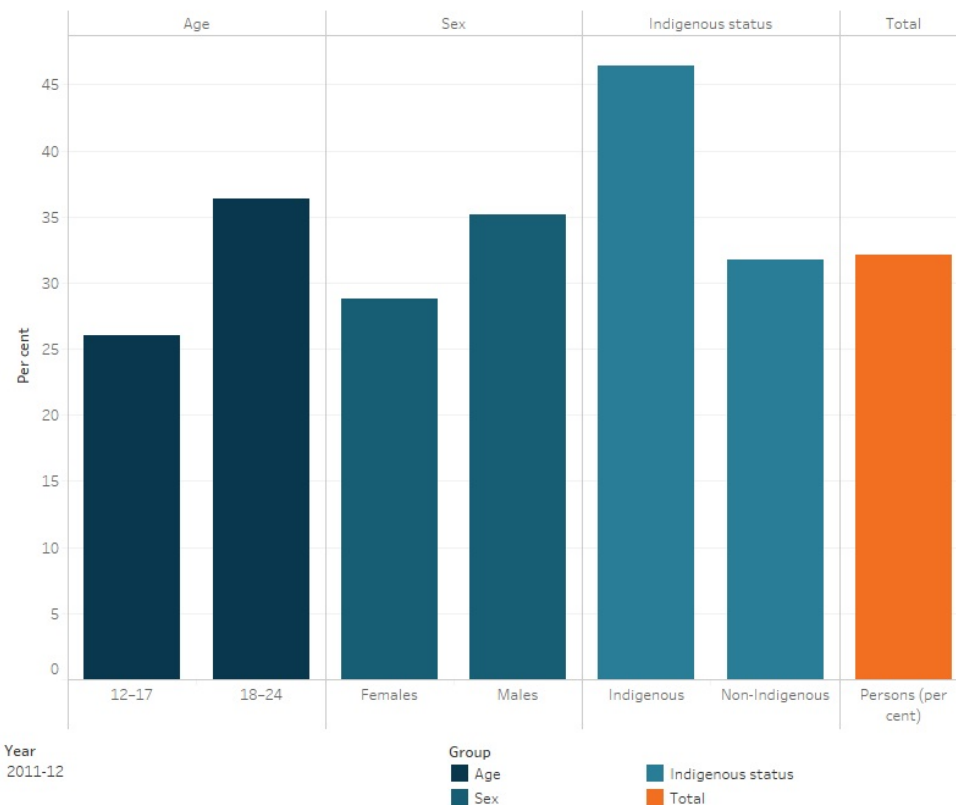
The largest disparity between populations groups in relation to being overweight or obese was between Indigenous and non-Indigenous young people. The proportion of Indigenous young people who were overweight or obese was almost 1.5 times as high as the rate for non-Indigenous young people (46% compared to 32%).

### Has there been a change between 2007-08 and 2011-12?

The ABS Australian Health Survey 2011-12 showed that the only overweight/obese category which increased between 2007-08 and 2011-12 was for those aged 18-24 who were classified as obese (increased from 13% to 15%), however this increase was not statistically significant. In the 4 years since the previous survey there were no significant differences in the proportion of overweight or obese young people aged 12-24 between all of the population groups examined. Research suggests that the obesity rates among children and adolescents may have stabilised between 1996 and 2008 (Olds et al. 2011). However, the prevalence of overweight and obesity among young people remains high, and is therefore a cause for concern (AIHW 2014).

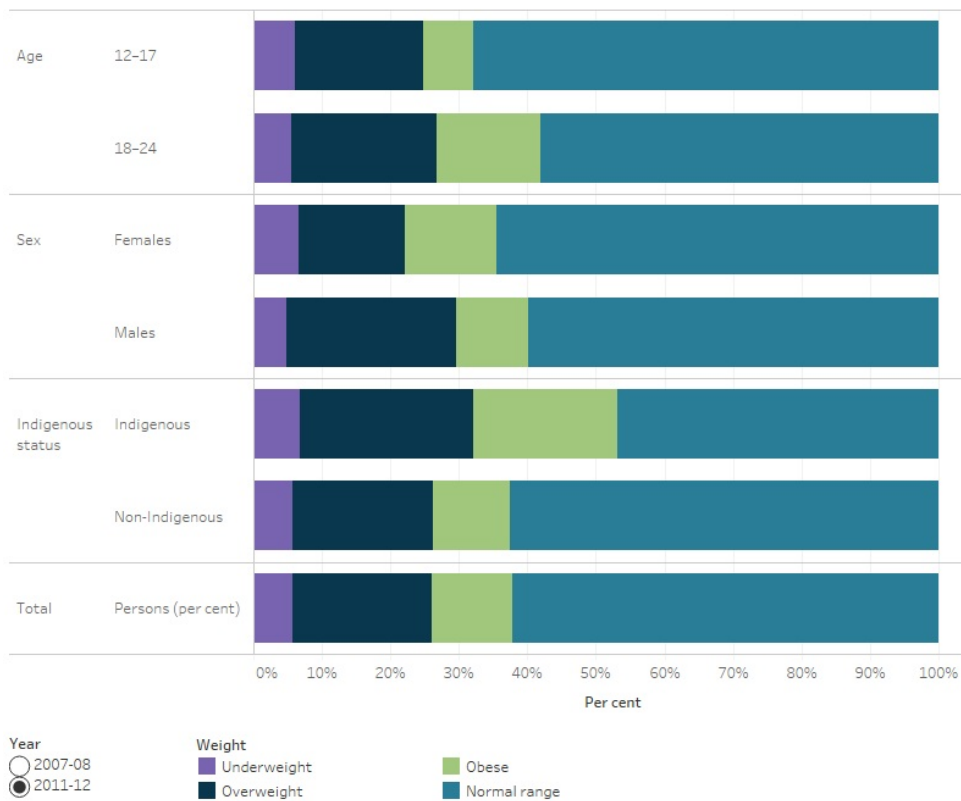
#### Indicator: Proportion of young people aged 12-24 who are overweight or obese

Overweight and obesity by population group



## Supplementary: Weight type of young people aged 12-24

Weight type by population group



Source: Customised report from: ABS National Health Survey 2007-08; ABS Australian Health Survey 2011-12: Updated results; ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13: Updated results

## Notes

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

Overweight and obesity can be indirectly measured at the population level using body mass index (BMI). BMI is a measure of the ratio of weight in kilograms divided by height in metres squared (kg/m<sup>2</sup>). BMI changes substantially with age and can differ for boys and girls. Young people are considered to be overweight or obese if their BMI scores exceed international cut-off points for their specific age and sex for 12-17 year olds (see Cole et al. 2000 for details) or if their BMI  $\geq 25$  (or for obese  $\geq 30$ ) for 18-24 year olds (WHO 1998). Overweight and obesity estimates presented here have been obtained by taking into account the differences in BMI scores for 12-17 and 18-24 year olds.

## Sources

Customised report from: ABS National Health Survey 2007-08; ABS Australian Health Survey 2011-12: Updated results; ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13: Updated results

Data quality statement: Not available, please refer to [ABS Australian Health Survey 2011-13](#) for further information.

## References

AIHW (Australian Institute of Health and Welfare) 2011. Key indicators of progress for chronic disease and associated determinants: data report. Cat. no. PHE 142. Canberra: AIHW.

AIHW 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

Cole TJ, Bellizzi MC, Flegal KM & Dietz WH 2000. [Establishing a standard definition for child overweight and obesity worldwide: international survey](#). British Medical Journal 320(7244):1240-5. See Table 4.

Latzer Y & Stein D 2013. A review of the psychological and familial perspectives of childhood obesity. Journal of Eating Disorders 1:7.

National Health and Medical Research Council (NHMRC) 2013. Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia. Melbourne: NHMRC.

Olds T, Maher C, Zumin S, Péneau S, Lioret S, Castetbon K et al. 2011. Evidence that the prevalence of childhood overweight is plateauing: data from nine countries. International Journal of Pediatric Obesity 6:342-60.

Reilly JJ & Kelly J 2011. Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. *International Journal of Obesity* 35:891-898.

WHO (World Health Organization) 1998. Obesity: preventing and managing the global epidemic. Report of a WHO consultation, Geneva, 3-5 Jun 1997. Geneva: WHO.

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## Factors influencing health

### Why is reporting on physical activity important?

The importance of regular physical activity to the health and wellbeing of young people is well established (Brown et al. 2013). Physical activity is known to reduce risk of cardiovascular disease and also positively affects cardiovascular risk factors such as overweight or obesity, high blood pressure and Type 2 diabetes (AIHW 2015). It protects against some forms of cancer, and strengthens the musculoskeletal system (AIHW 2014; Okely et al. 2012). Physical activity may also improve an adolescent's psychosocial wellbeing by reducing symptoms of depression, stress and anxiety, and through improvements in self-confidence, self esteem, energy levels, sleep quality and ability to concentrate (Okely et al. 2012).

The ABS Australian Health Survey categorises physical exercise into four levels: high, moderate, low and sedentary (no exercise or very low levels of exercise) (ABS 2013). The sedentary level represents individuals who may particularly benefit from increased levels of exercise.

### Do activity levels vary across population groups?

In 2011-12 more than 1 in 4 young people aged 12-24 years were sedentary (27%), and levels of sedentary behaviour rose with increasing age (21% of 15-17 year olds and 29% of 18-24 year olds). Females were more likely to be sedentary than males with 31% and 24%, respectively. Similarly, Indigenous young people were more likely to be sedentary than non-Indigenous young people (39% compared to 29%).

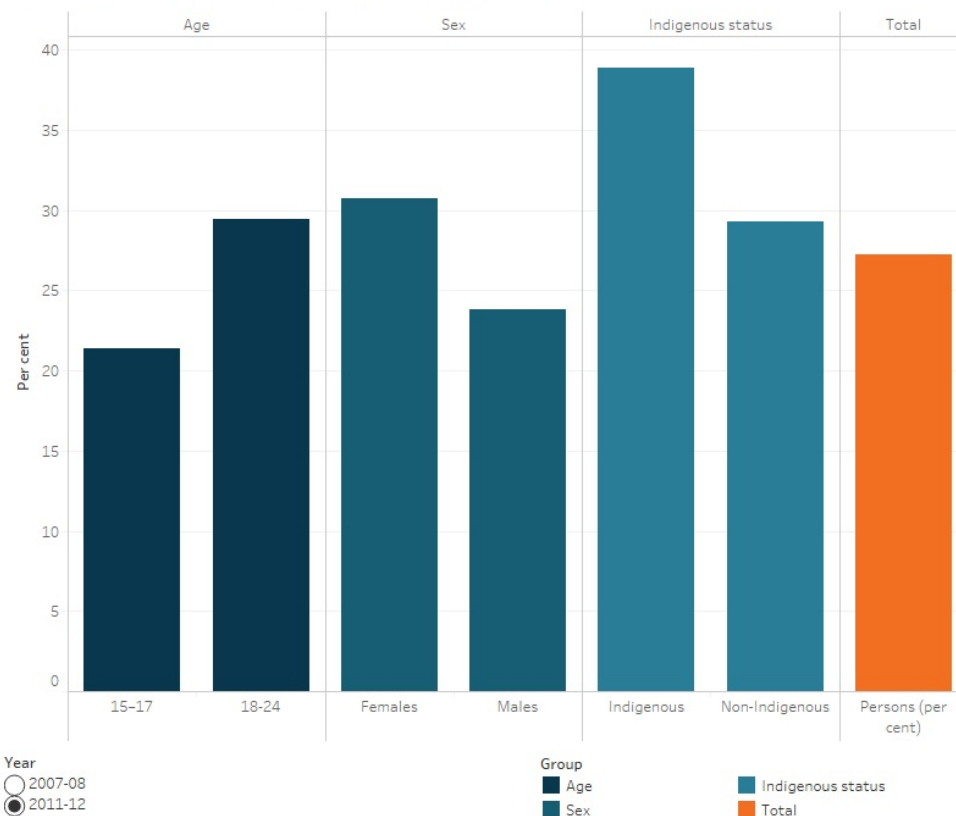
There were significant differences in each level of physical exercise between males and females. Females had higher proportions of low-level physical exercise than males (39% compared to 22%). Conversely, males were more likely to have moderate (26% compared to 19%) or high levels (28% compared to 11%) of physical exercise than females. A significantly higher proportion of non-Indigenous young people had high levels of physical exercise compared with Indigenous young people (19% and 14%, respectively).

### Has there been a change over time?

The ABS Australian Health Survey 2011-12 showed that in the 4 years since the previous survey there was a significant reduction in the proportion of all young people reporting sedentary behaviour, from 33% to 27%. This decline was consistent among the different population groups examined, however, the only statistically significant reductions over this period were for 18-24 year olds (36% to 29%) and males (30% to 24%).

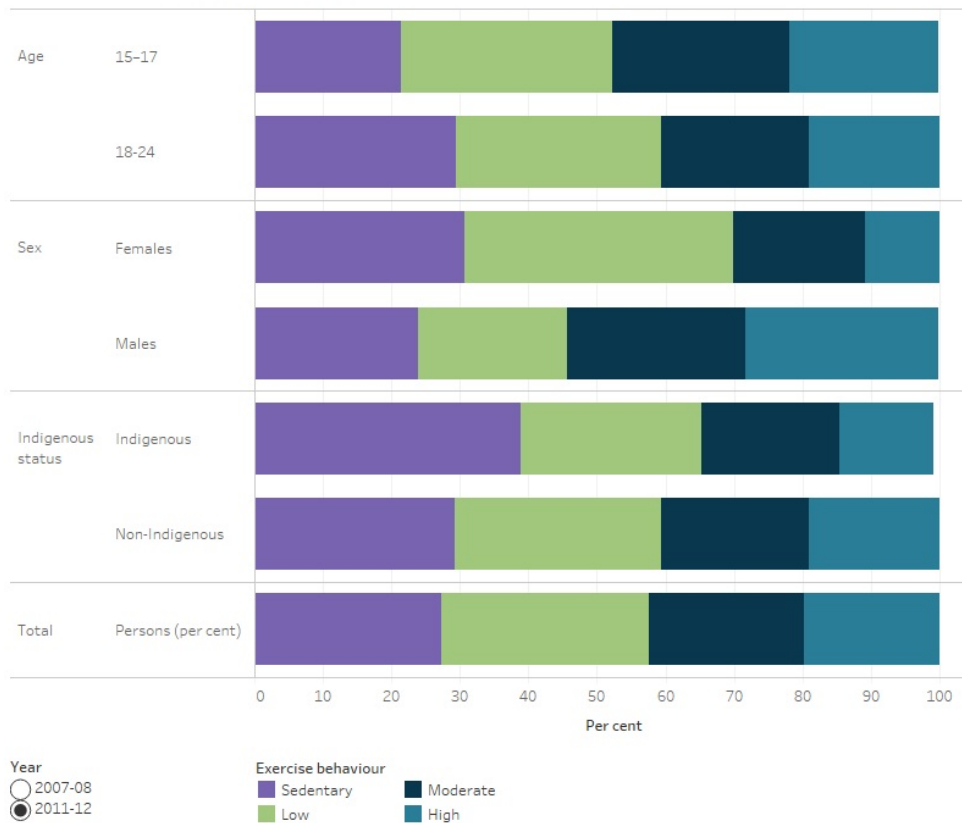
#### Indicator: Proportion of young people aged 15-24 who are sedentary

Sedentary behaviour among young people by population group



## Supplementary: Level of exercise among young people aged 15-24

Level of exercise by population group



Source: Customised report from: ABS National Health Survey 2007-08; ABS Australian Health Survey 2011-12 (National Health Survey component); ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13

## Notes

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

In the ABS Australian Health Survey 2011-12 exercise levels for respondents 15 years and over were defined based on an exercise score and associated categories relating to this score (ABS 2013). The survey collected frequency and intensity of exercise for fitness recreation or sport in the week prior to the interview. An exercise score was derived by multiplying factors to represent the intensity of the exercise (3.5 for walking, 5.0 for moderate exercise and 7.5 for vigorous exercise) by the duration of physical activity in minutes (ABS 2013). Scores were grouped into the following 4 categories (ABS 2013):

Sedentary—Scores less than 50 (includes no exercise)

Low—Scores of 50 to less than 800

Moderate—Scores of 800 to 1600, or more than 1600 but less than 1 hour vigorous physical activity

High—Scores more than 1600 and with 1 hours or more of vigorous exercise

The ABS National Health Survey 2007-08 collected information on exercise engaged in during the two weeks prior to interview (as opposed to the week prior to interview). The scores provided above have taken into account these differences.

## Sources

Customised report from: ABS National Health Survey 2007-08; ABS Australian Health Survey 2011-12 (National Health Survey component); ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13

Data quality statement: Not available, please see [ABS Australian Health Survey 2011-13](#) for further information

## References

Australian Bureau of Statistics (ABS) 2013. Australian Health Survey: Users' Guide, 2011-13. Adult Physical Activity. Cat. no. 4363.0.55.001. Canberra: ABS

Australian Institute of Health and Welfare (AIHW) 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

AIHW 2015. Cardiovascular disease, diabetes and chronic kidney disease—Australian facts: Risk factors. Cardiovascular, diabetes and chronic kidney disease series no. 4. Cat. no. CDK 4. Canberra: AIHW.

Brown W, Bauman A, Bull F, Burton N 2013. Development of evidence-based physical activity recommendations for adults (18–64 years). Report prepared for the Australian Government Department of Health, August 2012. Canberra: Department of Health.

Okely AD, Salmon J, Vella SA, Cliff D, Timperio A et al. 2012a. A Systematic Review to update the Australian Physical Activity Guidelines for Children and Young People. Canberra: Australian Government Department of Health.

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## Factors influencing health

### Why are rates on fruit and vegetable consumption important?

Nutrition is one of the most important behavioural risk factors on an individual's health (AIHW 2015), and has significant potential to improve overall public health (NHMRC 2013). Poor nutrition can lead to increased risk of overweight and obesity, cardiovascular disease, type 2 diabetes and some forms of cancer (AIHW 2015; NHMRC 2013).

For young people, a wide variety of nutritious foods is needed for achieving and sustaining normal growth and development (NHMRC 2013). Growth in height accelerates rapidly over 1-3 years in adolescence before ceasing at about 16 years in girls and 18 years in boys (NHMRC 2013). The development of healthy eating habits is particularly important during childhood and adolescence as these habits are likely to persist across the lifespan. However, this is subject to an increasing array of influences, including peer pressure, which peaks in adolescence (NHMRC 2013).

The evidence suggests that total fruit intake (including fruit juice) and whole fruit intake (whole fruit only) are the second and third most correlated factors with an overall healthy eating pattern, after amount of empty calories consumed (Guenther et al. 2007).

### Dietary guidelines on fruit and vegetable consumption

The 2003 National Health and Medical Research Council (NHMRC 2003) Dietary Guidelines for all Australians recommend the following serves of fruit and vegetables each day (ABS 2013):

For young people aged 12-17 years:

- Three serves of fruit
- Four serves of vegetables

For young people aged 18-24 years:

- Two serves of fruit
- Five serves of vegetables

The guidelines were revised in 2013; however, 2003 guidelines are used here to allow changes over time to be reported.

