



TECHNICAL REPORT

The Wellbeing of Young Australians



Australian Research Alliance
for Children & Youth

Working together to enhance
the wellbeing and life chances of
children and young people



The Allen Consulting Group

About this Report

This report sets out the evidence supporting the ARACY Report Card on the wellbeing of young Australians.

The summary Report Card is available on the ARACY website:

www.aracy.org.au/reportcard

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Executive summary

Introduction

Childhood is the most critical stage in human development. Research from fields including neuroscience, child development and economics provides evidence of how experiences during childhood and youth can influence a range of outcomes later in life.

Understanding how children and young people are developing can help governments and policy makers to identify gaps in the wellbeing of children and young people, and to anticipate emerging social, health and economic issues. Many governments and non-government organisations (NGOs) around the world use report cards to identify issues affecting early life. The purpose of many of these report cards is, as UNICEF observes, to enable improvement in children's lives:

What is to be gained by measuring and comparing child well-being in different countries? The answer lies in the maxim 'to improve something, first measure it'.

UNICEF 2007, p. 3

In recent years considerable progress has been made in developing measures that can be used to assess the wellbeing of children and young people. The Allen Consulting Group was commissioned by the Australian Research Alliance for Children and Youth (ARACY) to contribute to this research by developing a report card on the wellbeing of young Australians. This technical report includes the background information and data for the ARACY Report Card, and a summary document is also available.

The ARACY Report Card is unique, because it compares indicators of wellbeing for children and young people (aged 0–24 years) for the total Australian population, the Indigenous Australian population and international comparators. This comparison provides an international 'barometer' of the health and wellbeing of children and young people that can be used to guide policy direction in Australia.

The ARACY Report Card indicates Australia's strengths and weaknesses, and points to areas where policies are required to improve outcomes for children and young people. As the UNICEF report card states:

Above all, such comparisons demonstrate that given levels of child well-being are not inevitable but policy-susceptible.

UNICEF 2007, p. 3

Developing the ARACY Report Card

Policy makers have begun to emphasise that prevention and early intervention programs are key strategies to improve the health and wellbeing of children and young people, and valuable ways to better manage demand for social and human services. Scientific and economic evidence suggests that childhood and youth are the periods during which prevention and early intervention are most effective. A report card of wellbeing during childhood and youth, then, should assist policy makers to identify areas where prevention or intervention strategies could be employed to maximum effect.

To provide a consistent framework for international comparison, the ARACY Report Card on the wellbeing of young Australians is based on the UNICEF domains of health and wellbeing: material wellbeing, health and safety, educational wellbeing, family and peer relationships, behaviour and risks, and subjective wellbeing. In addition to these six domains, the ARACY Report Card also includes 'participation' as a domain, consistent with the approach adopted in the European Union's Index of Child Wellbeing (Bradshaw et al. 2006a) and an environmental domain to reflect the importance of environment on health and wellbeing.

The ARACY Report Card consists of three levels of measurement:

- first, the Report Card is based on eight *domains*
- below this, each domain contains *indicators* (30) that divide each domain into key areas of focus
- underneath each indicator are a number of *measures* (42) that provide the basis for evaluating and comparing the wellbeing of children and young people from different countries.

Main summary points

Gaps in information

The ARACY Report Card presents measures that are comparable across countries, but finding consistent data was challenging. Many useful measures were eliminated from the Report Card due to inconsistency in definitions, age groupings, and data collection standards. Despite these limitations, the Report Card provides a comprehensive 'picture' of the wellbeing of children and young people in Australia, and provides a comparison against international standards.

Summary findings

Overall the report shows that Australian children are faring relatively well in each of the reporting domains, although consistently not as well as children from the best international comparator. In Australia, Indigenous children do not fare as well as non-Indigenous children, and fare substantially less well than the best comparators internationally. This disparity holds true for nearly every indicator and every measure for which data were available.

Table 1.1 provides a summary of findings by each of the eight domains.

Tables 1.2 and 1.3 provide a summary of Australia's position, compared to other OECD nations.

Table 1.1

SUMMARY FINDINGS

| Domain | Indicators measured | Summary findings |
|-------------------------------|---|--|
| Material wellbeing | <ul style="list-style-type: none"> Poverty Jobless households Reported deprivation | Australia has poorer results than the best international comparators for all measures in this domain. For reported deprivation, Indigenous Australians have a significantly higher rate than the total Australian population. Data for Indigenous Australians were not available for the other two indicators. |
| Health and safety | <ul style="list-style-type: none"> Infant health Immunisation Mental health Accident/injury Child abuse and neglect | The health and safety of Australian children does not compare favourably with the best international result for four of the five indicators — the exception is immunisation. Indigenous Australian children have significantly higher rates of infant mortality and low birth weight than the total Australian population and the best international comparator. Data for Indigenous Australians were not available for selected measures of mental health, injury, and child abuse and neglect. |
| Educational wellbeing | <ul style="list-style-type: none"> Early childhood development School achievement Adult literacy School retention Transition to employment | Australians compare well on measures of school achievement at age 15 years compared with the best international comparators. Australia also compares well with Canada (the only comparator available) for the indicator which measures early childhood development. However, Australians do not attain the level of educational wellbeing experienced by the best international comparators for the other indicators. Data for Indigenous children were only available for the school achievement indicator, for which Indigenous Australians consistently perform less well than the total Australian population and the best international comparator. |
| Peer and family relationships | <ul style="list-style-type: none"> Family relationships Sense of belonging | On measures of family relationships, Australian children do not reach levels reported by the best international comparators. However, on these indicators, Indigenous children compare well with the total Australian population. For the sense of belonging indicator there are mixed results. While all Australian children report levels of belonging comparable with the best international finding, at age 15 Australian young people — and in particular Indigenous young people — report higher levels of feeling awkward and out of place at school. |
| Behaviours and risks | <ul style="list-style-type: none"> Overweight and obesity Cigarette smoking Harmful alcohol use Teenage fertility Crime Illicit drug use Road deaths | Australian children and young people — particularly Indigenous Australians — do not fare as well as their best international comparators for indicators related to obesity, cigarette smoking, and teenage fertility. For teenage fertility Indigenous rates are more than four times the rate in the general population. The Australian population has much higher rates of harmful use of alcohol (at age 16), illicit drug use and road deaths than the best international comparators. (Data for Indigenous Australians were not available for these indicators.) In Australia, Indigenous young people experience significantly higher rates of juvenile justice supervision than young people from the total Australian population. International data are unavailable for this indicator. |
| Subjective wellbeing | <ul style="list-style-type: none"> Self-reported health | The percentage of Australian young people (including Indigenous young people) satisfied with their health compares well with the level experienced by the best international comparator. |
| Participation | <ul style="list-style-type: none"> Community participation Political interest | Australian children (age 14) do not participate in community activities or have the same level of political interest as the best international comparator. Data for Indigenous children were not available. |
| Environment | <ul style="list-style-type: none"> Climate change Resource use Biodiversity | Australia is not performing as well as the best international comparator for any of the three indicators in this domain. |

