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PRELIMINARY REPORT

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Contents

1 Summary

For more than a decade, the Australian Institute of Health and Welfare (AIHW) has played a leading role in national indicator development, monitoring and reporting in the area of health and wellbeing of Australia's young people, and to date has produced numerous reports in this area (AIHW 2000b, 2003b, 2007c, 2008g).

The key national indicators presented in this technical paper were produced by the AIHW in consultation with the National Youth Information Advisory Group. The development of these key national indictors builds upon the extensive work undertaken over the last decade by earlier expert advisory groups, taking into account recent Australian and international research and emerging key policy issues and concerns for young people.

The indicators presented in this technical paper, and which subsequently will be included in the *Young Australians: their health and wellbeing 2011* report, are based on a conceptual framework that is a modification of the National Health Performance Framework (NHPF), with minor modifications to better capture health and wellbeing issues relevant to young people. The National Youth Information Framework consists of three tiers: *Health status*, *Determinants of health* and *Health system performance*, and includes a number of dimensions within each tier.

The National Youth Information Framework provides a comprehensive set of indicators across a range of dimensions that will help monitor the health and wellbeing of young Australians. This technical paper describes the technical definitions of the 71 indicators that will be reported on in *Young Australians: their health and wellbeing 2011*, along with brief justifications explaining the relevance and importance of the indicators to young people's health and wellbeing, indicator and data limitations, and primary data sources.

This technical paper identifies the best currently available primary data sources for the key national indicators as identified by the AIHW, in conjunction with the National Youth Information Advisory Group. It provides comments on data gaps and limitations, particularly inconsistencies between indicator (ideal) definitions and existing data definitions. These specifications are guiding the analysis of data for the key national indicators in *Young Australians: their health and wellbeing 2011*, planned for release in 2011. This technical paper is subject to revision as new issues arise in relation to new data sources or changes to existing data sources.

The key national indicators in this technical paper overlap with the Council of Australian Governments' (COAG) performance indicators. Of the 71 key national indicators, nearly one-quarter are the same or similar to COAG performance indicators in the National Agreements, in the areas of health care, disability, education, affordable housing, and Indigenous reform.

2 Introduction

Purpose of this document

The AIHW produces regular comprehensive and accurate national statistical reports on patterns and trends in young people's health and wellbeing. Successive issues of AIHW reports on young people (AIHW 2000b, 2003a, 2007c, 2010b) represent major milestones in an evolutionary process of knowledge, indicator and data development in the areas of child and youth health and wellbeing (AIHW 2003b, 2005, 2007b, 2009f; AIHW: Al-Yaman et al. 2002; Moon et al. 1999a; Moon et al. 1999b). The indicators included in these reports cover a broad range of areas including health status, health outcomes and factors influencing the health and wellbeing of young Australians, such as, behaviour, environment, family, community and social economic factors.

This technical paper specifies the operational definitions and primary data sources for the key national indicators of young people's health and wellbeing. It identifies the best currently available data sources for the key national indicators, as identified by the AIHW, in conjunction with the National Youth Information Advisory Group. It provides comments on data gaps and limitations, particularly inconsistencies between indicator (ideal) definitions and existing data definitions. Information is also provided on proposed cross tabulations for each indicator, from the primary data source. These specifications are guiding the analysis of data for the key national indicators in *Young Australians: their health and wellbeing 2011*, planned for release in 2011. This technical paper is subject to revision as new issues arise, for example, in relation to new data sources or changes to existing data sources.

The information in this technical paper may be useful to researchers and analysts who are interested in compiling data on young people's health and wellbeing. The AIHW encourages the use of indicator concepts and specifications contained in this technical paper, with appropriate acknowledgement of the use of AIHW material.

National Youth Information Framework

The indicators presented in this technical paper, and which subsequently will be included in *Young Australians: their health and wellbeing 2011* report, are based on the National Youth Information Framework (see Table 1). This is a modification of the National Health Performance Framework (NHPF) developed by the National Health Performance Committee. The NHPF is a nationally agreed framework endorsed by the Australian Health Ministers' Advisory Council.

The National Youth Information Framework, previously used in developing indicators for the *Young Australians: their health and wellbeing 2007* report, is aligned very closely with the NHPF, with minor modifications to better capture issues relevant to young people. A detailed description of the process of developing indicators for young people is outlined in the bulletin *Young Australians: their health and wellbeing, key national indicators* (AIHW 2006).

The National Youth Information Framework for 2011 consists of three tiers: 'Health status', 'Determinants of health' and 'Health system performance' and includes a number of dimensions within each tier. For example, there are four dimensions within the 'Health

status' tier: health conditions, human function, wellbeing and deaths. Environmental factors, community and socioeconomic factors, and health behaviours are included in the 'Determinants of health' tier. Since most areas covered under the biomedical factors dimension have no national data for young people, they have been incorporated into the health behaviours dimension in the National Youth Information Framework.

Table 2.1: National Youth Information Framework

Tier 1: Health status	
Health conditions	Prevalence of disease, disorder, injury or trauma, or other health related states.
Human function	Alterations to body structure or function (impairment), activity limitations and restrictions in participation.
Wellbeing	Measures of physical, mental, and social wellbeing of individuals.
Deaths	Mortality rates and life expectancy measures.
Tier 2: Determinants of health	
Environmental factors	Physical, chemical and biological factors, such as, air, water, food and soil quality.
Community and socioeconomic	Community factors such as, social capital, support services; family functioning and environment; and socioeconomic factors such as, housing, education, employment and income.
Health behaviours[(a)]	Attitudes, beliefs, knowledge and behaviours such as, patterns of eating, physical activity, smoking and alcohol consumption.
Tier 3: Health system performance	
Effectiveness	Care/intervention/action provided is relevant to the clients needs and based on established standards. Care, intervention or action achieves the desired outcome.
Safety	The avoidance or reduction to acceptable limits of actual or potential harm from health-care management or the environment in which health care is delivered.
Responsiveness	Service is client orientated. Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care.
Continuity of care	Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.
Accessibility	People can obtain health care at the right place and the right time irrespective of income, physical location and cultural background.
Efficiency and sustainability	Achieving desired results with most cost-effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs.

(a) The NHPF includes an additional dimension on biomedical factors in the *Determinants of Health* tier. This dimension has been incorporated into the Health Behaviours dimension as most of the biomedical factors are not relevant for young people.

Note: Based on the revised National Health Performance Framework. Slight revisions were made to the NHPF in 2008–09, such as, merging life expectancy with deaths, combining socioeconomic factors and community capacity, and reducing the number of health system performance dimensions from 9 to 6 (NHISSC 2009).

The National Youth Information Framework provides a comprehensive set of indicators across a range of dimensions that will help monitor the health and factors influencing the health and wellbeing of young Australians. Some modifications and refinements have been made to the framework since the publication of the *Young Australians: their health and wellbeing 2007* report. These changes to the framework reflect the considerable data development and information activities that have taken in place in recent years in the areas of youth health and wellbeing. The *2011 Young Australians* report will include 71 indicators, a smaller number of indicators than included in the *2007 Young Australians* report (88). Those not included as key national indicators in the 2011 report will be included as supplementary information. In addition, the 2011 report will contain new indicators in the areas of cervical

cancer vaccination, GP consultations, school relationships and bullying, and deaths from accidental poisoning, and a further four indicators are being investigated for possible inclusion (Table 4.1).

The breadth of indicators included in the National Youth Information Framework is similar to the indicator framework presented in the report *A picture of Australia's children 2009*. Both frameworks cover a broad range of indicators relating to health and wellbeing and set out the structure for reporting. The frameworks and indicators cover a similar range of issues such as, health status, health conditions, risk and protective factors, family, neighbourhood, socioeconomic and community factors, safety and security, and system performance. The greatest differences relate to an increased focus on early learning and education for children, while there is a greater focus on employment and income indicators for young people, reflecting the different influences at different ages. The types of health system indicators presented also vary considerably.

Table 2.2: Comparison between young people and children's indicators

Young Australians: their health and wellbeing 2011	A picture of Australia's children 2009
Health status:	How healthy are Australia's children?
• Physical and mental wellbeing	• Mortality
• Disability and activity limitation	• Chronic conditions
• Burden of disease and injury	• Disability
• Deaths	• Congenital anomalies
Health conditions	• Mental health
• Mental health	How well are we promoting healthy child development?
• Injury and poisoning	• Breastfeeding
• Long-term conditions	• Dental health
• Communicable diseases	• Physical activity and nutrition
• Oral health	
Health behaviours	What factors can affect children adversely?
• Overweight and obesity	• Teenage births
• Physical activity	• Smoking in pregnancy
• Nutrition	• Birthweight
• Sun protection	• Overweight and obesity
• Substance use	• Environmental tobacco smoke in the home
• Other substance use	• Tobacco use
• Sexual reproductive health	• Alcohol misuse

(continued)

Table 2.2 (continued): Comparison between young people and children's indicators

Young Australians: their health and wellbeing 2011	A picture of Australia's children 2009
Community and socioeconomic factors • Family cohesion/family functioning • Parental health and disability • Social capital • Community and civic participation • Education • Employment • Income • Socioeconomic status of parents	What kind of families and communities do Australia's children live in? • Family functioning • Family economic situation • Children in non-parental care • Parental health status • Neighbourhood safety • Social capital How well are Australia's children learning and developing? • Attendance at early childhood education programs • Transition to/attendance at primary school • Literacy and numeracy • Social and emotional development
Environmental factors • Environmental tobacco smoke • Housing environment • School relationships and bullying • Child protection • Victims of violence • Homelessness • Young people and crime	How safe and secure are Australia's children? • Injuries • School relationships and bullying • Child abuse and neglect • Children as victims of violence • Homelessness • Children and crime
Health system performance • Ambulatory-care-sensitive conditions • Teenage purchase of cigarettes • Cervical screening • Appropriate use of antibiotics • Delivery by caesarean section • Waiting times in emergency departments • Adverse events treated in hospitals	How well is the system performing? • Neonatal hearing screening • Childhood immunisation • Survival for leukaemia • Quality child care • Child protection re-substantiations

The key national indicators in this technical paper overlap with the Council of Australian Governments' (COAG) performance indicators. Of the 71 key national indicators, nearly one-quarter are the same or similar to COAG performance indicators in the National Agreements, in the areas of health care, disability, education, affordable housing, and Indigenous reform. A mapping of the key national indicators included in this technical paper to COAG and NHPF indicators are included in table A1.1, in Appendix A.

The selection of key national indicators for young people's health and wellbeing was guided by criteria developed by the National Health Performance Committee (NHPC 2004). According to the NHPC guidelines, national indicators should:

- be worth measuring—the indicators represent an important and salient aspect of the public's health or the performance of the health system
- be measurable for diverse populations—the indicators are valid and reliable for the general population and diverse populations (that is, Aboriginal and Torres Strait Islander people, rural/urban dwellers, people with different socioeconomic circumstances, and so on)
- be understood by people who need to act—people who need to act on their own behalf or on behalf of others should be able to readily comprehend the indicators and what can be done to improve outcomes
- galvanise action—the indicators are of such a nature that action can be taken at the national, state, local or community level by individuals, organised groups and public and private agencies
- be relevant to policy and practice—relevant to actions that can lead to improvement when widely applied
- be measurable over time to reflect results of actions—if action is taken, tangible results will be seen, indicating improvements in various aspects of young people's wellbeing
- be feasible to collect and report—the information required for the indicator can be obtained at reasonable cost in relation to its value and can be collected, analysed and reported within an appropriate time frame comply with national processes of data definitions.

Readers who are interested in more background information on the development of indicators of children and young people's health and wellbeing should refer to recent bulletins on this topic (AIHW 2006, 2008f, 2010a).

Forthcoming AIHW report: *Young Australians: their health and wellbeing 2011*

The forthcoming AIHW report *Young Australians: their health and wellbeing 2011* will bring together the most up-to-date national information on the health and wellbeing of young people aged 12–24 years. As with previous issues, the 2011 report will present the latest-available national information. As well, the report will include trend information to monitor how Australia's young people are faring on key indicators over time, and how certain population groups, such as, Indigenous children, children from socioeconomically disadvantaged backgrounds and rural and regional Australia, are faring by comparison (subject to data of sufficient quality being available).

Young Australians: their health and wellbeing 2011 will report on how Australia compares internationally for indicators where comparable data are available. There are, however, complexities associated with international comparisons. Even where seemingly comparable data are available, differences in data definitions, underlying administrative practices and collection methodology may mean that the data are assessed as not directly comparable. The decision to include international comparisons is made on an indicator-by-indicator basis taking these considerations into account.

The proposed structure for the *Young Australians: their health and wellbeing 2011* report will align with the tiers and dimensions of the National Youth Information Framework. The ordering of the dimensions within each of the tiers will, however, differ from what is

presented in Table 1, as is evident in Part 3. The proposed structure and ordering of indicators for the 2011 report is similar to the 2007 report.

Table 2.3 summarises the proposed key national indicators to appear in *Young Australians: their health and wellbeing 2011*, and their main data sources. There are several indicators which are still under development or under investigation and may not be included in the report.

The operational definitions in Part 3 of this technical paper list the data source and availability of data as at February 2010. There is usually a substantial lag between the collection of data and the availability of these data for analysis and reporting due to administrative and data quality-assurance processes. *Young Australians: their health and wellbeing 2011* will contain the latest data that are available to the AIHW in time for inclusion in the report. The year of data included in *Young Australians: their health and wellbeing 2011* may therefore differ from that in this technical paper, depending on the availability of updated data. The data issues and cross tabulations presented for each indicator are those that have been identified for the purposes of producing *Young Australians: their health and wellbeing 2011*, and are not exhaustive lists of all possible data issues and cross tabulations from the data source.

Part 4 includes information on several additional indicators that were proposed by the National Youth Information Advisory Group for inclusion in the *Young Australians: their health and wellbeing 2011* report. The AIHW will investigate the feasibility of reporting on these indicators.

Part 5 presents information on the primary data sources used for the key national indicators.

Table 2.3: Key national indicators of young people's health and wellbeing as at February 2010

Indicator		Data source/s and latest available year of data
Tier 1: Health status		
1.1 Wellbeing		
Physical and mental wellbeing	Proportion of young people aged 15–24 years rating their health as 'excellent', 'very good', or 'good'	ABS National Health Survey (2007–08)
1.2 Human function		
Disability and activity limitation	Proportion of young people aged 15–24 years with severe or profound core activity limitation	ABS Survey of Disability, Ageing and Carers (2003)
Burden of disease and injury	Burden of disease and injury among young people aged 15–24 years	Burden of Disease and Injury Study (2003)
1.3 Deaths		
Deaths	Death rates for young people aged 12–24 years	AIHW National Mortality Database (2007)
1.4 Health conditions		
Mental health	Proportion of young people aged 16–24 years having high or very high levels of psychological distress as measured by the Kessler 10 (K10) scale	ABS National Health Survey (2007–08)
	Prevalence of mental health disorders among young people aged 16–24 years	National Survey of Mental Health and Wellbeing (2007)
Injury and poisoning	Injury and poisoning death rate for young people aged 12–24 years	AIHW National Mortality Database (2007)
	Road transport accident death rate for young people aged 12–24 years	Australian Transport Safety Bureau Fatal Road Crash Database (2008)
	Assault death rate for young people aged 12–24 years	Australian Institute of Criminology National Homicide Monitoring Program (2006–07)
	Suicide rate for young people aged 15–24 years	AIHW National Mortality Database (2007)
	Accidental poisoning death rate for young people aged 12–24 years	AIHW National Mortality Database (2007)
	Injury and poisoning hospitalisation rate for young people aged 12–24 years	AIHW National Hospital Morbidity Database (2007–08)
Chronic conditions	Prevalence of long-term conditions among young people aged 12–24 years	ABS National Health Survey (2007–08)
	Proportion of young people aged 12–24 years with asthma as a long-term condition	ABS National Health Survey (2007–08)
	Incidence of diabetes among young people aged 15–24 years	AIHW National Diabetes Register (2007)
	Incidence of cancer per 100,000 young people aged 12–24 years	AIHW Australian Cancer Database (2006)

(continued)

Table 2.3 (continued): Key national indicators of young people's health and wellbeing as at February 2010

Indicator		Data source/s and latest available year of data
Communicable diseases	Incidence of vaccine-preventable diseases among young people aged 12–24 years	National Notifiable Diseases Surveillance System (2008)
	HIV infection notification rate for young people aged 12–24 years	National Centre in HIV Epidemiology and Clinical Research (2008)
	Hepatitis A, B and C notification rates for young people aged 12–24 years	National Notifiable Diseases Surveillance System (2008)
	Incidence of notifiable sexually transmissible infections (STIs) among young people aged 12–24 years	National Notifiable Diseases Surveillance System (2008)
Oral health	Proportion of young people aged 12 and 15 years decay-free	Child Dental Health Survey (2003–04)
	Mean number of decayed, missing or filled teeth (DMFT) at 12 and 15 years	Child Dental Health Survey (2003–04)
Tier 2: Determinants of Health		
2.1 Health behaviours		
Overweight and obesity	Proportion of young people who are overweight or obese	ABS National Health Survey (2007–08)
Physical activity	Proportion of young people aged 12–24 years meeting the National Physical Activity Guidelines	ABS National Health Survey (2007–08); National Childrens' Nutritional and Physical Activity Survey (2007)
Nutrition	Proportion of young people aged 12–24 years meeting Australian Dietary Guidelines	National Health Survey (2007–08); National Childrens' Nutritional and Physical Activity Survey (2007)
Sun protection	Proportion of young people aged 12–24 years using sun protection	National Sun Survey of Australians (2006–07)
Substance use	Reported rate for substance use disorders for young people aged 12–24 years	ABS Mental Health Survey (2007); Australian Secondary Students Alcohol and Drug Survey (2005)
	Proportion of young people aged 14–24 years who are daily smokers	AIHW National Drug Strategy Household Survey (2007); Australian Secondary Students Alcohol and Drug Survey (2005)
	Proportion of young people aged 12–17 years who have engaged in risky drinking on any one occasion	
	Proportion of young people who drink at high-risk levels in the short or long term	
Other substance use	Proportion of young people aged 12–24 years who had used an illicit drug within the last 12 months	AIHW National Drug Strategy Household Survey (2007); Australian Secondary Students Alcohol and Drug Survey (2005)
Sexual and reproductive health	Proportion of young people in Year 10 and Year 12 who have had sexual intercourse	National Survey of Australian Secondary Students and Sexual health (2007)
	Proportion of young people in Year 10 and Year 12 who used a form of contraception at their most recent sexual encounter	

(continued)

Table 2.3 (continued): Key national indicators of young people's health and wellbeing as at February 2010

Indicator		Data source/s and latest available year of data
Sexual and reproductive health (continued)	Age-specific birth rate for 15–19 year old women	National Perinatal Data Collection (2007)
	2.2 Community and socioeconomic factors	
Family cohesion/family functioning	Under development	
Parental health and disability	Proportion of parents rating their health as 'fair' or 'poor'	Household, Income and Labour Dynamics in Australia (HILDA) survey (Wave 8 (2008))
	Proportion of young people aged 15–24 years living with parents with disability	ABS Survey of Disability, Ageing and Carers (2003)
	Proportion of parents with a mental health problem	Household, Income and Labour Dynamics in Australia (HILDA) Survey (Wave 8 (2008))
Social capital	Proportion of young people aged 18–24 years who are able to get support in a time of crisis from persons living outside the household	ABS General Social Survey (2006)
Community and civic participation	Community participation rate among young people aged 18–24 years	ABS General Social Survey (2006)
	Proportion of 17 and 18 year olds who have registered to vote	Australian Electoral Commission
School relationships and bullying	Under development	
Child protection	Rate of young people aged 12–17 years who were the subject of a substantiation of a child protection notification received in a given year	AIHW Child Protection Data Collection (2008–09)
	Rate of young people aged 12–17 years who are the subject of care and protection orders	
Victims of violence	Rate of young people aged 15–24 years who have been the victim of physical or sexual assault	ABS Recorded Crime—Victims Data Collection (2008)
	Alcohol- and drug-related violence victimisation rate for young people aged 14–24 years	National Drug Strategy Household Survey (2007)
Homelessness	Proportion of young people aged 12–24 years who are homeless	ABS The Counting the Homeless Project (2006)

(continued)

Table 2.3 (continued): Key national indicators of young people's health and wellbeing as at February 2010

Indicator		Data source/s and latest available year of data
Young people and crime	Rate of young people aged 12–17 years who are under juvenile justice supervision	AIHW Juvenile Justice National Minimum Data Set (2009)
	Rate of imprisonment of young people aged 18–24 years	National Prisoner Census (2009)
Education	Proportion of young people in Years 7 and 9 achieving at or above the national minimum standards for literacy and numeracy	MCEECDYA National Assessment Program – Literacy and Numeracy (2009)
	Apparent retention rate from Year 7–8 to Year 12	National Schools Statistics Data Collection (2008)
	Proportion of young people aged 15–24 years undertaking or with post-school qualifications	ABS Survey of Education and Work (2008)
Employment	Full-time participation rate of young people aged 15–24 years in study or work	ABS Survey of Education and Work (2008)
	Unemployment rate for young people aged 15–24 years	ABS Labour Force Survey (2009)
Income	Proportion of young people aged 15–24 years receiving government income support	Government Income Support data; Superstar Pensions Database; Newstart Superstar Database (2008)
	Proportion of young people aged 15–24 years who experience financial stress	ABS General Social Survey (2006)
Socioeconomic status of parents	Proportion of young people aged 12–24 years living in jobless families	ABS Census of Population and Housing (2006)
	Proportion of young people aged 12–24 years whose parents did not complete secondary school (Year 10 or above)	Household, Income and Labour Dynamics in Australia (HILDA) survey (Wave 8 (2008))
	2.3 Environmental factors	
Environmental tobacco smoke	Proportion of young people aged 12–17 years who live in households where adults smoked inside	AIHW National Drug Strategy Household Survey (2007)
Housing Environment	Proportion of young people aged 15–24 years who live in overcrowded housing	ABS Survey of Income and Housing (2007–08)

(continued)

Table 2.3 (continued): Key national indicators of young people's health and wellbeing as at February 2010

Tier 3: Health system performance		
Potentially avoidable hospitalisations	Ambulatory care sensitive conditions hospitalisation rate for young people aged 12–24 years	AIHW National Hospital Morbidity Database (2007–08)
Teenage purchase of cigarettes or alcohol	Percentage of teenage smokers aged 12–17 years who personally purchased their cigarettes	Australian Secondary Students Alcohol and Drug Survey (2007)
	Percentage of teenage drinkers aged 12–17 years who personally purchased their alcohol	
Survival for melanoma of the skin	Five-year relative survival rates for melanoma of the skin for young people aged 12–24 years	AIHW Australian Cancer Database (2006)
Cervical cancer	Cervical screening rates among women aged 20–24 years	Cervical Cytology Register in each state (2006–07)
	Cervical cancer vaccination rates among young women aged 12–24 years	National Human Papilloma Virus (HPV) Vaccination Program Register
Appropriate use of antibiotics	Proportion of prescriptions for oral antibiotics ordered by general practitioners for the treatment of upper respiratory tract infections	Bettering the Evaluation and Care of Health (BEACH survey of GPs) (2008–09)
Delivery by caesarean section	Caesarean sections as a proportion of all confinements of young women aged 15–24 years	National Perinatal Data Collection (2007)
General practitioner consultations	Rate of general practice encounters for young people aged 12–24 years	Bettering the Evaluation and Care of Health (BEACH survey of GPs) (2008–09)
Waiting times in emergency departments	Percentage of patients aged 12–24 years who are treated within national benchmarks for waiting in public hospital emergency departments for each triage category	AIHW National Hospital Morbidity Database (2007–08)
Adverse events treated in hospitals	Proportion of hospitalisations for young people aged 12–24 years where an adverse event was treated and/or occurred	AIHW National Hospital Morbidity Database (2007–08)

3 Operational definitions and data issues

Tier 1: Health status

Physical and mental wellbeing

Indicator: Proportion of young people aged 15–24 years rating their health as 'excellent', 'very good', or 'good'

Operational definition

Numerator

Number of young people aged 15–24 years rating health as 'excellent', 'very good' or 'good'

Data source: ABS National Health Survey (NHS); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NHS: 1989–90, 1995, 2001, 2004, 2007–08; NATSISS: 2002 and 2008

Denominator

Data source: ABS National Health Survey (NHS); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NHS: 1989–90, 1995, 2001, 2004, 2007–08; NATSISS: 2002 and 2008

Justification for selection

People's perception of their own health has been shown to be a powerful, independent predictor of their future health and survival (Miilunpalo et al. 1997; Wang & Satariano 2007). This power as a predictor of future health applies across nationalities and ethnicities (McGee & Jenkinson 1998), though there is a minor degree of variation due to age and socioeconomic status (Burström & Fredlund 2001). Overall, self-reported health is a simple yet effective general measure of population health.

This indicator is consistent with the NHPF indicator *Perceived health status*.