### Do rates vary across population groups?

#### Fruit consumption

According to the Australian Health Survey 2011-12, about one in three (33%) young people aged 12-24 met the 2003 NHMRC guidelines on fruit consumption. About one in five (21%) young people aged 12-17 met the guidelines for their age, compared with around half the proportion of young people aged 18-24 year olds (42%). Fewer males than females met the fruit consumption guidelines (35% compared with 40%), although these were not statistically significant. Furthermore, the proportion of Indigenous young people aged 18-24 (39%) who met the guidelines was not significantly different to that of all young Australians aged 18-24 (42%).

#### Vegetable consumption

In 2011-12, about one in seven (14%) young people aged 12-17 met the 2003 NHMRC guidelines on vegetable consumption which was more than double the proportion of young people aged 18-24 year olds (5.4%). Fewer males than females met the vegetable consumption guidelines (7.8% compared with 10.2%). There was no statistically significant difference in the proportion of Indigenous young people aged 18-24 who met the guidelines compared with all Australians from the same age cohort.

### Has there been a change over time?

#### Fruit consumption

There has been no statistically significant change in proportion of young people (aged 12-24) meeting the fruit consumption guidelines between 2007-08 and 2011-12 (34% compared with 33%). There was also no statistically significant change for 12-17 year olds (around 21%) or the proportion of 18-24 year olds meeting the guidelines (45% to 42%).

#### Vegetable consumption

There has been a no significant change in the proportion of all young people (aged 12-24) meeting the vegetable consumption guidelines between 2007-08 and 2011-12 (10.3% compared with 9%). Similarly, the proportion of 12-17 year olds (16% to 14%) and 18-24 year olds (6% to 5.4%) meeting the guidelines has not changed significantly over this period.

### Why don't young people eat enough fruit and vegetables?

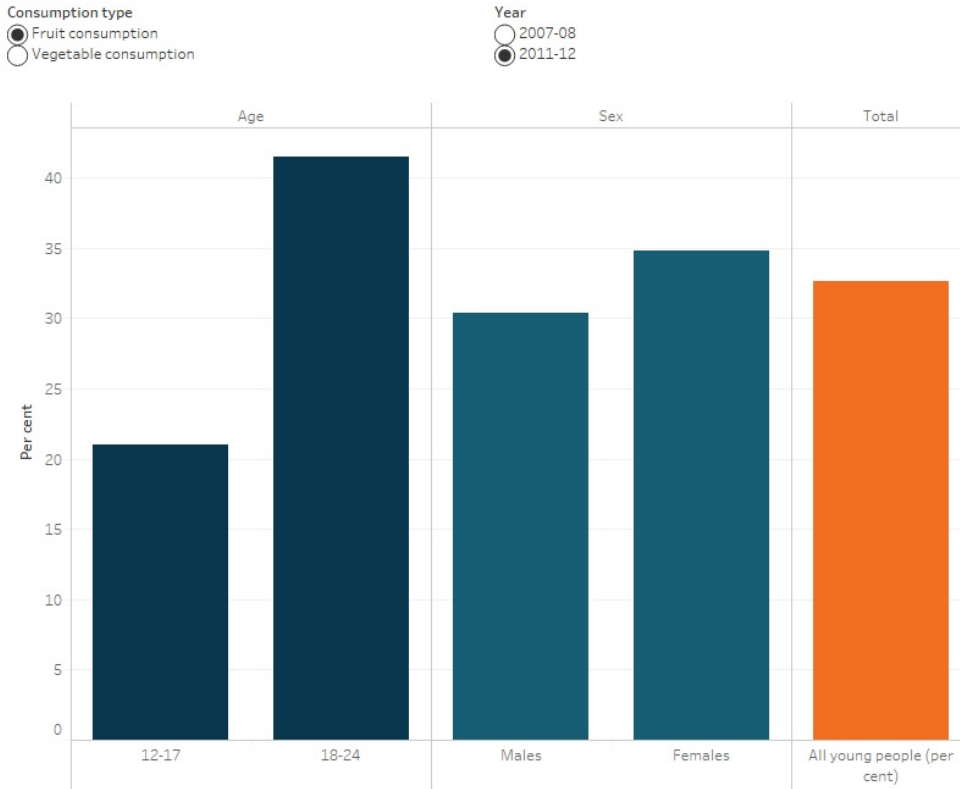
There are several reasons why young people may not be consuming sufficient fruit and vegetables for a healthy diet. There may be a lack of supply of fresh fruit and vegetables, particularly in very remote areas, and a lack of education about the importance of healthy eating or in food preparation techniques (AIHW 2015; Brimblecombe & O'Dea 2009). Healthy fresh foods are often more expensive than foods with



poorer nutritional content and greater energy density (Darmon & Drewnowski 2008). Further, young people may be influenced by peer pressure or television advertising for foods with a high content of fat, sugar or salt (AIHW 2012; NHMRC 2013).

**Indicator: Proportion of young people aged 12-24 meeting Australian Dietary Guidelines for fruit or vegetable consumption**

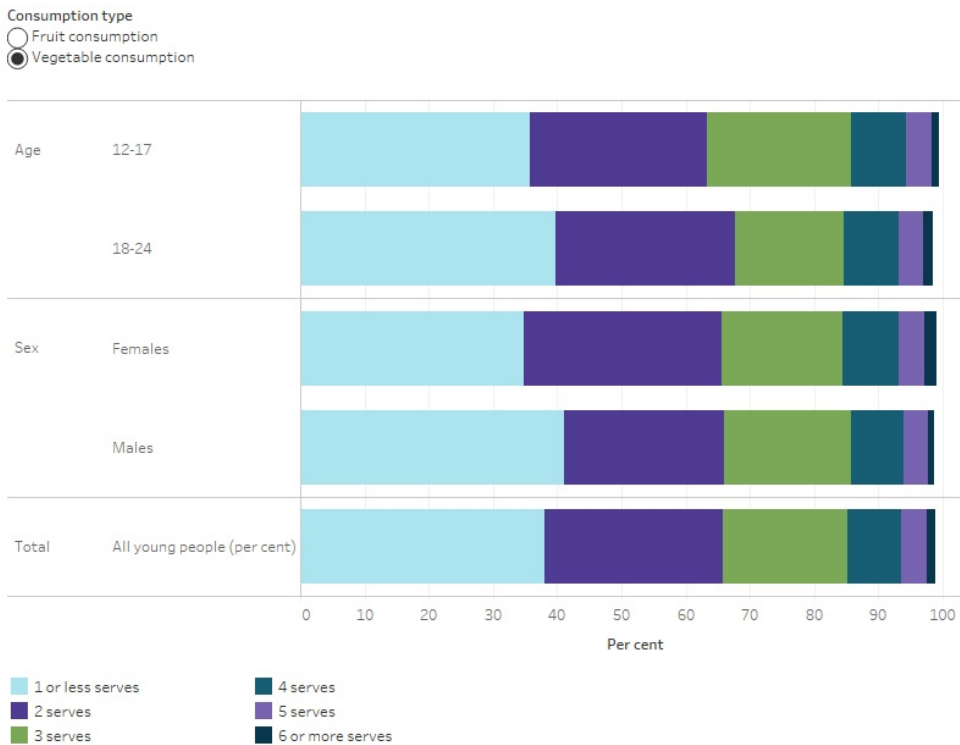
Population group 12-24 year olds



Source: AIHW analysis of: ABS 2010 National Health Survey, 2007-08. ABS cat. no. 4364.0. Canberra: ABS.; ABS 2013. Australian Health Survey: Updated Results 2011-12. ABS cat. no. 4364.0. Canberra: ABS.

**Supplementary: Usual daily consumption by number of serves**

Population group 12-24 year olds, 2011-12



Some estimates have relative standard errors of 25% to 50% and should be used with caution. Please refer to the data and footnotes for further information

Source: AIHW analysis of: ABS 2010 National Health Survey, 2007-08. ABS cat. no. 4364.0. Canberra: ABS.; ABS 2013. Australian Health Survey: Updated Results 2011-12. ABS cat. no. 4364.0. Canberra: ABS.

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

This report uses data from the Australian Bureau of Statistics' (ABS) 2007-08 National Health Survey and the ABS Australian Health Survey 2011-12 to report on the number of serves of fruit and vegetables consumed by young people. Using the NHMRC 2003 guidelines allows comparability between results for the 2011-12 Australian Health Survey and the 2007-08 National Health Survey.

## Sources

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AIHW analysis of: ABS 2010. National Health Survey, 2007-08. ABS cat. no. 4364.0. Canberra:ABS.; ABS 2013. Australian Health Survey: Updated Results 2011-12. ABS cat. no. 4364.0. Canberra:ABS.; ABS 2014. Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results, 2012-2013. ABS cat. no. 4727.0. Canberra:ABS.

Data quality statements: Please refer to the published sources (above) for further information

## References

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Australian Bureau of Statistics (ABS) 2013. [Profiles of Health, Australia, 2011-13: Daily intake of fruit and vegetables](#). Cat. no. 4338.0. Canberra: ABS.

Australian Institute of Health and Welfare 2012. [Australia's food and nutrition 2012](#). Cat. no. PHE 163. Canberra: AIHW.

AIHW 2015. [Cardiovascular disease, diabetes and chronic kidney disease—Australian facts: Risk factors](#). Cardiovascular, diabetes and chronic kidney disease series no. 4. Cat. no. CDK 4. Canberra: AIHW.

Brimblecombe J & O'Dea K 2009. [The role of energy cost in food choices for an Aboriginal population in northern Australia](#). *Medical Journal of Australia* 190(10):549-51.

Guenther P, Reedy J, Krebs-Smith S, Reeve B, Basiotis P 2007. [Development and Evaluation of the Healthy Eating Index-2005: Technical Report](#). Center for Nutrition Policy and Promotion, US Department of Agriculture.

NHMRC 2003. [Dietary guidelines for all Australians](#). Canberra: National Health and Medical Research Council.

NHMRC 2013. [Australian Dietary Guidelines](#). Canberra: National Health and Medical Research Council.

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## Factors influencing health

### Why are rates of smoking important?

The detrimental health effects of tobacco smoking are well established. In the short term, tobacco use may lead to respiratory problems, shortness of breath, nicotine dependence (and subsequent withdrawal symptoms), persistent coughing and reduced physical fitness (AIHW 2008). In the long term, tobacco smoking is a leading risk factor for chronic disease and death, including many types of cancer, respiratory disease and heart disease, and is the major cause of cancer, accounting for about 20-30% of cancer cases (AIHW & AACR 2012).

Most tobacco smokers take up smoking in adolescence, with very few people beginning to smoke as adults (Mathers et al. 2006). Those who begin smoking at younger ages (12 or 13 years) have been found to smoke more cigarettes per day on average, and to reach this -higher level of smoking at a younger age than those who begin smoking when they are older (Hoffmann et al. 2006). Adolescent tobacco use is associated with a range of social and health problems in early adulthood, such as continued smoking, problematic alcohol use, and mental health, academic and sleep problems (Mathers et al. 2006).

### Do rates vary across population groups?

In 2013, 9.1% of young people aged 12-24 were daily smokers. There was a greater proportion of daily smokers among young people aged 18-24 than 12-17 year old (13.4% compared to 3.4% respectively) and Indigenous compared with non-Indigenous young people (20.3% and 8.7% respectively). The proportion of young males who smoked daily was slightly higher than that of young females (9.7% compared to 8.4%), however, this was not statistically significant.

Most young people aged 12-24 in 2013 had never smoked (85%). Adolescents aged 12-17 were more likely to have never smoked than 18-24 year olds (95% compared to 77%). Young adults were also more likely to be weekly occasional smokers than adolescents (3% compared to around \*1%)

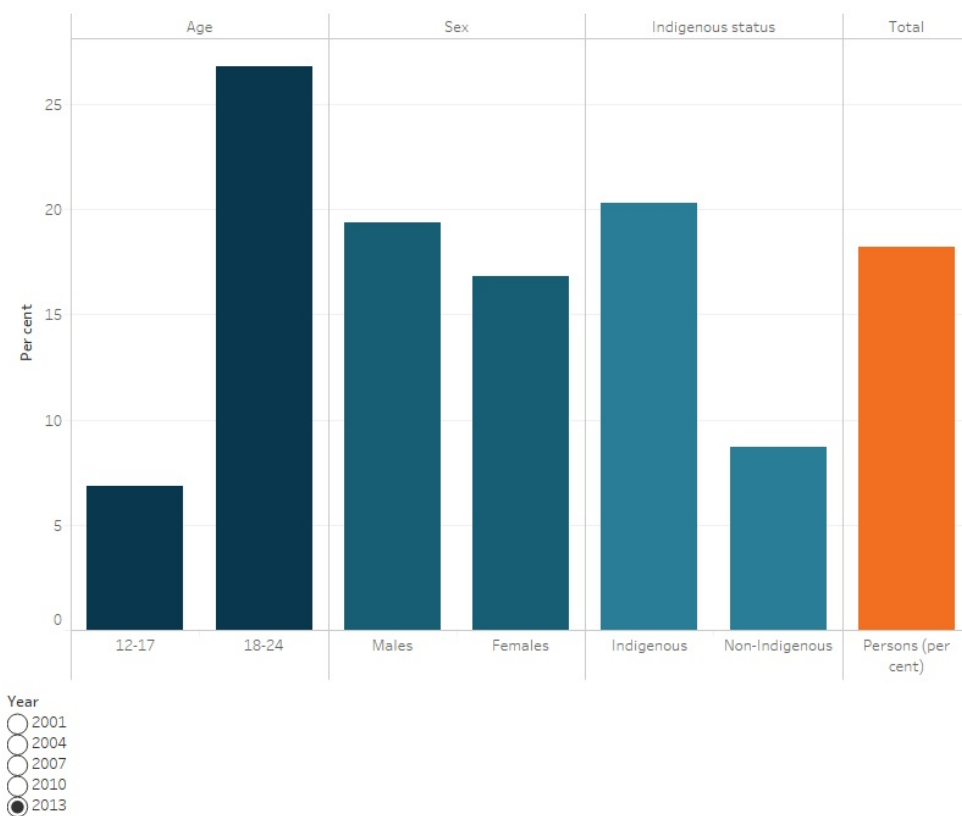
### Has there been a change over time?

From 2001 to 2013 there has been a decrease in the proportion of all young people who were daily smokers (19% to 9.1%). Over this period there were similar trends among 18-24 year olds (24% to 13%), males (19% to 10%), females (19% to 8.4%) and non-Indigenous young people (19% to 8.7%). Between 2004 and 2013, the proportion of daily smokers aged 12-17 years, decreased from 5.2% to 3.4%.

A significantly lower proportion of Indigenous young people were daily smokers in 2013 (20%) compared to 2001 (39%), though in the intervening years rates varied (there were no Indigenous people captured by the survey in 2004 and in 2007 Indigenous numbers had high relative standard errors and should be interpreted with caution).

**Indicator: Proportion of young people aged 12-24 who are daily smokers, 2001-2013**

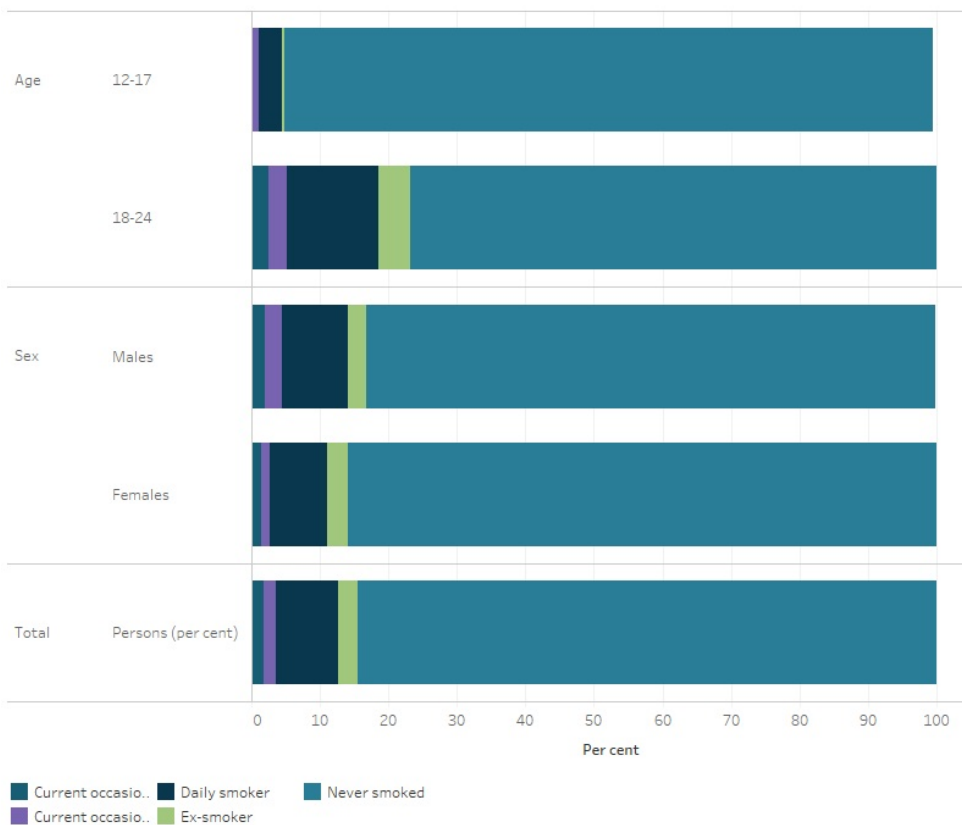
Proportion of young people who are daily smokers by population group



Source: AIHW National Drug Strategy Household Survey

**Supplementary: Smoker status of young people**

Smoker status of young people aged 12-24 years, 2013



Source: AIHW National Drug Strategy Household Survey

**Notes**

\*This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Estimates with relative standard errors greater than 50% have been suppressed. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

The National Drug Strategy Household Survey includes those aged 12-24 except in 2001 when 12-13 year olds were not included. The 2001 total is for people aged 14-24.

Ex-smoker refers to individuals who have smoked at least 100 cigarettes (manufactured and/or roll your own) or the equivalent amount of tobacco in their life, and reports no longer smoking.

Never smoked refers to individuals who have not smoked at least 100 cigarettes or the equivalent amount of tobacco in their life.

## Sources

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[AIHW National Drug Strategy Household Survey](#)

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare) 2008, Australia's health 2008: the eleventh biennial health report of the Australian Institute of Health and Welfare. Cat. no. AUS 99. Canberra: AIHW.

AIHW & AACR (Australasian Association of Cancer Registries) 2012. Cancer in Australia: an overview, 2012. Cancer series no. 74. Cat. no. CAN 70. Canberra: AIHW.

Hoffmann B, Sussman S, Unger J & Valente T 2006. Peer influences on adolescent cigarette smoking: a theoretical review of the literature. *Substance Use and Misuse* 41(1):103-55.

Mathers M, Toumbourou J, Catalano R, Williams J & Patton G 2006. Consequences of youth tobacco use: a review of the prospective behavioural studies. *Addiction* 101(7):948-58.

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## Factors influencing health

### Why is reporting on alcohol use important?

Drinking alcohol can be harmful to young people's development and it can have ill effects on health and wellbeing. Alcohol-related damage to the brain has been associated with learning difficulties, alcohol dependence and depression (MCDS 2011). Long-term excessive use of alcohol can lead to a number of physical, emotional and social problems.