Table 1.2

AUSTRALIAN, INDIGENOUS AND INTERNATIONAL COMPARISONS

| Measure | Comparator Year | OECD/International | | Australian total | | Indigenous Australian | | |
|--|--------------------|--------------------|-------------------|------------------|-------|-----------------------|-------|--|
| | | Average | Range | Result | Rank | Result | Rank | Comments |
| % children reporting having less than 11 books in their home | OECD 2006 | 10.48 | 3.07 - 36.12 | 7.2 | 10/30 | 19.4 | 29/31 | 3 rd from last - Turkey and Mexico below |
| Infant Mortality Rate | OECD 2005 | 5.41 | 2.3 – 23.6 | 5.0 | 20/27 | 11.9 | 26/28 | 3 rd from last – Mexico and Turkey below |
| Low birth weight rate | OECD 2005 | 6.71 | 3.9 – 9.5 *(13.2) | 6.4 | 7/18 | 13.2 | 19/19 | The Indigenous rate is outside the OECD range – this represents a LBW rate significantly worse than the lowest ranking OECD comparator (Japan) |
| Immunised (DTP) | OECD 2005 | 94.58 | 85.7 – 99.8 | 92.3 | 13/18 | 90.5 | 15/19 | |
| Immunised (measles) | OECD 2005 | 91.76 | 82 – 99.8 | 93.4 | 9/18 | 92.1 | 11/19 | |
| Immunised (polio) | OECD 2006 & 2005 | 94.9 | 83 – 99 | 92 | 23/30 | 86 | 30/31 | 2 nd to last – Austria below (Indigenous data is 2005) |
| Intentional self-injury | OECD 2005 | 9.86 | 3.67 – 18.75 | 10.4 | 13/23 | 17.6 | 23/24 | 2 nd to last – Finland below |
| Injury death rate 0-4 years | OECD 2003 | 9.67 | 0 – 17.91 | 11.38 | 7/8 | NA | NA | NA |
| School achievement (reading) | OECD 2006 | 491.72 | 410 – 556 | 513 | 6/29 | 434 | 29/30 | 2 nd to last – Mexico below |
| School achievement (maths) | OECD 2006 | 497.63 | 406 – 548 | 520 | 8/30 | 442 | 29/31 | 3 rd to last – Turkey and Mexico below |

| Measure | Comparator Year | OECD/International | | Australian total | | Indigenous Australian | | |
|---|--------------------|--------------------|-----------------|------------------|-------|-----------------------|-------|---|
| | | Average | Range | Result | Rank | Result | Rank | Comments |
| School achievement (science) | OECD 2006 | 499.93 | 410 – 563 | 527 | 5/30 | 441 | 29/31 | 3 rd to last – Turkey and Mexico below |
| % young people (15-19) not in education, training or employment | OECD 2005 | 2.93 | 0.6 – 5.8 | 3.8 | 17/25 | NA | NA | NA |
| % children reporting eating main meal of day with parents | OECD 2000 | 77.32 | 59.47 – 92.61 | 70.98 | 21/27 | 64.71 | 24/28 | |
| % children reporting parents spend time 'just talking' | OECD 2000 | 58.43 | 41.16 – 89.41 | 51.13 | 18/27 | 52.38 | 17/28 | Better ranking and average than Australian total |
| % children reporting a sense of belonging | OECD 2003 | 79.06 | 43.89 – 91.18 | 86.36 | 9/29 | 88.32 | 4/30 | Better ranking and average than Australian total |
| % students who feel awkward and out of place | OECD 2003 | 9.62 | 4.84 – 17.77 | 8.56 | 11/29 | 17.1 | 29/30 | 2 nd to last – Japan below |
| Fertility rate for females aged 15–19 years | OECD 2006 | 14.97 | 3 – 66 *(69) | 15.4 | 21/30 | 69.3 | 31/31 | Rate is outside OECD range – this represents a fertility rate that is worse than Mexico |

| Measure | Comparator Year | OECD/International | | Australian total | | Indigenous Australian | | |
|--|--------------------|--------------------|--------------|------------------|---|-----------------------|------|----------|
| | | Average | Range | Result | Rank | Result | Rank | Comments |
| Rate of deaths from road accidents (aged 20–24 years) | OECD 2003 | 11.14 | 2.01 – 30.85 | 12.02 | 20/23 | NA | NA | NA |
| % young people (aged 15–24 years) satisfied with their health | OECD 2005 | 87.71 | 63.4 – 97.1 | 93.3 | 4/15 | 91 | 8/16 | |
| % young people (aged 14 years) participating in voluntary activities | International 1999 | 18.18 | 5 – 50 | 33 | 4/28 | NA | NA | NA |
| Total greenhouse gas emissions | OECD 2002 | 9.49 | 2.8 – 20.9 | 17 | 28/30 | NA | NA | NA |
| % of threatened bird species | OECD 2005 | 20.5 | 2 – 50 | 13 | 6/30 (tied for 6 th with 4 other countries) | NA | NA | NA |