Data issues

- In the NHS and NATSISS, information recorded for persons aged 15–17 years was reported by an adult within the household, usually a parent, although some children 15–17 years may have been interviewed with parental approval. Data for this age group therefore are not conceptually 'self-assessed' health as for other age groups, and responses may have been different if young people had responded for themselves.
- Self-assessed health status is comparable between the 1995, 2001, 2004–05, and 2007–08 ABS National Health Surveys.
- Information on self-assessed health status is also available from the Housing, Income and Labour Dynamics in Australia survey (HILDA) (self-completion questionnaire item A1).

- An additional data source for Indigenous data is the ABS 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). The next NATSIHS will be conducted in 2009–10, and results will not be available in time to include in *Young Australians: their health and wellbeing 2011.* There may be data comparability issues between the NHS and the NATSIHS due to the different data collection time periods and sample size.

Cross tabulations available from primary data source

- Age and sex
- Indigenous status
- Remoteness
- Socioeconomic status

Disability and activity limitation

Indicator: Proportion of young people aged 15–24 years with severe or profound core activity limitation

Operational definition

Numerator

Number of children aged 15–24 years with severe or profound core activity limitation

Data source: ABS Survey of Disability, Ageing and Carers (SDAC); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: 1981, 1988, 1998 and 2003 (this survey was also conducted in 2009, data were not available as at February 2010); NATSISS: 2002 and 2008

Denominator

Number of young people aged 15–24 years in reference year

Data source: ABS Survey of Disability, Ageing and Carers (SDAC); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: 1981, 1988, 1998 and 2003; (this Survey was also conducted in 2009, data were not available as at February 2010); NATSISS: 2002 and 2008

Justification for selection

Young people with disability can have diverse physical, sensory, intellectual and/or psychiatric impairments, some of which may result in activity and participation restrictions that restrict their full involvement in society, and that of their carers. Disability may limit young people's participation in various activities such as, education, employment, recreational and social activities. Young people with severe disability usually need assistance with a core aspect of daily living (self-care, mobility or communication) and are likely to require lifelong assistance from family or formal services, resulting in social and financial hardships (Hendley & Pascall 2002; Sport England 2000).

This indicator is consistent with the NHPF indicator *Severe or profound core activity limitations*.

Data issues

- Disability is a multidimensional concept that is distinct from health condition. The WHO defines disability as 'a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives' (WHO 2008a). Disability is commonly described in terms of impairment to body structures and functions; activities (and activity limitations); participation (and participation restriction). Disability is the presence of one, some, or all of these dimensions associated with a health condition, disease or injury, and is closely interrelated to aspects of the physical and social environment (AIHW: Catanzariti et al. 2007).
- Young people with a disability can have a core activity limitation if the disability limits their ability to perform tasks in relation to self-care, mobility or communication. There are four levels of core activity limitation: profound, severe, moderate and mild. Young people with a profound limitation are not able to do, or always need help with, a core activity (such as, self-care, mobility or communication). Those with a severe limitation sometimes need help with a core activity, may have difficulty understanding or being

understood by others, or may use sign language more easily than spoken communication. A further category of activity limitation for many young people with a disability is schooling restriction; this information was collected for those aged 5–20 years. Information is also collected on those with an employment restriction (15 years and over).

- There have been changes to questions and data items between surveys. Efforts to improve the criteria for identifying disability may have contributed to changes in the results between surveys before the 1998 survey. There were also some changes made to the 1998 and 2003 disability screening questions. These changes need to be taken into account when comparing trend data.
- The SDAC is the best source for estimates of disability prevalence, but if the results from the 2009 SDAC are not available in time for inclusion in the *2011 Young Australians* report, the 2007–08 NHS will be used as the primary data source for this indicator. Note, not all the cross tabulations specified below will be available from the NHS.
- For the first time, the 2006 ABS Census of Population and Housing and the 2007–08 ABS National Health Survey (NHS) included questions on disability. The SDAC captures a more sophisticated concept of disability than the Census or NHS. The Census should be used for analysis of core activity need for assistance that is not possible from the SDAC, for example small area estimates and for subpopulations such as, the Indigenous population (ABS 2006a). The NHS collected information on disability status, type of disability, main type of disability or long-term conditions.
- Reliable estimates on Indigenous young people with a disability are not available from the SDAC. However, the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) collects information on disability among Indigenous young people, including information on disability status, disability type and presence and type of restriction (for example, education or employment restriction). However, the questions and criteria used in the NATSISS, SDAC, and the 2006 Census differ, and, as such, data from these sources are not directly comparable.

Cross tabulations available from primary data source

- Age and sex
- Disability group (intellectual/learning, psychiatric, sensory/speech, physical/diverse)
- Severity of disability: no core activity limitation (CAL), schooling restriction, employment restriction, moderate/mild CAL, severe/profound CAL
- Remoteness
- Household income quintiles
- A range of other characteristics can also be obtained from the SDAC regarding cause of disability, activities for which assistance is required, relationship to primary carer, education impacts (including days off school, type of school attends) and type of employment restrictions (that is, restricted in type of job/hours of work, need for assistance/equipment)
- Indigenous status
- Source of income: private, government support, or none (available from the SDAC)

Burden of disease and injury

Indicator: Burden of disease and injury among young people aged 15–24 years

Operational definition

Number of disability-adjusted life years (DALYs), where DALY is equal to the sum of the years of life lost (YLL) and the years of healthy life lost (YLD)

Numerator

DALYs for young people aged 15–24 years for specific condition

Data source: Burden of Disease and Injury Study (Begg et al. 2007(reference to The Burden of Disease and Injury in Aboriginal and Torres Strait Islander Peoples 2003))

Data availability: 2003

Justification for selection

A set of measures, called disability-adjusted life years (DALYs), has been developed to summarise the burden of disease and injury at a population level. The DALYs combine information on the impact of premature death (years of life lost by premature death) as well as non-fatal health outcomes (years of 'healthy' life lost due to disease, disability or injury). It is a measure of the state of health of a population and is useful for setting health service priorities, identifying disadvantaged groups and targeting health interventions (Mathers et al. 1999).

Data issues

- The most recent burden of disease data are from 2003 and these data were included in the *2007 Young Australians* report. As there is no new information to report, the burden of disease information will be included as contextual information, where relevant and appropriate, and will not be presented as a separate topic/indicator in the *2011 Young Australians* report.
- Internationally comparable data are available from the Global Burden of Disease Study (Begg et al. 2007)

Cross tabulations available from primary data source

- Age and sex
- Leading causes of burden of disease and injury
- Indigenous status

Deaths

Indicator: Death rates for young people aged 12–24 years

Operational definition

Numerator

Number of deaths of young people aged 12–24 years registered in reference year

Data source: AIHW National Mortality Database

Data availability: Annual from 1964 (2007 data available as at February 2010)

Denominator

Number of children aged 12–24 years in reference year (at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Death rates are commonly used to measure population health (Mathers et al. 2005). They not only reflect circumstances around the time of death but also provide insight into changes in social and environmental conditions, medical interventions, lifestyles and trends in underlying risk factors (AIHW 2009f).

This indicator is consistent with the COAG indicator *Age-standardised mortality*.

Data issues

- There is considerable variation across the states and territories in the completeness of mortality data for Indigenous Australians. Problems associated with identification result in an underestimation of deaths for Indigenous people. Mortality data from NSW, Qld, WA, SA and the NT are considered to have sufficient coverage to produce reliable statistics on Indigenous Australians from 2001. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.
- Further investigation is required on whether it is possible to present Socioeconomic Indexes for Areas (SEIFA) mortality disaggregation for youth based on the 2006 Census. Difficulties arise in calculating SEIFA disaggregation due to discrepancies in Statistical Local Area Boundaries (SLA), particularly for years that are not close to the Census year (for example, 2004 and 2005 mortality data are based on SLA boundaries from the 2001 Census). Therefore it is necessary to combine three years of data when performing SEIFA analysis, due to small cell counts.

Cross tabulations available from primary data source

- Age and sex
- State and territory of usual place of residence (except for Indigenous: state and territory of registration)
- Cause of death
- Indigenous (NSW, Qld, WA, SA, NT only)
- Remoteness

Mental health

Indicator: Proportion of young people aged 16–24 years having high or very high levels of psychological distress as measured by the Kessler 10 (K10) scale

Operational definition

Numerator

Number of young people aged 16–24 years scoring 30 or higher on the Kessler 10 scale

Data source: ABS National Survey of Mental Health and Wellbeing (NSMHWB); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NSMHWB: 2007; NATSISS: 2002 and 2008

Denominator

Number of young people aged 16–24 years

Data source: ABS National Survey of Mental Health and Wellbeing (NSMHWB); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NSMHWB: 2007; NATSISS: 2002 and 2008

Justification for selection

Psychological distress refers to an individual's overall level of psychological strain or pain, evidenced by psychological states such as, depression, anxiety and anger. Psychological distress can be measured using the Kessler 10 (K10) distress scale which is a 10-item questionnaire asking about feelings of nervousness, hopelessness, restlessness, depression and worthlessness. A strong association between the K10 scale and current diagnosis of anxiety and affective disorders has been shown, as well as a lesser (but significant) association with other mental disorder categories (Andrews & Slade 2001). The K10 scale is also highly suited for determining general mental health and for detecting both long- and short-term depression (Gill et al. 2007; Cairney et al. 2007).

This indicator is consistent with the NHPF indicator *Psychological distress*.

Data issues

- In the K10 scale each of the 10 items has 5 response categories and the score is the total of those responses. The maximum score is 50 (indicating severe distress) and the minimum score is 10 (no distress). The K10 scales are grouped into 'low' (10–15), 'moderate' (16–21), 'high' (22–29) and 'very high' (30–50).
- There is a lack of research into the applicability of the K10 scale among Indigenous Australians, however the information that does exist suggests that the scale may be valid. Butler et al. 2007 found evidence that it is a valid measure, though their research was conducted with an Indigenous prisoner population.
- The 2008 NATSISS collected information on the K5 (the K5 is a shorter version of the K10 using only 5 questions), however, some of the items were changed to aid in understanding the concepts and it is still considered an appropriate measure of psychological distress. Changes included:

- 'hopeless' was changed to 'without hope'
- 'feeling restless or fidgety' was changed to 'feeling restless or jumpy'.

Cross tabulations available from primary data source

- Age and sex
- Indigenous status (see data issue note)
- Remoteness
- Socioeconomic status

Indicator: Prevalence of mental disorders among young people aged 16–24 years

Numerator

Number of young people aged 16–24 years with mental disorders

Data source: ABS National Survey of Mental Health and Wellbeing

Data availability: 1997, 2007

Denominator

Number of young people aged 16–24 years

Data source: ABS National Survey of Mental Health and Wellbeing

Data availability: 1997, 2007

Justification for selection

Poor mental health among young people is a precursor to self-harm and suicide, as well as a strong influence on later mental disorders (Patel et al. 2007). Certain mental health disorders, such as, ADHD, depressive disorder and conduct disorder, have implications for a young person's psychosocial growth and development, health care requirements, educational and occupational attainment and their involvement with the justice system (Bhatia & Bhatia 2007; Eme 2007; Laurel & Wolraich 2007).

Mental health is a National Health Priority Area. In Australia, mental health disorders were the leading contributor to the burden of disease and injury among young Australians (Begg at al. 2007).

Data issues

- Currently there is no recent national data available on mental disorders for children aged 12–15 years. The most recent national information on mental disorders comes from the 1998 Child and Adolescent component of the National Survey of Mental Health and Wellbeing. Hence, information for this indicator will only be presented for 16–24 year olds.
- ADHD and conduct disorders have been identified as important disorders, but the ABS 2007 National Survey of Mental Health and Wellbeing does not gather separate information about these conditions. Additional data sources would need to be identified to report on these specific conditions.
- Information will also be presented on health service use (hospital separations for mental and behavioural disorders) and GP encounters for mental health problems.
- The ABS National Survey of Mental Health and Wellbeing does not include an enhanced Indigenous sample and does not output Indigenous status.

Cross tabulations available from primary data source

- Disorder: affective and anxiety disorders, substance-use disorders, other disorders
- Current treatment, if any
- Age and sex
- Remoteness
- Socioeconomic status

Injury and poisoning

Indicator: Injury and poisoning death rate for young people aged 12–24 years

Operational definition

Numerator

Number of deaths due to injury and poisoning among young people aged 12–24 years in reference year

Data source: AIHW National Mortality Database

Data availability: Annual from 1964 (2007 data available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

Injuries, including poisoning, are a leading cause of death and hospitalisation among young people and can leave many with serious disability or long-term conditions. Injury can affect a young person's employment, educational and recreational opportunities, and lead to permanent disability and disfigurement, which can affect their future health and wellbeing (Evans et al. 2003). Young people are particularly vulnerable to certain types of injury particularly during the transition between adolescence and early adulthood when they assume more independent roles. Many causes of injury are preventable, and are therefore amenable to intervention (AIHW: Eldridge 2008; Berry & Harrison 2007).

This indicator is consistent with the COAG *indicator Hospitalisation for injury and poisoning*.

Data issues

- The operational definition of injury used in previous AIHW children and youth reports has been developed by the AIHW National Injury Surveillance Unit (AIHW 2009f; Kreisfeld & Harrison 2005b). Injury death data will be presented using multiple cause of death, rather than underlying cause of death, as recommended by the AIHW National Injury Surveillance Unit (NISU). By including deaths where injury was a significant contributor, a more complete and reliable picture of the burden of injury mortality can be obtained (Kreisfeld & Harrison 2007).
- This indicator is based on deaths with a multiple cause of death of injury (ICD-10 S00–T75, T79) or an underlying cause of death of an external cause (ICD-10 V01–Y36, Y85–Y87, Y89). Multiple causes of death are available from 1997 onwards.
- There is considerable variation across the states and territories in the completeness of mortality data for Indigenous people. Mortality data from NSW, Qld, WA, SA and the NT are considered to have sufficient coverage to produce reliable statistics on Indigenous Australians from 2001. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.

Cross tabulations available from primary data source

- Causes of injury death
- Age and sex
- State and territory
- Indigenous status (NSW, Qld, WA, SA, NT only)
- Remoteness

Indicator: Road transport accident death rate for young people aged 12–24 years

Operational definition

Numerator

Number of deaths from road transport accidents among young people aged 12–24 years in reference year

Data source: Australian Transport Safety Bureau (ATSB) Fatal Road Crash Database.

Data availability: Annual from 1989 onwards (2008 data available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

Road transport accidents remain the most common external cause of death from injury among young people, despite large declines over the last two decades (AIHW 2007c). Factors contributing to the over-representation of young drivers in transport accidents include inexperience, combined with engaging in risky driving behaviours (such as, speeding, driving when fatigued, driving under the influence of alcohol or other drugs and carrying passengers) and/or driving in situations that place them at greater risk (for example, driving at night or on weekends and driving older vehicles) (Smart et al. 2005).

Many of the causes of road transport accidents are preventable and therefore amenable to further intervention and reduction (WHO 2004).

This indicator is consistent with the NHPF indicator *Potentially avoidable deaths*.

Data issues

- The ABS compiles deaths data received from the Registrars of Births, Deaths and Marriages, and advise that care should be taken in interpreting injury deaths data from 2004 onwards for several external causes of death (although this issue may also apply for years just prior to 2004), due to undercounting. The AIHW National Injury Surveillance Unit has investigated this undercount in relation to road transport accident deaths, and advises that data from the ATSB are the most accurate enumeration source of deaths due to road transport accidents.
- As a result of using the ATSB Fatal Road Crash Database for this indicator, the data will not be comparable to that obtained from the AIHW National Mortality Database (sourced from ABS Causes of Death Collection (see AIHW 2008d)).
- Postcode and occupation are available from the ATSB Fatal Road Crash Database; however, these data are not reliable.
- Indigenous data are not available from the ATSB Fatal Road Crash Database. The AIHW National Mortality Database will therefore be used to provide Indigenous information, although these data are not comparable with the ATSB Fatal Road Crash Database as

these collections have a different scope. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.

- Some internationally comparable data are available on deaths from road transport accidents (Department of Infrastructure Transport Regional Development and Local Government 2009).

Cross tabulations available from primary data source

- Mode of transport (drivers, passengers, pedestrians, cyclists)
- Age and sex

Indicator: Assault death rate for young people aged 12–24 years

Operational definition

Numerator

Number of deaths from assault among young people aged 12–24 years in reference year

Data source: Australian Institute of Criminology (AIC) National Homicide Monitoring Program (NHMP)

Data availability: Annual from 1989 (2006–07 data available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (at 31 December)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

Although deaths from assault are relatively rare among young people, fatal outcomes from intentionally inflicted injuries or homicide provide an indication of the nature and extent of extreme interpersonal violence in this age group. Interpersonal violence, including domestic and family violence and child abuse, is often associated with parental drug and alcohol misuse and mental health problems (AIHW 2007b).

This indicator is consistent with the NHPF indicator *Potentially avoidable deaths*.

Data issues

- The ABS compile deaths data received from the Registrars of Births, Deaths and Marriages, and advise that care should be taken in interpreting assault deaths data from 2004 onwards (although this issue may also apply for recent years before 2004), due to undercounting. The AIHW National Injury Surveillance Unit has investigated this undercount in relation to assault (homicide) deaths, and advises that data from the AIC are the most accurate enumeration source of deaths due to assault (homicide).
- As a result of using the AIC NHMP for this indicator, the data will not be comparable to that obtained from the AIHW National Mortality Database (sourced from ABS Causes of Death Collection (see ABS 2008)).
- Indigenous data are not available from the AIC National Homicide Monitoring Program. The AIHW National Mortality Database will therefore be used to provide Indigenous information, although these data are not comparable with the AIC NHMP as these collections have a different scope. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.

Cross tabulations available from primary data source

- Age and sex

Indicator: Suicide rate for young people aged 15–24 years

Operational definition

Numerator

Number of deaths from suicide among young people aged 15–24 years in reference year

Data source: AIHW National Mortality Database

Data availability: Annual from 1964 (2007 data available as at February 2010)

Denominator

Number of young people aged 15–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

A range of interacting factors—related to individual, family and social circumstances—are associated with the increased risk of suicide among young people. Some of these factors include mental illness combined with harmful drug use, previous suicide attempts or intentional self-harm, family history of suicide or suicidal behaviour, socioeconomic disadvantage, poor education, experience of abuse in childhood, and easy access to firearms (Beautrais 2000; Goldney 1998). Young people are at greater risk of suicide due to a confluence of these factors; they are more likely to use drugs, be of lower socioeconomic status and have lower education levels. Young people may also lack some protective factors, such as marriage or co-habitant partner (Agerbo et al. 2006).

Deaths from suicide are an important public health issue (Bourke 2003; Viilo et al. 2005).

This indicator is consistent with the NHPF indicator *Potentially avoidable deaths*.

Data issues

- The number of deaths due to suicide from the AIHW National Mortality Database (based on the ABS Cause of Death Collection) from 2003 onwards is likely to be significantly underestimated for young people. An increase has occurred in the number of coroner cases where final information, following coronial enquiry, was not available to the ABS in time for inclusion in the causes of death publication. This may partly explain the recent downward trend in deaths from suicide. There are also specific issues in the classification of suicide among children (12–14 years) which are related to the ability of children to form 'an intent'. As such, some jurisdictions do not classify suicide among children. As the AIHW National Mortality Database is the only appropriate data source, this indicator has been restricted to 15–24 year olds.
- The latest data available for inclusion in the *2011 Young Australians* report will be for 2007, as the more recent data are currently being reviewed as part of the process of correcting the under-reporting mentioned above and could still be subject to revision.
- There is considerable variation across the states and territories in the completeness of mortality data for Indigenous people. Problems associated with identification result in an underestimation of deaths for Indigenous people. Mortality data from NSW, Qld, WA, SA and the NT are considered to have sufficient coverage to produce reliable

statistics on Indigenous Australians from 2001. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.

- ICD codes to be used include ICD–10: X60–X84 and ICD–9: E950–E959.
- World Health Organization (WHO) data from 2003 can be used for international comparsion and is avaliable from their Suicide Prevention (SUPRE) program.

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status (NSW, Qld, WA, SA, NT)
- Remoteness

Indicator: Accidental poisoning death rate for young people aged 12–24 years

Operational definition

Numerator

Number of deaths from accidental poisoning among young people aged 12–24 years in reference year

Data source: AIHW National Mortality Database

Data availability: Annual from 1964 (2007 data available as at February 2010)

Denominator

Number of children aged 12–24 years in reference year (at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Accidental poisoning remains a major cause of death among young people, and is the third leading cause of injury death among 12–24 year olds. It is important to understand the major causes contributing to the deaths of young Australians in order to plan targeted public health interventions for this age group (AIHW 2007b).

Young people who die from accidental poisoning have not necessarily planned suicide and, as such, this indicator covers young people who have misused various substances, along with unrecorded suicides and areas where the intent is not accurately identified (Donaldson et al. 2006). The number of deaths due to accidental poisoning highlights the need for young people to have a better understanding of the high risks involved in using these substances. This information will assist in monitoring the effect of any policy or public intervention program to reduce preventable deaths.

This indicator is also relevant to the COAG indicator on *Hospitalisation for injury and poisoning*, and is consistent with the NHPF indicator *Potentially avoidable deaths*.

Data issues

- Accidental poisoning includes poisoning by drugs, as well as poisoning by other substances, such as, gases and vapours, pesticides, corrosive and caustic agents, glues and adhesives, paints, dyes, soaps and detergents, poisonous foodstuffs and poisonous plants.
- The most likely causes of accidental poisoning among young people are drugs. This includes accidental overdose, accidents in the use of drugs, and biological substances in medical and surgical procedures, and cases where the wrong drug is given, taken in error or taken inadvertently.
- Accidental poisoning does not include cases where there is drug dependence, administration with suicidal or homicidal intent (or undetermined intent), or where the correct drug is properly administered in therapeutic or prophylactic dosage as the cause of any adverse effect. As a result, this indicator will underestimate the number of deaths due to poisoning, because the focus is on accidental poisoning only.
- This indicator is based on deaths with an underlying cause of death in the ICD–10 range X40–X49 using underlying cause of death. Previous work by the AIHW National Injury

Surveillance Unit (NISU) has shown that the coding of accidental poisoning deaths to an external cause (ICD–10 codes X40–X44) or to a mental and behavioural disorder (ICD–10 codes F11–F16, F19) is not consistent (Kreisfeld & Harrison 2005a). Between 1997 and 2005, there has been an increase in the proportion of accidental poisoning deaths among young people coded to an external cause, and a corresponding decrease in those coded to a mental and behavioural disorder. The World Health Organization has recommended that, from January 2006, deaths due to poisoning should no longer be assigned underlying cause of death codes from the 'Mental and behavioural disorders' chapter of the International Classification of Diseases (ICD10).

- There is considerable variation across the states and territories in the completeness of mortality data for Indigenous people. Problems associated with identification result in an underestimation of deaths for Indigenous people. Mortality data from NSW, Qld, WA, SA and the NT are considered to have sufficient coverage to produce reliable statistics on Indigenous Australians from 2001. Due to the small number of deaths for Indigenous young people, 3–5 years of data may need to be combined for the analysis.

Cross tabulations available from primary data source

- Age and sex
- Indigenous status (NSW, Qld, WA, SA, NT only)
- Remoteness

Indicator: Injury and poisoning hospitalisation rate for young people aged 12–24 years

Operational definition

Numerator

Number of hospital separations due to injury and poisoning among young people aged 12–24 years in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 data available as at February 2010).

Denominator

Number of young people aged 12–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

Injuries are largely preventable through public health interventions, and yet they remain a leading cause of hospitalisation among young people. Injuries sustained during childhood and adolescence can have profound and lifelong effects on health development, by causing permanent physical disabilities or long-term cognitive or psychological damage (for example, traumatic brain injury) (Mercy et al. 2006). Both the initial injury, and any resulting physical or mental disabilities, can affect a young person's employment, educational and social opportunities.

This indicator is consistent with the COAG indicators: *Hospitalisation for injury and poisoning*, and *Potentially avoidable hospitalisations*.

Data issues

- Hospital records in the AIHW National Hospital Morbidity Database are for 'separations' and not individuals. As one individual can have multiple admissions, hospitalisation rates do not usually reflect the incidence or prevalence of the disease or condition in question. An approximate method has been used to reduce overcounting of injury cases, by omitting records in which the mode of admission is recorded as being a transfer from another acute-care hospital. These records have been excluded, as they are likely to result in multiple counting of the one injury case. This is consistent with other AIHW reports on injury (see, for example, Berry & Harrison 2007).
- This indicator is based on separations with a principal diagnosis of injury in the ICD–10–AM range S00–T98.
- This indicator will not include all injuries, but only those severe enough to require hospitalisation.
- There is considerable variation across the states and territories in the completeness of hospital data for Indigenous people. The AIHW conducted a study in 2007 which showed that hospitalisations of Indigenous people are underestimated by about 11% nationally (AIHW Forthcoming). Hospital separations data from NSW, Vic, Qld, WA, SA

and public hospitals in the NT are considered to have sufficient completeness of Indigenous identification for analysis.