In 2009, the National Health and Medical Research Council (NHMRC) released new Australian guidelines to reduce health risks from drinking alcohol. For healthy men and women, drinking no more than 4 standard drinks on a single occasion (single-occasion risky drinkers) reduces the risk of alcohol-related injury arising from that occasion. Drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury (lifetime risky drinkers). For young people under the age of 18, not drinking at all is the safest option (NHMRC 2009).

Various strategies and initiatives have been implemented which aim to raise awareness of the detrimental effects of risky drinking among young people, and which will contribute to developing a more responsible drinking culture among young Australians (DoH 2013).

### Do rates vary across population groups?

In 2013, 31% of young people aged 12-24 drank alcohol at levels that put them at risk of harm on that occasion. The proportion 18-24 year old single-occasion risky drinkers was more than five times that for 12-17 year olds (47% compared to 8.7%) and greater among males than females (35% compared to 26%). There was no statistically significant difference between the proportion of Indigenous (38%) and non-Indigenous (30%) single-occasion risky drinkers.

Around 13% of young people drank at levels that put them at risk of harm over their lifetime (lifetime risky drinkers); this was significantly lower than the proportion of all young people who drank at risky levels on single occasions (31%). Young people aged 12-17 were less likely to engage in lifetime risky drinking than 18-24 year olds (2.6% compared to 21%). Males were more likely to be lifetime risky drinkers than females (17% compared to 9%). There was no statistically significant difference between the proportion of Indigenous and non-Indigenous life-time risky drinkers (\*11% and 14% respectively).

### Has there been a change over time?

There was a significant decline in single-occasion risky drinking among all young people from 47% in 2001 to 31% in 2013. There were similar declines among 18-24 year olds (from 57% to 47%), males (52% to 35%), females (41% to 26%), and non-Indigenous young people (46% to 30%). There was also a significant decline in single occasion risky drinking among 12-17 year olds from 17% in 2004 to 8.7% in 2013.

There was no clear trend or significant difference among Indigenous young people over this period, with proportions fluctuating between years.

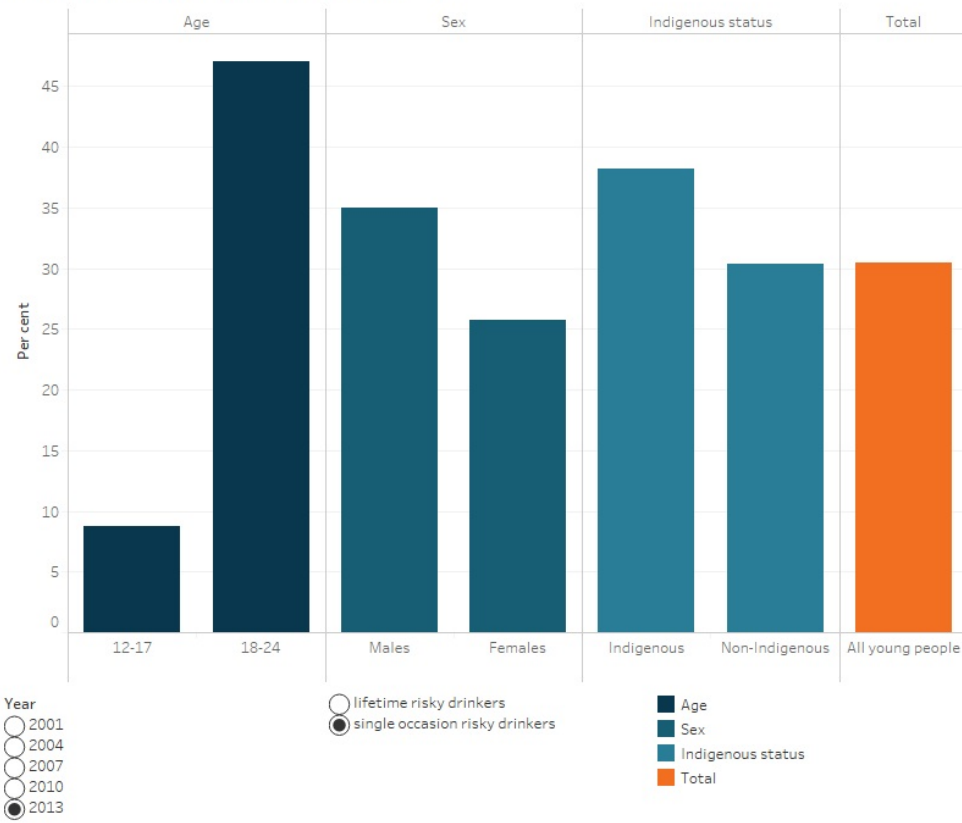
From 2001 to 2013, there was a clear decline in the proportion of all young people drinking at lifetime risky levels, from 24% to 13%. There were significant declines in lifetime risky drinking among males (30% to 17%) and non-Indigenous young people (24% to 14%). For 12-17 year olds, there were also significant reductions in lifetime risky drinking between 2004 and 2014 (from 6.4% to 2.6%). There was no clear trend between 2001 and 2013 for 18-24 year olds, females and Indigenous youths.

From 2010 to 2013, there was a significant decrease in the proportion of all young people drinking at very high risk levels (more than 10 standard drinks on a single occasion) at least once a month (from 15% to 12%). This appears to have been largely driven by reductions in very high risk drinking among 18-24 year olds (from 24% to 18%).

Between 2001 and 2013, there was a significant increase in the proportion of young people who abstained from drinking (increasing from 20% to 41%). This increase was evident among 18-24 year olds over the same period (increasing significantly from 11% to 17%). There were also significantly higher proportions of 12-17 year olds who abstained from drinking between 2004 and 2013 (increasing from 54% to 72%).

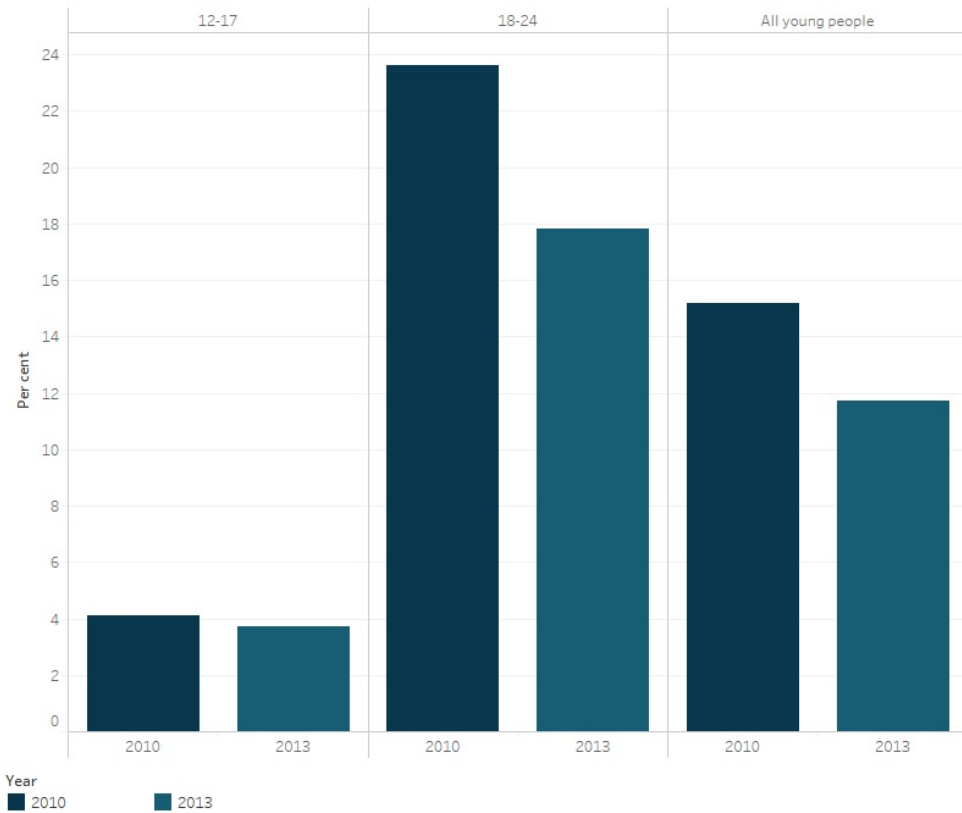
**Indicator: Proportion of young people aged 12-24 drinking alcohol at levels that put them at risk of harm from a single drinking occasion or over their lifetime**

Risky alcohol use by population group, 2001-2013



Source: AIHW National Drug Strategy Household Survey

**Supplementary: Proportion of young people aged 12-24 who drink at very high risk levels (at least monthly)**



Source: AIHW National Drug Strategy Household Survey

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Estimates with relative standard errors greater than 50% have been suppressed. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

In 2001, the National Drug Strategy Household Survey did not include 12-13 year olds; consequently, the 2001 total is for people aged 14-24.

Single occasion risky drinking refers to having more than four standard drinks, at least once a month.

Lifetime risky drinking refers to having an average of more than two standard drinks per day.

Abstainers refer to young people who had not consumed alcohol in the previous 12 months.

Young people at very high risk of alcohol related harm are those who consume more than ten standard drinks on a single occasion at least yearly or monthly (at least yearly and at least monthly are not mutually exclusive).

## Sources

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[AIHW National Drug Strategy Household Survey](#)

Data quality statement: [AIHW METeOR](#)

## References

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Department of Health 2013. National Binge Drinking Strategy.

Ministerial Council on Drug Strategy 2011. The National Drug Strategy 2010-2015. Canberra: Commonwealth of Australia.

NHMRC 2009. Australian guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC

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## Factors influencing health

### Why are illicit drug use rates important?

Illicit drug use refers to a wide range of behaviours including the use of illegal drugs, misuse of pharmaceuticals or the illicit use of other psychoactive substances (AIHW 2014). Illicit drug use has short- and long-term detrimental effects on health, and is associated with HIV/AIDS, hepatitis C virus (when injecting equipment and needles are shared), low birthweight (for babies of drug users), malnutrition, infective endocarditis (leading to damage to the heart valves), poisoning, mental illness, brain damage, and respiratory problems (Loxley et al. 2004). Illicit drug users are associated with negative social impacts including stressed family relationships, family breakdown, domestic violence, child abuse, assaults and crime (NRHA 2012).

### Do rates vary across population groups?

In 2013, 21% of all young people aged 12-24 had used illicit drugs in the previous 12 months. Of the population groups examined, 18-24 year olds were more likely to engage in illicit drug use than 12-17 year olds (29% compared to 11%) as were males compared with females (24% and 18% respectively). There was no statistically significant difference between Indigenous and non-Indigenous young people (22% compared to 21%).

In 2013, the illicit use of drugs (excluding pharmaceuticals) was significantly higher than the misuse of pharmaceutical drugs (19% compared to 5.3%) (see notes below). In 2013, the most commonly used illicit drugs were cannabis (17%), ecstasy (5.7%) and hallucinogens (3.4%). The most commonly misused pharmaceuticals were pain-killers/analgesics (3.1%), tranquillisers (1.3%) and other opiates/opioids (\*0.6%).

### Has there been a change over time?

For all young people there was a significant reduction in the illicit use of drugs from 2001 to 2007 (32% to 19%), after which the proportion of young people using illicit drugs remained stable at around 20%. There were significant reductions in the proportion of young people using illicit drugs among 18-24 year olds (37% to 27%) and among males (35% to 20%) and females (29% to 18%).

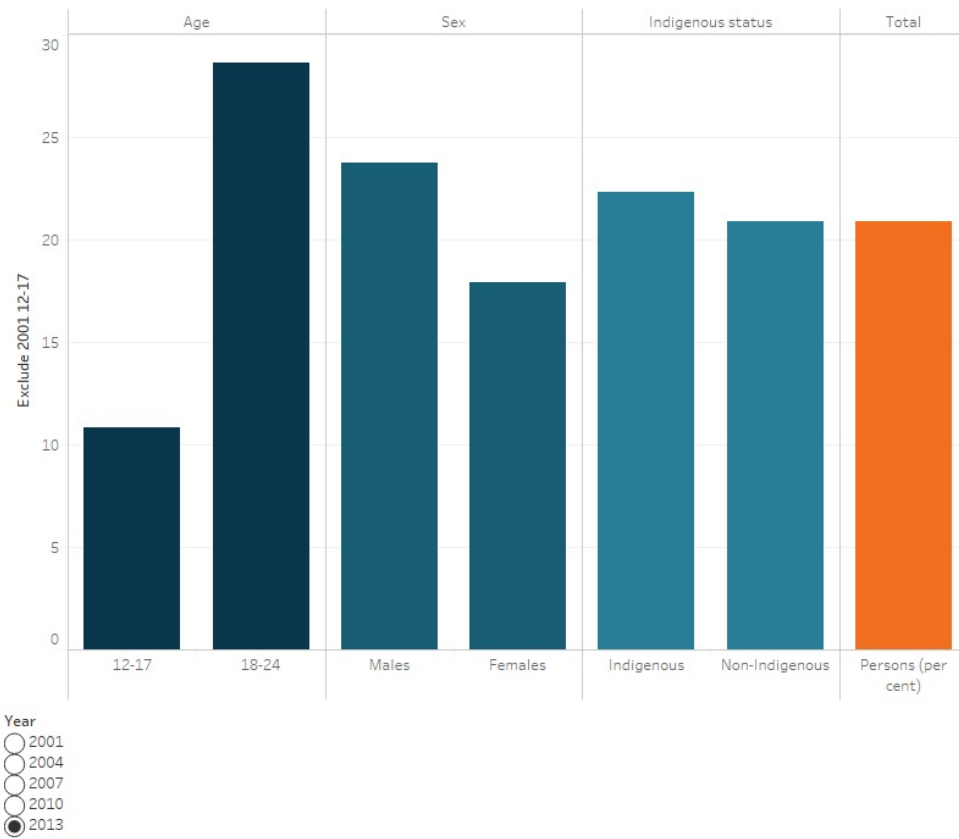
Illicit drug use among Indigenous young people decreased from 38% in 2001 to 24% in 2007, although this was not statistically significant.

Data were not available for 12-13 years olds in 2001. Between 2004 to 2013 there was no statistically significant decrease for 12-17 year olds (from 12% to 10%).

From 2001 to 2013 there was a significant decline in the illicit use of drugs (excluding pharmaceuticals (from 30% to 19%). Over this period, the use of ecstasy declined from 8.5% to 5.7%). However, the trends in the use of other illicit drugs (excluding pharmaceuticals) were more variable. From 2001 to 2007, there was a significant decrease in the use of cannabis (28% to 15%) and hallucinogens (3.5% to 1.5%). Between 2007 and 2013, there appear to have been increased proportions of young people using these drugs, although the changes are not statistically significant (for cannabis from 15% to 17% and for hallucinogens from 1.5% to 3.4%).

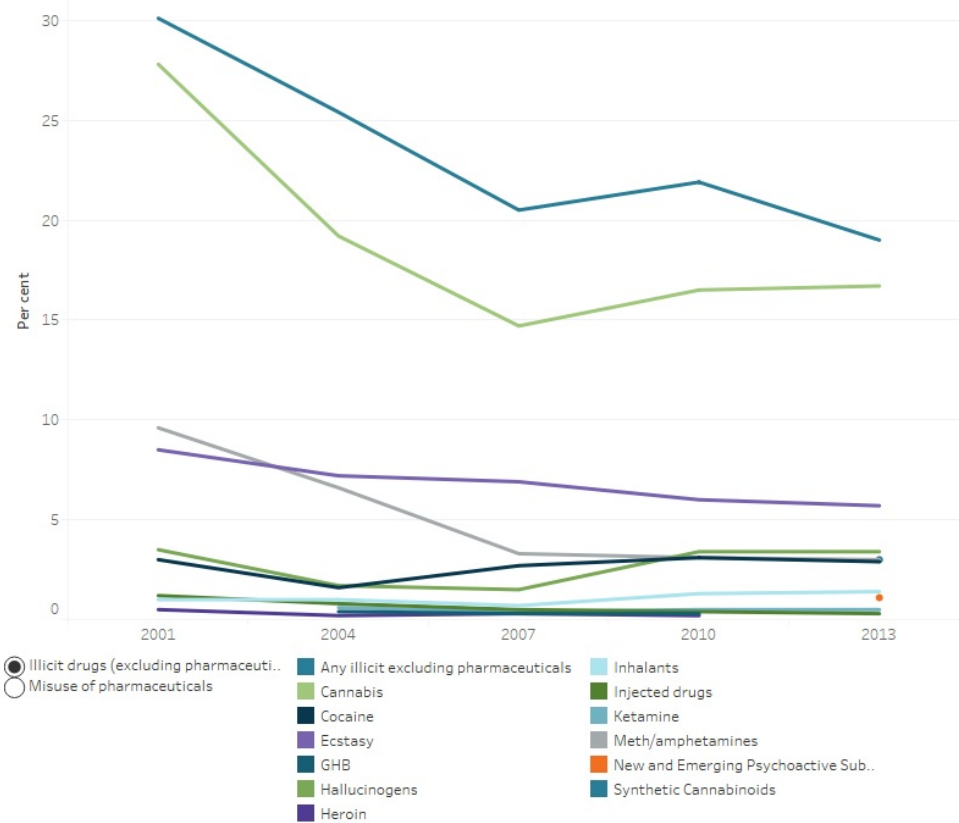
There was no clear trend in the misuse of pharmaceuticals from 2001 to 2013. A significant decrease between 2001 and 2007 (from 5.6% to 3.4%), was followed by a similar increase from 2007 and 2013 (from 3.4% to 5.3%). The use of pain-killers/analgesics showed a similar pattern, decreasing from 3.9% in 2001 to 2.3% in 2007, before increasing to 3.1% in 2013. There was a significant decline in the misuse of tranquillisers among young people from 2001 to 2013 (from 2.3% to 1.3%). Conversely, there was no significant change in the misuse of other opiates/opioids over this period, remaining at less than \*1%.

**Indicator: Proportion of young people aged 12-24 who had used an illicit drug within the last 12 months**  
 Illicit drug use by population group, 2001-2013



Source: AIHW National Drug Strategy Household Survey

**Supplementary: Type of illicit drug used in the last 12 months by young people aged 12-24**  
 Illicit drug use by drug type, 2001 to 2013



Source: AIHW National Drug Strategy Household Survey

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Estimates with relative standard errors greater than 50% have been suppressed. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

In 2001, the National Drug Strategy Household Survey did not include 12-13 year olds; consequently, the 2001 total is for people aged 14-24. Pharmaceuticals includes over the counter and prescription drugs used for non-medical purposes.

## Sources

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### [AIHW National Drug Strategy Household Survey](#)

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare) 2014. National Drug Strategy Household Survey detailed report 2013. Drug statistics series no. 28. Cat. No. PHE 183. Canberra: AIHW.

Loxley W, Toumbourou JW & Stockwell T 2004. The prevention of substance use, risk and harm in Australia: a review of evidence. Canberra: National Drug Research Institute and the Centre for Adolescent Health.

NRHA (National Rural Health Alliance) 2012. Illicit drug use in Australia. Fact sheet 33, June 2012/ Canberra.

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## Factors influencing health

### Why are rates of contraceptive use important?

Sexual development is a natural part of progressing to adulthood, and the majority of young sexually active Australians practice safe sex (Mitchell et al. 2014). However, unprotected intercourse may result in the transmission of sexually transmissible infections (STIs) such as chlamydia, gonorrhoea, HIV, syphilis, and can result in unplanned pregnancy (AIHW 2014). It is also associated with increased risk of some cancers, including cervical cancer and anal cancer (AIHW 2010).