Notes: *the Indigenous rate is outside the OECD range,

Table 1.3

INDICATORS WITHOUT RANKING

| Measure | Reason for inability to rank |
|--|--|
| % jobless households with children | Data include combination of 'most recent' years spanning 1995 - 2004 |
| Non-accidental death <19 | Data shows a three year average |
| % young people (aged 18–24 years) who are 'obese' for age and sex | Data contain different age groupings |
| % young people (18–24) who smoke daily | Data contain different age groupings between countries |
| % young people (age 13) who drink at risky levels | Data have different definitions between countries |
| % young people (age 16) who drink at risky levels | Data have different definitions between countries |
| Rate of young people in JJ supervision | Australia data only |
| % of young people (aged 16 years) who have used illicit drugs | Data have different definitions between countries |
| % of young people (aged 18-24 years) who are 'obese' for their age and sex | Data have different age groupings between countries |

Next steps

This report is the first of its kind in Australia — it provides an international perspective and sets a baseline for future report cards.

Many of the challenges encountered when producing this first report may be overcome in the future, so this should be considered a dynamic document which will change as new information becomes available, new data collections are undertaken and standard data definitions are agreed upon. Future developments should not lose sight of the main objectives of the Report Card — to heighten awareness of the lives of Australia's children and young people, and to guide policy direction to improve their health and wellbeing.

Part 1

Background and methods

Chapter 1

Introduction to the Report Card

1.1 Background

In recent years, policy makers and researchers have made considerable progress in developing measures to assess the wellbeing of children and young people. A number of governments and non-government organisations report on how countries and regions perform against measures of wellbeing across a range of domains.

The Allen Consulting Group has been commissioned by the Australian Research Alliance for Children and Youth (ARACY) to help develop a report card on the wellbeing of young people in Australia. The main objective in developing the ARACY Report Card was to use available data of acceptable quality to present a picture of how Australia's children and young people are faring in comparison with the best of our international comparators. An attempt was made to locate and use data to measure wellbeing that allowed comparability between Australia's general population, the Indigenous population and international populations — the best performer of countries in the Organisation for Economic Co-operation and Development (OECD) (where available) or the best international comparator.

The ARACY Report Card is loosely modelled on the UNICEF Innocenti Report Card 7 with that document serving as the foundation for the Australian report card and technical report. In addition, this report draws upon material contained in the Australian Institute for Health and Welfare (AIHW) publication *Key national indicators of children's health, development and well-being; technical report on operational definitions and data issues for A Picture of Australia's Children 2009* (AIHW 2008a) and many other sources.

1.2 Report format

This report consists of two parts. Part 1 describes the background and methods for the report. The background section includes the purpose of a report card, limitations of existing indicators focusing on children and young people, limitations with the ARACY Report Card, characteristics of a suitable report card and a description of what constitutes a 'good' measure. The methods section of Part 1 details the four-step methodology used for the technical report and includes selecting the domains, selecting indicators and measures, expert advice and sourcing data. This section also describes the domains, indicators and measures used in the final report.

Part 2 of the report includes findings from the data analysis and provides a detailed record of the data collected for each of the chosen measures. Each report card domain has an individual chapter. It describes data characteristics including source, type of collection, frequency of collection, and age groupings included in the collection. The report also provides a definition of each measure, the calculations used for reporting the measure and the countries included in the comparison. The findings and analysis are presented graphically and include brief written commentary and a discussion regarding any data limitations or qualifications. Where 'best international' is available, the country achieving that status in the most recent year is included in the graph and in the commentary. Where data is missing for any group, an explanation is given.

Chapter 2

Why measure the wellbeing of young Australians?

2.1 Purpose of a report card on child and youth wellbeing

Childhood is the most critical stage in human development. Research from fields including neuroscience and economics provides evidence of how childhood and youth can influence a range of outcomes later in life.

Robust scientific studies suggest that children establish patterns early in life that can determine their health and wellbeing later in life. In particular, neuroscientific evidence suggests that the ‘neural circuits’ for coping with stress are particularly malleable during the foetal and early childhood period. Consequently, as Melhuish observes, early emotional experiences can ‘literally become embedded in the architecture of the brain’ (Melhuish 2004). Some children’s brains have been shown to display the same changes as seen in an adult with clinical depression. Trauma and severe stresses encountered in a child’s living environment therefore have a fundamental impact on their development. In an overview of this evidence, Mustard concludes that:

...child development and experience-based brain development in the very early years of life sets biological pathways that affect cognition, behaviour (violence), capacity to learn, memory, and physical and mental health throughout the life cycle. How societies understand and apply the new knowledge about factors influencing early child development and human development will have a major effect on the competence, quality and well-being of future populations and the kind of cultures, societies and civilizations we continue to try and create.

Mustard 2006, p. 7

While this evidence focuses on early childhood, it does emphasise that the relationships that children develop are vital because they facilitate *social and emotional development*, and social and emotional development is strongly linked to *cognitive growth*, which is critical for children’s development at any age. Deborah Phillips, co-author of *From Neurons to Neighborhoods* points out that while childhood development is important, continuing physical, cognitive and social development into adulthood is equally important (Phillips 2006).