Cross tabulations available from primary data source

- Specific causes of injury
- Age and sex
- State and territory
- Indigenous status (NSW, Vic, Qld, WA, SA and public hospitals in the NT)
- Remoteness

Chronic conditions

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

Operational definition

Numerator

Number of young people aged 12–24 years with at least one long-term condition, that is, a condition that has lasted, or is expected to last, six months or more

Data source: ABS National Health Survey (NHS) and ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: NHS: 1995, 2001, 2004–05, 2007–08; NATSIHS: 2001, 2004–05

Denominator

Number of young people aged 12–24 years in the reference year

Data source: ABS National Health Survey (NHS) and ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: NHS: 1995, 2001, 2004–05, 2007–08; NATSIHS: 2001, 2004–05

Justification for selection

Chronic conditions account for a large proportion of the burden of disease among young people. They can disrupt the normal growth and development processes of young people either directly or indirectly as a result of treatment. Chronic conditions can also affect the physical, social and emotional development of young people, for example, through fear of stigmatisation, school absences or inability to participate in age-appropriate activities, and through physical pain and suffering than can negatively affect future functioning (Dell'Api et al. 2007). Chronic conditions can place young people and their families under social, psychological and economic pressure (Witt et al. 2009).

Data issues

- Information recorded for persons aged 15–17 years was reported by an adult within the household, usually a parent, although some children aged 15–17 years may have been personally interviewed with parental approval.
- Information is collected for those young people ever told by a doctor or nurse that they have a condition. The data are essentially self-reported, and may not have been medically diagnosed.
- Crohn's disease and other bowel diseases could be included as supplementary information. Information may also be included on sleep disorders and their impact on young people if data are available.

Cross tabulations available from primary data source

- Age and sex
- Type of long-term condition/chronic disease
- Indigenous status
- Remoteness

Indicator: Proportion of young people aged 12–24 years with asthma as a long-term condition

Operational definition

Numerator

Number of young people aged 12–24 years with asthma as a long-term condition

Data source: ABS National Health Survey (NHS) and ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: NHS: 1995, 2001, 2004–05, 2007–08; NATSIHS: 2001, 2004–05

Denominator

Number of young people aged 12–24 years in reference year

Data source: ABS National Health Survey (NHS) and ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: NHS: 1995, 2001, 2004–05, 2007–08; NATSIHS: 2001, 2004–05

Justification for selection

Asthma is one of the most common long-term conditions among young people, and is a National Health Priority Area. A number of factors can trigger airway narrowing and asthma symptoms, including physical activity, viral infections, irritants, cold weather, specific allergies and certain food preservatives. For some young people asthma can place considerable restrictions on their physical, social and emotional lives and their families, resulting in poor quality of life, interference with study, work and other activities, a need for urgent medical care, and can even cause premature death (GINA 2005).

Data issues

- Information recorded for persons aged 12–17 years was reported by an adult within the household, usually a parent, although some children aged 15–17 years may have been personally interviewed with parental approval.
- The definition of asthma for identification and enumeration purposes is difficult as there are a range of different methodologies and criteria which can be applied. In the ABS NHS, information is primarily collected for those young people ever told by a doctor or nurse that they have asthma, and whose asthma is regarded as a current long-term condition. However, cases are essentially self-reported.
- International data are available via the International Study of Asthma and Allergies in Childhood (Pearce et al. 2007).

Cross tabulations available from primary data source

- Age and sex
- Actions taken for asthma
- Indigenous status
- Remoteness

Indicator: Incidence of diabetes among young people aged 15–24 years

Operational definition

Numerator

Number of new cases of diabetes among young people aged 15–24 years recorded on the National Diabetes Register

Data source: AIHW National Diabetes Register

Data availability: Annual from 1999 onwards (2007 available as at February 2010)

Denominator

Number of young people aged 15–24 years in reference year (at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Diabetes is one of the National Health Priority Areas and is one of the most common endocrine conditions of childhood and adolescence. Diabetes can lead to serious complications, including blindness, neurological problems and heart disease, but measures can be taken to reduce the likelihood of these complications (Diabetes Australia 2009). People with diabetes can control and reduce their risk of complications by ensuring that blood glucose levels remain within the normal range. This can be achieved through a combination of physical activity and dietary changes.

Data issues

- Data for this indicator are only available for young people with insulin-treated diabetes (mostly Type 1 diabetes). The NDR aims to collect all new cases of insulin-treated diabetes, which includes persons using insulin to manage Type 1, Type 2, gestational and other types of diabetes. The NDR only collects information for people aged 15 years and over.
- People are eligible to be on the NDR if they use insulin to treat their diabetes and their insulin use began on or after 1 January 1999.
- Data recorded in 1999 is known to be of lower coverage than subsequent years and should be treated with caution in time-trend analyses.
- In August 2003, the NDSS registration form was changed, allowing eligible persons to be automatically registered on the NDR, unless they requested to be excluded. Following these changes, ascertainment increased and should be distinguished from an increase in incidence. Incidence estimates have been adjusted for these changes (Catanzariti et al. 2007).
- Indigenous status information is available from the NDR, however an assessment of data quality needs to be undertaken to determine quality of the data.

Cross tabulations available from primary data source

- Age and sex
- Diabetes type

Indicator: Incidence of cancer per 100,000 young people aged 12–24 years

Operational definition

Numerator

Number of new cases of cancer for young people aged 12–24 years in reference year

Data source: AIHW Australian Cancer Database (previously known as the National Cancer Statistics Clearing House)

Data availability: Annual from 1982 onwards (2006 data available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Cancer, although relatively uncommon among young people, is the second highest cause of death among 12–24 year olds, accounting for one in ten deaths among young people (AIHW 2007b). Cancer is a National Health Priority Area. Cancers in young people tend to differ from those observed in adults in appearance, site of origin and response to treatment.

This indicator is consistent with the NHPF indicator *Incidence of selected cancers*.

Data issues

- This indicator is based on the registration of a cancer diagnosis (ICD–O 140–208, 238.4, 238.6, 238.7, 273.3, 273.9 and ICD–10 C00–C96, D45–D46, D47.1, D47.3). This includes cancers that were reclassified from 'borderline malignancy' to 'malignant' by the World Health Organization in 2000 and excludes non-melanocytic skin cancers (ICD–9 173 and ICD–10 C44), as they are not legally notifiable. ICD–9 codes are not used on the Australian Cancer Database (although they are used for cancer deaths, code C97).
- Due to changes over time in which cancers were reportable, data on cancers that begin with an ICD–10 code of 'D' may be incomplete prior to 2003**.**
- Indigenous status is available from the AIHW Australian Cancer Database, but data may not be available for young people aged 12–24 years due to data quality issues for some states and territories, and small incidence counts for the population of interest.
- International comparisons are possible; however, differences in collection methodologies pose problems (Curado et al. 2007; Globocan 2002).

Cross tabulations available from primary data source

- Age and sex
- Type of cancer

Communicable diseases

Indicator: Incidence of vaccine-preventable diseases among young people aged 12–24 years

Operational definition

Numerator

Number of notifications of pertussis, *Haemophilus influenzae* type B (Hib), measles, rubella, mumps, tetanus, diphtheria, polio, pneumococcal disease and meningococcal disease for young people aged 12–24 years in reference year

Data source: National Notifiable Diseases Surveillance System (NNDSS)

Data availability: Annual (year of availability varies by disease) (2008 available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (as at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

At the beginning of the 20th century, Australia still experienced considerable illness and death from infectious diseases. With mass immunisation programs, as well as public health measures and accompanying social and demographic changes, these diseases were largely eradicated (ABS 1997a). Despite this, outbreaks of diseases such as, pertussis, measles, rubella and mumps still occur in Australia, and this particularly affects young people.

Notifications of vaccine-preventable disease disproportionately fall amongst unvaccinated sections of the population (Glanz et al. 2009). Due to this, the incidence of vaccine-preventable disease could be a useful surrogate indicator of the effectiveness of vaccination programs. This will be dependent on when the vaccine became an eligible vaccine under the National Immunisation Program and whether the person who has acquired a vaccine-preventable disease was eligible for the vaccine at that time.

This indicator is consistent with the COAG indicator *Immunisation rates for vaccines in the national schedule*, and the NHPF indicator *Immunisation rates for vaccines in the national schedule*.

Data issues

- Notification rates will be accompanied with immunisation data from the Australian Childhood Immunisation Register.
- Hospital separation and deaths data may also be presented for these vaccine-preventable diseases.
- In the NNDSS, New South Wales, Queensland and Tasmania use the National Health Data Dictionary standard question of Indigenous status which includes four categories: non-Indigenous, Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander. For the other states and territories data are available for the categories

'Indigenous', 'non-Indigenous' and 'not stated'. The incompleteness of Indigenous identification in the NNDSS will result in an underestimate of the number of notifications recorded as Indigenous.

- There are internationally comparable data avaliable from the WHO for all diseases in this indicator except Hib (WHO 2008c).

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status

Indicator: HIV infection notification rate for young people aged 12–24 years

Operational definition

Numerator:

Number of young people aged 12–24 years notified as having HIV infection in reference year

Data source: National Centre in HIV Epidemiology and Clinical Research

Data availability: Annual from 1997 onwards (2008 available as at February 2010)

Denominator:

Number of young people aged 12–24 years in reference year (as at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

HIV infection among young people usually occurs through unsafe sexual and intravenous-drug use behaviours. HIV notification rates among young people have been falling in recent years. It remains important to track HIV notification rates in order to assess the impact of public health intervention strategies aimed to eliminate risk-taking behaviours.

This indicator is consistent with the COAG indicator *Incidence of sexually transmitted infections and bloodborne viruses*, and the NHPF indicator *Incidence of sexually transmitted infections and bloodborne viruses*.

Data issues

- Internationally comparable data are available from WHO for young people aged 15 years and over (WHO 2009).

Cross tabulations available from primary data source

- Age and sex
- Source of infection: heterosexual contact, men who have sex with men, intravenous drug users, other.
- State and territory
- Indigenous status

Indicator: Hepatitis A, B and C notification rates for young people aged 12–24 years

Operational definition

Numerator

Number of notifications of hepatitis A, B, and C among young people in reference year

Data source: National Notifiable Diseases Surveillance System (NNDSS)

Data availability: Annual (year of availability varies by disease) (2008 available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (as at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

Viral hepatitis is caused by a variety of viruses. Hepatitis A is mainly transmitted through food contamination but can also be transmitted through sexual contact. Hepatitis B is transmitted through sexual contact, blood contact or from mother to baby, while hepatitis C is transmitted primarily by blood contact, but can also be transmitted through drug use. Hepatitis can cause chronic infection leading to liver disease, mainly when exposure occurs at a young age.

This indicator is consistent with the COAG indicator *Incidence of sexually transmitted infections and bloodborne viruses*, and the NHPF indicator *Incidence of sexually transmitted infections and bloodborne viruses*.

Data issues

- The data for hepatitis B and C notifications are for incident cases only, which require evidence of seroconversion (the development of antibodies to an antigen as a result of infection or vaccination). Therefore, the actual notification rates for hepatitis B and C may be higher than those reported here, due to the exclusion of unspecified hepatitis B and C notifications where laboratory testing of blood for confirmation of seroconversion was not performed.
- In the NNDSS, New South Wales, Queensland and Tasmania use the National Health Data Dictionary standard question of Indigenous status which includes four categories: non-Indigenous, Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander. For the other states and territories data are available for the categories 'Indigenous', 'non-Indigenous' and 'not stated'. The incompleteness of Indigenous identification in the NNDSS will result in an underestimate of the number of notifications recorded as Indigenous.
- The National Centre in HIV Epidemiology and Clinical Research has published information on source of infection. These data require further investigation to assess their comparability with data from the NNDSS.

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status

Indicator: Incidence of notifiable sexually transmissible infections among young people aged 12–24 years

Operational definition

Numerator

Number of notifications of sexually transmissable infections (STIs) (chlamydia, donovanosis, gonoccal infection, syphillis) of young people aged 12–24 years in reference year

Data source: National Notifiable Diseases Surveillance System

Data availability: Annual (year of availability varies by disease) (2008 available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year (as at 30 June)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010).

Justification for selection

STIs in Australia still remain a major public health concern, contributing to significant long-term morbidity (Bowden et al. 2002; DoHA 2005). Chlamydia, for example, is now the most common notifiable infection among young women in Australia and is a significant cause of infertility. In Australia, currently there are seven STIs of public health importance, other than HIV. These are chlamydia, gonorrhoea, syphilis, hepatitis B, trichomoniasis, herpes simplex virus and human papilloma virus. Ongoing surveillance is important in order to monitor the rates of these infections and guide preventive measures (Couldwell 2005; Mindel & Kippax 2005).

This indicator is consistent with the COAG indicator *Incidence of sexually transmitted infections and bloodborne viruses*, and the NHPF indicator *Incidence of sexually transmitted infections and bloodborne viruses*.

Data issues

- Supplementary information on hospital separations for these STIs are also available from the AIHW National Hospital Morbidity Database.
- Information was not presented on donovanosis in the *2007 Young Australians* report. This was due to the small number of reported cases for donovanosis (NNDSS 2009).
- In the NNDSS, New South Wales, Queensland and Tasmania use the National Health Data Dictionary standard question of Indigenous status which includes four categories: non-Indigenous, Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander. For the other states and territories data are available for the categories 'Indigenous', 'non-Indigenous' and 'not stated'. The incompleteness of Indigenous identification in the NNDSS will result in an underestimate of the number of notifications recorded as Indigenous.

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status

Oral health

Indicator: Proportion of young people aged 12 and 15 years decay-free

Operational definition

Numerator

Number of young people aged 12 and 15 years with DMFT score of zero

Data source: Child Dental Health Survey

Data availability: Annual from 1990–99 (2003–04 available as at February 2010)

Denominator

Number of young people aged 12 and 15 years in reference year

Data source: Child Dental Health Survey

Data availability: Annual from 1990–99 (2003–04 available as at February 2010)

Justification for selection

Oral health affects people both physically and psychologically and can have a significant impact on their quality of life. The pain associated with dental caries (tooth decay) can interfere with children and young people's daily activities including schoolwork, employment, sleeping and eating (AIHW 2000a; Kwan et al. 2005; Peterson et al. 2005; Sheiham 2005). Good oral health practices established early in childhood are associated with better oral health in adulthood.

Data issues

- DMFT is the measure of decayed, missing and filled permanent teeth.
- The Child Dental Health Survey only looks at public dental services in public and private schools. Access to these services can vary within and between jurisdictions.
- Data are available for single year of age from 6–15 years.
- Indigenous data are not available for all jurisdictions, in particular Western Australia and Tasmania, and further investigation is required on which jurisdictions will have sufficient quality data for 2003–04.
- Due to major changes to school dental services in NSW, data from NSW will be excluded from the *2011 Young Australians* report, as the sample is not representative. This affects data between 1996 and 2006, and will have a significant impact on trend analysis. NSW data are expected to be available for reporting from the full 2007 data collection.

Cross tabulations available from primary data source

- Sex
- State and territory
- Remoteness
- Socioeconomic status
- Indigenous status

Indicator: Mean number of decayed, missing or filled teeth (DMFT) at 12 and 15 years

Operational definition

Numerator

Sum of decayed, missing or filled teeth scores for children aged 12 and 15 years

Data source: Child Dental Health Survey

Data availability: Annual from 1990–99 (2003–04 available as at February 2010)

Denominator

Number of children aged 12 and 15 years with a decayed, missing or filled teeth score in reference year

Data source: Child Dental Health Survey

Data availability: Annual from 1990–99 (2003–04 available as at February 2010)

Justification for selection

Since the introduction of the School Dental Scheme in 1977 the dental health of Australian young people has improved. There has been a decline in the average number of dental caries experienced since 1990, though there has been a small increase since 2000 (Armfield et al. 2007). It is important to continue monitoring trends in oral health to detect any changes in the current patterns. Research indicates that mean DMFT steadily increases with age as the number of permanent teeth increases—of those aged 5–17 years, 17 year olds had the highest DMFT with an average of two permanent teeth being affected by caries (Ellershaw et al. 2005).

Data issues

- DMFT is the measure of decayed, missing and filled permanent teeth.
- The Child Dental Health Survey only looks at public dental services in public and private schools. Access to these services can vary within and between jurisdictions.
- Data are available for single year of age from 6 to 15 years old.
- Indigenous data are not available for all jurisdictions, in particular Western Australia and Tasmania, and further investigation is required on which jurisdictions will have sufficient quality data in 2003–04.
- Due to major changes to school dental services in NSW, data from NSW will be excluded from the 2011 *Young Australians* report, as the sample is not representative. This affects data between 1996 and 2006, and will have a significant impact on trend analysis. NSW data are expected to be available for reporting from the full 2007 data collection.
- Internationally comparable data are available from the Organisation for Economic Cooperation and Development (OECD 2008a).

Cross tabulations available from primary data source

- Sex
- State and territory

- Indigenous status
- Remoteness
- Socioeconomic status

Tier 2: Determinants of health

Overweight and obesity

Indicator: Proportion of young people who are overweight or obese

Operational definition

Numerator

Number of young people aged 12–24 years whose BMI is above the international cut-off points for 'overweight' and 'obese' for their age and sex

Data source: ABS National Nutrition Survey (NNS); ABS National Health Survey (NHS)

Data availability: NNS: 1995; NHS: 2007–08

Denominator

Number of young people aged 12–24 years in reference year

Data source: National Nutrition Survey (NNS); ABS National Health Survey (NHS)

Data availability: NNS: 1995; NHS: 2007–08

Justification for selection

Overweight and obese young adolescents are at higher risk of being overweight or obese in adulthood (Ludwig & Ebbeling 2001; WHO 2000). Overweight and obesity impacts on psychological wellbeing of young people, and increases the risk of developing cardiovascular conditions, asthma and Type 2 diabetes in the short term. Long-term health consequences include adult obesity, increased rates of coronary heart disease, diabetes, certain cancers, gall bladder disease, osteoarthritis, and endocrine disorders (Lobstien et al. 2004; Reilly 2005). Obesity in adolescence is also associated with social isolation, and lower educational and income attainment throughout life (Christoffel & Ariza 1998; Schwimmer et al. 2003).

This indicator is consistent with the COAG indicator *Proportion of persons obese*, and the NHPF indicator *Overweight and obesity*.

Data issues

- Overweight and obesity are measured according to Body Mass Index (BMI), which is the ratio of weight in kilograms to the square of the height in metres (kg/m^2).
  Age- and sex-specific BMI cut-offs are used for children under 18 years and standard BMI cut-offs for 18–24 year olds (see Cole et al. 2000). BMI categorises people into one of four groups: underweight, acceptable weight, overweight or obese.
- The NHS collects data on measured height and weight of young people.
- There are currently no data available on measured height and weight for Indigenous young people. However, the ABS National Aboriginal and Torres Strait Islander Health Survey (2001 and 2004–05) collected information on self-reported height and weight for Indigenous young people. The NHS also collects self-reported height and weight for all Australians which should allow a comparison on a similar basis of self-reported height and weight for young people 15 year and over.

- The World Health Organization maintains an extensive database of BMI statistics, however, there is no consistent age range or year of availability. The OECD data covers a smaller range of countries; however, data are available for proportion of children aged 15 years who are obese in 2006, along with national BMI information. The WHO and OECD data are mainly from self-reported sources, and this leads to an underestimate of overweight/obesity in the general population (OECD 2006).

Cross tabulations available from primary data source

- Age and sex
- BMI categories
- Remoteness
- Socioeconomic status

Physical activity

Indicator: Proportion of young people aged 12–24 years meeting the National Physical Activity Guidelines

Operational definition

Numerator

Number of young people aged 12–24 years meeting recommended physical activity guidelines

Data source: ABS National Health Survey (NHS); National Children's Nutritional and Physical Activity Survey (NCNPAS)

Data availability: NHS: 1995, 2001, 2007–08; NCNPAS: 2007;

Denominator

Number of young people aged 12–24 years in reference year

Data source: ABS National Health Survey (NHS); National Children's Nutritional and Physical Activity Survey (NCNPAS)Data availability: NHS: 1995, 2001, 2007–08; NCNPAS: 2007;

Justification for selection

Regular physical activity is important in maintaining good health; it reduces cardiovascular risk in its own right and also improves levels of cardiovascular risk factors such as, overweight, high blood pressure and Type 2 diabetes; protects against some forms of cancer; and strengthens the musculoskeletal system (AIHW 2008b; NHMRC 2003; Okely et al. 2008). Physical activity also improves young people's 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 (Hills et al. 2007).

This indicator is consistent with the NHPF indicator *Physical inactivity*.

Data issues

- The National Physical Activity Guidelines for Australians recommend at least 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week. The guidelines for children and adolescents recommend at least 60 minutes of moderate to vigorous physical activity every day. Examples of moderate-intensity activity are brisk walking, swimming, doubles tennis and medium-paced cycling. More vigorous physical activity includes jogging and active sports like football and basketball. These guidelines correspond to the notion of 'sufficient' activity—the amount needed to obtain health benefits, and are developed around the intensity, duration and frequency of physical activity.
- For population monitoring purposes there are different ways to measure levels of physical activity.
  - For adults 'sufficient time and sessions' is the preferred measure of sufficient activity for health as it takes into account the frequency of physical activity and well as the duration—at least 150 minutes of moderate-intensity physical activity accrued over at least five sessions per week, with vigorous activity counted double.

  - For children the 'child x day' method is the preferred method for calculating the prevalence of physical activity as it accounts for the characteristics of a randomly selected day (weather conditions, out-of-school activities) and compliance with the guidelines—probability that a randomly chosen child on a randomly chosen day would meet the guidelines and is calculated as the proportion of all days that meet the guideline (Olds et al. 2007).
- Physical activity information is available for 12–16 year olds from the Australian National Children's Nutrition and Physical Activity Survey and for 15–24 year olds from the National Health Survey. Further investigation is required on the comparability of data from these two different data sources.
- Australian National Children's Nutrition and Physical Activity Survey collects information on non-educational screen time (for example, watching movies or playing computer games). Information on the number of children meeting screen time guidelines could also be presented, using the 'child x day' method. However there are no national data available for those aged 17 years or older.
- Indigenous data are not available from the National Children's Nutrition and Physical Activity Survey or the National Health Survey.

Cross tabulations available from primary data source

- Age and sex
- Levels of physical activity (sedentary, low, moderate, high)
- Remoteness

Nutrition

Indicator: Proportion of young people aged 12–24 years meeting Australian dietary guidelines

Operational definition

Numerator

Number of young people aged 12–24 years meeting daily fruit consumption or vegetable consumption guidelines

Data source: ABS National Nutrition Survey (NNS); ABS National Health Survey (NHS); ABS National Aboriginal and Torres Strait Islander Survey (NATSIHS)

Data availability: NNS: 1995; NHS: 2001, 2004–05, 2007–08; NATSIHS: 2001; 2004–05

Denominator

Number of young people aged 12–24 years in reference year

Data source: ABS National Nutrition Survey (NNS); ABS National Health Survey (NHS); ABS National Aboriginal and Torres Strait Islander Survey (NATSIHS)

Data availability: NNS: 1995; NHS: 2001, 2004–05, 2007–08; NATSIHS: 2001; 2004–05

Justification for selection

Adequate consumption of fruit and vegetables is a protective factor against many diseases including coronary heart disease, hypertension, stroke, Type 2 diabetes and many forms of cancer (NPHP, 2001). Good eating habits are important during adolescence as this is a period of rapid growth in weight and height. Sufficient nutritious food is needed to support growth and normal development for young people who are still growing. Young people's eating habits are shaped by individual preferences, as well as cultural and family influences, and it is important to establish healthy eating patterns at a young age.

This indicator is consistent with the NHPF indicator *Fruit and vegetable intake*.

Data issues

- The NHMRC dietary guidelines (introduced in 2003 and current at the time of the NHS 2007–08) recommended that adolescents (categorised as those aged 12–18 years) consume three serves of fruit and four serves of vegetables per day and for adults (those aged 19–64 years) consume two serves of fruit and five serves of vegetables per day.
- NHMRC guidelines are currently under revision and the 2011*Young Australians* report will reflect the guidelines that existed at the time the relevant survey was undertaken.
- Data are also available for 12–16 year olds from the 2007 National Children's Nutrition and Physical Activity Survey (NCNPAS).
- National data on the proportion of young people who regularly eat breakfast are not available, however contextual information will be provided for state or regional level if available. In the 2007 *Young Australians* report information was included from the 2004 NSW Schools Physical Activity and Nutrition Survey (SPANS).

Cross tabulations available from primary data source

- Age and sex
- Indigenous status
- Remoteness
- Socioeconomic status

Sun protection

Indicator: Proportion of young people aged 12–24 years using sun protection

Operational definition

Numerator

Number of young people aged 12–24 years using sun protection when outdoors during peak UV periods

Data source: National Sun Survey of Australians

Data availability: 2003–04, 2006–07

Denominator

Number of young people aged 12–24 years

Data source: National Sun Survey of Australians

Data availability: 2003–04, 2006–07

Justification for selection

Exposure to sunlight in childhood and adolescence is the main risk factor for melanoma and other types of skin cancer in adulthood. While the risk of melanoma increases with age, melanoma remains the most common cancer diagnosed among young people aged 15–24 years (AIHW 2008c). The declining incidence of melanoma may be attributed to public education campaigns raising awareness of skin cancer prevention. The declining incidence could also be contributed to the adoption of policy, guidelines and legislation relating to skin cancer protection measures such as, shade provision and 'no hat, no play' policies in schools (Rigel & Carucci 2000).