The success of lowering unwanted pregnancies and the prevalence of STIs among young people relies heavily on the knowledge about reproductive matters and access to and use of effective contraception. Use of condoms is the most effective method of protection against STIs among sexually active people, and is effective in preventing unintended pregnancies.

See also [Sexually transmissible infection](#), [HIV infection](#), [Cervical cancer prevention](#) and [Teenage mothers](#).

### Do rates of contraceptive use vary across population groups?

In 2013, 65% of sexually active males and 55% of sexually active females in Years 10 to 12 reported using a condom at their most recent sexual encounter. About 72% of students in Year 10 reported that a condom was used at their last sexual encounter, compared to 57% of students in Year 11, and 52% of students in Year 12.

Of the types of contraceptives, sexually active students in Years 10 to 12 were more likely to report that a condom had been used at their most recent sexual encounter (58%). The pill was also a commonly reported form of contraception used among young people in their last sexual encounter (38%). In 2013, 15% of young people reported using the withdrawal method as a form of contraception at their most recent sexual encounter. About 13% of young people reported that no contraception was used at their most recent sexual encounter.

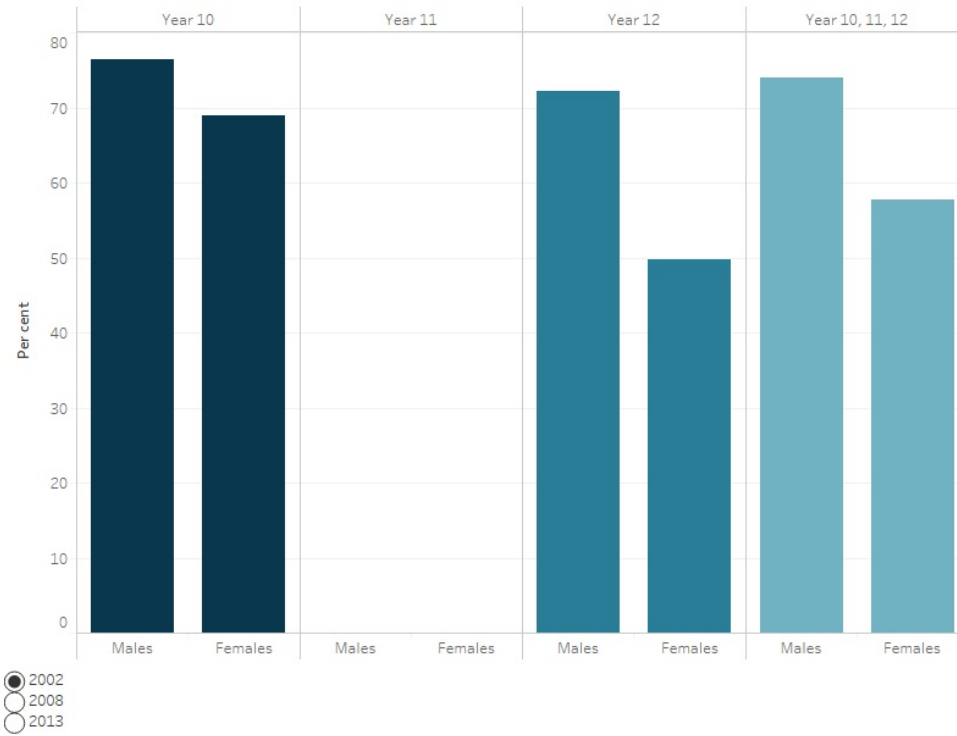
### Has there been a change over time?

The proportion of sexually active students in Year 10 and 12 who reported that a condom was used at the most recent sexual encounter has remained relatively stable from 2002 to 2008 at around 65%. Of students in year 12, there was no change in condom use at the most recent sexual encounter by all students (60%). The proportion of sexually active students in year 10 reporting that a condom was used at the most recent sexual encounter has remained relatively steady during this period at around 70% for all young people.

The proportion of young people reporting that the contraceptive pill was used at the most recent sexual encounter increased by a third from 2002 to 2008 (from 37% to 50%). The proportion of young people reporting that the withdrawal method was used at the most recent sexual encounter decreased slightly from 12% in 2002 to 9.5% in 2008. These trends are accompanied by reductions in the proportion of those reporting that no contraception was used, which decreased from 9.4% in 2002 to 0.2% in 2008.

**Indicator: Proportion of young people in years 10 and 12 who reported that a condom was used at their most recent sexual encounter**

Sexually active students reporting that a condom was used at their most recent sexual encounter

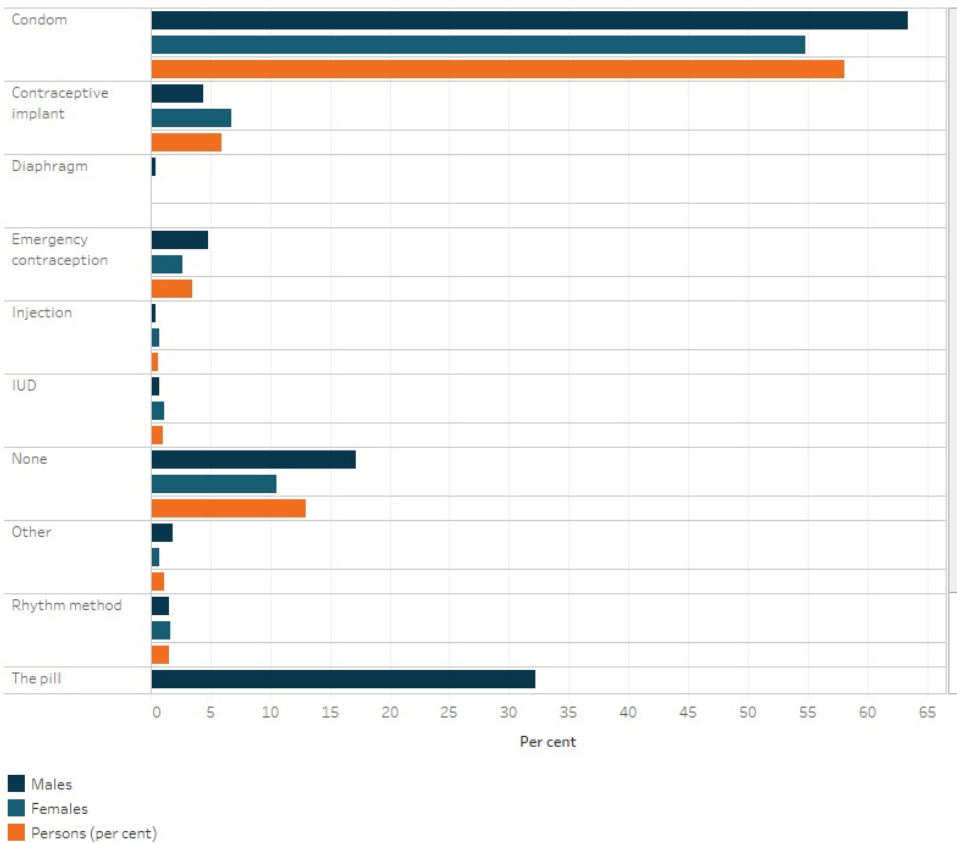


Note: Data for year 11 students was not reported in 2002 and 2008

Source: National Survey of Australian Secondary Students and Sexual Health 2008 and 2013

**Supplementary: Types of contraceptive used among young people**

Type of contraceptive used by sexually active students at their most recent sexual encounter, 2013



Source: National Survey of Australian Secondary Students and Sexual Health 2013

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals were not provided with the source data. Consequently, significance testing has not been undertaken.

For data relating to type of contraceptive method used at the most recent sexual encounter, some students reported more than one method of contraception and therefore components will not sum to 100%.

For 2002, 2008, the study used a representative random sample of schools based on Australian Bureau of Statistics data. Participating schools invited students to complete the survey. In 2013, additional students were recruited via an online survey that was independent of school recruitment, and is therefore considered to be a convenience sample. Due to differences in sampling methodology, 2013 data are not compared to earlier years.

## Sources

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[National Survey of Australian Secondary Students and Sexual Health 2008](#)

[National Survey of Australian Secondary Students and Sexual Health 2013](#)

Data quality statement: Not available, please see the published source (above) for further information

## References

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AIHW (Australian Institute of Health and Welfare) 2010. Australia's health 2010: Australia's health series no. 12. Cat. no. AUS122. Canberra: AIHW.

Australian Institute of Health and Welfare 2014. Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

Mitchell A, Patrick K, Heywood W, Blackman P, Pitts M. 2014. 5th National Survey of Australian Secondary Students and Sexual Health 2013, (ARCSHS Monograph Series No. 97), Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne, Australia.

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## Factors influencing health

### Why are rates about teenage mothers important?

Teenage parenthood can be a positive and maturing experience for young people. However, teenage motherhood is also associated with poorer health and wellbeing outcomes for both mother and baby throughout life. Babies born to teenage mothers have an increased risk of pre-term birth, low birthweight and associated complications (Gupta et al. 2008). Children born to teenage mothers may also be more likely to have poorer emotional, cognitive and behavioural outcomes and to be born into and continue to live in disadvantaged socioeconomic situations (Paranjothy et al. 2009; Chittleborough et al. 2011).

A number of factors have been associated with teenage birth, with the most widely cited being a family history of teenage pregnancy, socioeconomic disadvantage, one-parent family structure and family breakdown (Gaudie et al. 2010).

Factors that affect the future for young mothers include their level of disadvantage before they became pregnant, and difficulties associated with completing school or undertaking further study or employment after childbirth. Younger mothers and their children may also be at higher risk of social exclusion, which can affect access to important health, housing, education and employment services (Butler et al. 2010).

While not all teenage births result in negative outcomes for mother and child, the factors that often contribute to teenage birth mean that many young mothers do not receive the support they need during pregnancy and after the birth.

### Do rates vary across population groups?

According to the AIHW National Perinatal Data Collection, in 2012, 11,058 young women under the age of 20 gave birth, a rate of about 16 per 1,000 young women. The crude age specific rate among Indigenous young women was over 4 times as high as non-Indigenous young women (63 compared to 13 per 1,000 young women). The rate for overseas-born young mothers was lower (11 per 1,000 young women) than the rate for Australian-born mothers (16 per 1,000 young women).

In 2012, 84% of young mothers aged under 20 had given birth for the first time, with the remaining 16% having given birth at least once before.

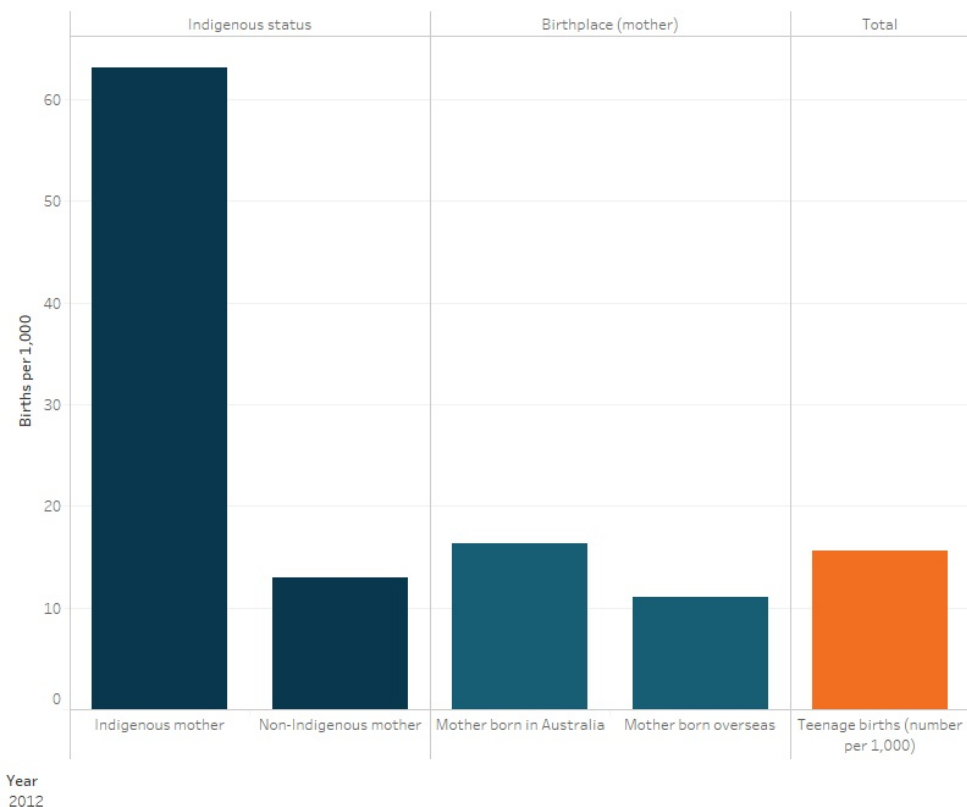
### Has there been a change over time?

The rate of teenage women giving birth has gradually declined between 2003 and 2012 from 17.4 to 15.6 per 1,000 young women. The Indigenous rate has shown a greater decline during this period from 77 to 63 per 1,000. In the 4 years to 2012, the rate for overseas-born young women has remained relatively stable (10.6 per 1,000 in 2009 compared with 11 per 1,000 in 2012).

The proportion of young women aged under 20 who were first-time mothers has remained relatively stable between 2003 (83%) and 2012 (84%).

## Indicator: Teenage females aged 15-19 who gave birth

Teenage mothers by population group (per 1,000 females)



Source: AIHW National Perinatal Data Collection

### Notes

There are a few births to mothers under the age of 15 years in Australia. These are included in this indicator.

Parity is the number of a woman's previous pregnancies that resulted in a birth of at least 20 weeks gestation or weighing at least 400 grams at birth.

Data by Indigenous status for 2003 and 2004 exclude Tasmania because the 'Not stated' category for Indigenous status was not able to be distinguished from the 'Neither Aboriginal nor Torres Strait Islander origin' category.

Data by birthplace of mother for 2003-2008 are excluded due to the use of different classifications of countries, affecting comparability.

Data on parity for 2009 and 2010 exclude Victoria as parity was not reported for these years.

Provisional data was supplied by Victoria in 2009, 2010 and 2012.

For more information on teenage mothers, see [Australia's mothers and babies 2012](#) and the [Perinatal data portal](#).

### Sources

AIHW National Perinatal Data Collection

Data quality statement: [AIHW METeOR](#)

### References

Butler K, Winkworth G, McArthur M, Smyth, J 2010. Experiences and aspirations of younger mothers. Report for the Department of Families, Housing, Community Services and Indigenous Affairs Institute of Child Protection Studies Australian Catholic University. Canberra: Institute of Child Protection Studies, Australian Catholic University.

Chittleborough CR, Lawlor DA & Lynch JW 2011. Young maternal age and poor child development: predictive validity from a birth cohort. *Pediatrics* 127(6):e1436-e44.

Gaudie J, Mitrou F, Lawrence D, Stanley F, Silburn S & Zubrick S 2010. Antecedents of teenage pregnancy from a 14-year follow-up study using data linkage. *BMC Public Health* 10(1):63.

Gupta N, Kiran U & Bhal K 2008. Teenage pregnancies: obstetric characteristics and outcome. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 137(2):165-71.







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## Family, relationships & community

### Why is the reporting of rates on social capital important?

Social capital is an important aspect of the social context in which young people grow and develop. It is a multi-dimensional concept that can be understood as networks of social relationships which enable people to come together to collectively share experiences or resolve issues or problems, and where trust and mutual benefit are necessary components. These relationships can exist within a family or household, but most often extend to friends and other sections of the community (Whiting & Harper 2003)

Strong connections between individuals promote a sense of belonging and provide access to support. This can be represented by the degree to which young people feel they can get assistance from neighbours, participate in community activities and become involved in local events or groups. Strong family relationships and supportive neighbourhoods protect young people against adverse effects of socioeconomic disadvantage, leading to improved health in economically poor communities (Zwi & Henry 2005).

Social capital is a key social determinant of health, and can affect physical health in relation to stress and personal control over one's life circumstances (Wilkinson & Marmot 2003; AIHW 2012).

### Do rates vary across population groups?

In 2010, nearly all young people (95%) were able to get support in times of crisis from people living outside their household. There were similar proportions of males (93%) and females (97%), with no significant difference found between sexes. Additionally, the most commonly reported sources of support in 2010 were friends (78%), family members (77%) and work colleagues (23%).

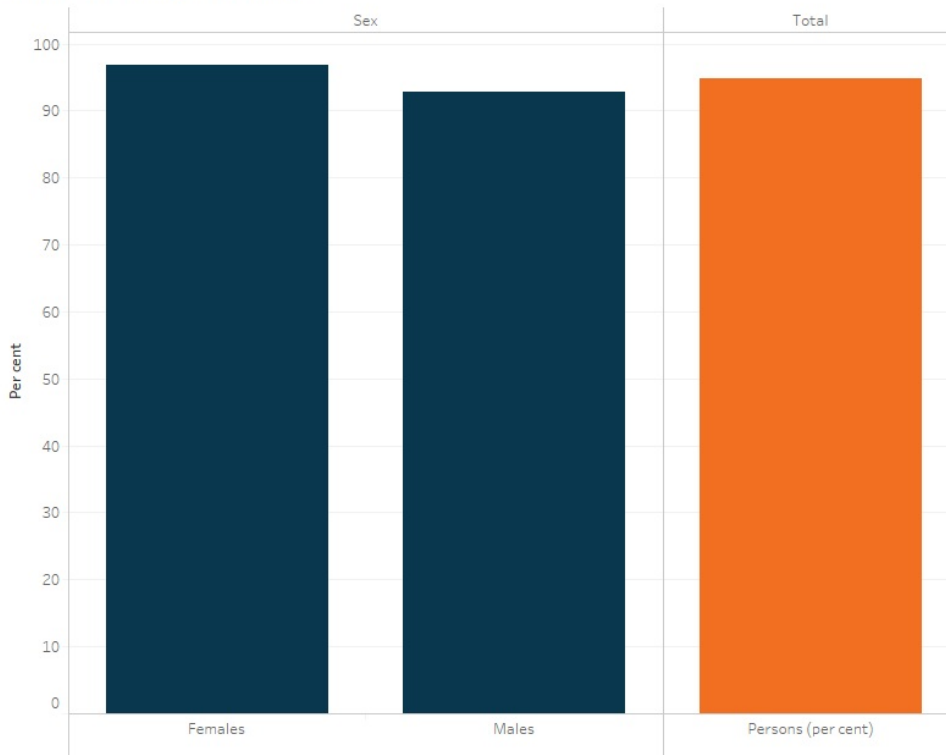
### Has there been a change over time?

The proportion of young people able to get support in times of crisis has remained stable from 2006 to 2010 (around 95%). Over this time there were no significant changes in the proportions of males (94% to 93%) or females (96% to 97%) who were able to get support in times of crisis.

From 2006 to 2010, there were no significant changes among most sources of support for young people in times crisis. The only differences over this period were decreases in the proportion of young people receiving support from work colleagues (30% to 23%) and community, charity or religious organisations (13% to 7.4%).