This research has far-reaching implications for policy makers. Many economists have built on the scientific evidence on the importance of childhood to argue that society should invest in childhood development. In particular, the work of Nobel Laureate James Heckman (described in Heckman and Masterov 2004, among others) describes and quantifies the potential benefits of increasing government investment in programs that enhance children’s development.

Heckman’s work observes that human capital is built up over a lifetime and that learning in one life stage begets learning in the next (Cunha et al. 2005). Investment in the foundation stage of childhood increases the productivity of the next stage and so on. Childhood is therefore a critical time, because it is the foundation for building individual (and collective) productivity throughout life. Summarising this argument, Heckman and Masterov contend that:

Education, perseverance and motivation are all major factors determining productivity, both in the workplace and beyond it. The family is a major producer of these skills, which are indispensable for successful students and workers. Unfortunately, many families have failed to perform this task well in recent years. This retards the growth in the quality of the labor force.

Heckman and Masterov 2004, p. 1

Accordingly, understanding how children are developing can help governments and policy makers identify gaps in the wellbeing of children and young people, and to anticipate emerging social, health and economic issues. Many governments and non-government organisations (NGOs) around the world use report cards to identify issues affecting childhood. The purpose of many of these report cards is, as UNICEF observes, to identify improvement in children's lives:

What is to be gained by measuring and comparing child well-being in different countries? The answer lies in the maxim 'to improve something, first measure it'.

UNICEF 2007, p. 3

By measuring progress against goals, report cards of the wellbeing of young people help governments to establish and strive for goals and provide a mechanism for identifying which objectives are being met and which are not. Measures therefore serve two purposes: they help define objectives and they allow policymakers to identify progress towards the achievement of those objectives.

Report cards also allow policy makers to compare performance across jurisdictions or under different policy environments or social conditions. They can also help highlight differences within a jurisdiction or under the same conditions, by comparing performance across regions or among different population groups. This capacity to compare outcomes across population groups is particularly important in the Australian context, given the large variation in health, education and material outcomes that exist between Australia's Indigenous and non-Indigenous populations (SGRGSP 2007).

The ARACY Report Card has a unique perspective to offer by comparing indicators of wellbeing between the young people from the total Australian population, the Indigenous Australian population and the best OECD or international country. This comparison provides an international 'barometer' of children's wellbeing which can be used to guide policy direction in Australia.

At the same time, policy makers have begun to emphasise early intervention and prevention programs as key strategies to manage demand for a range of social and human services. As the scientific and economic evidence described earlier emphasises, childhood and youth are the periods during which prevention and early intervention are most effective. A report card on the wellbeing of children and young people, then, would assist policy makers to identify areas where prevention or intervention strategies could be employed to maximum effect.

2.2 Limitations of existing indicators focusing on children and young people

While report cards focusing on outcomes for children and young people exist in Australia, they are limited in several respects for the purposes of this project. While existing reports on the health and wellbeing of children and young people are valuable tools for those who specialise in these areas, such tools are not widely known among the general public, nor recognised as the definitive picture of the health and wellbeing of Australian children. This is partly a result of the way in which existing indicators have been developed. For example, while the Victorian Child and Adolescent Monitoring System provides a comprehensive suite of indicators, it is too detailed for a general reader to understand.

Furthermore, many of the indicators included in existing reports are too narrowly focused to be understood by the general public. For example, the indicators used in the Productivity Commission's *Overcoming Indigenous Disadvantage* series are narrowly focused on Indigenous outcomes and therefore are not intended as indicators of the national status of young people's wellbeing.

Existing efforts to identify indicators of health and wellbeing for children and young people have not built on international experiences, and therefore are not comparable across jurisdictions. Given the progress that has been made in recent years to develop international report cards of child and wellbeing, it is now possible to develop an Australian report card that is consistent — and therefore comparable — with international approaches.

Finally, existing reports tend to focus on indicators of children's health and wellbeing, or indicators of young people's health and wellbeing, but not both. Further, many sets of indicators — such as the Australian Early Development Index (AEDI) — focus on early childhood, while few depict how children of all ages fare. Consequently a set of indicators that cover the wellbeing of both children and young people would fill a void in the current literature.

Table 2.1 describes the reports that currently focus on outcomes for children and young people, and the limitations of each. This is not to suggest that these reports are not valid and useful attempts to understand aspects of early life, only that in their entirety they are not suitable as a national report card. The ARACY Report Card does include many of the indicators included in the reports below.

Table 2.1

FEATURES AND LIMITS OF CURRENT REPORTS AND MEASUREMENTS FOR CHILDREN AND YOUNG PEOPLE

| Report | Authorising body | Limiting features |
|--|--|---|
| <i>A picture of Australia's children</i> | Australian Institute of Health and Welfare | <ul style="list-style-type: none"> • limited to children 0–14 years • no systematic international comparisons |
| <i>Young Australians: their health and wellbeing</i> | Australian Institute of Health and Welfare | <ul style="list-style-type: none"> • limited to youth 12–24 years |
| <i>Australian Early Development Index</i> | Centre for Community Child Health and the Telethon Institute for Child Health Research | <ul style="list-style-type: none"> • limited to early childhood (children at school entry) • the AEDI is a single indicator |
| <i>Headline Indicators</i> | Australian Health Ministers' Conference (AHMC) and the Community and Disability Services Ministers' Conference (CDSMC) | <ul style="list-style-type: none"> • not yet published • limited to children 0–12 years • limited to Australian comparisons |
| <i>The Brotherhood's Social Barometer</i> | Brotherhood of St Laurence | <ul style="list-style-type: none"> • limited to children 0–18 years • no consistent international comparisons |
| <i>Overcoming Indigenous Disadvantage</i> | Productivity Commission | <ul style="list-style-type: none"> • focused on Indigenous Australians • too detailed to be useful for a general audience • no international comparisons |
| <i>Towards new indicators of Disadvantage: Deprivation and social exclusion in Australia</i> | Social Policy Research Centre | <ul style="list-style-type: none"> • limited to focus on poverty • does not provide indicators of general health and wellbeing |
| <i>A National Framework for Early Years Outcomes</i> | The Smith Family | <ul style="list-style-type: none"> • not yet developed • limited to early childhood |
| <i>COAG indicators</i> | Council of Australian Governments | <ul style="list-style-type: none"> • not comprehensive • focused on high-level outcomes |
| <i>State of Victoria's young people / State of Victoria's children</i> | Victorian Government | <ul style="list-style-type: none"> • too detailed to be useful for a general audience • limited cross jurisdictional comparisons • limited international comparisons |