Data issues

- Socioeconomic status and region disaggregations may not be possible, due to small sample sizes.
- Indigenous data are not available.
- The National Health Survey collects information on young people who have their skin regularly checked for changes in freckles or moles, and this information will be provided as supplementary information in the *2011 Young Australians* report.

Cross tabulations available from primary data source

- Age and sex
- Type of sun protection behaviour

Substance use

Indicator: Reported rate for substance use disorders for young people aged 12–24 years

Operational definition

Numerator

Number of young people aged 12–24 years reporting substance use disorders

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD), ABS National Survey of Mental Health and Wellbeing (NSMHWB), ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: ASSAD: Triennial from 1984 (2005 data available); NSMHWB: 2007; NATSIHS: (2001, 2004–05)

Denominator

Number of young people aged 12–24 years in reference year

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD), ABS National Survey of Mental Health and Wellbeing (NSMHWB), ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: ASSAD: Triennial from 1984 (2005 data available); NSMHWB: 2007; NATSIHS: (2001, 2004–05)

Justification for selection

Substance misuse by young people can cause immediate and long-term health and social problems. In the short-term, it may result in hospitalisations due to acute intoxication and related injuries, dependence, withdrawal symptoms, psychotic disorders and amnesia. In the long-term, alcohol and other drug use can lead to depression, infections with bloodborne diseases, damage to the liver, heart and brain, and increased risk of cancers and other serious health conditions (Bruner & Fishman 1998; Moran et al. 2006).

This indicator is consistent with the COAG indicator *Proportion of adults who are daily smokers*, and the NHPF indicator *Adult smoking*.

Data issues

- For this indicator information will be obtained from two different data sources: for 12–17 years from ASSAD and for 18–24 year olds from NSMHWB. The ASSAD is the preferred data source for adolescents as it has a larger sample size for young people compared with the NSMHWB.
- Reliable Indigenous data are not available from the ASSAD or the NSMHWB. However, the NATSIHS collects information on substance use among Indigenous young people.
- Further investigation is required on whether sufficient reliable data will be available by remoteness and socioeconomic status from the ASSAD or NSMHWB.
- Hospitalisations for substance use disorders and by type of substance used are available from the AIHW National Hospital Morbidity Database, and may be included in the *2011 Young Australians* report as supplementary information. This information is based on separations with a principal diagnosis of ICD–10–AM F10–F19.

- Information on deaths due to substance use, from the AIHW National Mortality Database, may also be included, in particular deaths from drug dependence disorders and accidental poisoning by narcotics and hallucinogens. The number of deaths from these disorders is very small.

Cross tabulations available from primary data source

- Age and sex
- Type of substance used (alcohol, stimulants, opioids, cannabis, sedatives)
- Indigenous status

Indicator: Proportion of young people aged 14–24 years who are daily smokers

Operational definition

Numerator

Number of young people aged 14–24 years who smoke daily

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD), National Drug Strategy Household Survey (NDSHS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010); NATSISS: 2002, 2008

Denominator

Number of young people aged 14–24 years

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010); NATSISS: 2002, 2008

Justification for selection

Tobacco smoking is the single most preventable cause of death in Australia and in the world today (AIHW 2008d; WHO 2008b). 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. Most tobacco smokers take up smoking in adolescence, with few people beginning to smoke as adults (Mathers et al. 2006). Adolescent tobacco smoke 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).

This indicator is similar to the COAG indicator *Proportion of adults who are daily smokers*; and the NHPF indicator *Adult smoking*. However this indicator addresses younger people than the COAG or NHPF indicators.

Data issues

- Daily smoking has been chosen as the indicator, rather than 'current smoking' to align with the COAG indicator. Daily smoking is also regarded as a precursor to nicotine addiction, with very few adults becoming addicted before smoking daily (Hu et al. 2006).
- For this indicator information will be obtained from two different data sources: for 12–17 years from ASSAD and for 18–24 year olds from NDSHS. The AASAD is the preferred data source for adolescents as it has a larger sample size for young people compared with the NDSHS.
- Information will also be presented on the number of young people who successfully quit smoking in the last 12 months and age of initiation.
- The ABS National Health Survey also collects information on smoking among young people aged 15 years and over; however, the estimates may not be as robust as those

obtained from the NDSHS, as the NDSHS has been specifically designed to collect information on drug use. Daily smoking estimates for all age groups from the NHS differed from the NDSHS—18% versus 16% in NDSHS. In the NHS, information from 15–17 year olds is collected from an adult within the household, usually a parent, which may lead to inaccuracies, although some children aged 15–17 years may have been personally interviewed with parental approval.

- The 2008 ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) is the preferred data source for Indigenous data as it collects information on daily smokers aged 15 years and over. While the 2004–05 ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) also collects information on smokers, information is only available for those aged 18 years and over.
- International comparable data are available from OECD Database (OECD 2008b). OECD data are available on daily smokers aged 15 years and older.

Cross tabulations available from primary data source

- Age and sex
- Frequency of smoking
- Smoking status (daily, non-daily, ex-smokers)
- Indigenous status (15 years and over)

Indicator: Proportion of young people aged 12–17 years who have engaged in risky drinking on any one occasion

Operational definition

Numerator: Under development

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Denominator

Number of young people aged 12–17 years

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Justification for selection

Drinking to intoxication is particularly risky in this age group. The risk of accidents, injuries, violence and self-harm are high among drinkers aged under 18 years. Alcohol use may also impact brain development adversely and lead to alcohol-related problems later in life (NHMRC 2009).

This indicator is consistent with the NHPF indicator *Risky alcohol consumption*.

Data issues

- The National Health and Medical Research Council (NHMRC) have revised the Australian Alcohol Guidelines in 2009. Prior to this there were no guidelines for children and adolescents and the guidelines for adults were used instead. As children and adolescents are physically smaller and have less experience with alcohol, it is likely that consumption even below the specified adult levels would pose significant risks for them. For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible and young people less than 15 years old are advised to abstain from alcohol completely.
- The guidelines at the time of the NDSHS and the ASSAD were the 2001 Australian Alcohol Guidelines.
- The alcohol indicators require further investigation and agreement, particularly on how the national alcohol guidelines should be interpreted for adolescents.
- Information may also be included on abstinence from alcohol for young people aged 12–17 years and age of initiation.
- While international data are available on risky drinking, it is not strictly comparable due to different methodologies between Australian and the international surveys. The Health Behaviour of School-Aged Children and European School Survey Project on Alcohol and Other Drugs are two international surveys that collect alcohol-related data. Further investigation is required on the comparability to Australian data.

Cross tabulations available from primary data source

- Age and sex
- Number of drinks

Indicator: Proportion of young people who drink at high-risk levels in the short or long-term

Operational definition

Numerator:

Number of young people aged 12–24 years drinking at least once a month, at levels that put them at risk or high risk of alcohol-related harm in the short term or long term

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Denominator:

Number of young people aged 12–24 years in the reference year

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Justification for selection

Risky (or binge) drinking is when a person drinks heavily over a short period of time, resulting in immediate and severe intoxication. Long-term excessive use of alcohol can lead to a number of physical, emotional and social problems, including stomach, liver, heart or brain problems and an increased risk of some cancers. Depression, family and relationship problems, and legal and financial difficulties may also result from long-term alcohol abuse (Bruner & Fishman 1998; NDARC 2004; NHMRC 2009). In the short term, high-risk drinking is associated with injuries due to accidents, physical and sexual assaults, alcohol poisoning and other risky behaviours such as, drug use and unprotected sex (Bonomo et al. 2001).

This indicator is consistent with the NHPF indicator *Risky alcohol consumption*, and the COAG indicator *Proportion of adults who are at risk of long-term harm from alcohol*.

Data issues

- The National Health and Medical Research Council (NHMRC) revised the Australian Alcohol Guidelines in 2009. Prior to this, there were no guidelines for children and adolescents and the guidelines for adults were used instead. As children and adolescents are physically smaller and have less experience with alcohol, it is likely that even consumption below the specified adult levels would pose significant risks for them. For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible and young people less than 15 years old are advised to abstain from alcohol completely. For those aged 18 years and over the NHMRC Guidelines recommend that the maximum number of drinks on any one occasion be four standard drinks for both males and females.
- The 2007 NDSHS used the 2001 NHRMC Guidelines, however it is still possible to present these data according to the 2009 Guidelines.

- Data from the 2007 NDSHS are available on frequency of risky drinking: yearly, monthly and weekly. Additional information may also be included on age of initiation of alcohol consumption.
- The alcohol indicators require further investigation and agreement, particularly on how the national alcohol guidelines should be interpreted for adolescents. The definition of short-term and long-term risk also requires further development.
- The 2008 ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) collects information on alcohol use for Indigenous young people aged 15 years and over, while the 2004–05 ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) collects information on alcohol use for Indigenous adults 18 years and over. Further investigation is required to assess the comparability of data from these surveys to the ASSAD and NDSHS.
- While international data are available on risky drinking, it is not strictly comparable due to different methodologies between Australian and the international surveys. For example, two international surveys that collect alcohol-related data are the Health Behaviour of School-Aged Children and European School Survey Project on Alcohol and Other Drugs.

Cross tabulations available from primary data source

- Age and sex
- Short term or long term high risk

Other substance use

Indicator: Proportion of young people aged 12–24 years who had used an illicit drug within the last 12 months

Operational definition

Numerator

Number of young people aged 12–24 years who had used any illicit drug in the 12 months prior to the Survey

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Denominator:

Number of young people aged 12–24 years in the reference year

Data source: Australian Secondary Students Alcohol and Drug survey (ASSAD), National Drug Strategy Household Survey (NDSHS)

Data availability: ASSAD: Triennial from 1984 onwards (2005 available as at February 2010); NDSHS: Three-yearly from 1985 onwards (2007 available as at February 2010)

Justification for selection

The use of illicit and licit drugs are associated with psychological and other health problems which are often exacerbated when multiple drugs are used in combination. Many medical conditions are associated with illicit drug use including overdose, HIV/AIDS, hepatitis C (when injecting equipment and needles are shared), low birthweight (for babies of drug users), malnutrition, infective endocarditis (inflammation of the lining of the heart), brain damage, respiratory problems, poisoning, suicide and intentional self-harm. Illicit drug use is also associated with psychological and behavioural problems, such as, delusions and hallucinations, memory problems, suicidal ideation, and aggressive and erratic behaviour (Abetz 2005; Loxley et al. 2004; Vasica & Tennant 2002). It is also linked with criminal behaviour, with 59% of young people in juvenile justice detention reporting that they were under the influence of either alcohol or illicit drugs at the time of offending (Allerton & Champion 2003).

Data issues

- Illicit drugs are illegal drugs (such as, cannabis, amphetamines, and heroin), drugs and volatile substances used illicitly (for example, petrol sniffing) or pharmaceutical drugs taken for non-medical purposes (for example, pain-killers). For young people aged less than 18 years, purchase/use of alcohol and tobacco products is also considered 'illicit' substance use, as it is illegal for minors to purchase/use these substances.
- Due to the illegal nature of illicit drugs it is likely that self-reported data underestimate the number of people using these drugs.
- Additional information will also be included on age of initiation of illicit drugs.

- Reported usage is based on what drug the person believed they were taking, and it is possible that they may not have known.
- While international data are available on illicit drug use, it is not strictly comparable due to different methodologies between Australian and the international surveys. Two international surveys that collect substance use data are the Health Behaviour of School-Aged Children and European School Survey Project on Alcohol and Other Drugs.

Cross tabulations available from primary data source

- Age and sex
- Type of drug used (marijuana, ecstasy, meth/amphetamine, other)
- Time since last use: week, month and 12 months

Sexual and reproductive health

Indicator: Proportion of young people in Year 10 and Year 12 who have had sexual intercourse

Operational definition

Numerator:

Number of young people in Year 10 and Year 12 who have had sexual intercourse

Data source: National Survey of Australian Secondary Students and Sexual Health

Data availability: Five-yearly: 1992, 1997, 2002 and 2007

Denominator:

Number of young people in Year 10 and Year 12 in the reference year

Data source: National Survey of Australian Secondary Students and Sexual Health

Data availability: 5-yearly: 1992, 1997, 2002 and 2007

Justification for selection

Sexual development is a normal part of adolescence and sexual and reproductive behaviour during adolescence can have far-reaching consequences in later life. Understanding the sexual behaviour of young people is a prerequisite for any education or intervention program and, as such, obtaining data on sexual behaviour for young people in Year 10 and Year 12 can be used to enhance and tailor sexual education programs delivered in schools and community settings.

Data issues

- The 2007 Survey interviewed 2,926 students in Year 10 and Year 12, and included government, Catholic, and independent schools. Before 2002 only government schools were sampled, thus trend information will exclude Catholic and independent schools. There is currently a lack of data on sexual behaviour for young people aged less than 15 years, as collecting data for this age group is sensitive and is not routinely conducted in national or large scale surveys.
- Further information that could also be included, depending on the availability of data, is the number of sexual partners and age of first sexual intercourse.
- Information will also be included on the number of young people who are attracted to the same sex or both sexes. Young people who are attracted to the same sex or to both sexes may be at risk of being socially ostracised, due to prevailing social norms, which can adversely affect their health and wellbeing.

Cross tabulations available from primary data source

- Age and sex
- Sexual orientation
- Other sexual behaviours (oral sex, etc.)
- Socioeconomic status

Indicator: Proportion of young people in Year 10 and Year 12 who used a form of contraception at their most recent sexual encounter

Operational definition

Numerator:

Number of young people in Year 10 and Year 12 who reported using a form of contraception at their last sexual encounter

Data source: National Survey of Australian Secondary Students and Sexual Health

Data availability: 5-yearly: 1992, 1997, 2002 and 2007

Denominator:

Number of young people in Year 10 and Year 12 in the reference year

Data source: National Survey of Australian Secondary Students and Sexual Health

Data availability: 5-yearly: 1992, 1997, 2002 and 2007

Justification for selection

The success in lowering unwanted pregnancies and the prevalence of sexually transmitted infections (STIs) among young people relies heavily on the use of effective contraception. Condom use is the most effective method of protection against STIs among sexually active people. Use of contraception is influenced by the availability of contraception and the kind of sex education provided to young people.

Data issues

- The 2007 Survey interviewed 2,926 students in Year 10 and Year 12, and included government, Catholic, and independent schools. Before 2002 only government schools were sampled, thus trend information will exclude Catholic and independent schools.
- The responses available in the survey for use of a condom during intercourse included 'always' or 'sometimes'.

Cross tabulations available from primary data source

- Age and sex
- Type of contraception

Indicator: Age-specific birth rate for 15–19 year old women

Operational definition

Numerator

Number of live births to women aged 15–19 years in reference year

Data source: National Perinatal Data Collection

Data availability: Annual from 1991 onwards (2007 data available as at February 2010)

Denominator

The female estimated resident population aged 15–19 years in reference year (at 30 June)

Data source: National Perinatal Data Collection

Data availability: Annual from 1991 onwards (2007 data available as at February 2010)

Justification for selection

Teenage motherhood, particularly at younger ages, can pose significant long-term risks to both mother and child. Parenthood during the teenage years also often means interrupted schooling, a high risk of lone parenthood, greater dependence on government assistance, increased problems in engaging with the labour market, and poverty (AIHW 2009f; Sleebos 2003). Young mothers face increased risk of miscarriage, preterm delivery, low birthweight and other complications of pregnancy and birth, as well as perinatal mortality (WHQW 2008).

Data issues

- Due to the small number of births occurring among women aged less than 15 years, births to mothers aged under 15 years are included in the 15–19 year age group for the numerator, but not the denominator. Births occurring among 20–24 year old women will also be included as supplementary information.
- Teenage mothers face increased risk of adverse outcomes and complications of pregnancy and birth, and information on these pregnancy outcomes will be included as supplementary information.
- The teenage birth rate is distinct from the teenage pregnancy rate. The birth rate includes only live births and is therefore lower than the pregnancy rate, which would include terminations and stillbirths. Information on teenage pregnancy rate will be included, if available, as supplementary information.
- Supplementary information will also be provided on substance use (smoking and alcohol) during pregnancy.

Cross tabulations available from primary data source

- State and territory
- Indigenous status
- Birthplace of mother (born in Australia/overseas born)
- Remoteness
- Socioeconomic status

Family cohesion/family functioning

Indicator: Under development

Operational definition

Numerator under development

Data source: To be determined

Data availability: To be determined

Denominator under development

Data source: To be determined

Data availability: To be determined

Justification for selection

Family functioning is about how families interact, communicate, make decisions, solve problems and maintain relationships. Benefits for young people living in strong and stable families include having positive role models for building relationships, the ability to cope with changing circumstances and stressful life events, and higher self-esteem (Geggie et al. 2000; Shek 2002). Conversely, living in a dysfunctional family can have adverse short-term and long-term effects on the behaviour and wellbeing of children and young people.

Data issues

- Due to the dynamic and multi-dimensional nature of family functioning, defining an indicator of family functioning is problematic. Using a summary scale that can provide an overarching indicator of family functioning is preferable for indicator-based reporting. The General Functioning Scale of the McMaster Family Assessment Device provides a single summary indicator of family functioning, derived from a number of questions about communication, problem-solving, support and closeness within the family (Epstein et al. 1983). This scale is considered to have good reliability and validity (Byles et al. 1988; Miller et al. 1985). It was recommended as an indicator of overall family functioning in a report by the Australian Government Department of Family and Community Services, and it has been used in a number of state-level surveys across Australia (for example, in NSW and Victoria), and in national surveys overseas (Rowe et al. 2004; Zubrick et al. 2000). The General Functioning Scale has not been used in any national surveys in Australia, and hence there is currently no national information on family functioning in Australia.
- ABS National Survey of Mental Health and Wellbeing (2007) collected data on the number of family members that are available for a person to confide in, and also the proportion of people who are in touch with their family. This comes under the definition of social support, rather than family cohesion, but does cover young people who are not currently living with their family. The Survey collected data from only one person in the household aged 15 years and older, along with one person aged under 15 years.
- The HILDA survey (Wave 8) has data on parents' responses to the statements 'I feel trapped by my responsibilities as a parent' and 'I find that taking care of my children is much more work than pleasure'. It also has information from respondents aged 15 years

and over on the relationship with their children, partner and/or parent. The HILDA survey collects data by household.

- The Child and Adolescent Component of the 1998 National Survey of Mental Health and Wellbeing (Sawyer et al. 2000) collected information on family cohesion for young people. This survey has not been repeated and thus data are available for one time period only. These data were previously reported in Australia's Children 2002, 2005 and 2007 Young Australians (AIHW 2005, 2007b; AIHW: Al-Yaman et al. 2002) and will not be republished in *Young Australians: their health and wellbeing 2011*, as it is considered to be too out-dated to provide an accurate picture of family cohesion in 2011.
- The ABS Time Use Survey (2006) has data on the amount of time spent caring for and playing with children. This probably does not reflect cohesiveness of families with older children, and will miss families that are spread out over multiple households.
- Family members sharing a meal has been identified as a good proxy indicator for family functioning. However, further investigation and consultation is required to define and agree on an indicator for family functioning/family cohesion.

Cross tabulations available from primary data source

To be determined

Parental health and disability

Indicator: Proportion of parents rating their health as 'fair' or 'poor'

Operational definition

Numerator

Number of parents of co-resident young people aged 12–24 years who rate their health as 'fair' or 'poor'

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: HILDA: Annual from 2001 onwards (Wave 8 (2008) data available as at February 2010); NATSISS: 2002 and 2008

Denominator

Number of parents of co-resident young people aged 12–24 years in the reference year

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: HILDA: Annual from 2001 onwards (Wave 8 (2008) data available as at February 2010); NATSISS: 2002 and 2008

Justification for selection

Parents' health and wellbeing impacts on the health and wellbeing of young people in a number of ways. Young people rely on their primary carer for physical, emotional and economic needs, and support. When disruption to parenting occurs, as sometimes happens with the onset of a physical or mental illness, the needs of the young person may receive less attention or may not be met at all (Silburn et al. 1996).

This indicator is consistent with the NHPF indicator *Perceived health status*.

Data issues

- This is a subjective data item. Perceptions may be influenced by many factors, which may be unrelated to health or which may reflect momentary or short term, rather than usual feelings or circumstances. Responses may have been influenced by factors involved in the interview itself, such as, the presence of another family member.
- There are limited data sources which collect information on general health status in conjunction with the parental role of the respondent.
- Indigenous data are available from HILDA, however due to small sample size may not be able to produce reliable estimates.

Cross tabulations available from primary data source

- Age and sex
- Household/family type
- Indigenous status
- Socioeconomic status

Indicator: Proportion of young people aged 15–24 years living with parents with disability

Operational definition

Numerator

Number of young people aged 15–24 years living with parent(s) with disability

Data source: ABS Survey of Disability, Ageing and Carers (SDAC)

Data availability: 1981, 1988, 1993, 1998 and 2003 (this Survey was also conducted in 2009, data were not available as at February 2010)

Denominator

Total number of young people aged 15–24 years living with parent(s)

Data source: ABS Survey of Disability, Ageing and Carers (SDAC)

Data availability: 1981, 1988, 1993, 1998 and 2003 (this Survey was also conducted in 2009, data were not available as at February 2010)

Justification for selection

Raising children and young people involves physical, emotional and financial demands that can pose significant challenges to a parent with disability. Parental disabilities may include physical and mental health problems. Depending on the severity of the disability, the wellbeing of children and young people may be affected by factors such as, family discord, discontinuity of care, poor general parental skills, social isolation, and poverty. These young people may also experience developmental delays (ABS 1999; AICAFMHA 2001; McConnell et al. 2003). Some children and young people may also take on greater responsibilities or, in some cases, care for the parent, which may restrict their community, educational, and social activities and result in increased levels of stress (Mukherjee et al. 2002).

Data issues

- Disability can be difficult to define and measure because of a person's perception and ability to perform a range of activities associated with daily life. The SDAC has a specific focus on disability and seeks to identify persons with disability based on the presence of one or more of 17 limitations, restrictions and impairments. Information is available on main disabling condition, including intellectual, sensory/speech, psychiatric, physical/diverse disorders.
- The SDAC is based on self-reporting, or through a proxy, of disability status and therefore certain conditions may not have been reported. Examples may include sensitive conditions, such as, alcohol-related or drug-related problems, or seasonal conditions, such as, asthma or epilepsy (ABS 2003).
- There have been changes to questions and data items between surveys. Efforts to improve the criteria for identifying disability may have contributed to changes in the results between surveys before the 1998 survey. There were also some changes made to the 1998 and 2003 disability screening questions. Any changes need to be taken into account in the analysis of trend data.
- Information will also be presented on the number of young people who are carers of their family members and the relationship of care recipient to care provider. The types of activities that young people provide assistance with may also be presented, if numbers

are reliable for reporting. These data will be obtained from the SDAC. Data on young people who qualify for the carers allowance is also available from FaHCSIA.

- Indigenous, remoteness and socioeconomic status data are not available from the SDAC. For the first time, the ABS 2006 Census of Population and Housing included questions on disability (core activity need for assistance), and information is available for children/young people with a parent with disability and for population groups and small areas.
- The ABS 2007–08 National Health Survey collected information for the first time on disability. The survey selected one adult (aged 18 years and over) and one child from each dwelling, and then asked for information on household structure (for example, married couple, single parent, or other).
- If the results from the 2009 SDAC are not available in time for inclusion in the 2011 Young Australians report, an alternative national data source will be identified, perhaps the Household, Income and Labour Dynamics in Australia (HILDA) survey (Wave 8) or the 2006 ABS Census . Not all the cross tabulations specified below are available from these data sources.

Cross tabulations available from primary data source

- Age and sex
- Disability status (profound/severe, moderate, mild, no activity limitation)
- Disability group (intellectual, sensory/speech, psychiatric, physical/diverse)
- Family type

Indicator: Proportion of parents with a mental health problem

Operational definition

Numerator

Number of parents who have a mental health problem who are co-resident with young people aged 12–24 years

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: Annual from 2001 onwards (Wave 8 (2008) data available as at February 2010)

Denominator

Total number of parents with co-resident young people aged 12–24 years

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: Annual from 2001 onwards (Wave 8 (2008) data available as at February 2010)

Justification for selection

Children and young people living with a parent with a mental health problem may be at increased risk of social, psychological and physical health problems compared with those living in families not affected by mental illness (Mayberry et al. 2005). Children may experience physical and/or sexual violence, verbal abuse, neglect, loss of close intimate contact with a parent, and social and emotional problems as a result of poor parental mental health (Cooklin 2006). Young people living with a parent with mental illness may experience greater social isolation as a result of the stigma attached to mental illness, as well as the stress of coping with the parent's condition.