#### Indicator: Proportion of young people aged 18-24 who are able to get support in a time of crisis from persons living outside the household

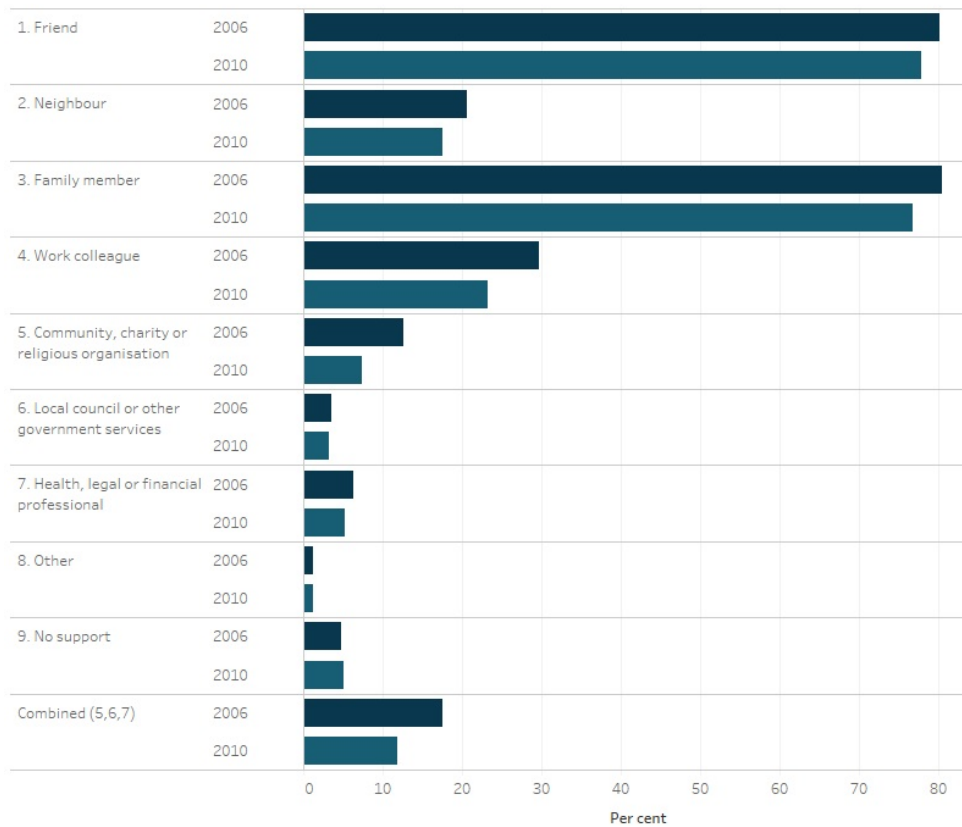
Social capital by population group



○ 2006  
 ● 2010

## Supplementary: Source of support for young people aged 18-24 in times of crisis

Source of support for young people, 2006 to 2010



Source: ABS General Social Survey, 2006 and 2010

### Notes

\*This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

Due to its multidimensional nature, social capital is difficult to summarise in one measure. Measures of social capital used in this report are limited to social support networks, due to lack of available data. Support networks are a key aspect of social capital and as such can be used as a proxy measure for social capital.

### Sources

ABS General Social Survey 2006 and 2010

Data quality statement: [ABS General Social Survey](#)

### References

AIHW (Australian Institute of Health and Welfare) 2012. Social and emotional wellbeing: development of a children's headline indicator. Cat. no. PHE 158. Canberra: AIHW.

Whiting E, and Harper R 2003. Young people and social capital. Office for National Statistics UK. Viewed 11 May 2015

Wilkinson RG & Marmot M (eds.) 2003. Social determinants of health: the solid facts. Geneva: WHO.

Zwi KJ & Henry RL 2005. Children in Australian society. *Medical Journal of Australia* 183(3):154-62.

## Family, relationships & community

### Why are child protection substantiation rates important?

While most young people in Australia grow up in safe family environments, some experience maltreatment in the form of abuse and/or neglect. This can cause significant harm during childhood and adolescence, with the effects often continuing into adulthood (Lamont 2010a; Price-Robertson 2012). The adverse effects include poor physical health, attachment issues, reduced social skills, learning and developmental difficulties, mental health issues such as anxiety, depression, eating disorders, substance abuse, and a higher likelihood of criminal offending; (Gupta 2008; Lamont 2010b; Zolotor et al. 1999). A range of factors may place children at higher risk of abuse and neglect. Young people are particularly vulnerable to harm in families experiencing multiple disadvantages, such as housing instability, poverty, low education, social isolation, neighbourhood disadvantage, parental substance misuse and mental health problems (Bromfield et al. 2010).

In response to the complex nature of child abuse and neglect, the National Framework for Protecting Australia's Children 2009-2020 was developed. The National Framework focuses on improving child safety and wellbeing through prevention, early intervention and best practice strategies, with an overarching goal of a substantial and sustained reduction in child abuse and neglect over time (COAG 2009).

### What are child protection substantiations?

A substantiation of a child protection notification, refers to the conclusion, after investigation, that there is reasonable cause to believe that the child had been, was being, or was likely to be, abused, neglected or otherwise harmed. An appropriate level of continued involvement by the state or territory child protection and support services would then be made. This generally includes the provision of support services to the child and family. In situations where further intervention is required, the child may be placed on a care and protection order or in out-of-home care (see reports 'Care and protection orders' and 'Out-of-home care' for more information).

### Do rates vary across population groups?

In 2013-14, in the AIHW Child Protection Data Collection, the national rate of young people aged 12-17 who were the subject of a child protection substantiation was 5.4 per 1,000 young people, with the rate lower among boys than girls (4.2 and 6.6 per 1,000 respectively). Young people aged 12-14 were more likely to be the subject of a substantiation (7.2 per 1,000 young people) compared with young people aged 15-17 (3.5 per 1,000 young people).

Indigenous young people were around 5 times as likely as Other Australian young people to be the subject of substantiated abuse or neglect (23 per 1,000 Indigenous young people compared with 4.4 per 1,000 Other Australians). The reasons for the over-representation of Indigenous young people in child protection substantiations are complex. The legacy of past policies of forced removal, intergenerational effects of previous separations from family and culture, lower socioeconomic status, and perceptions arising from cultural differences in child-rearing practices are all underlying causes for their over-representation in the child welfare system (HREOC 1997).

### Has there been a change over time?

The national rate of young people in substantiations remained stable between 2009-2010 and 2010-11 at 4.5 per 1,000 young people. The rate then rose to 5.0 per 100,000 in 2011-12 and 5.5 per 100,000 in 2012-2013, and remained stable at 5.4 per 1,000 in 2013-14. For Indigenous young people, the rate has increased from 19 per 1,000 in 2009-10 to 23 per 1,000 in 2013-14. Although a real change in the incidence of abuse and neglect may contribute to the observed fluctuation, increased community awareness and changes to policy, practice and legislation in jurisdictions are also contributing factors (AIHW 2015).

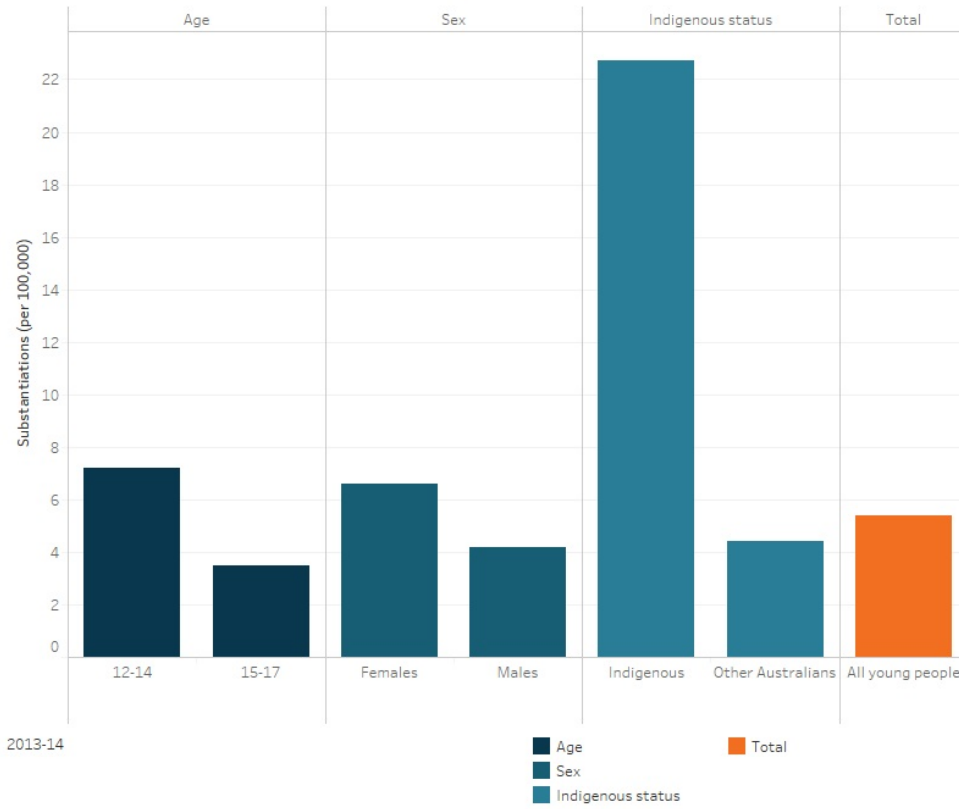
### What are the most common types of abuse?

In 2013-14, emotional abuse was the most common form of abuse across all ages and across both genders. For both 12-14 year olds and 15-17 year olds, emotional abuse and sexual abuse were the most common forms. Emotional abuse was slightly higher in the younger age group compared with the older group (36% and 34% respectively) while sexual abuse was lower in the younger group compared with the older age group (24% and 28% respectively).

Overall a higher proportion of young males than females experienced emotional abuse (40% compared with 32%). A higher proportion of young males also experienced neglect compared with young females (23% and 16% respectively). Young females were twice as likely to experience sexual abuse as males (32% compared with 14%).

**Indicator: Rate of young people aged 12-17 who were the subject of a substantiation of a child protection notification received in a given year**

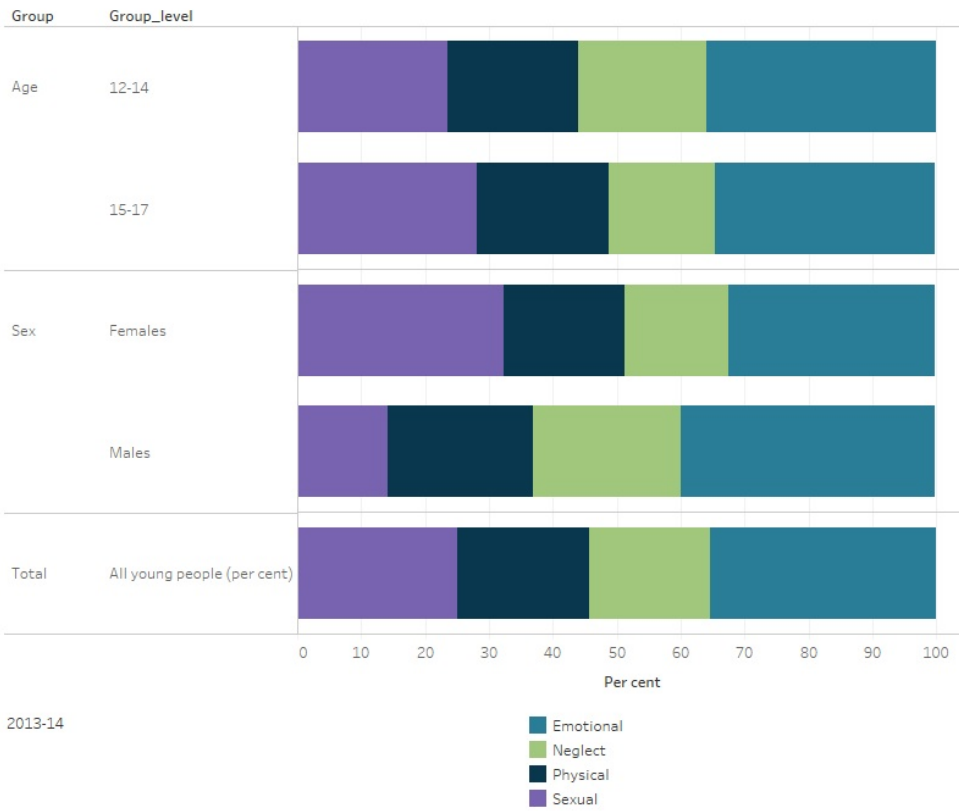
Young people who were the subject of child protection substantiation, by population group



Source: AIHW National Child Protection Data Collection

**Supplementary: Young people who were the subject of a substantiation of a child protection notification in a given year by type of abuse or neglect**

Child protection substantiations by type of abuse or neglect



Source: AIHW National Child Protection Data Collection

**Notes**

The true prevalence of child abuse and neglect across Australia is unknown because national child protection data are based on reported cases.

In Australia, child protection is the responsibility of state and territory governments. The AIHW collects and reports national data on child protection notifications, investigations, substantiations and other components of the child protection system. While the child protection systems and processes are broadly similar in each jurisdiction, child protection legislation, policies and practices vary. Therefore, caution needs to be taken when comparing child protection data across jurisdictions, or over time.

For data disaggregated by Indigenous status, 'Other Australians' includes non-Indigenous young people and young people for whom Indigenous status was unknown. In 2013-14, Indigenous status was unknown for around 3% of young people who were subject to child abuse substantiations.

From 2012-13, the Child Protection data collection reports unit record level data, which replaces the aggregate data previously used for national reporting. NSW and Queensland data for 2012-13 and 2013-14 were provided at aggregate level.

For more information on child protection processes and data, See [Child protection Australia: 2013-14](#).

## Sources

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AIHW Child Protection Data Collection

Data quality statement: [AIHW METeOR](#)

## References

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Australian Institute of Health and Welfare 2015. Child protection Australia: 2013-14. Child Welfare series no. 61. Cat. no. CWS 52. Canberra: AIHW.

Bromfield L, Lamont A, Parker R & Horsfall B 2010. Issues for the safety and wellbeing of children in families with multiple and complex problems: the co-occurrence of domestic violence, parental substance misuse, and mental health problems. National Child Protection Clearinghouse issues no. 33. Melbourne: AIFS.

COAG (Council of Australian Governments) 2009. Protecting children in everyone's business: National Framework for Protecting Australia's Children 2009-2020. Canberra: COAG.

Gupta A 2008. Responses to child neglect. Community Care 1727:24-5.

Lamont A 2010a. Effects of child abuse and neglect for adult survivors. NCPC resource sheet, April 2010. Melbourne: Australian Institute of Family Studies.

Lamont A 2010b. Effects of child abuse and neglect for children and adolescents. NCPC resource sheet, April 2010. Melbourne: Australian Institute of Family Studies.

Price-Robertson R 2012. Fathers with a history of child sexual abuse: new findings for policy and practice. CFCA paper no. 6. Melbourne: Australian Institute of Family Studies.

Zolotor A, Kotch J, Dufort V, Winsor J, Catellier D & Bou-Saada I 1999. School performance in a longitudinal cohort of children at risk of maltreatment. Maternal and Child Health Journal 3(1):19-27.

## Family, relationships & community

### What are care and protection orders?

If a young person has been the subject of a child protection substantiation (See Child abuse report), there may be a need for further intervention. The relevant department generally attempts to protect the young person through the provision of appropriate support services to the child and family. The department may apply to the relevant court to place the child on a care and protection order. Care and protection orders are legal orders or arrangements that give child protection departments some responsibility for a child's welfare. Applying to the Court for a care and protection order is usually a last resort - for example where the families are unable to provide safe care, where other avenues for resolution of the situation have been exhausted, or where the extended family is unable to provide safe alternatives for care of young people. The level of departmental involvement that a care and protection order mandates will vary depending on the type of order (For more information, see [Child Protection Australia 2013-14](#)).

### Do rates vary across population groups?

At 30 June 2014, in the AIHW Child Protection Data Collection, the national rate of young people aged 12-17 on a care and protection order was 8.8 per 1,000 young people, with no difference between boys and girls. Young people aged 12-14 were more likely to be on a care and protection order (9.5 per 1,000 young people) compared with young people aged 15-17 (8.1 per 1,000 young people).

Indigenous young people were over 7 times as likely as Other Australian young people to be the subject of care and protection orders (49 per 1,000 Indigenous young people compared with 6.5 per 1,000 Other Australians).

### Has there been a change over time?

The national rate of young people on care and protection orders increased from 7.4 per 1,000 young people in 2010 to 8.8 per 1,000 in 2014. For Indigenous young people, the rate has increased from 36 per 1,000 in 2010 to 49 per 1,000 in 2014, and increased from 5.8 to 6.5 per 1,000 for Other Australian young people.

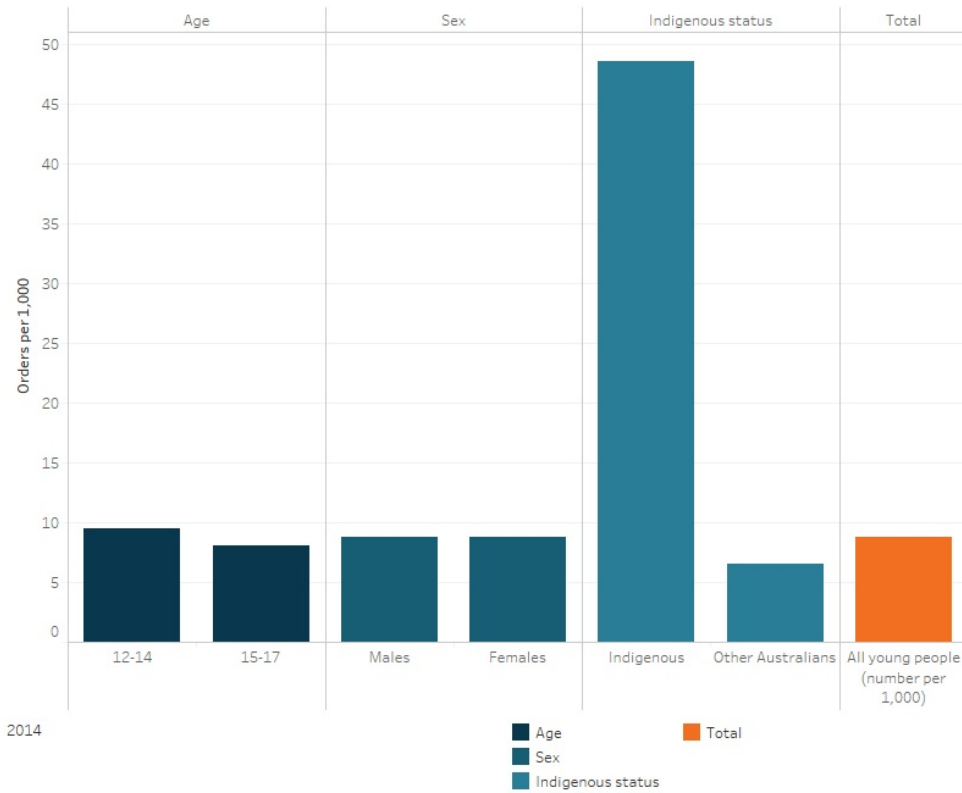
### What are the living arrangements for young people on care and protection orders?

In 2014, 71% of young people on care and protection orders lived in home-based out-of-home care, while 11.7% lived in residential care, and 7.1% in family care (defined as parents and other relatives/kin who were not reimbursed). Of the young people living in home-based out-of-home care, almost half (49%) were living with relatives/kin (other than parents) who are reimbursed. Around 45% were living in foster care.