2.3 Challenges with the ARACY Report Card

There were three key difficulties in producing the ARACY Report Card for children 0–25 years of age: selecting measures, finding disaggregated data for young people and ensuring international comparability. First, to be easily understood and interpreted a report card needs to contain a succinct set of measures. In many domains, children and young people experience very different outcomes. To be meaningful, many indicators contain measures for both children and young people. This increased the number of measures in the Report Card.

Second, international data sources rarely disaggregate data for ‘youth’ (whether this is defined as young people over the age of 15 years or young people over the age of 18 years). For example, the OECD Health Data 2007 includes OECD comparable data for cigarette smoking for persons aged over 15 years but does not provide data for the 15–24 age group specifically. Individual countries are likely to have their own surveys that do disaggregate data by age. However, conducting a scan of the data sources of all OECD countries to determine the OECD country with the best results is not feasible.

Third, finding and reporting measures that are comparable across Australia and internationally is a challenge. The ARACY Report Card presents data that is comparable across countries. However, it should be noted that many valid measures were eliminated from the Report Card due to lack of consistency in definition, differing age groupings, and inconsistency in data collection standards. In addition, many internationally comparable measures initially included as part of the Report Card were eliminated from inclusion in the final set of measures because they were ‘one off’ collections and did not fit the criteria of being ‘measurable over time’.

In some cases different data sets, indicators and measures have been used, particularly for reasons of comparability, so this report should not be compared directly with the other indicator reports in Table 2.1.

2.4 Characteristics of a suitable report card

A report card on the wellbeing of young Australians will help to establish a national agenda for children and young people. ARACY’s *Commitment to Young Australians* and its *National Youth Agenda* provide a foundation on which a national agenda could be based. The *Commitment to Young Australians* is based on a review of current efforts to advance the interests of children and young people, including the National Agenda for Early Childhood, children’s action plans developed by Australian states and territories and the United Nations Convention on the Rights of the Child. The *National Youth Agenda* articulates principles embedded in the United Nations Convention on the Rights of the Child (UNCROC) and is consistent with frameworks developed by both UNICEF and the European Union (EU).

In addition, a report card of the wellbeing of children and young people should reflect recent international experience in identifying and using measures to improve outcomes for children and young people, particularly those developed for UNICEF, the EU and the OECD. An Australian report card should allow comparison with other leading nations and across population groups within Australia.

To provide a consistent framework for international comparison, the ARACY Report Card on the wellbeing of young Australians was based on the domains of health and wellbeing used by UNICEF (2007): material wellbeing, health and safety, educational wellbeing, family and peer relationships, behaviour and risks, and subjective wellbeing. In addition to these six domains, the ARACY Report Card also includes 'participation' as a domain, consistent with the approach adopted in the EU's Index of Child Wellbeing (Bradshaw et al. 2006a) and an environmental domain. (These domains are described and discussed in greater detail in Chapter 3.)

Finally, the ARACY Report Card on the wellbeing of young Australians illustrates trends in child outcomes, and will allow both policy makers and the general public to interpret and analyse Australia's performance against each measure. As such, ARACY wishes the Report Card to be easily understandable and clearly presented.

To ensure that the ARACY Report Card on the wellbeing of young Australians meets these needs, it:

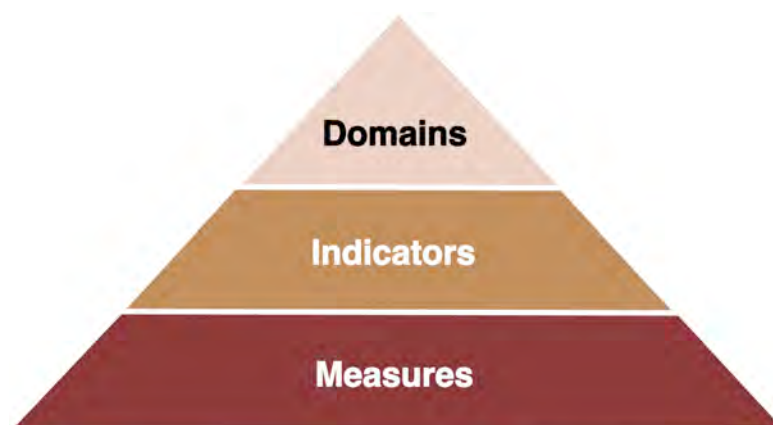
- is *succinct* — the Report Card is short, but well supported by a comprehensive technical report
- is *robust* — the Report Card was developed with guidance of an expert reference group and was peer reviewed by two eminent experts in developing indicators for the wellbeing of children and young people
- is *comparative* — the Report Card compares three sets of data (where available): for the total Australian population, for Indigenous Australians and international performance.
- is *understandable* — the Report Card should be easily understood by the general community. To assist this, the Report Card provides qualitative comments to assist in interpreting underlying trends.