Data issues

- It is difficult to measure the number of parents with mental illness who have co-resident children. The parental role of people reporting mental health problems is not always collected in survey data, and is not reported in administrative data from mental health services.
- The HILDA survey measures mental health using the SF36—a 36-item survey that measures eight domains of subjective health. Scale scores for each of the eight health domains can be summarised to produce a single indicator of mental health: the Mental Health Component Summary (MCS) Score. An analysis of population averages suggests that an MCS score of less than 41 is indicative of a poor level of mental health.
- The ABS Survey of Disability, Ageing and Carers (SDAC) also collects information on parents with mental health problems. This survey has a specific focus on disability and seeks to identify persons with disability, based on the presence of one or more of 17 limitations, restrictions and impairments. Information is available on main disabling condition, including intellectual and other mental disorders.
- Information will also be included on parental substance abuse. The 2007 National Drug Strategy Household Survey collected information on use of illicit substances (such as, marijuana or ecstasy) or a licit substance for non-medical purposes (such as, pain-killers) in the previous 12 months for guardians of dependent children aged 12–14 and 15 years and over. Information on risky and high risk alcohol use for short and long-term harm among parents is also collected.

- Indigenous data are available from HILDA, however due to small sample size may not be able to produce reliable estimates.

Cross tabulations available from primary data source

- Age and sex
- Family type
- Socioeconomic status

Social capital

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

Operational definition

Numerator

Number of young people aged 18–24 years who are able to get support in a time of crisis from persons living outside the household

Data source: ABS General Social Survey (GSS); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS 2002 and 2006; NATSISS 2002 and 2008

Denominator

Number of young people aged 18–24 years in reference year

Data source: ABS General Social Survey (GSS); ABS 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS 2002 and 2006; NATSISS 2002 and 2008

Justification for selection

Social capital is an important part of the social context in which a child develops. Social capital can be understood as networks of social relationships, characterised by norms of trust and reciprocity. Families with rich social networks have been found to have increased access to information, material resources, and friends and neighbours to assist them in managing their daily lives and problems. For young people, the benefits of social capital include positive mental health and behavioural outcomes in childhood and later life, reduced school dropout rates and an increased likelihood of gaining meaningful employment (Ferguson 2006). Strong family relationships and supportive neighbourhoods protect children and young people against the adverse effects of socioeconomic disadvantage, leading to improved health for children and youth in economically poor communities (Zwi & Henery 2005).

Data issues

- There are a number of data items in the ABS GSS that relate to 'social capital'. The ABS has adopted the OECD definition of social capital (ABS 2007a). Data collected include support for children and other relatives in other households; support in time of crisis; levels of trust in people and institutions; whether people feel able to have a say on important issues; diversity of people's social networks; active involvement in groups; contact with family and friends; close friendships; provision of unpaid assistance; civic and community activities; linking relationships to people in organisations of influence.
- Due to the multi-dimensional nature of social capital, it is difficult to summarise in one measure. Measures of social capital are limited to social support networks, due to lack of data. Support networks, a key aspect of social capital, can act in a variety of ways, such as, provision of information or emotional, practical or financial support, and these provide individuals with a sense of belonging. Social support in a crisis has been selected as the key national indicator, as having someone to rely on in emergency situations is a

safety net that is vitally important, and especially so for families with children and young people.

- Support in a time of crisis refers to whether there is someone outside the person's household that could be asked for support in the event of a crisis. Support could be in the form of emotional, physical or financial help. Potential sources of support could be family members, friends, neighbours, work colleagues and various community, government and professional organisations.
- Contact with family and friends and sources of social support (where families with children could ask for small favours) will also be presented, as they are indications of the positive aspects of social networks.
- Data for young people aged 15–17 years are not available from the GSS. However, information is available on the number of households with dependent children aged 0–4 years, 5–14 years and 15–24 years where the respondent was able to get support in a time of crisis from persons living outside the household.
- Trust is a critical component of social capital, and has been used in international surveys. Further investigation is required on what information is available and whether an appropriate data source is available.

Cross tabulations available from primary data source

- Age (18–24 years) and sex
- Family type
- Financial stressors
- Employment status
- Indigenous status
- Remoteness
- Socioeconomic status
- Country of birth

Community and civic participation

Indicator: Community participation rate among young people aged 18–24 years

Operational definition

Numerator:

Number of young people aged 18–24 years who have been engaged in community participation in the previous 12 months

Data source: ABS General Social Survey (GSS); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS 2002 and 2006; NATSISS: 2002 and 2008

Denominator:

Number of young people aged 18–24 years in reference year

Data source: ABS General Social Survey (GSS); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS 2002 and 2006; NATSISS: 2002 and 2008

Justification for selection

Participation in social and community life is an important aspect of life for most people, and provides social and psychological benefits which are important for wellbeing. Social time with family and friends, volunteering, involvement with sporting teams, community groups and other leisure activities within the community are forms of community participation. This participation enriches the social networks available to the individual, providing them with a feeling of belonging, which promotes healthy social and mental wellbeing (Brooks 2007; Muir et al. 2009). Volunteering is one form of community participation, which not only provides young people with social contact and learning opportunities, but also provides a valuable contribution to many community and welfare organisations.

Data issues

- Participation in community activities includes involvement in sporting associations for young people aged 18 years and over.
- Information is also available and will be presented on the number of young people involved in cultural or leisure activities as a volunteer (from the Voluntary Work Survey).
- This indicator requires further investigation and development, in particular to determine a suitable data source for community participation of young people less than 18 years.

Cross tabulations available from primary data source

- Age and sex
- Involvement in social or support group in the last 12 months
- Voluntary work
- Labour force status
- Indigenous status

Indicator: Proportion of 17 and 18 year olds who have registered to vote

Operational definition

Numerator

Number of young people aged 17 and 18 years who have registered to vote

Data source: Australian Electoral Commission (2007 data available as at February 2010)

Data availability: 2007

Denominator

Number of young people aged 17 and 18 years in the reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

One of the most fundamental civic activities in Australia is enrolling to vote. At age 17, all Australians are entitled to register on the electoral roll and voting is compulsory for those aged 18 years and above.

The proportion of young people aged 17 and 18 years enrolled to vote serves as an indicator of community connectedness. It is important for young people to feel that that they have a voice and that their opinion will count. Engagement in voting and other community and civic activities strengthens social networks and allows the individual to feel a part of their community (Brooks 2007; Muir et al. 2009).

Data issues

- Data are available from the Australian Electoral Commission (AEC) in minimum two-year age groups, by location and gender from the latest electoral roll. It may be necessary to broaden the age range from 17–20 years to obtain the data.
- AEC approval is required to access this data.

Cross tabulations available from primary data source

- Age and sex
- Location

School relationships and bullying

Indicator: Under development

Operational definition

Numerator under development

Data source: To be determined

Data availability:

Denominator under development

Data source: To be determined

Data availability:

Justification for selection

School connectedness and supportive social relationships have been associated with positive child outcomes, such as, lower levels of absenteeism, aggression, substance use and sexual risk behaviour, and higher levels of academic achievement and self-esteem amongst children (Hopkins et al. 2007; Springer et al. 2006). School bullying removes that safe environment. The negative consequences of school bullying include higher absenteeism in children who are bullied, lower academic achievement and consequent lower vocational and social achievement, physical and somatic symptoms, anxiety, social dysfunction, depression, school failure, and alcohol and substance use (Lodge 2008; Spector & Kelly 2006).

Data issues

- There is currently no indicator or national source available for school relationships and bullying, due to definition and measurement difficulties. Further consultation and research are required in order to identify the most appropriate tool to use in measuring and collecting information on relationships and bullying in the Australian school context.
- The 2006 Healthy Neighbourhoods School Survey in Victoria asked students in Years 6 and 8 whether they had been bullied recently (teased or called names, had rumours spread about them, been deliberately left out of things, threatened physically or actually hurt). However, it does not incorporate questions on severity, regularity or the effects of bullying. Data are not available for all jurisdictions in Australia (currently only Victoria).
- Information on cyber-bullying is potentially available from police data (Victoria and NSW), although this is likely to capture cases at the severe end of the spectrum.
- International data are available from the OECD on the number of children aged 13–15 years who experienced bullying at school.

Cross tabulations available from primary data source

- To be defined

Child protection

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

Operational definition

Numerator:

Number of young people aged 12–17 years who were the subject of a substantiation of a child protection notification received in a given year

Data source: AIHW Child Protection Data Collection

Data availability: Annual from 1991 onwards (2008–09 data available as at February 2010)

Denominator:

Number of young people aged 12–17 years in the reference year (at 31 December)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (December 2008 data available as at February 2010)

Justification for selection

Child abuse may include neglect, physical abuse, sexual abuse and emotional or psychological abuse. Children who have been abused or neglected emotionally or physically often have poor social, behavioural and health outcomes immediately and later in life. Abuse and neglect victims may experience lower social competence, poor school performance and impaired language ability, a higher likelihood of criminal offending, and mental health issues such as, eating disorders, substance abuse and depression (Chartier et al. 2007; Gardner 2008; Zolotor et al. 1999). Family stressors such as, financial difficulties, limited social support, domestic and family violence, mental or physical disability, alcohol and substance abuse and problems with unsafe, unsanitary or uninhabitable housing all contribute to the level of risk of abuse and neglect (Layton 2003; Tennant et al. 2003; Victorian Government Department of Human Services 2002a).

Data issues

- Abuse is substantiated if, in the professional opinion of officers of the child protection authority, there is reasonable cause to believe that a child has been, is being, or is likely to be abused or neglected or otherwise harmed (AIHW 2009d).
- There are no reliable data on the prevalence of child abuse and neglect in Australia, mainly due to difficulties in defining measures and collecting data. Available data relate to situations where children have come to the attention of child protection authorities, but it is not known what proportion these cases are of all abuse and neglect cases in the community.
- The data reported to the AIHW on child protection substantiations reflects departmental activity. Investigations that are not finalised within the financial year are not included in the data for the reference year, or subsequent years.
- The AIHW publishes these data by state and territory. National aggregation is not ideal due to differences between jurisdictions in defining and collecting data, but national data have been published previously.

- Differences in child protection legislation, policies and practices across jurisdictions and over time can affect the number and rate of children in substantiations and so caution must be taken when interpreting the data. For example, the rise in notifications in Tasmania from 2003–04 to 2004–05 is, in part, due to the introduction of the Family Violence Act 2004 which extended the definition of child abuse and neglect to include a child affected by family violence.
- While data will be presented for 12–17 year olds, the number of cases for 17 year-olds is extremely small. Previously this indicator referred to 12–16 year olds for this reason, however, to align with other AIHW reports, such as, Australia's welfare and Child protection Australia, the age range has been broadened to include 17 year olds.
- The impact of improvements in the quality of Indigenous identification is important to consider when analysing trends for Aboriginal and Torres Strait Islander children. Increases in the rates of Indigenous children in the child protection system over time may be due to a combination of improvements in the identification of Indigenous people, as well as increases in the number of Indigenous children requiring child protection.

Cross tabulations available from primary data source

- Age and sex
- Type of abuse
- State and territory
- Indigenous status

Indicator: Rate of young people aged 12–17 years who are the subject of care and protection orders

Operational definition

Numerator

Number of young people aged 12–17 years who were on care and protection orders at 30 June

Data source: AIHW Child Protection Data Collection

Data availability: Annual from 1991 onwards (2008–09 available as at February 2010)

Denominator

Number of young people aged 12–17 years in reference year (at 31 March)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Children on care and protection orders are those whose safety and wellbeing are of serious concern due to abuse, neglect or the inability of parents to provide adequate care and protection (AIHW 2008e). If a young person has been the subject of a child protection substantiation, there is often a need for state and territory child protection and support services to have continued involvement with the family. The relevant department generally attempts to protect the child through the provision of appropriate support services to the child and family. In situations where further intervention is required, the department may apply to the relevant court to place the child on a care and protection order. Recourse to the court is generally a last resort—for example, where supervision and counselling are resisted by the family, where other avenues for resolution of the situation have been exhausted, or where removal of a child into out-of-home care requires legal authorisation.

Data issues

- Differences in child protection legislation, policies and practices across jurisdictions and over time can affect the number and rate of young people on care and protection orders and so caution must be taken when interpreting the data.
- The scope of the data collection for children and young people on care and protection orders was changed in 1997; data from 1997 onwards should not be compared with previous years.
- Children and young people may be placed under care and protection orders for reasons other than abuse and neglect, for example, in situations where the parents are deceased, ill or otherwise unable to care for the child or young person, or where there is an irreversible breakdown in the child–parent relationship
- Information will also be provided on the number of young people in out-of-home care and their living arrangements, as most young people who are on care and protection orders are placed in out-of-home care (85.7% in 2007–08) (AIHW 2009e).
- The impact of improvements in the quality of Indigenous identification is important to consider when analysing trends for Aboriginal and Torres Strait Islander children. Increases in the rates of Aboriginal and Torres Strait Islander children in the child

protection system over time may be due to a combination of improvements in the identification of Indigenous people as well as increases in the number of Indigenous children requiring child protection.

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Living arrangements
- Indigenous status

Victims of violence

Indicator: Rate of young people aged 15–24 years who have been the victim of physical or sexual assault

Operational definition

Numerator:

Number of young people aged 15–24 years who were the victim of assault (physical or sexual)

Data source: ABS Recorded Crime—Victims Data Collection

Data availability: Annual from 1993 (2008 data available as at February 2010)

Denominator:

Number of young people aged 15–24 years in reference year (at 30 June 2008)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 (June 2009 data available as at February 2010)

Justification for selection

Physical and sexual assault can have complex short-term and long-term negative effects on the physical and psychological health of children and young people, and increases the risk of later victimising others. A history of child sexual abuse has been associated with psychopathology, depression, anxiety disorder, phobias, panic disorder, post-traumatic stress disorder, substance abuse and violent and sexual offending later in life (Lee & Hoaken 2007; Molnar et al. 2001; Rick & Douglas 2007).

Data issues

- The Recorded Crime Data Collection is an administrative data set, with the crime statistics collected by police in each state and territory, then provided to the ABS. The data across the states and territories are not directly comparable due to differences in procedures across jurisdictions. The ABS advises that care should be taken in interpreting police statistics as fluctuations in recorded crime may be a reflection of changes in community attitudes in reporting crime, changes in police procedures or changes in crime reporting systems, rather than a change in the incidence of criminal behaviour.
- The offence categories used for national crime statistics are based on the Australian Standard Offence Classification (ASOC) (ABS 1997b).
- The recorded crime statistics relate to victims of a selected range of offences that have been recorded by police. These offences may have been reported by a victim, witness or other person, or they may have been detected by police. The statistics do not provide a total picture of crime, as not all crimes are reported to police, nor do all incidents which are reported to police get recorded as a crime.
- The reported level of crime experienced by children and young people is likely to be underestimated, as children, in particular, may feel intimidated and reluctant to report personal crimes if the perpetrator is known to them or in a position of power.

- Data from the ABS Crime and Safety Survey (triennial survey: latest 2005) includes assaults for those aged 15 years and over, however, does not differentiate between sexual or physical assault. This survey includes demographic and labour force information that is not available from administrative crime statistics. Different data collection methods can affect estimates—for example, the type and frequency of events recorded by police may be different to those reported in household surveys. The Crime and Safety Survey would capture a greater range of crimes, regardless of whether they had been reported to police.

Cross tabulations available from primary data source

- Age and sex
- Attendance at an educational institution
- State or territory
- Indigenous status

Indicator: Alcohol- and drug-related violence victimisation rate for young people aged 14–24 years

Operational definition

Numerator:

Number of young people aged 14–24 years who were the victims of alcohol and other drug-related incidents in the past 12 months

Data source: National Drug Strategy Household Survey (NDSHS)

Data availability: Three-yearly from 1985 onwards (2007 available as at February 2010)

Denominator:

Number of young people aged 14–24 years in the reference year

Data source: National Drug Strategy Household Survey (NDSHS)

Data availability: Three-yearly from 1985 onwards (2007 available as at February 2010)

Justification for selection

There is a strong link between alcohol and other drug consumption and violence. Young people are more likely to be involved in alcohol and other drug-related violence, particularly young males. Violence can include physical and verbal abuse, as well as being fearful of another person, which can impact on a person's health and wellbeing (AIHW 2005; Regoeczi 2000).

Data issues

- Victims are likely to know if the assault was alcohol-related, but may be less sure if it was drug-related. The NDSHS also contains offending rates for drug- and alcohol-related crime, however the quality of that data may be questionable.
- The ABS General Social Survey (2002 and 2006) also collects limited information on the number of young people (18–24 years) who were victims of physical or threatened violence.
- In more serious cases of assault the victim may require medical treatment or may be hospitalised. Information is available from the AIHW National Hospital Morbidity Database on injury hospitalisations caused by assault and the relationship between the victim and the perpetrator. In some cases assault will result in death and the AIC National Homicide Monitoring Program collects information on assault (homicide) deaths.
- The ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS: 2002 and 2008) collects information on victims of violence; however, no information is available on alcohol- or drug-related violence.
- Socioeconomic status information is available from the NDSHS for people aged 18 years and over; however, further investigation is required to assess the quality of these data for this indicator.

Cross tabulations available from primary data source

- Age and sex
- Influence (alcohol, illicit drugs) and incident (verbal/physical abuse, put in fear)

Homelessness

Indicator: Proportion of young people aged 12–24 years who are homeless

Operational definition

Numerator:

Number of young people aged 12–24 years who are homeless on Census night

Data source: Counting the Homeless Project

Data availability: 1996, 2001, 2006

Denominator:

Number of young people aged 12–24 years on Census night

Data source: Counting the Homeless Project

Data availability: 1996, 2001, 2006

Justification for selection

Young people who are homeless experience significant negative social and health consequences including high rates of mental health problems, behavioural disorders and disrupted schooling (Karim et al. 2006; Yu et al. 2008). Young people who become homeless face increased risk of exposure to assault, poor diet and inadequate shelter, and are more likely than other youth to engage in risky behaviours (AIHW 2009c).

This indicator is consistent with a COAG indicator on *Homelessness*.

Data issues

- There are two main data sources that provide a national picture of the homeless population in Australia: the Counting the Homeless project and the Supported Accommodation and Assistance Program (SAAP) data collection. However, obtaining an accurate count of the homeless population is difficult as some people move in and out of homelessness and may never be counted in official statistics, while some may never seek SAAP assistance or are turned away from SAAP services. The Counting the Homeless project has been chosen as the primary data source as it covers primary, secondary and tertiary homelessness, including secondary homelessness data from the SAAP data collection.
- The Counting the Homeless Project uses data primarily from the ABS Census of Population and Housing to estimate the number of homeless people in Australia on Census night. Homeless people are divided into three categories in the Counting the Homeless Project:
  - Primary homeless—people who are sleeping rough or living in improvised housing
  - Secondary homeless—people in SAAP or sleeping on couches.
  - Tertiary homeless—people living in marginal housing for extended periods, such as, boarding homes or caravans.
- The number of SAAP clients and accompanying children is not equivalent to the number of homeless people, as the count from the SAAP data collection excludes those who did not approach or were turned away from a SAAP service, and includes some people who

were at risk of homelessness (that is, they were not homeless at the time a SAAP agency initially provided support).

- Work is currently underway in refining/reviewing the homelessness estimates from the Counting the Homeless project. Following this review, further investigation of this indicator maybe necessary.

Cross tabulations available from primary data source

- Age and sex
- State or territory
- Category of homelessness (primary, secondary or tertiary)
- Indigenous status
- Remoteness

Young people and crime

Indicator: Rate of young people aged 12–17 years who are under juvenile justice supervision

Operational definition

Numerator

Number of young people aged 12–17 years under juvenile justice supervision on a typical day.

Data source: AIHW Juvenile Justice National Minimum Data Set (JJNMDS)

Data availability: Annual from 2000–01 (2007–08 available as at February 2010)

Denominator

Number of young people aged 12–17 years in reference year (at 31 March)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 available as at February 2010)

Justification for selection

Young people under juvenile justice supervision represent a particularly disadvantaged and high-risk group of the population, characterised by high levels of socioeconomic stress, low levels of educational attainment, significant physical and mental health issues, and a history of drug and alcohol abuse, physical abuse and childhood neglect (Kenny et al. 2006; NSW Department of Juvenile Justice 2003; Prichard & Payne 2005; Stewart et al. 2002). Childhood neglect is considered one of the strongest predictors of later youth offending. Children and young people under supervision, both in the community and detention, have poorer physical and mental health and a higher death rate than other young people in the population (Coffey et al. 2004; Kenny et al. 2006; NSW Department of Juvenile Justice 2003).

Data issues

- Juvenile justice supervision data includes both young people who have been found guilty of an offence and are serving supervised sentences and children who are being supervised while awaiting trial or sentencing. Young people may be supervised either in the community or in detention. Young people who are supervised by other agencies, such as, police, are not included.
- Throughout Australia, 10 years is the youngest age at which a child may enter the juvenile justice system and, in most states and territories, the relevant juvenile justice legislation encompasses all young people who commit (or are alleged to have committed) a crime before the age of 18 years.
- Data for Australian Capital Territory are only available from 2003–04 onwards. Data from NSW is available from the JJ NMDS, however it was not available for the 2007–08 National Juvenile Justice report.
- While information on young people who reoffend is important, currently there is no national information available on reoffending rates.

- The Juvenile Justice Data Collection does not include information on the types of offences for which young people are under supervision. National data on the cases finalised in the children's courts includes information on the most common principal offence types, broken down by age of defendant.
- The Child and Youth Welfare Unit at the AIHW are currently attempting to gather offence data for young people in some states (NSW, Vic, Qld, and ACT), to be published in 2010. These data may be available for the *2011 Young Australians* report.
- Reoffending rates are not available, due to difficulty in accurately measuring the rates. Some people in juvenile justice will reoffend and be placed into the adult justice system, others reoffend but are not prosecuted, while some will reoffend and stay within the juvenile justice system. The infrastructure to track people through these paths does not currently exist, and accurate reoffending rates are therefore not available.
- International comparable data on number of young people in juvenile detention on an average day is available for some countries, for example England, Wales and the United States (Sickmund et al. 2008; US Census Bureau Population Division 2008; Youth Justice Board 2008).

Cross tabulations available from primary data source

- Age and sex
- Type of supervision (community or in detention)
- State and territory
- Indigenous status

Indicator: Rate of imprisonment for young people aged 18–24 years

Operational definition

Numerator:

Number of young people aged 18–24 years in prison in reference year

Data source: National Prisoner Census

Data availability: Annual from 2000 onwards (2009 data available as at February 2010)

Denominator:

Number of young people aged 18–24 years in reference year (at 31 March)

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 data available as at February 2010)

Justification for selection

Young people are over-represented in the prison population, accounting for 20% of the total prison population in 2006 (ABS 2006b). The health status of prisoners is generally poor, with high proportions having communicable diseases such as, hepatitis B and hepatitis C, and more likely to engage in health-risk behaviours such as, smoking (Butler et al. 2004; Butler et al. 1999; D'Souza et al. 2005). Following release, the health status of prisoners remains poor and participation in health-risk behaviours are high; a Western Australia study found that the most common causes of death among recently released prisoners were related to drug and alcohol abuse, suicide or motor vehicle accidents (Stewart et al. 2004).

Data issues

- Differences in imprisonment policies and minimum ages across jurisdictions affects the comparability of the data across jurisdictions and over time. For example, Queensland defines adults as 17 years and over, while the remainder of Australia uses 18 years and over.
- The NSW data are currently being revised and this may affect its comparability with other states.
- The AIHW conducted a prisoner health survey in 2009, which could provide additional information on 18–24 year olds in the prison system. These data may be available for inclusion in the *2011 Young Australians* report.

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status

Education

Indicator: Proportion of young people in Years 7 and 9 achieving at or above the national minimum standards for literacy and numeracy

Operational definition

Numerator

Number of young people in Years 7 and 9 achieving at or above the national minimum standards for literacy (reading and writing) and numeracy

Data source: National Assessment Program—Literacy and Numeracy (NAPLAN) Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA)

Data availability: 2008 and 2009

Denominator

Number of young people in Years 7 and 9, eligible, and sitting the literacy and numeracy tests

Data source: National Assessment Program—Literacy and Numeracy (NAPLAN) Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA).

Data availability: 2008 and 2009

Justification for selection

National minimum standards, which have been developed for reading, writing and language conventions in literacy and numeracy, represent the minimum acceptable standard below which a student will have difficulty making sufficient progress at school (MCEETYA 2007). Academic performance in early grades is considered a significant predictor of children's retention in high school and tertiary education. This is of particular importance as educational achievement (especially at the tertiary level) is linked to positive outcomes such as, higher income potential, which leads to better health outcomes and which can elevate individuals out of circumstances of socioeconomic disadvantage (Machin 2006). Proficiency in literacy and numeracy is essential for day-to-day living, for further educational opportunities and for employment prospects. Conversely, poor literacy and numeracy skills are a predictor of early school leaving (Parliament of Australia. House of Representatives Standing Committee on Education and Training 2002).