**Indicator: Rate of young people aged 12-17 who were the subject of care and protection orders at 30 June**

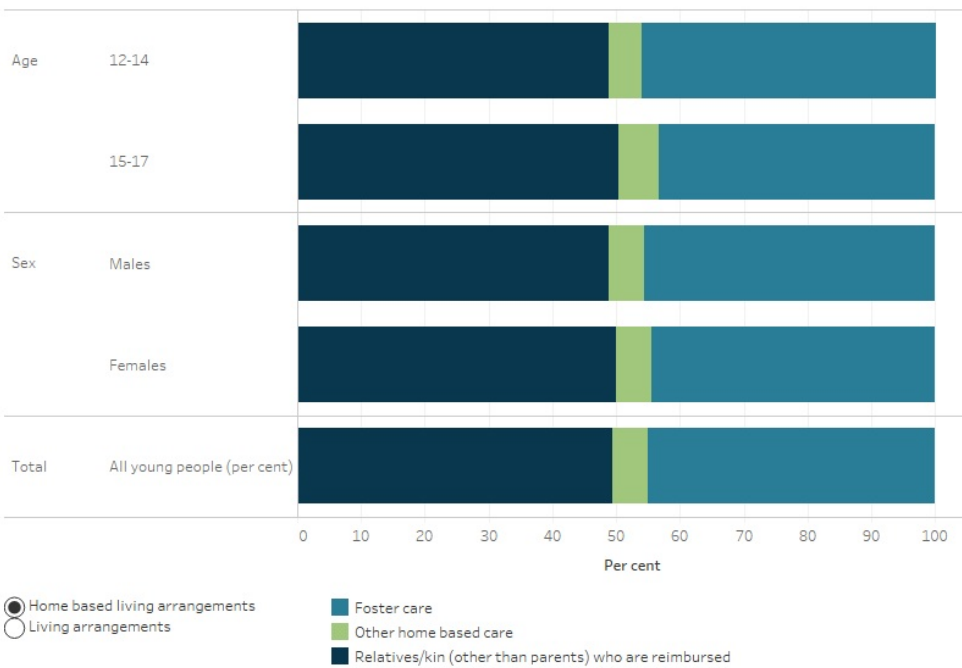
Young people who were the subject of child protection orders, by population group



Source: AIHW National Child Protection Data Collection

**Supplementary: Young people aged 12-17 on care and protection orders, by living arrangements or home based living arrangements at 30 June 2014**

Young people on child and protection orders, by living arrangements or home based living arrangements



Note: Home based living arrangements are a subset of living arrangements

Source: AIHW National Child Protection Data Collection

**Notes**

In Australia, child protection is the responsibility of state and territory governments. The AIHW collects and reports national data on child protection notifications, investigations, substantiations and other components of the child protection system. While the child protection systems and processes are broadly similar in each jurisdiction, child protection legislation, policies and practices vary. Therefore, caution needs to be taken when comparing child protection data across jurisdictions, or over time.

The Aboriginal Child Placement Principle is one of many considerations taken into account when deciding on placements for Indigenous young people. This Principle has the following order of preference for the placement of Indigenous young people: with the child's extended family, within the child's Indigenous community then with other Indigenous people (for more information, see [Source data tables: NYIF indicators](#)).

'Residential care' is an out-of-home care placement in a residential building with paid staff whose purpose is to provide placements for young people.

'Family group homes' are homes provided by a department or community-sector agency that have live-in, non-salaried carers who are reimbursed and /or subsidised for the provision of care.

'Home based care' are placements in the home of a carer who may be for the cost of the care of the young person. There are 3 categories of home-based out-of-home care: relatives/kin who are reimbursed, foster care, and other home-based out-of-home care.

'Family care' is where the child is residing with parents (natural or adoptive) or other relatives/kin (other than parents) who are not reimbursed.

'Relatives/kin who are reimbursed' are where the caregiver is: a relative (other than parents) or considered to be family or a close friend; who may be reimbursed for expenses incurred in caring for the young person; who is part of an ongoing review process.

'Foster care' is a form of out-of-home care where the caregiver is authorised and may be reimbursed for the care of the young person. Foster carers may be relatives of the young person being cared for and some relative carers may be registered foster carers.

'Other home-based care' includes young people in a home-based out-of-home care placement other than with relatives/kin who are reimbursed or in foster care.

'Independent living' includes private board and lead tenant households.

For further information on different types of living types of living arrangements and their definitions see [Source data tables: NYIF indicators](#).

For data disaggregated by Indigenous status, 'Other Australians' includes non-Indigenous young people and young people for whom Indigenous status was unknown. In 2013-14, Indigenous status was unknown for around 0.1% of young people who were subject to child protection orders.

From 2012-13, the Child Protection data collection reports unit record level data, which replaces the aggregate data previously used for national reporting. NSW and Queensland data for 2012-13 and 2013-14 were provided at aggregate level.

For more information on child protection processes and data, see [Child protection Australia: 2013-14](#).

## Sources

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AIHW Child Protection Data Collection

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare) 2015. Child protection Australia: 2013-14. Child Welfare series no. 61. Cat. no. CWS 52. Canberra: AIHW.

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## Family, relationships & community

### What is out-of-home care?

Some young people are placed in out-of-home care because they were the subject of a child protection substantiation and require a more protective environment. Other situations in which a child may be placed in out-of-home care include those where the parents are incapable of providing adequate care for the child, or where alternative accommodation is needed during times of family conflict. There are no national data available on the reasons young people are placed in out-of-home care (For more information, see [Child protection Australia: 2013-14](#)) (AIHW 2015).

Out-of-home care is considered an intervention of last resort, with the current emphasis being to keep young people with their families wherever possible. Where young people need to be placed in out-of-home care, an attempt is made to reunite young people with their families. If it is necessary to remove a child from their family, then placement within the wider family or community is preferred. This is particularly the case with Aboriginal and Torres Strait Islander young people, and is outlined in the Aboriginal Child Placement Principle (See 'Notes' below).

### Do rates vary across population groups?

At 30 June 2014, in the AIHW Child Protection Data Collection, the national rate of young people aged 12-17 living in out-of-home care was 8.2 per 1,000 young people, with little difference between boys and girls (8.2 and 8.3 per 1,000 respectively). Young people aged 12-14 were most likely to be in out-of-home care (9.2 per 1,000 young people) compared with young people aged 15-17 (7.3 per 1,000 young people). Indigenous young people were over 7 times as likely as Other Australian young people to be living in out-of-home care (45.3 per 1,000 Indigenous young people compared with 6.1 per 1,000 Other Australian young people).

### Has there been a change over time?

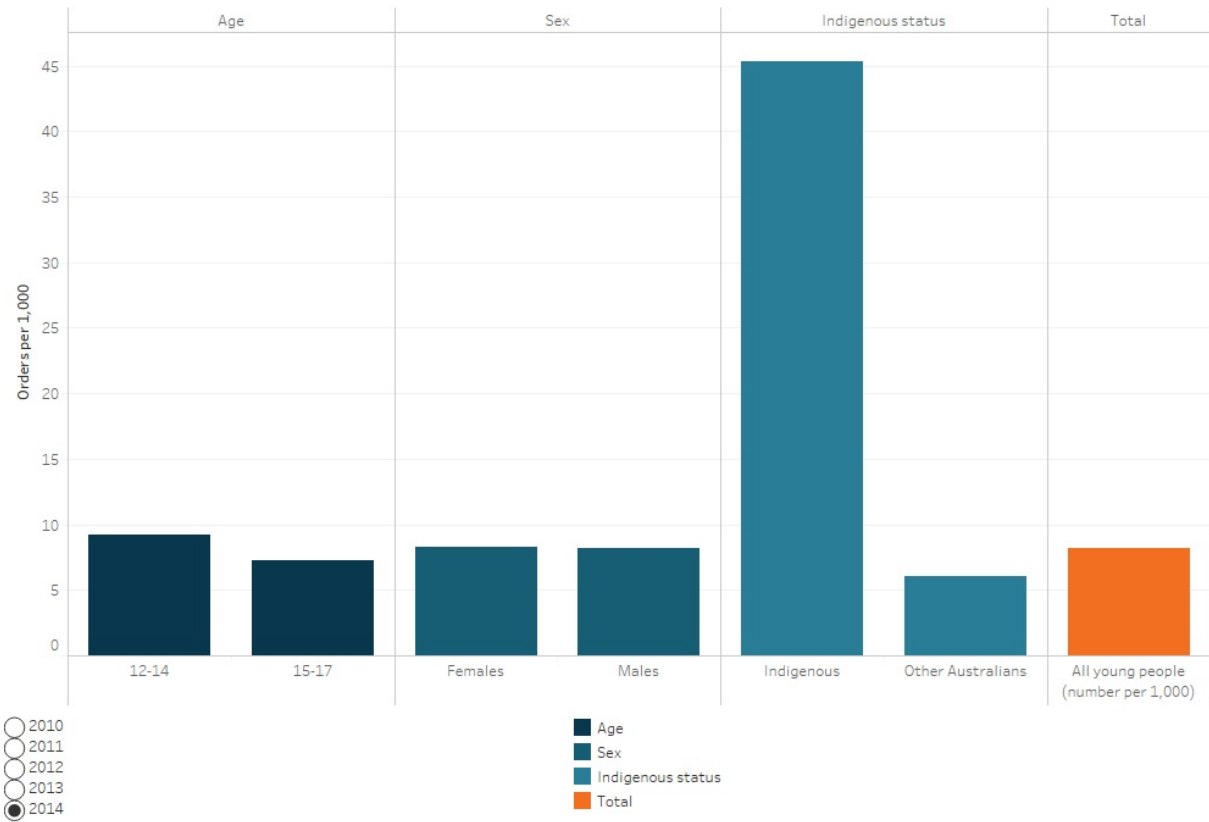
The national rate of young people in out-of-home care increased from 7.0 per 1,000 young people at 30 June 2010 to 8.2 per 1,000 at 30 June 2014. For Indigenous young people, the rate has increased from 35 per 1,000 at 30 June 2010 to 45 per 1,000 at 30 June 2014.

### What are the living arrangements for young people in out-of-home care?

In 2014 nearly 85% of young people in out-of-home-care lived in home-based out-of-home care, and a further 13% lived in residential care. Young people aged 15-17 were more likely to live in residential care (18%) than 12-14 year olds (9.3%). Males were also more likely to live in residential care (15%) compared with females (11%). Of those living in home-based care, over half (54%) were living with relatives/kin (other than parents) who were reimbursed. Around 41% were living in foster care. Young people aged 15-17 were slightly more likely than those aged 12-14 to live with relatives/kin (other than parents) who were reimbursed (56% compared with 52%).

**Indicator: Rate of young people aged 12-17 in out-of-home care at June 30**

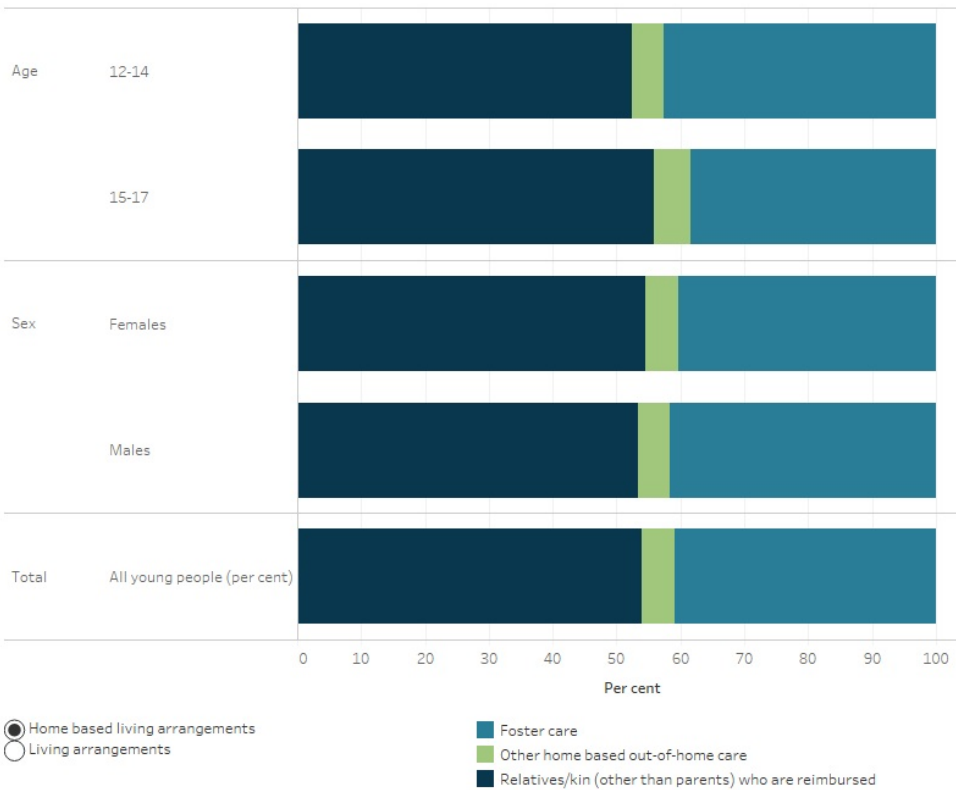
Young people in out-of-home care, by population group



Source: AIHW National Child Protection Data Collection

**Supplementary: Young people aged 12-17 in out-of-home care by living arrangements at June 30 2014**

Young people in out-of-home care, by living arrangements or home based living arrangements



Source: AIHW National Child Protection Data Collection

**Notes**

In Australia, child protection is the responsibility of state and territory governments. The AIHW collects and reports national data on child protection notifications, investigations, substantiations and other components of the child protection system. While the child protection systems and processes are broadly similar in each jurisdiction, child protection legislation, policies and practices vary. Therefore, caution needs to be taken when comparing child protection data across jurisdictions, or over time.

The Aboriginal Child Placement Principle is one of many considerations taken into account when deciding on placements for Indigenous young people. This Principle has the following order of preference for the placement of Indigenous young people: with the child's extended family, within the child's Indigenous community then with other Indigenous people (for more information, see [Source data tables: NYIF indicators](#)).

'Residential care' is an out-of-home care placement in a residential building with paid staff whose purpose is to provide placements for young people.

'Family group homes' are homes provided by a department or community-sector agency that have live-in, non-salaried carers who are reimbursed and /or subsidised for the provision of care.

'Home based care' are placements in the home of a carer who may be for the cost of the care of the young person. There are 3 categories of home-based out-of-home care: relatives/kin who are reimbursed, foster care, and other home-based out-of-home care.

'Family care' is where the child is residing with parents (natural or adoptive) or other relatives/kin (other than parents) who are not reimbursed.

'Relatives/kin who are reimbursed' are where the caregiver is: a relative (other than parents) or considered to be family or a close friend; who may be reimbursed for expenses incurred in caring for the young person; who is part of an ongoing review process.

'Foster care' is a form of out-of-home care where the caregiver is authorised and may be reimbursed for the care of the young person. Foster carers may be relatives of the young person being cared for and some relative carers may be registered foster carers.

'Other home-based care' includes young people in a home-based out-of-home care placement other than with relatives/kin who are reimbursed or in foster care.

'Independent living' includes private board and lead tenant households.

For further information on different types of living types of living arrangements and their definitions please refer to the [Source data tables: NYIF indicators](#).

For data disaggregated by Indigenous status, 'Other Australians' includes non-Indigenous young people and young people for whom Indigenous status was unknown. In 2013-14, Indigenous status was unknown for around 0.1% of young people who were placed in out-of-home care.

From 2012-13, the Child Protection data collection reports unit record level data, which replaces the aggregate data previously used for national reporting. NSW and Queensland data for 2012-13 and 2013-14 were provided at aggregate level.

For more information on child protection processes and data, see [Child protection Australia: 2013-14](#).

## Sources

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AIHW Child Protection Data Collection

Data quality statement: [AIHW METeOR](#)

## References

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AIHW (Australian Institute of Health and Welfare) 2015. Child protection Australia: 2013-14. Child Welfare series no. 61. Cat. no. CWS 52. Canberra: AIHW.

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## Education, employment & economic situation

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## Education, employment & economic situation

### Why are literacy rates important?

Literacy skills acquired in the primary school years are essential for day-to-day living, further educational attainment, social development and employment.

Literacy is often thought to involve reading, writing and understanding the conventions of language (DECD 2013). While these aspects are very important, they do not cover the entire field of literacy. A broader definition of literacy is defined by OECD as the ability to understand, use and reflect on written texts in order to achieve one's goals, to develop one's knowledge and potential, and to participate effectively in society (Schneider et al. 2010).

For the purpose of this indicator, reading is used as the measure for literacy, specifically young people who are achieving at or above the national minimum standards for reading.

Research shows that highly developed literacy capabilities strongly contribute to the social, economic and physical wellbeing of individuals (DECD 2013). A number of factors affect successful educational outcomes during the school years, such as a young person's home environment (including whether books are available at home and whether parents read aloud to their children), their engagement with the school, the quality of their educational experience and their attitudes to school and learning (Walsh & Black 2009). Several other factors have also been shown to have an impact, such as resources, parental level of education, school engagement, and socioeconomic status (Walsemann et al. 2008).

### Do literacy rates vary across population groups?

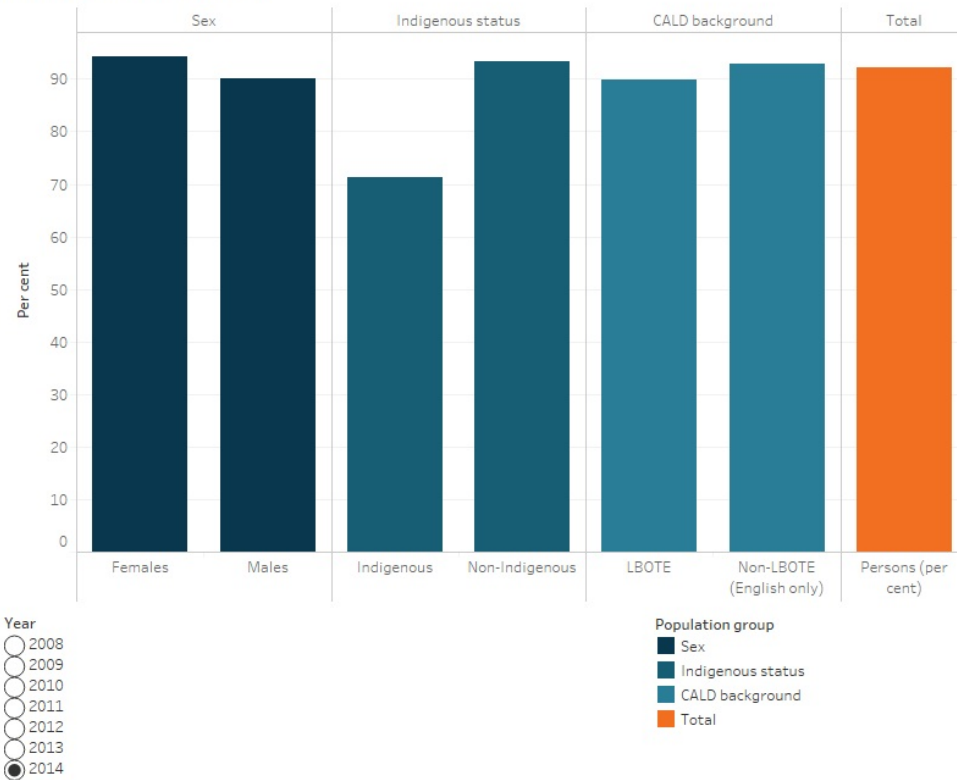
In 2014, the majority of Year 9 students achieved at or above the national minimum standards for reading (92%). Females were more likely to achieve at or above the minimum standards than males in reading, 94% compared to 90% respectively. Non-Indigenous students were more likely to achieve at or above the minimum standards than Indigenous students (93% and 71% respectively). Students from English-speaking backgrounds were slightly more likely to achieve at or above the minimum standards in reading than those with a Language Background Other Than English (LBOTE) (about 93% and 90%, respectively).