The Report Card consists of three levels of measurement:

- first, as has already been noted, the Report Card is based on the six *domains* of health and wellbeing used by UNICEF (2006) and two additional domains of 'participation' adopted in the EU's Index of Child Wellbeing (Bradshaw et al. 2006) and the domain of 'environment'
- below this, each domain contains a limited number of *indicators* that divide each domain into key areas of focus
- finally, underneath each indicator are a limited number of *measures* which will provide the basis for evaluating and comparing the health and wellbeing of children and young people from different populations (see Figure 2.1).¹

¹ Other frameworks for measuring child and youth wellbeing, such as those adopted by UNICEF, EU and the OECD, use different syntax to describe their constituent layers. The UNICEF framework, for example, includes 'dimensions', 'components', and 'indicators', while the framework adopted by the EU uses three levels, 'indicators,' 'clusters,' and 'domains'. The syntax adopted here is consistent with that used by the AIHW (2008) in developing national indicators of children's health, development and wellbeing.

Figure 2.1

CONCEPTUAL PYRAMID: BUILDING THE REPORT CARD OF HEALTH AND WELLBEING**2.5 What is a good measure?**

A very large number of measures can be used to infer the wellbeing of children or young people. This in part reflects the considerable work undertaken over recent years by governments, non-government agencies and researchers around the world to develop methods for assessing the effectiveness of policies aimed at improving the lives of children. However, the number of measures a report card can include while remaining useful is limited. Consequently, an objective method to identify the best measures from those available must be established.

With this aim, in building the Report Card the measures were evaluated against a set of appropriate criteria. Just as there are a range of measures of wellbeing, a number of commentators have developed criteria against which measures can be evaluated. For the purposes of this report, the measures in this report were assessed against criteria identified by the National Health Performance Committee (NHPC 2004) and validated by the Australian Institute of Health and Welfare (AIHW 2008). Box 2.1 lists these criteria. The remainder of this section discusses the criteria that were used to evaluate the wellbeing of young Australians for the ARACY Report Card.

Box 2.1

CRITERIA FOR EVALUATING MEASURES OF WELLBEING FOR CHILDREN AND YOUNG PEOPLE

According to the NHPC guidelines, national measures should:

- *be worth measuring* — the measures represent an important and salient aspect of the public's health or the performance of the health system
- *be measurable for diverse populations* — the measures are valid and reliable for the general population and diverse populations (e.g. Aboriginal and Torres Strait Islander people, rural/urban dwellers, people with different socio-economic circumstances)
- *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 measures and what can be done to improve outcomes
- *galvanise action* — the measures 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 where possible
- *be measurable over time to reflect results of actions* — if action is taken, tangible results will be seen, indicating improvements in various aspects of children's wellbeing
- *be feasible to collect and report* — the information required for the measure 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.*

Source: AIHW 2008a

Worth measuring

This technical report describes the ARACY Report Card on the wellbeing of young Australians. As such, the measures included in this report relate to the wellbeing of children and young people. In evaluating measures, therefore, the first criteria were that they are significant and relevant, that is that they are worth measuring.

The Productivity Commission (Productivity Commission 2006) identifies both significance and relevance as key characteristics of good measures. According to the Commission, a measure should represent an important aspect of what it purports to measure, and should provide a clear direction for improving results in a way that is consistent with the measure's underlying objectives. In their 'ten tests' for evaluating measures, Neely et al.(2002) include 'relevance' as a fundamental element in determining the appropriateness of a measure, guided by the question 'is the measure the right measure?'

Neely et al. (2002) identify two further characteristics that make measures worth measuring. First, the 'truth test' asks 'Does the measure actually measure what it sets out to measure?' Second, a measure must demonstrate 'focus' so that it measures *only* what it sets out to measure. If a measure does not measure — or measures more than — what it purports to measure, it may not be worth measuring.

Measurable for diverse populations

In developing a scorecard of wellbeing for Irish children and young people, Hanafin and Brooks (2005) observed that ‘measures should have the same meaning in varied population sub-groups’. Given that the Report Card developed in this report is intended to apply across Australia’s diverse population, the measures included here should be valid across population groups.

For an Australian report card, it is particularly important that measures highlight differences in outcomes for Indigenous and non-Indigenous children and young people. While this was not possible for all measures included in the Australian, where possible measures that could be disaggregated to the population group level were used.

ARACY intends to use the Australian report card to compare the wellbeing of Australian children and young people with those in other countries. As such, measures should be used that allow comparison between diverse populations (where possible) and between countries. In developing wellbeing measures for use across the EU, Bradshaw et al. faced a similar challenge, and used only measures that:

provide a sufficient level of cross countries comparability, as far as practicable with the use of internationally applied definitions and data collection standards.

Bradshaw et al. in Lewis 2006, p. 6

The measures included in the Australian report card are comparable internationally.

Understood by people who need to act

A measure should be understandable to those who can act on its analysis. The Productivity Commission (2006) argues that measures should be simple for intended users to interpret, unambiguous in what they are measuring and broadly supported.

As Neely et al. (2002) note, clarity enables policy makers to use measures to guide policy. One of the ‘ten tests’ for measures, ‘clarity’ highlights how easily the measure can be understood and acted upon. Using a similar argument, Lewis (2006) observes that measures of young people’s wellbeing ‘should capture the essence of the problem and have a clear and accepted normative interpretation’.

Friedman (1997) provides further support for this criterion by suggesting that a measure’s ‘communication power’ is an important consideration in measure selection. Communication power relates to the ease with which measures are understood by policy makers and the community. Supporting this notion, Hanafin and Brooks (2005), note that ‘measures should be easily and readily understood by the public’.

Galvanise action

A further consideration when evaluating measures is their usefulness for developing policy options to improve the wellbeing of children and young people. In making this argument, Neely et al. (2002) propose that measures be subjected to the ‘so what?’ test. To pass this test, measures must, where possible, enable action and should provide policy makers with a clear understanding of the consequences of measure performance.