This indicator is consistent with the NHPF indicator *Educational attainment for selected school years and adults*.

Data issues

- The introduction of a new assessment system (the NAPLAN) in 2008 means that data cannot be compared with results from previous years. Annual data are available from 1999 to 2007 from the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) National Report on Schooling in Australia (MCEETYA 2007).
- Average age at a given year level (Years 3, 5, 7, 9) varies between jurisdictions.
- NAPLAN data are also available for Years 3 and 5.

- Data on the number of children achieving the language convention benchmark may also be presented.
- While all children enrolled in Years 3, 5, 7 and 9 should participate in the education department-based literacy tests, some children may have been absent on the day of the test, some may have been withdrawn by parents/caregivers from the testing, and others may have been attending a school not participating in the testing. Other students may have been formally exempted from the tests where testing would not be appropriate, such as, those with a disability or high support needs, those with English language difficulties, and those where testing would have adverse effects on their health and wellbeing (AIHW 2007a). Typically around 1–2% of students are exempt or absent from the testing, and these students are not included in the denominator for this indicator. Information will be presented separately on the number of young people who were absent or exempt from testing.
- Information on parental occupation and education (proxies for socioeconomic status) are available from the NAPLAN. However, the proportion for which parental occupation and education was 'not stated' in 2008 was high (40–46%). The MCEEDYA Performance Measurement and Reporting Taskforce have been working with state and territory education authorities to improve the collection of the parental education and occupation data. The Australian Curriculum, Assessment and Reporting Authority (ACARA) will be providing support through the states and territories to improve this collection.

Cross tabulations available from primary data source

- Year level and sex
- State and territory
- Indigenous status (methods used for identification vary between jurisdictions)
- Language background other than English (methods used for identification vary between jurisdictions)
- Remoteness based on the MCEECDYA Schools Geographic Location Classification (Metropolitan, Provincial, Remote and Very Remote)

Indicator: Apparent retention rate from Year 7–8 to Year 12

Operational definition

Numerator:

Number of full-time students in Year 12

Data source: National Schools Statistics Data Collection

Data availability: Annual from 1984 (first year of data 1979) (2008 data available as at February 2010).

Denominator:

Number of full-time students in the first year of secondary education (the base year)—Year 7 for New South Wales, Victoria, Tasmania and the Australian Capital Territory in 2003, and Year 8 in Queensland, South Australia, Western Australia and the Northern Territory in 2004

Data source: National Schools Statistics Collection

Data availability: Annual from 1984 (first year of data 1979) (2008 data available as at February 2010).

Justification for selection

Completion of secondary education is considered important preparation for full participation in many aspects of adult life, including the workforce. 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). Research has shown that lack of education is associated with higher prevalence of chronic and mental health problems (Sturm & Gresenz 2002).

This indicator is consistent with the NHPF indicator *Educational attainment for selected school years and adults*. It is also a COAG attainment target for 90% of 20–24 year olds to have attained Year 12 or equivalent or Certificate II or above by 2015 (DEEWR 2009).

Data issues

- This indicator does not take into account young people completing Year 12 at a later date. Information will also be presented on those that complete Year 12 in post-school educational settings—Year 12 completion rate: the proportion of young people aged 20–24 years who have completed Year 12. This information is available annually from the ABS Survey of Education and Work.
- Information is also available on apparent progression rates—proportion of full-time students who continue their high school education by progressing to a higher grade, that is progressing from Year 9 to Year 10, from Year 10 to Year 11, etc.
- Data on school attendance rates and absenteeism is also available from the MCEECDYA National Report on Schooling (from additional statistics chapter). Information is currently available for Years 1–10, disaggregated by state and territory (no national data), school sector (government, independent, Catholic), sex, and Indigenous status in 2008. That is, no aggregate data are currently available for all primary school years and for all schools nationally. There are also considerable differences in data collection methodologies in each state/territory.
- Indigenous data on apparent retention rates are available from the National Schools Statistics Data Collection; however, the incompleteness of Indigenous identification in

this data collection means the number of students recorded as Indigenous may be an underestimate. Data on Indigenous completion rates are available from the ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS).

- International data are available on upper secondary graduation rates from the OECD, including Australia (OECD 2009a). The OECD estimates upper secondary graduation rates as: 'the number of students, regardless of age, who graduate for the first time from upper secondary programs, divided by the population at the age at which students typically graduate from upper secondary education'. The graduation rates take into account students graduating from upper secondary education at the typical (modal) graduation ages, as well as older students (for example, those in 'second chance' programs) or younger students.

Cross tabulations available from primary data source

- Age and sex
- State/territory
- Indigenous status

Indicator: Proportion of young people aged 15–24 years undertaking or with post-school qualifications

Operational definition

Numerator:

Number of young people aged 15–24 years currently enrolled in study leading to a post-school qualification or who have attained a post-school qualification

Data source: ABS Survey of Education and Work (SEW); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SEW: Annual from 1964 onwards (2008 data available as at February 2010); NATSISS: 2002 and 2008

Denominator:

Number of young people aged 15–24 years

Data source: ABS Survey of Education and Work (SEW); ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SEW: Annual from 1964 onwards (2008 data available as at February 2010); NATSISS: 2002 and 2008.

Justification for selection

Qualifications are an important indicator of an individual's capacity to compete in demanding labour markets. While tertiary qualifications are often used as a proxy for income and employment prospects, obtaining a qualification at any level is likely to improve young people's employment opportunities and their ability to compete for higher paid positions (AIHW 2007b).

Under the Federal Government's *Compact with Young Australians*, from 1 July 2009 young people aged 15–19 years will have an entitlement to an education or training place for any government-subsidised qualification, subject to admission requirements and course availability (DEEWR 2009).

This indicator is consistent with the NHPF indicator *Educational attainment for selected school years and adults*. It is also a COAG attainment target for 90% of 20–24 year olds to have attained Year 12 or equivalent or Certificate II or above by 2015 (DEEWR 2009).

Data issues

- Includes full- and part-time studies at technical and further education colleges and tertiary institutions.
- Information will be provided on post-school qualifications, that is, educational attainments other than those of pre-primary, primary or secondary education. Post-school qualifications include 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.
- Information will also be presented on the overall education participation rate—participation in school and post-secondary school studies.
- Reliable Indigenous data are not available from the ABS Survey of Education and Work (SEW), however this information is available from the ABS National Aboriginal and

Torres Strait Islander Social Survey (NATSISS). The NATSISS does not have the full range of education or work participation data items compared to the SEW.

- Internationally comparable data from the OECD are available on the number of young people currently studying and the highest non-school qualifications obtained (OECD 2009a). A concordance is used between the Australian classification (ASCED) and the international classification (ISCED). This allows enrolment in tertiary-type A and tertiary-type B courses, equivalent to degree and certificate courses respectively, to be compared internationally.

Cross tabulations available from primary data source

- Age (15–19, 20–24 years) and sex
- Qualification obtained
- Type of course currently enrolled leading to a qualification
- Capital city balance of state
- Indigenous status

Employment

Indicator: Full-time participation rate of young people aged 15–24 years in study or work

Operational definition

Numerator:

Number of young people aged 15–24 years participating full-time in education and/or employment

Data source: ABS Survey of Education and Work (SEW), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SEW: Annual from 1964 onwards (2008 data available); NATSISS 2002 and 2008

Denominator:

Number of young people aged 15–24 years

Data source: ABS Survey of Education and Work, ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SEW: Annual from 1964 onwards (2008 data available); NATSISS 2002 and 2008

Justification for selection

Young people not involved in education, training or employment may have less opportunities to participate fully in society, are considered more at risk of personal and social stresses and social exclusion, and may have poorer long-term labour market outcomes than other young people (Long 2006b).

To support the education or training entitlement of the Federal Governments' *Compact with Young Australians* and the *National Youth Participation Requirement*, from July 2009 the Australian Government has strengthened the participation requirements. Young people without a Year 12 or equivalent qualification must undertake full-time (25 hours or more a week) education or training to be eligible for Youth Allowance (Other). Those in part-time education or training must undertake additional activities to meet the 25 hours a week target (for example voluntary work, paid employment) to be eligible. Exemptions apply for some disadvantaged young people (DEEWR 2009). The impact of these changes on the full time participation rate will not be evident until the 2010 ABS SEW, as the 2009 survey was conducted in May, prior to the implementation of these changes (DEEWR 2009).

This indicator was used by MCEETYA as a 'key performance measure of full participation' (MCEETYA 2002) and addresses the NHPF indicator *Educational attainment for selected school years and adults*.

Data issues

- Full-time participation is defined as either:
  - Full-time employment
  - Full-time study
  - Full-time employment with full or part-time study

  - Full-time study with full or part-time employment
- The ABS 2005 Education and Training Experiences Survey collected information on whether young people wanted to do more study for an educational qualification in the previous 12 months, but did not do so. While this data source is quite dated it may provide useful contextual information for this indicator.
- The ABS Survey of Education and Work does not provide reliable information on participation rates for Indigenous young people. However, comparable information is available from NATSISS. Note that the NATSISS does not have the full range of education or work participation data items available from the SEW.
- Internationally comparable data on young people aged 15–19 years not engaging in education or work are available from the OECD (OECD 2009a).

Cross tabulations available from primary data source

- Age and sex
- Combinations of study and work (full-time and part-time combinations)
- State and territory
- Indigenous status

Indicator: Unemployment rate for young people aged 15–24 years

Operational definition

Numerator:

Number of young people aged 15–24 years who are unemployed

Data source: ABS Labour Force Surveys, ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: Monthly from 1978 (November 2009 data available as at February 2010); NATSISS: 2002 and 2008

Denominator:

Number of young people aged 15–24 years in the labour force (employed plus unemployed)

Data source: ABS Labour Force Surveys, ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: Monthly from 1978 (November 2009 data available as at February 2010); NATSISS: 2002 and 2008

Justification for selection

Secure and satisfactory employment offers young people not only financial independence but also a sense of control, self-confidence and social contact. In contrast, unemployment, insecure employment and unfavourable working conditions have all been associated with low self-esteem and poor physical and mental health (Morrell et al. 1994; Morrell et al. 1998; Morrell et al. 1994). Both Australian and overseas studies suggest that unemployment is associated with adverse health effects, such as, lower levels of general and physical health, more anxiety and depression, higher rates of smoking, and higher suicide rates, both among young people and adults (Harris et al. 1998; Lakey et al. 2001; Mathers 1996; Mathers & Schofield 1998; Muir et al. 2003; Power & Estaugh 1990).

Data issues

- Supplementary information will also be presented:
  - Long-term unemployed, defined as those unemployed for 12 months or more, is available from the ABS Labour Force Surveys.
  - Underemployed, defined as those that are employed but would like more work than they currently have, is available from the ABS Labour Force Surveys.
  - Casual employees, defined as those employees who do not receive paid sick or holiday leave, is available from the ABS Survey of Employment Arrangements and Superannuation (2000, 2007). Information is available about people's working arrangements including employment type, job duration and expected job duration, hours worked and working patterns, and some work preferences.

Cross tabulations available from primary data source

- Age and sex
- Duration of unemployment (including long-term unemployed)
- Remoteness
- Indigenous status

Income

Indicator: Proportion of young people aged 15–24 years receiving government income support

Operational definition

Numerator

Number of young people aged 15–24 years receiving government income support at 30 June

Data source: Government Income Support data, Superstar Pensions Database, Newstart Superstar Database

Data availability: Annual from 1995 (2008 available as at February 2010)

Denominator:

Number of young people aged 15–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 available as at February 2010)

Justification for selection

Young people on government income support, such as, those who are unemployed, underemployed, studying full-time or who suffer a long-term health condition, may experience financial hardship which can affect their health and wellbeing. Government income support for young people aged 15–24 years includes income support payments such as, Youth Allowance, Newstart Allowance, Community Development Employment Projects (CDEP), Disability Support Pension and Parenting Payment. It may also include young people who are studying. While this group may not be disadvantaged in the longer term, they can be while they are studying.

Data issues

- A young person's living arrangements needs to be taken into account when using income as an indicator of living standards, for example the living standards of a 22 year old on Newstart Allowance living in a middle income family will be different to those of a 22-year-old lone parent with no other adult living in the household. Whether a young person is productively engaged (that is studying or working) is also an important factor in analysing income data.
- Information will also be presented on young people receiving rent assistance. The growth in youth homelessness in recent decades is in part a reflection of the difficulties that some young people face in making the transition to independent living. Rent assistance—for those who are eligible— provides assistance in improving their housing situation, as well as education and employment outcomes. This information is available from the Public Housing and Commonwealth Rent Assistance (CRA) administrative database (2009 data available), and cross tabulations are available by age, sex and remoteness.

- Supplementary information will be included on:
  - the number of young people who are financially dependent on their families (from the ABS 2006 Census of Population and Housing)
  - the number of young people who are receiving a regular allowance/income from parents, both proportion and mean income received (from the HILDA survey Wave 8)
  - the mean income of young people by source of income (ABS Survey of Income and Housing)
- Further investigation into the availability of Indigenous data from the Centrelink Databases needs to occur. The ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS: 2002, 2008) also collects some information on income among Indigenous youth and may be considered as a supplementary data source.

Cross tabulations available from primary data source

- Age and sex
- Type of income support (including rent assistance)
- Living arrangements (if available)
- Whether studying or not
- Remoteness

Indicator: Proportion of young people aged 15–24 years who experience financial stress

Operational definition

Numerator:

Number of young people aged 15–24 years who experience financial stressors

Data source: ABS General Social Survey (GSS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS: 2002 and 2006; NATSISS: 2002 and 2008

Denominator:

Number of young people aged 15–24 years in the reference year

Data source: ABS General Social Survey (GSS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: GSS: 2002 and 2006; NATSISS: 2002 and 2008

Justification for selection

Experiencing financial stress refers to an inability to meet basic financial commitments, such as, paying bills, rent or mortgage, or buying food. Measures of financial stress therefore provide direct evidence on the adequacy of both the economic resources and financial knowledge of individuals and households (HILDA 2009). Young people who are not fully engaged in study or employment are more likely to experience financial stress, and these young people are more likely to be socially disengaged, to feel dissatisfied with their life and to experience poorer health outcomes (Long 2006a).

Data issues

- This indicator requires further investigation and the operational definition of a financial stress measure is currently under development. Issues requiring further consideration are the number of financial stressors experienced within a specified time period, which financial stressors are the most important, and the number of stressors that indicate low or extreme financial stress.
- The GSS collects a range of information on financial stress indicators among young people aged 18–24 years, including being unable to pay bills, mortgage/rent, car insurance, credit card; went without meals; unable to heat home; could not raise $2,000 within a week; sought financial help from family/friends; sought assistance from welfare/community organisations, had at least one cash flow problem in the previous 12 months, took at least one dissaving action in the previous 12 months.
- Similar information is also available from the Household Income and Labour Dynamics in Australia (HILDA) survey for young people aged 15–17 years.

Cross tabulations available from primary data source

- Age and sex
- Financial stressors
- Types and number of cash-flow problems (in the previous 12 months)
- Types and number of dissaving actions taken (in the previous 12 months)

- Family type
- Socioeconomic status
- Indigenous status

Socioeconomic status of parents

Indicator: Proportion of young people aged 12–24 years living in jobless families

Operational definition

Numerator:

Number of young people aged 12–24 years living in jobless families

Data source: ABS Census of Population and Housing

Data availability: 1991, 1996, 2001, 2006

Denominator:

Number of young people aged 12–24 years living in families in reference year

Data source: ABS Census of Population and Housing

Data availability: 1991, 1996, 2001, 2006

Justification for selection

Members of households where no-one is employed report worse physical and mental health and lower life satisfaction than members of households where someone is employed (Headey & Verick 2006). Jobless families are disproportionally likely to be reliant on welfare, have low incomes and experience financial stress, and parental unemployment may also create tension and hostility in relationships and reduce warmth and supportiveness in the home (Shonkoff & Phillips 2000). There are also intergenerational effects, the likelihood of a young person completing secondary school and finding secure employment is affected by their parent's socioeconomic status (Dawkins et al. 2002).

Data issues

- For the 2011 Young Australians report jobless families are defined in accordance with the ABS definition. Jobless families are either couple families where both parents are either unemployed or not in the labour force or lone-parent families where the sole parent is unemployed or not in the labour force. This indicator therefore includes families where the parent/s have chosen not to work, are not actively seeking work, are not available to start work or are unable to work (ABS 2009).
- The ABS Labour Force Status and Other Characteristics of Families Survey also includes information on jobless families, however only for young people aged 15–24 years.
- Information on jobless families is also available from the Household Income and Labour Dynamics in Australia (HILDA) survey.
- Internationally comparable data are available on working age jobless families from the OECD Family Database (OECD 2009b).

Cross tabulations available from primary data source

- Age and sex
- Family type
- Indigenous status
- Remoteness

Indicator: Proportion of young people aged 12–24 years whose parents did not complete secondary school (Year 10 or above)

Operational definition

Numerator

Number of dependent young people aged 12–24 years whose parents (that is either parent) were not educated beyond secondary level (Year 10 or above)

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: Annual from 2001 onwards (Wave 8 (2008) available as at February 2010)

Denominator

Number of young people aged 12–24 years in families

Data source: Household, Income and Labour Dynamics in Australia (HILDA) survey

Data availability: Annual from 2001 onwards (Wave 8 (2008) available as at February 2010)

Justification for selection

Inadequate education and training is a common factor in Australia's most disadvantaged communities and may increase their risk of social exclusion (Vinson et al. 2007). Young people who are still living with their parents, particularly those who are financially dependent on their parents, will share the same social and economic circumstances as their parents. There is a link between intergenerational poverty and educational attainment

Data issues

- The classification of education used for this indicator is based on the Australian Standard Classification of Education (ASCED).
- Limited Indigenous data will be available from the ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS).
- International comparable data are available on parental highest year of school completed from the OECD (OECD 2009a). The Australian data using ASCED is converted to the international classification ISCED.

Cross tabulations available from primary data source

- Highest year of school completed by parents
- Family type
- Remoteness

Environmental tobacco smoke

Indicator: Proportion of young people aged 12–17 years who live in households where adults smoked inside

Operational definition

Numerator

Number of households with a young person aged 12–17 years where a household member smoked inside the home

Data source: National Drug Strategy Household Survey (NDSHS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NDSHS: three-yearly from 1985 onwards (2007 available as at February 2010); NATSISS: 2002 and 2008

Denominator

Number of households with a young person aged 12–17 years

Data source: National Drug Strategy Household Survey (NDSHS), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: NDSHS: three-yearly from 1985 onwards (2007 available as at February 2010); NATSISS: 2002 and 2008

Justification for selection

Adolescents who are exposed to tobacco smoke are at an increased risk of adverse health outcomes, including onset and increased severity of asthma, respiratory infections and symptoms, and slowed lung growth (CDC 2007; WHO 2007). Young people with parents who smoke are also more likely to take up smoking later in life (Kestila et al. 2006).

This indicator is consistent with the NHPF indicator *Children exposed to tobacco smoke in the home*.

Data issues

- The NDSHS collects information on any member in the household smoking at least one cigarette, cigar or pipe of tobacco per day in the home. This household member is not necessarily an adult.
- The NATSISS also collects information on any Indigenous Australians who are members of a household where someone usually smokes inside the house.

Cross tabulations available from primary data source

- Household smoking status (smokes inside the home, only smokes outside the home, no-one at home regularly smokes)
- Family type
- State or territory
- Indigenous status

Housing environment

Indicator: Proportion of young people aged 15–24 years who live in overcrowded housing

Operational definition

Numerator:

Number of young people aged 15–24 years who live in overcrowded housing

Data source: ABS Survey of Income and Housing (SIH), ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SIH: Annual from 1994–95 to 2003–04 (except 1998–99 and 2001–02), biennial from 2003–04 (2007–08 available as at February 2010); NATSISS: 2002, 2008

Denominator:

Number of young people aged 12–24 years

Data source: ABS Survey of Income and Housing; ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

Data availability: SIH: Annual from 1994–95 to 2003–04 (except 1998–99 and 2001–02), biennial from 2003–04 (2007–08 available as at February 2010); NATSISS: 2008

Justification for selection

Overcrowding is often associated with factors such as, low socioeconomic status and higher unemployment. It has been shown to be associated with an increased risk of infectious diseases, such as, meningococcal disease, rheumatic fever, tuberculosis, skin infections and infestations, diarrhoeal diseases, eye and ear infections and respiratory diseases, as well as poorer educational outcomes for young people (Howden-Chapman & Wilson 2000; Menzies School of Health Research 2000;Williams 2009).

Data issues

- Overcrowding is defined according to the Australian modification of the Canadian National Occupancy Standard as the indicator of housing utilisation (and therefore overcrowding). The definition is that there should be no more than two persons per bedroom, children less than 10 years of age of different sexes may reasonably share a bedroom, children 10 years of age or older of opposite sex should not share a room, children less than 18 years old of the same sex may share a room, and household members 18 years and over should have a separate bedroom, as should parents or couples. Households that need two or more additional bedrooms are considered to experience a high degree of overcrowding. Households that need one or more bedroom are considered to experience a moderate degree of overcrowding.
- The criteria that ABS uses for defining overcrowding and are available from the Survey of Income and Housing (SIH) are:
  - there should be no more than two persons per bedroom
  - children less than five years of age and of different sexes may reasonably share a bedroom

  - children less than 18 years of age and of the same sex may reasonably share a bedroom
  - single household members aged 18 years and over should have a separate bedroom, as should parents or couples.
- Indigenous data on overcrowding are not available from the ABS SIH. However, comparable data are available from the National Aboriginal and Torres Strait Islander Social Survey (NATSISS).
- Cross tabulations by remoteness and/or socioeconomic status may be possible. While this information is available from the surveys, the resulting subpopulations may be too small to draw valid conclusions.

Cross tabulations available from primary data source

- Household type
- Number of bedrooms
- Indigenous status

Tier 3: Health system performance

Potentially avoidable hospitalisations

Indicator: Ambulatory-care-sensitive conditions hospitalisation rate for young people aged 12–24 years

Operational definition

Numerator

Number of hospital separations for ambulatory care sensitive conditions involving young people aged 12–24 years in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 available as at February 2010)

Denominator

Number of young people aged 12–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 available as at February 2010)

Justification for selection

Potentially preventable hospitalisations are those for which hospitalisation is thought to be avoidable with the application of preventive care and early disease management, usually delivered in the ambulatory care setting such as, primary care settings (general practitioner (GP) and community health services). Timely and effective ambulatory care is expected to reduce the risks of hospitalisation by preventing the onset of an illness or condition; controlling an acute episodic illness or condition; or managing a chronic disease or condition (Victorian Government Department of Human Services 2002b). This is an indicator of the effectiveness of primary health care.

Data issues

- There is considerable variation across the states and territories in the completeness of hospital data for Indigenous people. The AIHW conducted a study in 2007 which showed that hospitalisations of Indigenous people are underestimated by about 11% nationally (AIHW Forthcoming). Hospital separations data from NSW, Vic, Qld, WA, SA and public hospitals in the NT are considered to have sufficient completeness of Indigenous identification for analysis.

Cross tabulations available from primary data source

- Age and sex
- Acute, chronic or vaccine-preventable conditions
- State and territory

- Indigenous status
- Remoteness
- Socioeconomic status

Teenage purchase of cigarettes or alcohol

Indicator: Percentage of teenage smokers aged 12–17 years who personally purchased their cigarettes

Operational definition

Numerator:

Number of young people aged 12–17 years who smoke and who buy their own cigarettes

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD)

Data availability: Three-yearly from 1984 onwards (2005 available as at February 2010)

Denominator:

Number of young people aged 12–17 years who smoke

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD)

Data availability: Three-yearly from 1984 onwards (2005 available as at February 2010)

Justification for selection

Evidence suggests that there is a correlation between regular smoking, buying cigarettes and heavy cigarette consumption, and that decreasing the ability of teenagers to purchase their own cigarettes will assist in reducing the likelihood of teenagers making the transition from experimental to regular and addicted smoking (NHPC 2004). State and territory legislations prohibit tobacco sales to young people less than 18 years of age. This is an indicator of the enforcement of the laws regarding purchasing of cigarettes.

Data issues

- Indigenous status information is not collected in the ASSAD.

Cross tabulations available from primary data source

- Age and sex
- Location of purchasing cigarettes

Indicator: Percentage of teenage drinkers aged 12–17 years who personally purchased their alcohol

Operational definition

Numerator:

Number of young people aged 12–17 years who drink and who buy their own alcohol

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD)

Data availability: Three-yearly from 1984 (2005 available as at February 2010)

Denominator:

Number of young people aged 12–17 years who consume alcohol

Data source: Australian Secondary Students Alcohol and Drug Survey (ASSAD)

Data availability: Three-yearly from 1984 (2005 available as at February 2010)

Justification for selection

Consumption of alcohol at young ages increases the risk of later dependence, as well as contributing to poor mental health and increasing the likelihood of violence (Hingson et al. 2006; Pitkänen et al. 2004). State and territory legislations prohibit the sale of alcohol to young people less than 18 years of age. This is an indicator of the enforcement of the laws regarding purchasing of alcohol.