### Has there been a change over time?

The proportion of students achieving at or above the national minimum standards for reading has remained relatively steady at 92% between 2008 and 2014. Over the same period, similar trends were observed among males and females (90% and 94%, respectively). The proportion of Indigenous students achieving at or above the national minimum standards was between 64% and 74% for the same time period. The trend for non-Indigenous students between 2008 and 2014 was higher and less variable than for Indigenous students with proportions between 92% and 95%. For students with a LBOTE and non-LBOTE status the percentage of students achieving at or above the national minimum standards for literacy remained steady between 2008 and 2014 (89% and 93%, respectively).

**Indicator: Proportion of young people in year 9 achieving at or above the national minimum standards for literacy**

Literacy by population group



Source: Australian Curriculum, Assessment and Reporting Authority; NAPLAN: Achievement in reading, persuasive writing, language conventions and numeracy 2008-2014

**Notes**

The National Assessment Program - Literacy and Numeracy (NAPLAN) tests are the only Australian assessments that provide nationally comparable data on the performance of students in the vital areas of literacy and numeracy.

CALD refers to Culturally And Linguistically Diverse Background.

LBOTE refers to Language Background Other Than English.

**Sources**

[Australian Curriculum, Assessment and Reporting Authority; NAPLAN: Achievement in reading, persuasive writing, language conventions and numeracy 2008-2014](#)

Data quality statement: Not available, please refer to the published source (above) for further information.

**References**

DECD (Department for Education and Child Development) 2013. Numeracy and literacy: a numeracy and literacy strategy from birth to 18. Adelaide: Government of South Australia (Department for Education and Child Development).

Schneider, B, Keesler, V, Morlock, L 2010. The effects of family on children’s learning and socialisation, in OECD (2010). The Nature of Learning, OECD Publishing.

Walsemann K, Geronimus A & Gee G 2008. Accumulating disadvantage over the life course: evidence from a longitudinal study investigating the relationship between educational advantage in youth and health in middle age. Research on Aging 30(2):169-99.

Walsh L & Black R 2009. Overcoming the barriers to engagement and equity for all students. Canberra: Foundation for Young Australians.



## Education, employment & economic situation

### Why are numeracy rates important?

Numeracy skills are essential for young people to engage in day-to-day living, further educational attainment, social development and employment. Numeracy involves the understanding and application of mathematical information across a range of situations in daily life. A broader definition of numeracy provided by the OECD is the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life (Schneider et al. 2010).

Young people who can apply mathematical concepts in a number of different contexts are in a better position to succeed in education and in life (DECD 2013). Successful educational outcomes are influenced by a range of factors including a young person's home environment, the quality of their educational experiences and their attitude to school and learning (Walsh and Black, 2009). Additionally, there are a number of other factors that have been shown to influence educational outcomes, including resources, parental level of education, school engagement, and socioeconomic status (Walsemann et al. 2008, Zammit et al. 2002).

### Do numeracy rates vary across population groups?

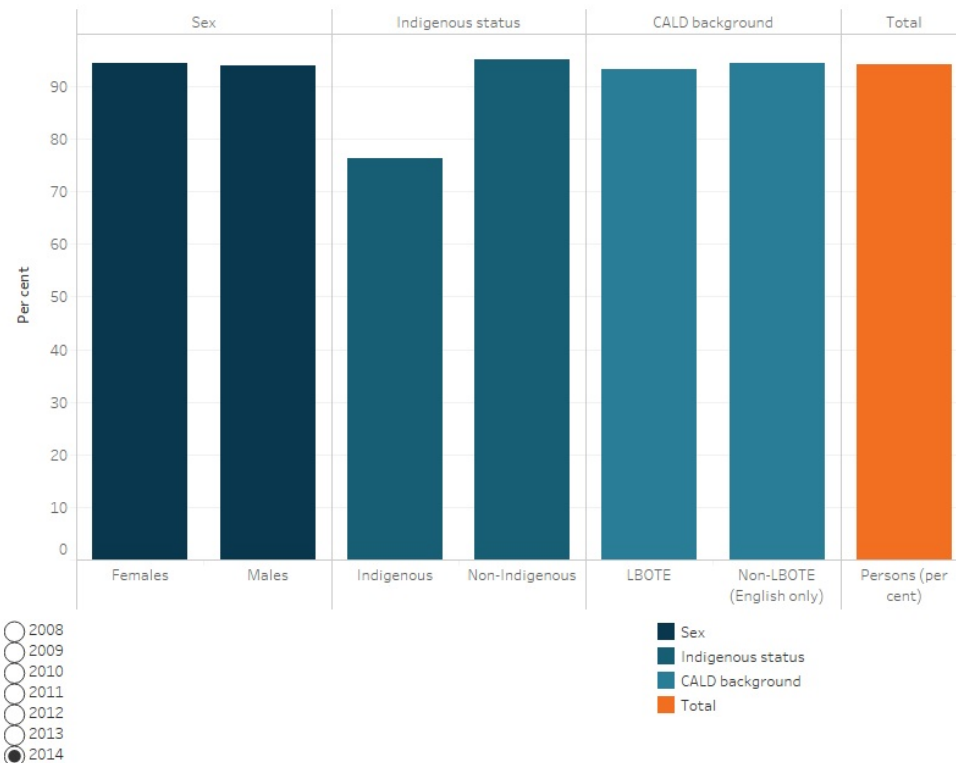
In 2014, the majority of Year 9 students achieved at or above the national minimum standards of numeracy (around 94%). Similar proportions of males and females achieved at or above the national minimum standards, both with 94%. Non-Indigenous students were more likely to achieve at or above the national minimum standards for numeracy than Indigenous students (95% compared to 76% respectively). Students from English-speaking backgrounds were only slightly more likely to achieve at or above the national minimum standards in numeracy than those with a language background other than English (LBOTE) (95% compared to 93%).

### Has there been a change over time?

The proportion of students achieving at or above the national minimum standards for numeracy has remained relatively steady at 94% between 2008 and 2014. Over the same period, very similar trends were observed among males and females with proportions at around 94%. The proportion of Indigenous students achieving at or above the national minimum standards ranged from 66% to 76%. The trend for non-Indigenous students between 2008 and 2014 was higher and more stable than Indigenous students with proportions at 95%. For students with a LBOTE and non-LBOTE status the percentage of students achieving at or above the national minimum standards for numeracy remained steady between 2008 and 2014 (90% and 94% respectively).

#### Indicator: Proportion of young people in year 9 achieving at or above the national minimum standards for numeracy

##### Numeracy by population group



Source: Australian Curriculum, Assessment and Reporting Authority; NAPLAN: Achievement in reading, persuasive writing, language conventions and numeracy 2008-2014

## Notes

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The National Assessment Program - Literacy and Numeracy (NAPLAN) tests are the only Australian assessments that provide nationally comparable data on the performance of students in the vital areas of literacy and numeracy.

CALD refers to Culturally And Linguistically Diverse Background.

LBOTE refers to Language Background Other Than English.

## Sources

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[Australian Curriculum, Assessment and Reporting Authority; NAPLAN: Achievement in reading, persuasive writing, language conventions and numeracy 2008-2014](#)

Data quality statement: Please refer to the published source (above) for further information.

## References

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DECD (Department for Education and Child Development) 2013. Numeracy and literacy: a numeracy and literacy strategy from birth to 18. Adelaide: Government of South Australia (Department for Education and Child Development).

Schneider, B, Keesler, V, Morlock, L 2010. The effects of family on children's learning and socialisation, in OECD (2010). The Nature of Learning, OECD Publishing.

Walsemann K, Geronimus A & Gee G 2008. Accumulating disadvantage over the life course: evidence from a longitudinal study investigating the relationship between educational advantage in youth and health in middle age. *Research on Aging* 30(2):169-99.

Walsh L & Black R 2009. Overcoming the barriers to engagement and equity for all students. Canberra: Foundation for Young Australians.

Zammit S, Routitsky A & Greenwood L 2002. Maths and science achievement of junior secondary school students in Australia (TIMSS Australia monograph no. 4). Melbourne: Australian Council for Educational Research.

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## Education, employment & economic situation

### Why are completion rates important?

Completion of secondary school is the first step along the pathway to either further education or entry into the labour market, and is considered important preparation for participation in many aspects of adult life. Students who fail to complete Year 12 may have fewer employment opportunities and are more likely to experience extended periods of unemployment than Year 12 graduates (Lamb et al. 2000). Vocational education is an alternative pathway to secondary schooling, with Certificate III considered an equivalent qualification (Lim & Karmel 2011).

In order to encourage as many young people as possible to complete Year 12 in Australia, the Council of Australian Governments (COAG) introduced a youth participation requirement from 1 January 2010, which requires young people to attend school until they complete Year 10 and then to participate in full-time education, training or employment until they turn 17 (COAG 2009) (See notes below regarding the age ranges reported in this portal).

The National Education Reform Agreement (NERA) sets targets of 90% of young people aged 20-24 to have attained Year 12 or Certificate II or above by 2015, and Year 12 or a Certificate III or above by 2020. Both the NERA and the National Indigenous Reform Agreement (NIRA) set a target of at least halving the gap between Indigenous and non-Indigenous students in attainment rates of Year 12 or Certificate II or above by 2020.

### Do completion rates vary across population groups?

In 2014, 77% of young people (aged 20-24) had attained a Year 12 qualification (see notes for definition). The proportion of 20-24 year olds with a Year 12 qualification or Certificate II or higher was 86%, while the proportion with Year 12 qualification or Certificate III or higher was 85%.

Females were more likely than males to have attained a Year 12 qualification (82% compared with 73%), a Year 12 qualification or Certificate II or higher (90% compared with 83%) or a Year 12 qualification or Certificate III or higher (89% compared with 82%).

These data are consistent with other research showing that males are less likely than females to complete school, and are more likely to undertake vocational programs or to find employment (Curtis & McMillan 2008).

In 2012-13, Indigenous young people aged 20-24 were less likely than non-Indigenous young people to have attained a Year 12 qualification, Certificate II or higher (59% compared with 87%), or a Year 12 qualification, Certificate III or higher (54% compared with 85%).

### Has there been a change over time?

Between 2004 and 2014, there has been a steady increase in the proportion of all young people aged 20-24 with a Year 12 qualification (from 74% to 77%). There were also increases in the proportion of 20-24 year olds with Year 12 qualification, Certificate II or higher (from 81% to 86%) and for those with Year 12 qualification, Certificate III or higher (from 80% to 85%).

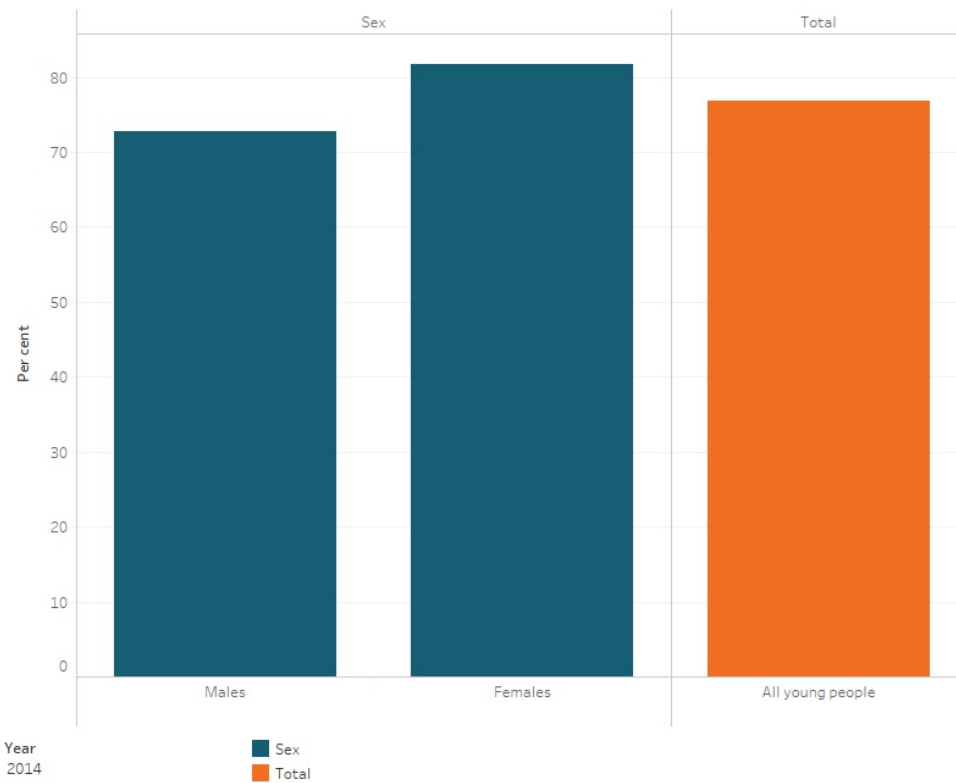
While both 20-24 year old males and females showed increases in attainment rates between 2004 and 2014, the increases were slightly greater for females. The proportion of males attaining a Year 12 qualification increased by 3 percentage points (from 70% to 73%). The proportion of males attaining a Year 12 qualification, Certificate II or higher increased by 4 percentage points (from 79% to 83%) as did the proportion of males attaining a Year 12 qualification, Certificate III (from 78% to 82%).

Over the same time period, the proportion of females attaining a Year 12 qualification increased by 5 percentage points (from 77% to 82%). The proportion of females attaining either a Year 12 qualification, Certificate II or higher increased by 7 percentage points (from 83% to 90%) as did the proportion of females attaining either a Year 12 qualification, Certificate III (from 82% to 89%).

The proportion of Indigenous 20-24 year olds who had attained a Year 12 qualification or Certificate II increased by 14 percentage points from 45% in 2008 to 59% in 2012-13. During this period, the rate for non-Indigenous 20-24 year olds increased slightly from 85% to 87%. Between 2008 and 2012-13, the gap decreased by 12 percentage points (from 40 percentage points in 2008 to 28 percentage points in 2012-13). Consequently, the NERA and NIRA target to halve the gap for Indigenous Australians aged 20-24 in Year 12 attainment is on track (by 2020) (Australian Government 2015).

**Indicator: Proportion of young people aged 20-24 with a year 12 qualification or equivalent (per cent) - 2004 to 2014**

School completion rates



Source: ABS Survey of Education and Work 2004 to 2014

**Notes**

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

A Year 12 qualification is awarded for successfully completing senior secondary schooling (Years 11 and 12) and is known under different names in different states and territories. It is sometimes referred to as a senior secondary certificate of education.

**Sources**

[ABS Survey of Education and Work 2004-2014](#)

[SCRGSP, National Education Agreement, 2010-2014](#)

Data quality statement: [ABS Survey of Education and Work 2014](#)

**References**

Australian Government 2015. Closing the gap: Prime Minister’s report 2015. Canberra: Department of Prime Minister and Cabinet.

COAG (Council of Australian Governments) 2009. COAG Communiqué, 2 July 2009. [National Partnership Agreement on Youth Attainment and Transitions](#). Canberra: COAG. Viewed 3 July 2015.

Curtis DD & McMillan J 2008. School non-completers: profiles and initial destinations. Longitudinal Surveys of Australian Youth. Research report 54. Camberwell: Australian Council for Educational Research.

Lamb S, Dwyer P & Wyn J 2000. Non-completion of school in Australia: the changing patterns of participation and outcomes. Research report no. 16. Melbourne: Australian Council for Educational Research.

Lim P & Karmel T 2011. The vocational equivalent to Year 12. LSAY research report 58. Adelaide: NCVER.

## Education, employment & economic situation

### Why are rates of study for qualifications important?

Increasingly, young people are continuing their studies beyond compulsory schooling. Post-school qualifications (also known as non-school qualifications) are an important predictor of an individual's capacity to compete in demanding labour markets (OECD 2014). Post-school qualifications can be obtained through higher education institutions or vocational education and training institutions.

For young people in particular, apprenticeships and traineeships are an alternative pathway into the labour market, providing an opportunity to acquire essential skills while also participating in the labour force. The combination of on-job and off-job training and employment generally lasts 3 to 4 years for apprenticeships and 1 to 2 years for traineeships.

### Post-school qualifications

In 2014, 35% of 15-24 year olds were enrolled in study towards a post-school qualification. The proportion was higher among 20-24 year olds (42%) than 15-19 year olds (27%) reflecting the high proportion of 15-19 year olds still studying towards school qualifications (see also Notes below). Across the 15-24 year old age group, participation was slightly higher for females (37%) than males (33%).

Of the 15-24 year olds enrolled in study towards a post-school qualification, more than half were studying towards a Bachelor degree or higher (63%), and around one-fifth (20%) towards a Certificate III or IV. Around 11% were studying towards a Diploma or Advanced Diploma. The pattern was similar across the two age groups 15-19 and 20-24, and for males and females (AIHW 2015).

The most popular fields of study among 15-24 year olds for post-school qualifications were management and commerce (21%), society and culture (17%) and engineering and related technologies (13%).

From 2005 to 2014, there has been an increase in the proportion of all young people (aged 15-24) undertaking post-school qualifications (32% to 35%). Over this period, there have been similar trends among males and females (males 31% to 33%) and females (33% to 37%) and among 15-19 year olds (25% to 27%) and 20-24 year olds (38% to 42%).