Friedman (1997) takes this argument further by observing that measures should relate to government priorities. To be meaningful, measures must assist policy makers to achieve their objectives. Measures that do not relate to objectives deflect attention from those that do. Supporting this argument, Hanafin and Brooks (2005) observe that measures should reflect social goals and should allow policy makers to track progress in meeting national, state and local goals.

Relevant to policy and practice

Measure should relate to — and should not distort — policy objectives or priorities. In criteria used to identify measures of child wellbeing across the EU, Bradshaw et al. (2006) observe that, ‘a measure should be responsive to policy interventions but not subject to manipulation’.

This is a critical consideration, and illustrates the power of measures to encourage both good and bad responses. Poorly designed or specified measures can result in unintended consequences if the behaviours they encourage are not carefully considered. An inappropriate measure would be one where improvement against a measure does not necessarily lead to a corresponding improvement to child wellbeing. Measures should not encourage ‘gaming’. To test this, Neely et al. (2002) ask ‘does the measure encourage only desired behaviours?’

Therefore, in developing measures for a report card of child wellbeing, it was critical to consider the potential for measures to distort policy options.

Measurable over time to reflect results of actions

As Ben-Arieh et al. (2001) observe, measures should reflect not only outcomes achieved, but also enable progress towards these outcomes. They should also allow policy makers to identify the levers by which objectives can be manipulated. To achieve this, measures should be able to show how the effectiveness of policies changes over time in progressing social goals.

The Productivity Commission emphasise this issue by arguing that measures should be comparable not only across jurisdictions, but over time. Often, as the Commission (2006) observes, conditions in one jurisdiction mean that it alone provides a suitable benchmark for comparison. Where this is the case, a jurisdiction can track its own performance against a measure over time to determine the efficacy of policy or processes. Others, including Friedman (1997) support this criterion and suggest that measures should be easily sourced and monitored over time.

Hanafin and Brooks (2005), extend this argument, however, and note that duration is another aspect of wellbeing that can make measures more powerful. Specifically,

Measures should assess the dispersion across given measures of child well-being, children’s duration in a status and cumulative risk factors experienced by children.

Hanafin and Brooks 2005, p. 5

Accordingly, timing and duration formed part of the evaluation of measures for the ARACY Report Card on the wellbeing of young Australians.

Feasible to collect and report

An important consideration in identifying appropriate measures for an Australian report card on the wellbeing of children and young people is the availability of data. To be useful for policymakers, measures must be based on data that is feasible to collect and is available in such a way that makes it useful for reporting.

Comply with national/international processes of data definitions

The final criterion against which measures for the Report Card were evaluated relates to their compliance with national data definitions. This criterion is intended to ensure that the measures that make up the Australian scorecard are robust and comparable to national and international data.

The Productivity Commission (2006) emphasises the importance of robust data in developing headline measures. Hanafin and Brooks (2005) also note that the rigour of data collection for a measure should be considered before the measure is included in a national scorecard. Consistent with this theme, Bradshaw et al. (2006) propose that measures should be robust and statistically validated if they are to be used in a report card of child wellbeing.

Chapter 3

What is wellbeing for children and young people?

3.1 Introduction

The ARACY Report Card on the Wellbeing of Young Australians (the Report Card) comprises indicators grouped into eight domains:

- material wellbeing
- health and safety
- education, training and employment
- peer and family relationships
- behaviours and risks
- subjective wellbeing
- participation
- environment

The eight domains together constitute wellbeing for young Australians.

The first six domains reflect the six dimensions of child wellbeing from the UNICEF child wellbeing framework. The ARACY Report Card also incorporates two additional domains: participation — reflecting the ‘civic participation’ cluster from the EU index of child wellbeing — and an environmental domain.

While the UNICEF framework provides the functional framework for the Report Card, ARACY’s *Commitment to Young Australians* provides the normative framework for understanding the wellbeing of children and young people.

Understanding wellbeing for young Australians

Wellbeing for children and young people can be measured in terms of positive outcomes. However, child outcomes are a result of the interplay between the resources available to them and the risk factors they are exposed to. The capabilities of children and young people need to be understood in the context of their environment and how they relate to it (Bradshaw et al. 2006).

As such, a framework for measuring the wellbeing of children and young people should include consideration of two complementary aspects:

- the *outcomes* of children and young people
- the *conditions* that children and young people need to develop to their full potential.

Conditions for the wellbeing of children and young people represent the opportunities a child or young person has available to them for their development. In comparison, outcomes are what children and young people ‘actually manage to be and do’ with those opportunities in the context of their personal situation (Bradshaw et al. 2006).

The way children and young people interact with their environment is critical to their wellbeing. Bronfenbrenner's bioecological model of human development (Bronfenbrenner and Morris 1998) conceptualises children in the centre of four concentric circles of environmental influence. The way a child interacts with each of the four levels affects their development. Bronfenbrenner's model of development has been adapted for conceptualising wellbeing for the ARACY Report Card in Figure 3.1.

Figure 3.1

MODEL OF CHILD AND YOUTH DEVELOPMENT

Source: Adapted from materials provided by ARACY (21 April 2008)

Figure 3.1 shows that the child primarily interacts with the family, school and community. The family is the strongest influence on a child's development but interactions with the school and community are also highly influential on the child. These interactions comprise the child's *microsystem*. A child's family, school and community also interact with one another and these interactions form the child's *mesosystem*.

Finally, the *macrosystem* is the broader political, economic and cultural conditions of society which includes the influences asserted by the mass media and internet technology. The child interacts with the macrosystem indirectly as the macrosystem influences the child's microsystem.