Data issues

- Indigenous status information is not collected in the ASSAD.

Cross tabulations available from primary data source

- Age and sex
- Location of purchasing alcohol

Survival for melanoma of the skin

Indicator: Five-year relative survival rates for melanoma of the skin for young people aged 12–24 years

Operational definition

Numerator

Survival of young people aged 12–24 years for melanoma (observed)

Data source: AIHW Australian Cancer Database (formerly the National Cancer Statistics Clearing House) and AIHW National Death Index

Data availability: 1982–2006 survival data

Denominator

Survival of young people aged 12–24 years (expected)

Data source: AIHW analysis of ABS life tables (see ABS 2007b)

Data availability: Annual from 2002 onwards (2007 available as at February 2010)

Justification for selection

Melanoma of the skin is the most common cancer among Australian young people, and more than 85% of people with melanoma are cured by surgery. With early detection and treatment, the percentage of people cured has grown steadily over the past 20 years (Cancer Council NSW 2009). However, effective treatment of melanoma is dependent on early detection of the cancer, along with access to an effective health care system which can provide appropriate care. Without effective care the outcomes of people with melanoma are poor. Due to this, melanoma survival rates provide an indication of how well the health system meets the needs of young people with cancer.

This indicator is consistent with the COAG indicator *Survival of people diagnosed with cancer*, and the NHPF indicator *Survival of people diagnosed with cancer*.

Data issues

- Relative survival analysis compares the survival rate of young people with cancer with the survival rate of the Australian population of the same sex and age in the same calendar year as the cancer cohort.
- Relative survival is defined as the observed survival divided by the expected survival, and is usually expressed as a percentage.

Cross tabulations available from primary data source

- Age and sex
- Remoteness

Cervical cancer

Indicator: Cervical screening rates among women aged 20–24 years

Operational definition

Numerator:

Number of young women aged 20–24 years who have had a Pap smear in the previous 24 months

Data source: Cervical Cytology Register in each state

Data availability: Annual from 1996 (2006–07 data available as at February 2010)

Denominator:

Number of young women aged 20–24 years in reference year

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 data available as at February 2010)

Justification for selection

Up to 90% of all cases of cervical cancer could be prevented through regular screening. Pap smears can pick up changes in cells which indicate pre-cancerous growth. As early diagnosis of abnormalities is associated with improved prognosis, Pap smear screening is an effective way of preventing cervical cancers and ultimately death from the disease.

This indicator is consistent with the COAG indicator *Cervical screening rates*, and the NHPF indicator *Cervical screening rates*.

Data issues

- It is recommended that women in the target group of 20–69 years, who have ever been sexually active, have a Pap smear every two years.
- Not all young women aged 20–24 years are sexually active and therefore at risk of cervical cancer. However, it is necessary to use population data for the denominator as there are no data on the group at risk (that is those who are sexually active).
- Indigenous data are not available from the Cervical Cytology Register in each state.
- Indigenous data are available from the ABS National Aboriginal and Torres Strait Islander Health Survey (2004–05); these data will be used were possible, although it may not be directly comparable with data from the cervical screening program.

Cross tabulations available from primary data source

- Age
- State and territory
- Remoteness
- Socioeconomic status

Indicator: Cervical cancer vaccination rates among women aged 12–24 years

Operational definition

Numerator:

Number of young women aged 12–24 years who have received the full course of the Human Papilloma Virus Vaccinations

Data source: National Human Papilloma Virus (HPV) Vaccination Program Register

Data availability: To be determined

Denominator:

Number of young women aged 12–24 years

Data source: AIHW Population Database

Data availability: Quarterly and/or annual time series from 1979 onwards (June 2009 data available as at February 2010)

Justification for selection

Human papilloma viruses (HPVs) are the major cause of cervical cancer. In 98% of cases, HPV clears by itself. Gardasil is the cervical cancer vaccine currently available as part of the National Immunisation Program. At least 14 types of HPVs have been found to cause cancer and the vaccine protects against the two which are responsible for around 70% of cervical cancers, HPV types 16 and 18 (Department of Health and Aging 2006). For women and girls over the age of 15 who have never been exposed to these types of HPV, studies have found that Gardasil inoculation offered protection from contracting these HPVs in 98% of cases for three years (Garland et al. 2007; The FUTURE II Study Group 2007).

Data issues

- GPs administer the HPV vaccine in three injections over a six- to seven-month period.
- Gardasil is free for three groups under the National Immunisation Program, commencing in 2007:
  - 12 and 13 year old girls in a school-based program, generally delivered in the first year of high school
  - A catch-up group of 13–18 year old girls in a largely school-based program, ending December 2009.
  - A further catch-up group of women up to and including 26 years of age in a community-based program, generally delivered by the GP (family doctor). This does not include the cost of the visit to the GP who must prescribe the vaccine; ending December 2009.
- Currently data are only available by age and state and territory. As the program becomes more established national data are expected to be available by Indigenous status and remoteness.
- Supplementary information may also be available on incomplete vaccinations.
- Another HPV vaccine, Cervarix, is also approved for use in Australia, however it is not used for the National Immunisation Program. Due to this, data are not available on the number of people who have been vaccinated using this vaccine.

Cross tabulations available from primary data source

- Age
- State and territory

Appropriate use of antibiotics

Indicator: Proportion of prescriptions for oral antibiotics ordered by general practitioners for the treatment of upper respiratory tract infections

Operational definition

Numerator:

Number of prescriptions of antibiotics for upper respiratory tract infections prescribed to young people aged 15–24 years in reference year

Data source: Bettering the Evaluation and Care of Health (BEACH survey of GPs)

Data availability: Annual from 1998–99 onwards (2008–09 available as at February 2010)

Denominator:

Total number of prescriptions for antibiotics in reference year

Data source: Bettering the Evaluation and Care of Health (BEACH survey of GPs)

Data availability: Annual from 1998–99 onwards (2008–09 available as at February 2010)

Justification for selection

In most instances, antibiotics have no efficacy in the treatment of upper respiratory tract infections (URTIs) which are most often caused by viruses. Overuse of antibiotics increases antibiotic resistance. A decline in the rate of antibiotics prescriptions for URTIs may be an indication of more appropriate management of viral infections (NHPC 2004).

Data issues

- Data from the Pharmaceutical Benefits Scheme (PBS) were not used for this indicator as they do not include information on diagnosis, on medications that fall below the subsidy threshold, or on private prescriptions.
- The BEACH survey of GPs collects information on prescriptions written by doctors, however, the number of prescriptions written by GPs is somewhat higher than the number of prescriptions filled by pharmacists (NHPC 2004).
- The number of Indigenous patients in the BEACH survey is likely to be underestimated. This is because some GPs do not ask about Indigenous status, or the patient may choose not to identify (Britt et al. 2002). It should also be noted that the estimates are derived from a relatively small sample of GP consultations involving Indigenous Australians (ABS 2005).

Cross tabulations available from primary data source

- Age and sex
- Types of problems managed
- Types of antibiotics prescribed

Delivery by caesarean section

Indicator: Caesarean sections as a proportion of all confinements of young women aged 15–24 years

Operational definition

Numerator:

Number of caesarean sections performed on young women aged 15–24 years in reference year

Data source: National Perinatal Data Collection

Data availability: Annual from 1991 onwards (2007 available as at February 2010)

Denominator:

Total number of confinements of young women aged 15–24 years in reference year

Data source: National Perinatal Data Collection

Data availability: Annual from 1991 onwards (2007 available as at February 2010)

Justification for selection

Delivery by caesarean section is appropriate in a range of circumstances related to clinical characteristics of patients, including failure to progress in labour, advanced maternal age, first births compared with second births, previous caesarean section, multiple pregnancy, breech presentation and low birthweight. However, many other factors have been shown to be important contributors in the decision to deliver by caesarean section, including the practice patterns of individual doctors, and other non-clinical factors such as, health insurance status, hospital characteristics and exercise of patient choice (NHPC 2004; OECD 2002).

Data issues

- There may be over-representation in the number of high risk and multi-fetal pregnancies associated with poorer perinatal outcomes due to births occurring outside the usual state of residence for the mother. For example, a significant proportion of New South Wales residents gave birth in Australian Capital Territory , therefore, rates such as, those for preterm birth and perinatal deaths may be inflated for births that occur in the Australian Capital Territory (AIHW 2009b).
- There are some differences in identification of Indigenous Australians between jurisdictions within the National Perinatal Data Collection. This data collection only captures Indigenous status of the mother, but not the father or the baby.
- Internationally comparable data are available from OECD Health database for 2006.

Cross tabulations available from primary data source

- Age
- State and territory
- Hospital setting (private/public) and elective/emergency
- Remoteness

General Practice consultations

Indicator: Rate of general practice encounters for young people aged 12–24 years

Operational definition

Numerator:

Number of general practice encounters for young people aged 12–24 years in reference year

Data source: Bettering the Evaluation and Care of Health (BEACH survey of GPs)

Data availability: BEACH; annual from 1993–94 onwards (2008–09 available as at February 2010); NATSIHS: 2001, 2004–05

Denominator:

Number of young people aged 12–24 years in reference year

Data source: Bettering the Evaluation and Care of Health (BEACH survey of GPs), ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

Data availability: BEACH: annual from 1993–94 onwards (2008–09 available as at February 2010); NATSIHS: 2001, 2004–05

Justification for selection

One of the biggest challenges confronting health services is how best to support and empower young people to access the health care they need in a timely manner. Significant barriers exist for young people seeking health service. Feelings of embarrassment, concern that their queries will not be taken seriously and fear about confidentiality or being judged are among them. Therefore, this indicator provides an important indication of how accessible GP services are making themselves to young people (Churchill 2009).

Data issues

- The number of Indigenous patients in the BEACH survey is likely to be underestimated. This is because some GPs do not ask about Indigenous status, or the patient may choose not to identify (Britt et al. 2002). It should also be noted that the estimates are derived from a relatively small sample of GP consultations involving Indigenous Australians.
- The ABS 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) collected information on health-related actions taken by young Indigenous Australians aged 15–24 years in the two weeks prior to interview. However these data are not directly comparable with information from the BEACH survey, which records number of GP encounters (not patients).

Cross tabulations available from primary data source

- Age and sex
- Type of problems managed and management of each problem

Waiting times in emergency departments

Indicator: Percentage of patients aged 12–24 years who are treated within national benchmarks for waiting in public hospital emergency departments for each triage category

Operational definition

Numerator:

Number of patients for young people aged 12–24 years who are treated within national benchmarks at public hospital emergency departments in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 available as at February 2010)

Denominator:

All patients aged 12–24 years who are treated at public hospital emergency departments in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 available as at February 2010)

Justification for selection

Patients attending emergency department should be treated within an appropriate time. All patients attending public hospital emergency departments are assessed and assigned a triage category, which reflects the urgency with which treatment should start. In Australia, benchmarks for the start of treatment have been identified for each triage category (AIHW 2001). This indicator measures the extent to which these benchmarks have been achieved.

Data issues

- The benchmarks for each triage category include:
  - Triage category 1: patient needs resuscitation (seen within seconds)
  - Triage category 2: emergency (seen within 10 minutes)
  - Triage category 3: urgent (seen within 30 minutes)
  - Triage category 4: semi-urgent (seen within 60 minutes)
  - Triage category 5: non-urgent (seen within 120 minutes).
- Data will be reported by patient presentations (for example if a person presents at the emergency department several times within the specified period they will be counted for each visit).
- Most states and territories advise that the Indigenous status data could be less accurate than the data collected for admitted patients (AIHW 2009a).

Cross tabulations available from primary data source

- Age and sex
- State and territory
- Indigenous status

Adverse events treated in hospitals

Indicator: Proportion of hospitalisations for young people aged 12–24 years where an adverse event was treated and/or occurred

Operational definition

Numerator:

Number of hospitalisations for young people aged 12–24 years where an adverse event was treated and/or occurred in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 available as at February 2010)

Denominator:

Total number of hospitalisations for young people aged 12–24 years in reference year

Data source: AIHW National Hospital Morbidity Database

Data availability: Annual from 1993–94 onwards (2007–08 available as at February 2010)

Justification for selection

An adverse event occurs when there was harm caused by health care management rather than the underlying disease or condition of the patient—2005–06 data show that 4.8% of separations were directly due to an adverse event (AIHW 2008b). Additionally an estimated 10% of all separations are associated with some form of adverse events (ACSQHC & Care) 2001). These events are in theory preventable, and serve as a good indicator of the efficacy of the health system.

This indicator is consistent with the COAG indicator *Adverse drug events in hospitals*, and the NHPF indicator *Adverse events treated in hospitals*.

Data issues

- Not all adverse events are identifiable in the data. For example, adverse events that occurred during the hospital admission but manifested after discharge (and did not result in a readmission) and adverse events associated with obstetric care, in-hospital patient falls and accidental poisoning associated with incorrect use of drugs are not identifiable in the data. The data presented therefore only represents a proportion of all adverse events in health care.
- There is considerable variation across the states and territories in the completeness of hospital data for Indigenous people. The AIHW conducted a study in 2007 which showed that hospitalisations of Indigenous people are underestimated by about 11% nationally (AIHW Forthcoming). Hospital separations data from NSW, Vic, Qld, WA, SA and public hospitals in the NT are considered to have sufficient completeness of Indigenous identification for analysis.

Cross tabulations available from primary data source

- Age and sex
- Type of adverse event
- State and territory
- Indigenous status

4 Additional potential indicators

The National Youth Information Advisory Group has proposed several additional indicators for inclusion in the *Young Australians: their health and wellbeing 2011* report. These indicators are currently under development and the AIHW will further investigate whether these indicators fit within the National Health Performance Criteria guidelines for selecting key national indicators, or whether they are better suited as supplementary information to the existing indicators. Further work will also be undertaken to identify appropriate data sources.

Table 4.1: Possible additional indicators to be included in *Young Australians: their health and wellbeing 2011* report

Indicator	Justification
Other chronic conditions/malaise	Psychosomatic symptoms refer to a range of low-grade non-clinical illnesses that are thought to have an emotional rather than clinical origin. These conditions can include stomach and back pains, headaches, tiredness and irritability and may impact on the health and engagement in education of adolescents and youth (Sweeting & West 2003).
Sleep disorders	It is estimated that adolescents need approximately 9 hours of sleep per night (Carskadon 1999). Sleep disorders and sleep deprivation have an impact on the health and wellbeing outcomes of young people by reducing their capacity to undertake normal everyday activities. Thinking, emotional balance and behaviour are all affected by chronic sleep deprivation (Carpenter 2001) with demonstrated outcomes such as, poorer school grades (Curcio et al. 2006; Wolfson & Carskadon 2003) and a higher rate of traffic accidents (Lucidi et al. 2006). Epidemiological studies have demonstrated that earlier parental set bedtimes may protect against adolescent depression and suicidal ideation by lengthening sleep duration (Gangwisch et al. 2010).
Media and communication	Communication technology, including television, internet, newspaper and other media have been shown to have an impact on young people and how they view themselves and their community and to inform their views on global issues. Young users are increasingly turning to the internet as a source of information, communication, socialising and entertainment (Gigli 2004). However, commercial media aimed at children and youth can also have negative effects on the behaviour of young people, such as, aggression, obesity, substance misuse, eating disorders and unsafe sexual behaviour (Austin et al. 2006; Huesmann 2007; L'Engle et al. 2006).
Environmental issues	Information on environmental issues such as, climate change, environmental damage and drought have been raised as having an impact on the mental health and wellbeing of young people, influencing young people's perceptions of the present and the future (Tucci et al. 2007). There is concern that young people may react with despair and loss of motivation if they perceive climate change as inevitable (Kefford 2006). Young people in rural communities experiencing drought are concerned about the influence of global warming, with demonstrated symptoms of sadness, worry, behavioural disturbance and problems relating to peers and others (Sartore et al. 2008).

5 Data sources

AIHW and collaborating units data sources

AIHW Child Protection Data Collection

The AIHW collects annual statistics on child protection in Australia for children and adolescents aged 0–17 years. Data are provided by the state and territory community services departments and are used to produce *Child protection Australia* and are also provided to the Productivity Commission for the *Report on government services*.

There are four separate child protection collections: child protection notifications, investigations and substantiations; children on care and protection orders; children in out-of-home care; and intensive family support services.

Data availability: Annual from 1991 onwards

Further information:
<www.aihw.gov.au/childyouth/childwelfare/childprotection/index.cfm>

AIHW National Drug Strategy Household Survey (NSDHS)

The NDSHS is a key data collection under the National Drug Strategy. The survey began in 1985 and has been managed by the AIHW since 1998.

The 2007 NDSHS was conducted between July and November 2007. Almost 25,000 Australians aged 12 years or older participated in the survey, in which they were asked about their knowledge of and attitudes towards drugs, their drug consumption histories and related behaviours.

The data collected from these surveys have contributed to the development of policies for Australia's response to drug-related issues.

Data availability: Triennially from 1985

Further information: AIHW 2008a or <www.aihw.gov.au/drugs/ndshs07.cfm>

AIHW National Hospital Morbidity Database (NHMD)

The NHMD is compiled by the AIHW from data supplied by the state and territory health authorities. It is a collection of electronic confidentialised summary records for separations (that is, episodes of care) in public and private hospitals in Australia.

Hospital records are for 'separations' and not individuals, and as there can be multiple admissions for the same individuals, hospital separation rates do not usually reflect the incidence or prevalence of the disease or condition in question.

The collection contains establishment data (information about the hospital), patient demographic data, administrative data, length of stay data, and clinical and related data.

Data availability: Annual from 1993–94 onwards

Further information: <www.aihw.gov.au/hospitals/nhm_database.cfm>

AIHW National Mortality Database

The AIHW National Mortality Database includes information on the factors that caused death, and other information about the deceased person such as, age at death, place of death, country of birth, and where applicable, the circumstances of their death. These data are collected in Australia by the Registrars of Births, Deaths and Marriages in each state and territory. The data are then compiled nationally by the ABS, which codes the data according to the International Classification of Diseases (ICD). The tenth revision (ICD–10) is available for use from 1997.

Further information: <www.aihw.gov.au/mortality/index.cfm>

AIHW National Perinatal Data Collection (NPDC)

The AIHW NPDC is a national population-based cross-sectional data collection of pregnancy and childbirth. The data are based on births reported to the perinatal data collection in each state and territory in Australia. Midwives and other staff, using information obtained from mothers and from hospital or other records, complete notification forms for each birth. Selected information is then compiled annually into this national data set by the AIHW National Perinatal Statistics Unit. Information is included in the NPDC on both live births and stillbirths of at least 400 grams birthweight or at least 20 weeks gestation.

Data availability: Annual from 1991 onwards

Further information: <www.npsu.unsw.edu.au/NPSUweb.nsf/page/NPDC>

Bettering the Evaluation and Care of Health (BEACH) survey

The BEACH survey of general practice activity is a collaborative study between the AIHW and the University of Sydney. For each year's data collection, a random sample of about 1,000 general practitioners (GPs) each report details of 100 consecutive general practice encounters of all types on structured encounter forms. Each form collects information about the consultations (for example, date and type of consultation), the patient (for example, date of birth, sex and reasons for encounter), the problems managed and the management of each problem (for example, treatment provided, prescriptions and referrals). Data on patient risk factors, health status and GP characteristics are also collected.

Data availability: Annual from 1998–99 onwards

Further information: Britt H et al. 2008

Child Dental Health Survey

The Child Dental Health Survey is an annual survey that monitors the dental health of children and young people enrolled in school dental services operated by the Australian state and territory health departments. This survey represents the only data routinely collected by all states and territories on child dental health.

Data for the Child Dental Health Survey are derived from routine examinations of children enrolled in the school dental services. The survey collects information on selected demographic characteristics and dental health status, including decay experience of deciduous and permanent teeth, immediate treatment needs (some states and territories only) and fissure sealants.

Data availability: Annual from 1990

Further information: AIHW DSRU: Armfield et al. 2007

Juvenile Justice National Minimum Data Set (JJ NMDS)

The JJ NMDS is the annual national collection of information on young people in community supervision and detention in Australia. It contains flow data from 2000–01 for all states and territories in Australia (except the Australian Capital Territory—data are available from 2003–04). Data are provided by the department responsible for juvenile justice in each jurisdiction. The JJ NMDS is designed to provide relevant and comparable information that will contribute to the national monitoring of juvenile justice policies and programs.

Information collected includes the number and characteristics of young people in juvenile justice supervision (age, sex, Indigenous status), patterns of supervision (type, length, location), and juvenile justice detention centre characteristics.

Data availability: Annual from 2000–01 onwards

Further information: <www.aihw.gov.au/phjj/juvenilejustice/index.cfm>

Australian Cancer Database (ACB)

The Australian Cancer Database, formally known as the National Cancer Statistics Clearing House, collects information on the incidence of cancer in the Australian population. The data are provided by the state and territory cancer registries to the ACB, which is maintained by the AIHW. The ACB is the only national database of cancer incidence in Australia. It contains information on incidence, mortality, specific cancer sites, cancer histology, geographical variation, trends over time and survival.

Data items enable record linkage to be performed (for example, to the National Death Index) and the analysis of cancer by site and behaviour.

Data availability: Annual from 1982 onwards

Further information: <www.aihw.gov.au/cancer/index.cfm>

National Diabetes Register (NDR)

The NDR, held at the AIHW, is a register of people living in Australia with insulin-treated diabetes. This includes persons using insulin to manage Type 1, Type 2, gestational and other types of diabetes. People are eligible to be on the NDR if they use insulin to treat their diabetes and their insulin use began on or after 1 January 1999.

The NDR has two main data sources:

- the National Diabetes Services Scheme database, administered by Diabetes Australia
- the Australasian Paediatric Endocrine Group's state and territory databases.

Data availability: Annual from 1999 onwards

Further information: <www.aihw.gov.au/diabetes/ndr.cfm>

Supported Accommodation Assistance Program (SAAP) National Data Collection

The SAAP National Data Collection has provided annual information on the provision of assistance through SAAP since 1996–97. The AIHW has had the role of National Data Collection Agency since the collection's inception. The National Data Collection consists of distinct components, each of which can be thought of as a separate collection—the Client Collection, the Administrative Data Collection and the Demand for Accommodation Collection.

The Client Collection collects information about all clients receiving SAAP support of at least 1-hour duration. Data collected include basic sociodemographic information and information on the services requested by, and provided to, each client. Information about each client's situation before and after receiving SAAP support is also collected. The Administrative Data Collection provides information about the agencies providing SAAP accommodation and support services. The Demand for Accommodation Collection is conducted twice a year for two 1-week periods. It measures the level of unmet demand for SAAP accommodation by collecting information about the number of requests for accommodation from SAAP agencies that are not met, for whatever reason.

Data availability: Annual from 1996–97 onwards

Further information: <www.aihw.gov.au/housing/sacs/saap/index.cfm>

ABS data sources

ABS Counting the Homeless

Counting the Homeless (ABS Cat. No. 2050.0) is the results of a research program. This research program was funded by: the Salvation Army; the Department of Community Services (NSW); the Department of Human Services (Vic); the Department of Families (Qld); the Department of Human Services (SA); the Department for Community Development (WA); the Department of Health and Human Services (Tas); Youth and Community Services (ACT); and in the Northern Territory by the Departments of Health and Community Services and Community Development, Sport and Cultural Affairs.

The analysis of the ABS Census of Population and Housing is supplemented by information from the AIHW Supported Accommodation Assistance Program (SAAP) National Data Collection Agency. The project also uses supplementary data on homeless young people throughout Australia. This information was collected through a national census of homeless school students.

Data availability: 2001 and 2006

Further information:
<www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/57393A13387C425DCA2574B900162DF0/$File/20500-2008Reissue.pdf>

ABS Census of Population and Housing

The Census aims to provide an accurate measure of the number of people in Australia on Census night, their key demographic, social and economic characteristics, and the dwellings in which they live. The Census reports on a range of topics including population, cultural diversity, community, living arrangements, education, work, economic resources and housing.

Data availability: 1911 onwards; 5-yearly from 1976

Further information:

<www.abs.gov.au/websitedbs/D3310114.nsf/Home/census?opendocument?utm_id=GT>

ABS General Social Survey (GSS)

The ABS conducted the GSS in 2002 and 2006, with plans to repeat the survey at 4-yearly intervals. The aims of the GSS are to collect data on a range of social dimensions of the

Australian community at a single point in time; enable analysis of the interrelationship of social circumstances and outcomes, including the exploration of multiple advantage and disadvantage; and provide a base for comparing social circumstances and outcomes over time and across population groups.

The focus of the GSS is on the relationships between characteristics from different areas of social concern, rather than in-depth information about a particular field. Topics include demographic characteristics, health and disability, housing, education, work, income, financial stress, assets and liabilities, information technology, transport, family and community, crime and feelings of safety, attendance at culture and leisure venues, sports attendance and participation, social networks and social participation, voluntary work and visa category.