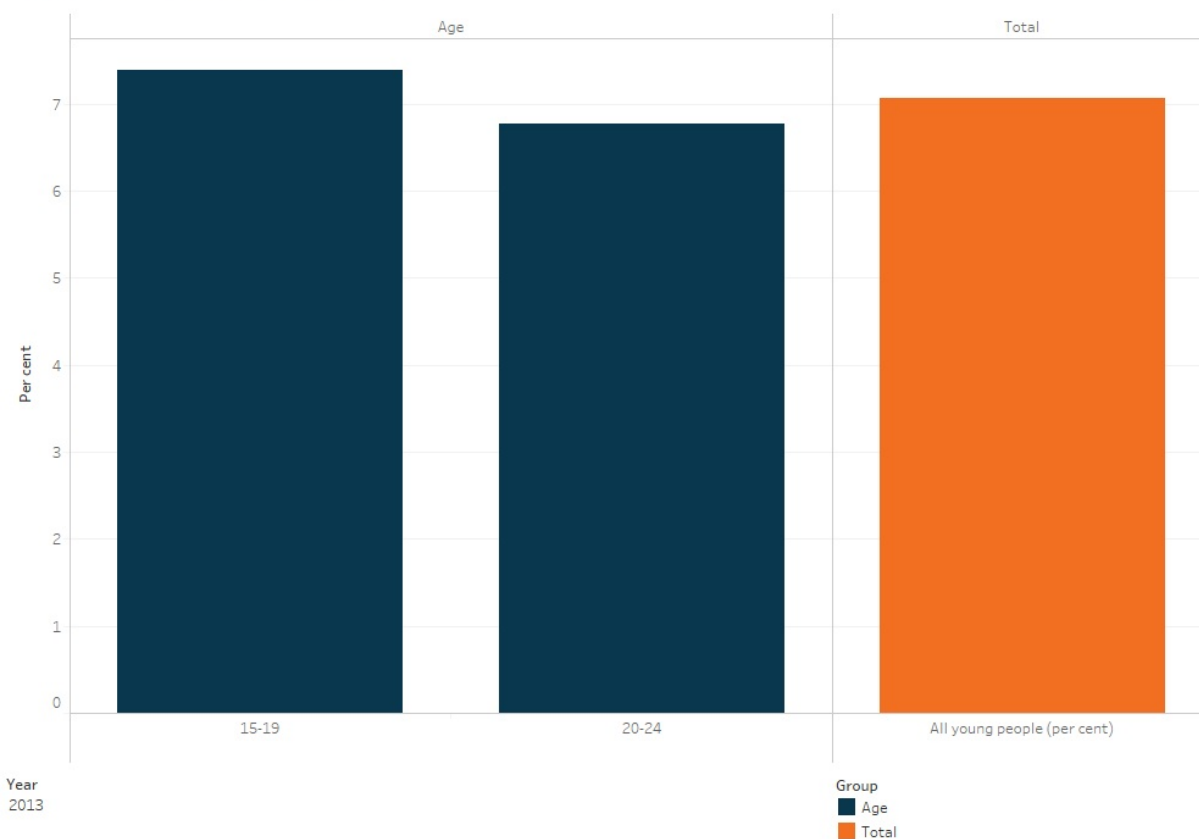
### Apprenticeships or traineeships

In 2013, 7.1% of all young people were undertaking apprenticeships or traineeships. Similar proportions of 15-19 year olds (7.4%) and 20-24 year olds (6.8%) were apprentices/trainees.

The trends in the proportion of young people aged 15-24 undertaking apprenticeships and traineeships have been more variable over this period. From 2004 to 2007, the proportion of young people who were apprentices/trainees increased slightly from 8.3% to 8.7%. This proportion has since declined to 7.1% in 2013. There are similar trends evident for the different young age groups over this period. From 2004 to 2007 the proportion of 15-19 year olds who were undertaking apprenticeships or traineeships increased from 9.1% to 9.7%, whereas the proportion of 20-24 year olds was relatively steady at around 7.5%. These proportions have since decreased to 7.4% of 15-19 year olds and 6.8% of 20-24 year olds in 2013.

## Indicator: Proportion of young people aged 15-24 undertaking apprenticeships or traineeships

Young people undertaking apprenticeships or traineeships



Source: NCVET National Apprentices and Trainee Collection

### Notes

This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

For the purpose of the ABS Survey of Education and Work a 'non-school qualification' (referred to as post-school qualifications here) is awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Postgraduate Degree level, Master Degree level, Graduate Diploma and Graduate Certificate level, Bachelor Degree level, Advanced Diploma and Diploma level, and Certificates I, II, III and IV levels. Non-school qualifications may be attained concurrently with school qualifications (ABS 2014).

Future updates of this data portal will report on young people aged 18-24 year olds in recognition of the high proportion of 15-17 year olds still studying towards school qualifications.

Apprentice and trainee data are annual averages of quarterly figures. Population data used as the denominator are the ABS estimated resident population at 30 June of the respective year.

### Sources

#### [ABS Survey of Education and Work 2004 to 2014](#)

AIHW analysis of the NCVET National Apprentices and Trainees Collection via VOCSTATS (extracted 14 April 2015). Data originally collected by registered training organisations and state training authorities around Australia.

Data quality statement: Please refer to the published sources (above) for further information.

### References

ABS (Australian Bureau of Statistics) 2014. [Education and Work, Australia](#). Glossary. ABS cat. no. 6227.0. Canberra: ABS. Viewed on 24 July 2015

AIHW (Australian Institute of Health and Welfare) 2015. [Australia's Welfare 2015](#). Canberra: AIHW.

OECD (Organisation for Economic Co-operation and Development) 2014. [Education at a glance 2014: OECD indicators](#). Paris: OECD.



## Education, employment & economic situation

### Why are NEET rates important?

Young people who are not in education, employment or training are often referred to as ‘NEET’ and regarded as disengaged from work and study. The proportion of young people in the NEET population can be regarded as an indicator of the smoothness of transition from education to work (NCVER: Stanwick et al. 2014).

While being part of the NEET population may indicate an intended break in the pathway from school to work, it can also reflect a mismatch between the skills of young people and the skills required by the labour market (OECD 2014), and/or a difficult labour market. Young people in the NEET population are at risk of becoming socially excluded, with income below the poverty line and without the skills to improve their economic situation (OECD 2014).

### Do NEET rates vary across population groups?

In 2014, according to the ABS Survey of Education and Work, 10% of 15-24 years olds were part of the NEET population (7.0% of 15-19 year olds and 13% of 20-24 year olds).

Based on the 2011 Census, Indigenous young people aged 15-24 were 3 times as likely (31%) to be part of the NEET population compared with non-Indigenous young people (9.2%).

Young people who did not speak English well or at all were more than twice as likely to be in the NEET population compared with those who spoke English well (8.6%).

Young people needing assistance with core activities (such as self-care, body movements or communication) were more than 3 times as likely (35%) to be in the NEET population compared with those who did not need assistance (9.6%).

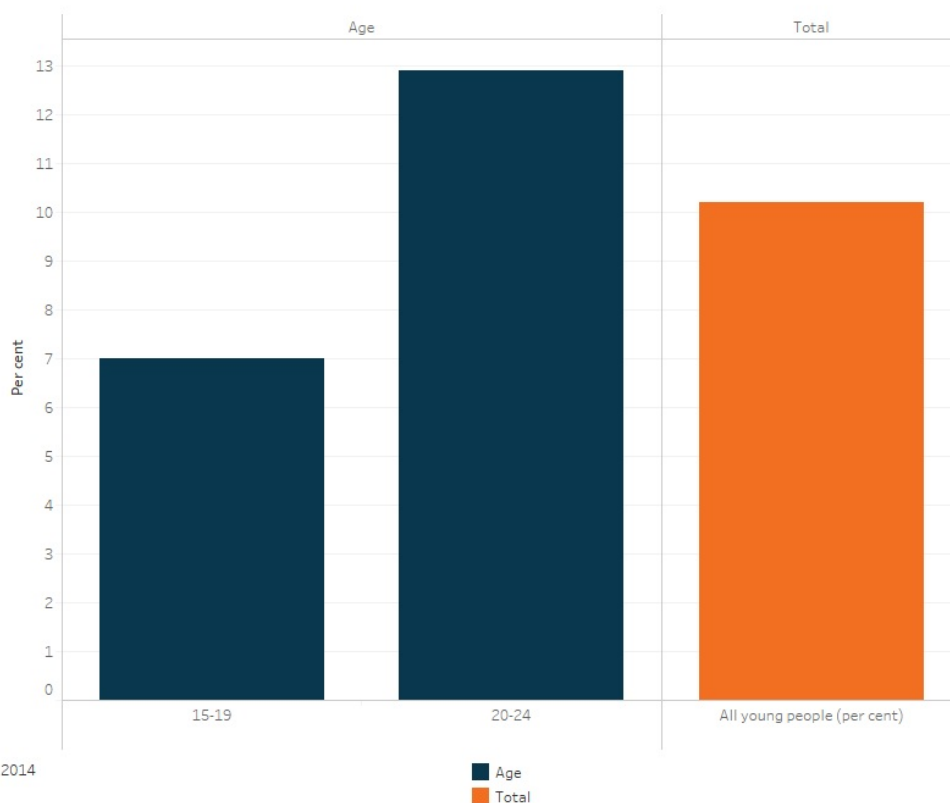
The proportion of young people in the NEET population rose with increasing remoteness, from 8.4% in major cities to 11.8% in inner regional areas, and 22% in remote and very remote areas.

### Has there been a change over time?

Between 2007 and 2014, the proportion of the NEET population aged 15-24 years remained relatively stable (9.1% in 2007 and 10.2% in 2014). For those aged 20-24 there was a statistically significant increase in the NEET population from 11.1% to 12.9% between 2007 and 2014.

#### Indicator: Young people aged 15-24 not in education or employment

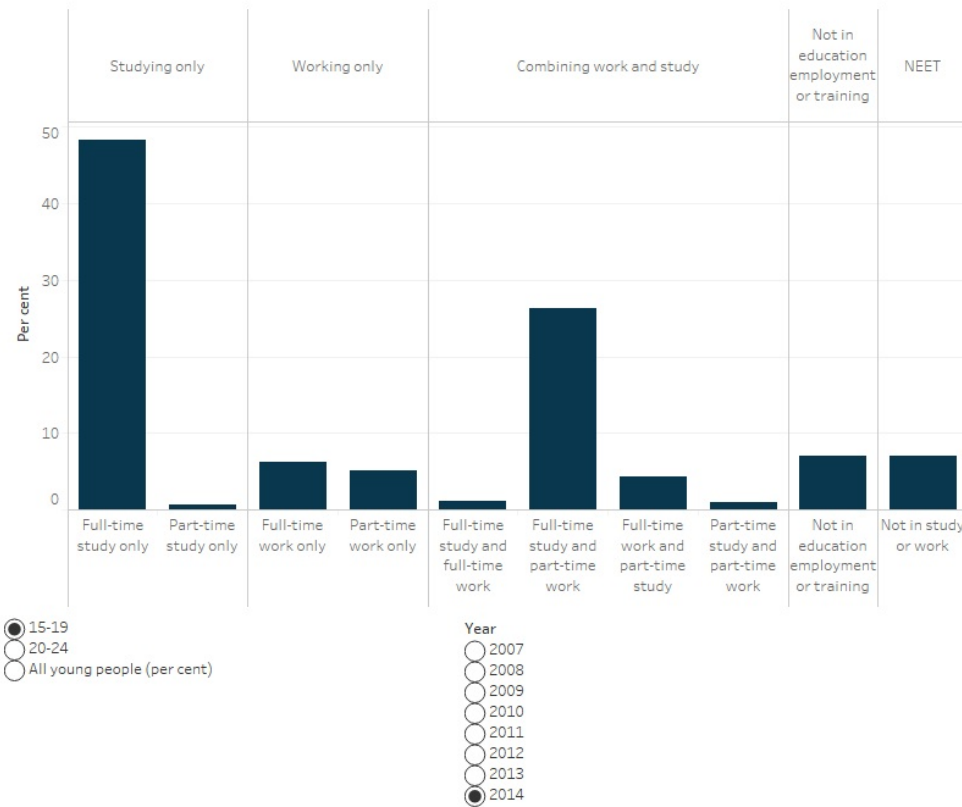
NEET by population group





**Supplementary: Young people 15-24 who are working and/or studying**

Study and/or work status by age



Source: ABS Survey of Education and Work 2007 to 2014

**Notes**

\*This report is based on survey data; relative standard errors and 95% confidence intervals are provided in the [Source data tables: NYIF indicators](#). Some estimates have relative standard errors of 25% to 50% and should be used with caution. Significance testing was undertaken on values cited in the text; unless otherwise stated, differences were found to be statistically significant.

Young people aged 15-17 may be more likely to participate in education, training or employment due to the mandatory National Youth Participation Requirement, agreed by the Council of Australian Governments (COAG) and introduced in 2010, which requires all young people to participate in schooling until they complete Year 10, and to participate in full-time education, training or employment (or a combination of these) until the age of 17 (COAG 2009). Future updates of this data portal will report on young people aged 18-24 year olds.

The NEET population includes both those who are unemployed but looking for work, and those considered ‘not in the labour force’ or NILF. Those who are not in the labour force may be undertaking home duties and/or looking after children, travelling or on holidays, or taking other ‘unspecified’ activities (Stanwick et al. 2013).

Prior to the introduction of the National Youth Participation Requirement in 2010, the minimum school leaving age in many jurisdictions was 15 or 16.

**Sources**

ABS Survey of Education and Work 2007 to 2014; ABS Census of Population and Housing, 2011

Data quality statement: [ABS Survey of Education and Work 2014](#)

**References**

COAG (Council of Australian Governments) 2009. [Council of Australian Governments Meeting Hobart 30 April 2009 Communique](#). Accessed 22 May 2015.

NCVER (National Centre for Vocational Education Research): Stanwick J, Lu T, Rittie T & Circelli M 2014. [How young people are faring in the transition from school to work](#). Foundation for Young Australians. Viewed 26 July 2015.

OECD (Organisation for Economic Co-operation and Development) 2014. [Education at a glance 2014: OECD Indicators](#). OECD Publishing.

Stanwick J, Ju T, Karmel T & Wibrow B 2013. [How young people are faring 2013: the national report on the learning and earning of young Australians](#). Melbourne: Foundation for Young Australians.



## Education, employment & economic situation

### Why are unemployment and underemployment rates important?

The completion of full-time education and the transition to full-time employment are major milestones for young people. Youth employment (and thus unemployment) trends have implications for the ability of young people to successfully make the transition from study to work and subsequently to independent living, particularly given the increases in youth unemployment and underemployment following the global financial crisis (Bell and Blanchflower 2011; CEPR 2015; OECD 2009).

Youth unemployment or educational inactivity have negative long-term consequences on career prospects for young people. Unemployment and its associated impact on young people's economic resources can damage self-esteem; it also increases the likelihood of depression and has been linked to significant effects on weekly wages and happiness at age 50 (Bell and Blanchflower 2011; OECD 2010).

A large number of young people who are employed are considered to be 'underemployed' - meaning that they would prefer, and are available for, more hours of work than they currently have (see Notes section for full definition).

### Do rates vary across population groups?

Young people experience unemployment at a higher rate than the overall population. In 2014 the youth unemployment rate for 15-24 year olds (13%) was more than twice the national employment rate of 6% (AIHW 2015).

In 2014, 15-19-year-old young people reported a higher rate of unemployment than young people aged 20-24 (about 18% versus 10% respectively). Young males (15-24 years) were slightly more likely to be unemployed than females in 2014 (about 14% versus 13% respectively).

In the same year, the underemployment rate among 15-24 year olds was 16%. Young females are more likely to be underemployed than young males (19% versus 14% respectively) (AIHW analysis of ABS 2015). The underemployment rate for young people was almost twice the rate for all ages (8.1%) (AIHW 2015).

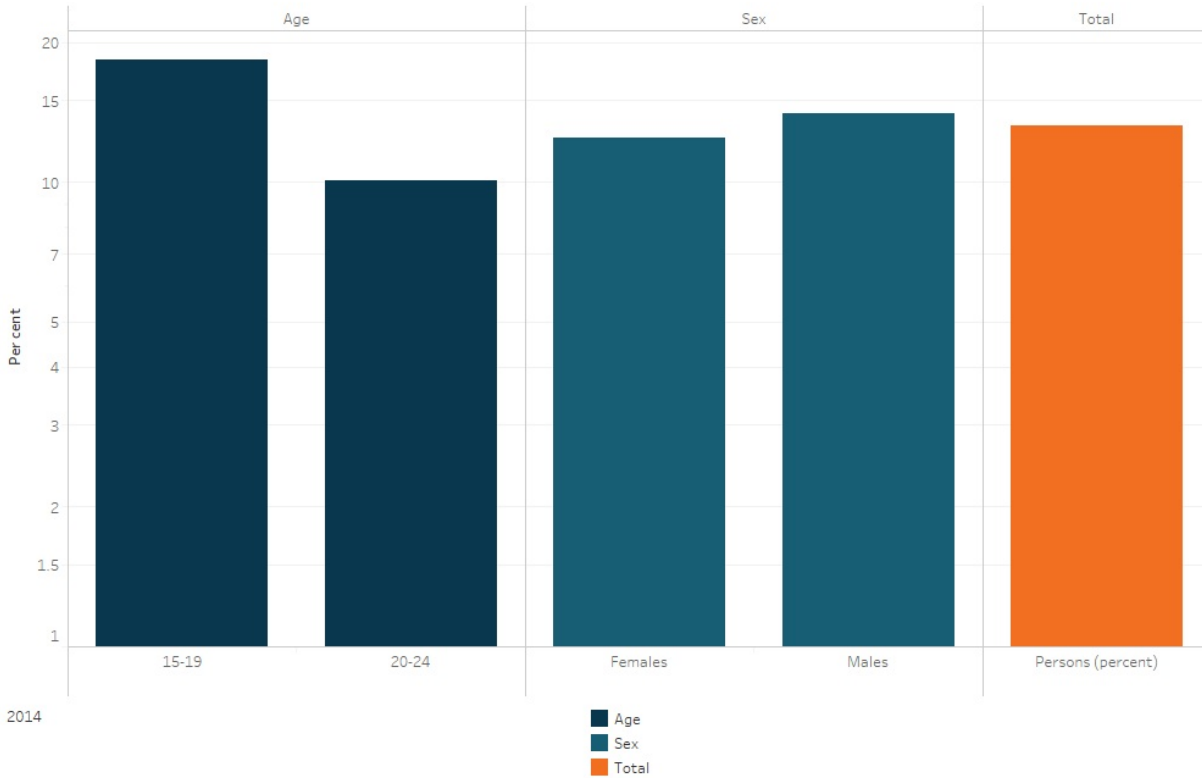
### Has there been a change over time?

Youth unemployment (15-24 years) has been increasing in recent years from 8.8% in 2008 to 13% in 2014. Since 2004, 15-19 years olds have consistently reported higher unemployment rates than 20-24 year olds. Young males (aged 15-24) are also slightly more likely to be unemployed than young females. In 2004, for 15-24 year olds, male unemployment was 12% increasing to 14% in 2014, with female unemployment at 11% in 2004, increasing to 13% in 2014.

The underemployment rate has been variable since 2004, however, underemployment appears to be increasing in recent years from 11% in 2008 to 16% in 2014.

## Indicator: Unemployment rate for young people aged 15-24

Unemployment by population group



Source: Based on ABS Labour Force Survey 2014

### Notes

This report is based on survey data; relative standard errors and 95% confidence intervals were not provided with the source data. Consequently, significance testing has not been undertaken.

Unemployed young people are defined as those aged 15 and over who were not employed during the reference week and; had actively looked for full time or part time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Underemployed workers are employed people who would prefer, and are available for, more hours of work than they currently have. They comprise; part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey, and; full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people would prefer to work full time in the reference week and would have been available to do so.

### Sources

ABS 2015 Labour Force, Australia, Detailed - Electronic Delivery, Feb 2015

Data quality statement: [ABS Labour Force Survey](#)

### References

AIHW (Australian Institute of Health and Welfare) 2015. Australia's Welfare 2015. Canberra: AIHW.

Bell DNF & Blanchflower DG 2011. [Youth Unemployment in Europe and the United States](#). IZA Discussion Paper No. 5673. Viewed 21 May 2015.

CEPR (Centre for Economic Policy Research) 2015 [No Country for Young People? Youth Labour Market Problems in Europe](#), Edited by JJ Dolado. A VoxEU.org Book. Viewed 21 May 2015.

OECD (Organisation for Economic Co-operation and Development) 2009. [Jobs for Youth: Australia 2009](#). OECD Publishing. Viewed 21 May 2015.

OECD 2010. [Off to a Good Start? Jobs for Youth](#). OECD Publishing. Viewed 21 May 2015.





# Data

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## Related material

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