Data availability: 2002 and 2006

Further information: ABS 2007a or <www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4159.0Main+Features12006?OpenDocument>

ABS Labour Force Survey (LFS)

The Labour Force Survey collects information on labour market activity of the usual resident civilian population of Australia aged 15 years and over. The survey collects information on sociodemographics, persons in the labour force (for example, labour force status, unemployment rate, participation rate), employed persons (for example, status of employment in main job (full-time or part-time), hours worked, job tenure, underemployment, occupation and industry in main job), unemployed persons (for example, whether looking for work, reason for ceasing last job, duration of unemployment) and persons not in the labour force (for example, whether looking for work, permanently unable to work).

Data availability: Quarterly from 1960–1968 and monthly from February 1978 onwards

Further information: <www.abs.gov.au/websitedbs/c311215.nsf/o/BF6068ABC64802DECA256BD500169F18?Open>

ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The ABS 2004–05 NATSIHS provides information about the health circumstances of Indigenous Australians. This survey, which was conducted in remote and non-remote areas throughout Australia, collected information from Indigenous Australians about health-related issues, including health status, risk factors and actions, and socioeconomic circumstances. The sample size was considerably larger than the supplementary Indigenous sample in the 2001 National Health Survey.

The aims of the survey were to provide broad information about the health of Indigenous Australians, by remoteness, and at the national and state/territory levels; allow the relationships across the health status, risk factors and health-related actions of Indigenous Australians to be explored; provide comparisons over time in the health of Indigenous Australians; and provide comparisons with results for the non-Indigenous population from the 2001 and 2004–05 National Health Survey.

Data availability: 2001 and 2004–05

Further information: ABS 2006c or <www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4715.0Main+Features12004-05?OpenDocument>

ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

The 2008 NATSISS was conducted between August 2008 and April 2009. Information was collected from approximately 13,300 Indigenous Australians living in both remote and non-remote areas, including discrete communities.

The 2008 NATSISS provides information on a range of demographic, social, environmental and economic indicators, including: personal and household characteristics; geography; language and cultural activities; social networks and support; health and disability; education; employment; financial stress; income; transport; personal safety; and housing.

Data on children was collected for the 2008 NATSISS from a parent or guardian.

The 2002 NATSISS was conducted between August 2002 and April 2003. Information was collected by personal interview from about 10,000 Aboriginal and Torres Strait Islander people aged 15 years and over throughout Australia, including those living in remote areas.

Data availability: 2002 and 2008

Further information: <www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4714.0Main+Features12002?OpenDocument>

ABS National Health Survey (NHS)

The 2007–08 NHS was conducted between August 2007 to June 2008 and collected information from around 21,000 people. Both urban and rural areas in all states and territories were included, but very remote areas of Australia were excluded. One person aged 18 years and over in each dwelling was selected and interviewed about their own health and, if there were children resident, an adult was asked about the health of one child.

The NHS collected information on the health status of the population, and on health-related aspects of people's lifestyles such as, smoking, diet, exercise and alcohol consumption. Other information on the use of health services (such as, consultations with health practitioners, visits to hospital, days away from work and other actions people have recently taken for their health) was also collected, along with demographic and socioeconomic characteristics.

Data availability: 1977–78, 1983, 1989–90, 1995, 2001, 2004–05, 2007–08

Further information: <www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0Main+Features12007-2008%20(Reissue)?OpenDocument>

ABS National Survey of Mental Health and Wellbeing (SMHWB)

The SMHWB was conducted by the ABS from August to December 2007. The survey collected information from approximately 8,800 Australians aged 16–85 years. The survey provides information on the prevalence of selected lifetime and 12-month mental disorders, by major disorder groups—anxiety disorders (for example social phobia), affective disorders (for example depression), and substance use disorders (for example alcohol harmful use). The survey also provides information on the level of impairment, health services used for

mental health problems, physical conditions, social networks and caregiving, as well as demographic and socioeconomic characteristics.

The survey was based on a widely-used international survey instrument, developed by the World Health Organization (WHO) for use by participants in the World Mental Health Survey Initiative. Most of the survey was based on the international survey modules, however, some modules, such as, Health Service Utilisation, were tailored to fit the Australian context.

In 1997 the ABS conducted the National Survey of Mental Health and Wellbeing of Adults. Due to differences in how the data were collected, data from 1997 are not strictly comparable with the results from 2007.

Data availability: 1997 and 2007

Further information:
<www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4326.0Main+Features12007?OpenDocument>

Discussion of issues between 1997 and 2007 surveys

<http://www.abs.gov.au/ausstats/abs@.nsf/Products/4326.0~2007~Appendix~Comparison+between+1997+and+2007+%28Appendix%29?OpenDocument#1421131413109948>

ABS National Voluntary Work Survey

The National Voluntary Work Survey conducted throughout Australia from March to July 2006 was part of the General Social Survey (GSS). The major aim of the voluntary work module (referred to here as the Voluntary Work Survey) was to collect data on rates of participation in voluntary work, the characteristics of people who volunteered the types of organisations for which they worked, the activities they undertook, as well as data about the motivation for volunteering. Two similar national voluntary work surveys have been conducted by the ABS before—the first as part of the Monthly Population Survey in 1995, and the second on the Population Survey Monitor conducted over four quarters in 2000. The information collected in the 2006 survey is mostly a repeat of the 2000 Voluntary Work Survey. However, in 2006 for the first time, data have also been collected on informal unpaid community work—caring for people with a disability and providing assistance to relatives, friends and others in the wider community. Information on whether people made monetary donations to organisations was also collected in 2006, as in the 2000 survey.

Data availability: 1995, 2000 and 2006

Further information:
<www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4441.0Explanatory%20Notes12006?OpenDocument>

ABS Recorded Crime—Victims

Recorded crime—victims, Australia is an annual publication that presents national crime statistics relating to victims of a selected range of offences that have been recorded by police. These statistics provide indicators of the level and nature of recorded crime victimisation in Australia and are a basis for measuring change over time. The statistics for the publication are derived from administrative systems maintained by state and territory police.

Data availability: Annual from 1993

Further information:

<www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/DA3DED213BAE8114CA257178001B6949?opendocument>

ABS Survey of Disability, Ageing and Carers (SDAC)

The SDAC collects information about people of all ages with a disability, older people (aged 60 years and over), and people who provide assistance to older people and people with disabilities.

The aims of the survey are to measure the prevalence of disability in Australia and the need for support of older people and those with a disability; provide a demographic and socioeconomic profile of people with disabilities, older people and carers compared with the general population; and to estimate the number of, and provide information about, people who provide care to older people and people with disabilities. People with disability were asked questions relating to help and assistance needed and received for self-care, mobility and communication. Those aged 5–20 years (or their proxies) were also asked about schooling restrictions and 15–64 year olds about employment restrictions.

The most recent survey was conducted in 2009, with results from this survey expected to be available in time for inclusion.

Data availability: 1981, 1988, 1993, 1998, 2003, 2009

Further information:

<www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4430.0Main+Features12003?OpenDocument>

ABS Survey of Education and Work (SEW)

The Survey of Education and Work is conducted throughout Australia in May each year as a supplement to the monthly Labour Force Survey (LFS).

The SEW provides a range of key indicators of educational participation and attainment of persons aged 15–64 years, along with data on people's transition between education and work. The survey specifically provides information on people currently participating in education, highest year of schooling, level and field of highest non-school qualification; characteristics of people's transition between education and work and data on apprentices.

Data availability: Annual from 1964 onwards

Further information:
<www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6227.0Main+Features1May%202008?OpenDocument>

ABS Survey of Income and Housing (SIH)

The ABS SIH (previously known as the Survey of Income and Housing Costs) is a household survey that collects information from residents aged 15 years and over on sources of income and amount received, and also housing, household and personal information. In 2007–08, the sample for the SIH was around 10,000 households.

As income received by individuals is often shared between members of a household, equivalised household income can be used in analysis of the SIH. This survey allows analysis of the amount of income received and the source of that income, and how factors such as, these vary depending on age, state or territory, the remoteness of the household, or

household size. It is also possible to examine housing circumstances such as, the rate of home ownership among various groups.

Data availability: Most years from 1994–95 to 2003–04 (no survey was run in 1998–99 or 2001–02), 2005–06, 2007–08

Further information:

<www.abs.gov.au/AUSSTATS/abs@.nsf/DOSSbyTopic/F0CDB39ECC092711CA256BD00026C3D5?OpenDocument>

ABS Underemployed Workers Survey

The Underemployed Workers (UEW) survey provides information about workers who are not fully employed, that is part-time workers who indicate that they would prefer to work more hours, and full-time workers who did not work full-time hours in the reference period for economic reasons. While basic data on underemployment are available from the Labour Force Survey (LFS), this supplementary survey provides greater detail on the characteristics and the job search activities of labour underutilisation.

This survey is conducted as part of the Monthly Population Survey, which comprises the LFS and, in most months, a supplementary survey topic.

Data availability: 1985, 1988 and 1991. In 1994, the survey became an annual survey, collected each September. There was a break in series in 2008 to align with LFS.

Further information:

<www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6265.0Sep%202008?OpenDocument>

Other data sources

Australian Institute of Criminology National Homicide Monitoring Program (NHMP)

The Australian Institute of Criminology has operated the NHMP since 1990.

The purpose of the program is to identify the characteristics of individuals that place them at risk of homicide victimisation and offending, and the circumstances that contribute to the likelihood of a homicide occurring. The two main data sources used by the program are police records and coronial files.

Data availability: Annual from 1989–90 onwards

Further information: <www.aic.gov.au/research/projects/0001.html>

Australian Secondary Students' Alcohol and Drug (ASSAD) Survey

The ASSAD Survey is a triennial secondary school-based survey that monitors the use of tobacco, alcohol and other substances among adolescents in Australia. The first survey was conducted by the Cancer Councils in each Australian state and territory in 1984, and was restricted to secondary school students' use of tobacco and alcohol. In 1996, the federal, state and territory health departments became collaborators with the Cancer Councils, and the survey was expanded to include questions on the use of illicit substances.

The 2008 survey collected information from a representative sample of 21,805 secondary school students in Years 7–12 across Australia. The questionnaire covers the use of tobacco, alcohol, pain relievers, sleeping tablets and the use of illicit substances such as, cannabis and hallucinogens.

Data availability: 1984, 1987, 1993, 1993, 1996, 1999, 2002, 2005, 2008

Further information:
<www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=7Monographs&SUBMIT=Search> (see Monograph series nos. 58, 59 and 60)

Australian Transport Safety Bureau Fatal Road Crash Database

The Fatal Road Crash Database contains information on road transport crash fatalities in Australia, as reported by the police each month to the state and territory road safety authorities.

The data can be examined by either fatalities or fatal crashes. Information collected for fatal crashes includes date, location and type of crash. Information collected for fatalities includes age, gender and road user type.

Data availability: Annual from 1988

Further information:
<www.infrastructure.gov.au/roads/safety/road_fatality_statistics/fatal_road_crash_database.aspx>

Burden of Disease and Injury Study

The Burden of Disease and Injury Study is intended to provide a comprehensive view of the extent and distribution of health problems in Australia, and to also assess the contribution of key health risk factors. The 2003 study is the second study of this type, the first having been released in 1999. This study presents information on the disability-adjusted life years (DALYs) associated with common conditions, such as, diabetes and injuries, with breakdowns by population groups. Data are also presented on the health risks to Australians, such as, nutrition, violence and drug use.

The data for the Burden of Disease and Injury Study was drawn from national minimum data sets, various specific disease studies and surveys of general population health.

Data availability: 1999, 2003

Further information: <http://www.aihw.gov.au/publications/index.cfm/title/10317>

Household, Income and Labour Dynamics in Australia (HILDA) survey

The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs and is managed by the Melbourne Institute of Applied Economic and Social Research.

The HILDA Survey is a longitudinal household-based panel survey that began in 2001. It aims to describe the way people's lives are changing by tracking all members of an initial sample of households over an indefinite period. Wave 8 (2008) data were available as at August 2009. Data are collected on a wide range of issues, including household structure, family background, marital history, family formation, education, employment history, current employment, job search, income, health and wellbeing, child care and housing. In addition, in every wave there is scope for additional questions on special topics. Interviews are conducted with all persons in the household aged 15 years and over, although information may be collected on persons aged under 15 years from other household members.

Data availability: Annual from 2001 onwards

Further information: <www.melbourneinstitute.com/hilda>

National Children's Physical Activity and Nutrition Survey

This survey was conducted in 2007 by the Commonwealth Scientific and Industrial Research Organisation and the University of Adelaide, with funding from the Australian Government Department of Health and Ageing, and the Department of Agriculture, Fisheries and Forestry, and the Australian Food and Grocery Council.

The survey collected comprehensive information on overweight and obesity, physical activity and nutrition from more than 4,000 children aged 2–16 years. The survey data can be measured against Australia's Nutrient Reference Values, the Australian Dietary Guidelines for Children and the Australian Physical Activity Guidelines. As demographic information was not collected for those who refused to participate in this survey, it is not possible to estimate non-response bias.

Data availability: 2007

Further information: <www.kidseatkidsplay.com.au/>

National Notifiable Diseases Surveillance System (NNDSS)

The NNDSS was established in 1990 by the Communicable Diseases Network of Australia and New Zealand (CDNANZ). Notifications are made to state or territory health authorities under the provisions of the public health legislation in their jurisdiction. Computerised, de-identified unit records of notifications are supplied to the Australian Government Department of Health and Ageing on a daily basis for collation, analysis and publication on the internet and in the *Communicable Diseases Intelligence* journal. Data provided for each notification include a unique record reference number, state or territory code, disease code, date of onset, date of notification to the relevant health authority, sex, age, Indigenous status and postcode of residence.

The quality and completeness of data compiled in the NNDSS are influenced by various factors—surveillance of communicable diseases varies between jurisdictions and the case definition may also vary between jurisdictions. Therefore, the proportion of diagnosed cases of a particular disease which are notified to health authorities is not known with certainty and may vary among diseases, between jurisdictions and over time.

Data availability: 1991 onwards

Further information: <www9.health.gov.au/cda/Source/CDA-index.cfm>

National Prison Census

The National Prison Census was established in 1983 by the Australian Institute of Criminology, and since 1995 has been maintained by the Australian Bureau of Statistics. The National Prison Census collects information on the 30th of June each year, from all adult prisoners held in prisons or police lock-ups. The data collected covers age, sex, legal status, most serious offence/charge, and sentence length. This collection covers sentenced and unsentenced prisoners, Indigenous prisoners and periodic detainees.

Data availability: 1983 onwards

Further Information:
<http://www.abs.gov.au/ausstats/abs@.nsf/DoSSbyTopic/8724931436CDF784CA256BD00027E909?OpenDocument>

National Sun Survey of Australians

The second National Sun Survey of Australians was conducted in 2006–07 by the Centre for Behavioural Research at the Cancer Council Victoria. This survey was a follow-up to the first National Sun Survey conducted in 2003–04. The National Sun Survey looks at the sun safety behaviours of the Australian population, such as, wearing hats and protective clothing, and attempts at tanning.

Data availability: 2003–04 and 2006–07

Further information:

<http://www.canceraustralia.gov.au/about-us/priorities-and-programs/cancer-policy-and-planning.aspx>

National Survey of Secondary Students and Sexual Health

The National Survey of Secondary Students and Sexual Health has been conducted every 5 years throughout Australia since 1992. The fourth survey, conducted in 2007, involved 2,926 students in Year 10 and Year 12 in all states and territories, and included government, Catholic, and independent schools. The surveys are designed to inform educational policy and practice within the domain of sexual health.

The 2007 questionnaire collected information on students' personal experiences of sex, sexual attraction, condom use, alcohol and injecting drug use, body piercing, tattooing, general health, sources of information on sexuality and sexual health, and feelings and confidence in talking to peers and parents/guardians about a range of sexual matters. Detailed information was also collected on knowledge and perceived risk of HIV/AIDS, sexually transmitted infections and bloodborne viruses.

Data availability: 1992, 1997 and 2002, 2007

Further information: Smith et al. 2003

Appendix A

Table A1.1: Mapping key national indicators for young people's health and wellbeing to NHPF and COAG indicators

Indicator		COAG or NHPF Indicator
	Tier 1: Health status	
	Wellbeing	
Physical and mental wellbeing	Proportion of young people aged 15–24 years rating their health as 'excellent', 'very good', or 'good'	NHPF: Perceived Health Status
	Human function	
Disability and activity limitation	Proportion of young people aged 15–24 years with severe or profound core activity limitation	NHPF: Severe or profound core activity limitation
Burden of disease and injury	Burden of disease and injury among young people aged 15–24 years	
	Deaths	
Deaths	Death rates for young people aged 12–24 years	COAG: age-standardised mortality
	Health conditions	
Mental health	Proportion of young people aged 16–24 years having high or very high levels of psychological distress as measured by the Kessler 10 (K10) scale	NHPF: Psychological Distress
	Prevalence of mental health disorders among young people aged 16–24 years	Contextual information will be presented that is relevant to the 'COAG: Treated prevalence rates for mental illness' indicator
Injury and poisoning	Injury and poisoning death rate for young people aged 12–24 years	COAG: Hospitalisation for injury and posioning
	Road transport accident death rate for young people aged 12–24 years	NHPF: Potentially Avoidable Deaths
	Assault death rate for young people aged 12–24 years	NHPF: Potentially Avoidable Deaths
	Suicide rate for young people aged 15–24 years	NHPF: Potentially Avoidable Deaths
	Accidental poisoning death rate for young people aged 12–24 years	NHPF: Potentially Avoidable Deaths
	Injury and poisoning hospitalisation rate for young people aged 12–24 years	COAG: Hospitalisation for injury and posioning, and Potentially avoidable hospitalisations
Chronic conditions	Prevalence of long term conditions among young people aged 12–24 years	
	Proportion of young people aged 12–24 years with asthma as a long-term condition	Data relevant to the COAG indicators on asthma treatment will be presented as supplementary information.

(continued)

Table A1.1 (continued): Mapping key national indicators for young people's health and wellbeing to NHPF and COAG indicators

Indicator		COAG or NHPF Indicator
Chronic conditions	Incidence of diabetes among young people aged 15–24 years	
	Incidence of cancer per 100,000 young people aged 12–24 years	NHPF: incidence of selected cancers
Communicable diseases	Incidence of vaccine-preventable diseases among young people aged 12–24 years	COAG: Immunisation rates for vaccines in the national schedule. NHPF: Immunisation rates for vaccines in the national schedule. While immunisation rates are not a national indicator for youth (it is a Children's Headline Indicator, and was reported on in *A picture of Australia's children, 2009*), immunisation rates will be provided as supplementary information in the section on incidence of vaccine-preventable diseases.
	HIV infection notification rate for young people aged 12–24 years	NHPF: Incidence of sexually transmitted infections and bloodborne viruses COAG: Incidence of sexually transmitted infections and bloodborne viruses
	Hepatitis A, B and C notification rates for young people aged 12–24 years	NHPF: Incidence of sexually transmitted infections and bloodborne viruses COAG: Incidence of sexually transmitted infections and bloodborne viruses
	Incidence of notifiable sexually transmissible infections (STIs) among young people aged 12–24 years	NHPF: Incidence of sexually transmitted infections and bloodborne viruses COAG: Incidence of sexually transmitted infections and bloodborne viruses
Oral health	Proportion of young people aged 12–15 years decay-free	
	Mean number of decayed, missing or filled teeth (DMFT) at 12 and 15 years	

(continued)

Table A1.1 (continued): Mapping key national indicators for young people's health and wellbeing to NHPF and COAG indicators

Indicator		COAG or NHPF Indicator
	Tier 2: Determinants of Health	
	Health behaviours	
Overweight and obesity	Proportion of young people who are overweight or obese	NHPF: Overweight and obesity COAG: Proportion of persons obese
Physical activity	Proportion of young people aged 12–24 years meeting the National Physical Activity Guidelines	NHPF: physical inactivity
Nutrition	Proportion of young people aged 12–24 years meeting Australian dietary guidelines	NHPF: fruit and vegetable intake
Sun protection	Proportion of young people aged 12–24 years using sun protection	
Substance use	Reported rate for substance use disorders for young people aged 12–24 years	
	Proportion of young people aged 14–24 years who are daily smokers	COAG: Proportion of adults who are daily smokers NHPF: Adult smoking
	Proportion of young people aged 12–17 years who have engaged in risky drinking on any one occasion	NHPF: Risky Alcohol consumption
	Proportion of young people who drink at high-risk levels in the short or long-term	COAG: Proportion of adults who are at risk of long-term harm from alcohol NHPF: Risky Alcohol consumption
Other substance use	Proportion of young people aged 12–24 years who had used an illicit drug within the last 12 months	
Sexual and reproductive health	Proportion of young people in Year 10 and Year 12 who have had sexual intercourse	
	Proportion of young people in Year 10 and Year 12 who used a form of contraception at their most recent sexual encounter	
	Age-specific birth rate for 15–19 year old women	
	Community and socioeconomic factors	
Family cohesion/Family functioning	Under development	
Parental health and disability	Proportion of parents rating their health as 'fair' or 'poor'	NHPF: Perceived Health Status
	Proportion of young people aged 15–24 years living with parents with disability	
	Proportion of parents with a mental health problem	
Social capital	Proportion of young people aged 18–24 years who are able to get support in a time of crisis from persons living outside the household	
Community and civic participation	Community participation rate among young people aged 18–24 years	
	Proportion of 17 and 18 year olds who have registered to vote	

(continued)

Table A1.1 (continued): Mapping key national indicators for young people's health and wellbeing to NHPF and COAG indicators

Indicator		COAG or NHPF Indicator
School relationships and bullying	Under Development	
Child protection	Rate of young people aged 12–17 years who were the subject of a substantiation of a child protection notification received in 2008–09	
	Rate of young people aged 12–17 years who are the subject of care and protection orders	
Victims of violence	Rate of young people aged 15–24 years who have been the victim of physical or sexual assault	
	Alcohol- and drug-related violence victimisation rate for young people aged 14–24 years	
Homelessness	Proportion of young people aged 12–24 years who are homeless	
Young people and crime	Rate of young people aged 12–17 years who are under juvenile justice supervision	
	Rate of imprisonment for young people aged 18–24 years	
Education	Proportion of young people in Years 7 and 9 achieving at or above the national minimum standards for literacy and numeracy	NHPF: educational attainment for selected school years and adults
	Apparent retention rate from Year 7–8 to Year 12	NHPF: educational attainment for selected school years and adults
		COAG 20–24 year olds have attained Year 12 or equivalent or Certificate II or above
	Proportion of young people aged 15–24 years undertaking or with post-school qualifications	NHPF: educational attainment for selected school years and adults
		COAG 20-24 year olds have attained Year 12 or equivalent or Certificate II or above
Employment	Full-time participation rate of young people aged 15–24 years in study or work	
	Unemployment rate for young people aged 15–24 years	
Income	Proportion of young people aged 15–24 years receiving government income support	
	Proportion of young people aged 15–24 years who experience financial stress	
Socioeconomic status of parents	Proportion of young people aged 12–24 years living in jobless families	
	Proportion of young people aged 12–24 years whose parents did not complete secondary school (Year 10 or above).	
	Environmental factors	
Environmental tobacco smoke	Proportion of young people aged 12–17 years who live in households where adults smoked inside	NHPF: Children exposed to tobacco smoke in the home

(continued)

Table A1.1 (continued): Mapping key national indicators for young people's health and wellbeing to NHPF and COAG indicators

Indicator		COAG or NHPF Indicator
Housing Environment	Proportion of young people aged 15–24 years who live in overcrowded housing	
	Tier 3: Health system performance	
Potentially avoidable hospitalisation	Ambulatory care sensitive conditions hospitalisation rate for young people aged 12–24 years	
Teenage purchase of cigarettes or alcohol	Percentage of teenage smokers aged 12–17 years who personally purchased their cigarette	
	Percentage of teenage drinkers aged 12–17 years who personally purchased their alcohol	
Survival of melanoma of the skin	Five-year relative survival rates for melanoma of the skin for young people aged 12–24 years	NHPF: Survival of people diagnosed with cancer COAG: Survival of people diagnosed with cancer
Cervical cancer	Cervical screening rates among women aged 20–24 years	COAG: cervical screening rates NHPF: Cancer screening rates
	Cervical cancer vaccination rates among women aged 12–24 years	
Appropriate use of antibiotics	Proportion of prescriptions for oral antibiotics ordered by general practitioners for the treatment of upper respiratory tract infections	
Delivery by caesarean section	Caesarean sections as a proportion of all confinements of young women aged 15–24 years	
General practitioner consultations	Rate of general practice encounters for young people aged 12–24 years.	
Waiting times in emergency departments	Percentage of patients aged 12–24 year olds who are treated within national benchmarks for waiting in public hospital emergency departments for each triage category	
Adverse events treated in hospitals	Proportion of hospitalisations for young people aged 12–24 years where an adverse event was treated and/or occurred	NHPF: Adverse events treated in hospitals COAG: Adverse drug events in hospitals

NHPF: National Health Performance; COAG: Council of Australia's Governments Performance Indicators.

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