Implications for the Report Card

In line with the UNICEF and EU frameworks for measuring child wellbeing, the eight domains in the framework for the ARACY Report Card comprise indicators of outcomes. Moreover, the framework focuses on indicators relating to the child's microsystem as this is the system that most strongly influences their wellbeing. As the domains belong to the same system, they are interdependent and interrelated.

The remainder of this chapter discusses the eight domains that constitute wellbeing for children and young people, and the evidence supporting these domains.

3.2 Material wellbeing

Poverty and deprivation impact on young people's wellbeing in a number of ways. Firstly, the economic situation of the family or young person determines the economic resources available to purchase social services, housing and peer activities. Secondly, poverty impacts on children and young people indirectly through the strain it places on parents and the family's lifestyle (Bradshaw et al. 2006).

In terms of outcomes, poverty is linked with poorer health and cognitive development (AIHW 2007; Duncan and Brooks-Gunn 2000; Beresford et al. 2005; Peters and Mullis 1997; McLanahan 1997). Moreover, children who experience poverty early in life are at risk of ongoing disadvantage if their deprivation prevents them from developing early capacities they need for their development (Feinstein 2003; Duncan et al. 1994; Bolger et al. 1995). Young people from poorer socio-economic backgrounds also have poorer educational outcomes, are more likely to be engaged in child protection and youth justice systems and have fewer opportunities to access leisure and recreational activities (Pitman et al. 2003).

Poverty affects children and young people differently in different stages of youth. In early childhood, parents mediate the impacts of poverty. As children get older, they experience having less money than their peers, which may restrict their ability to participate in social activities (McLanahan 1997). As young people become financially independent of their families, the material situation of the young person themselves is critical for securing housing, preventing homelessness and accessing services and activities.

3.3 Health and safety

Bradshaw et al. (2006) note that 'children's health and health behaviour are the most basic indicators of wellbeing'. The health of children and young people is affected by a number of intersecting factors including neighbourhoods and environments; and socio-economic factors such as education, employment and income. In particular, the material situation of children and young people impacts on health in two ways — the resources available to purchase health services and products and higher levels of health risk behaviours in lower socio-economic groups.

As such, a number of poor health outcomes are linked to poverty including increased risk of poor birth outcomes and child mortality; higher levels of hospitalisation and injury; and lower access to screening and vaccination programmes (Duncan and Brooks-Gunn 2000; Dumesnil and Le Fur 2003). Young children and young people from lower socio-economic groups also rate their own health poorer than more affluent children and young people (Bradshaw et al. 2006).

Adult mental health disorders also commonly manifest themselves in adolescence and mental health is an important component of health and safety. Many of the upstream determinants of mental health are covered by other domains within the framework including family and peer relationships. On the other hand, mental health also affects a young person's ability to participate in education and employment, and with their peers.

Children and young people also have a right to grow up in a safe environment and this is recognised in ARACY's *Commitment to Young Australians*. This includes enjoying safety in their neighbourhoods, public spaces and schools and having a safe environment at home. Exposure to ongoing family violence can have lasting effects on the child's emotional and cognitive development, and poor physical and mental health (NSCDC 2005). Unsafe environments can also lead to injuries and poor physical health.

3.4 Education, training and employment

Educational achievement and participation are indicators of wellbeing and wellbecoming for children and young people and also predict their outcomes later in life. For younger children, access to high quality early childhood education and care can improve social, educational and behavioural outcomes (Sylva et al. 2004). Formal education through school develops children's competencies and builds the foundations for lifelong learning.

Participation in secondary education is an indicator of future outcomes for children and young people because participation is closely related to future employment outcomes, which affect income. Educational achievements are outcomes of wellbeing, with schools and families being the strongest influences on achievement. As with participation, school achievement also predicts employment outcomes later in life (Cunha et al. 2006).

3.5 Peer and family relationships

Family and parent-child relationships are the most important mediating factors for child wellbeing providing critical economic and social support. Caring, quality family relationships have a significant and lasting effect on a child's development and social and emotional wellbeing. Parents and the home learning environment have a strong impact on educational outcomes (Sylva et al. 2004). Stable and secure family relationships also protect children from stress, illness and hazards. In contrast, children's wellbeing is adversely affected by poor parental mental health, conflict in the home and abusive or harmful family environments (NSCDC 2004). Relationships where parents neglect their children are also associated with a range of poor outcomes including disengagement from education and criminal offences (AIHW 2007).

In later childhood and in youth, peer relationships are increasingly important to wellbeing for young people. Friendships provide a sense of belonging and companionship and are a valuable source of advice and support. In the absence of peer relationships, children and young people may experience social exclusion.

3.6 Behaviours and risk

As noted above, peer relationships are increasingly important to children and young people as they get older and these relationships provide valuable social support. However, wanting ‘to belong’ often results in adolescents engaging in risky behaviour, such as alcohol and other drug use or unprotected sex. These behaviours negatively impact on wellbeing as they may contribute to poor health or social outcomes, for example unwanted pregnancy or involvement with the criminal justice system. In contrast, healthy behaviours, such as regular exercise and nutritional eating, are protective health factors that contribute positively to wellbeing.

3.7 Subjective wellbeing

Together with the health and safety domain, subjective wellbeing represents the personal resources that children and young people have to achieve their wellbeing.

How children feel about themselves and their environment is reflected in their subjective wellbeing. It is a result of how children respond to the demands and resources in their environment and is thus both an indication of their personal resources and the problems they encounter in their family, in peer relations or at school.

Bradshaw et al. 2006a, p. 66

Subjective wellbeing assists in understanding how risk and protective factors are actually playing out for children and young people. To use the example from Bradshaw et al. (2006), a quality parent relationship is a strong protective factor for children’s wellbeing. However, if the child doesn’t attach any importance to that relationship, then it is likely to have a significant adverse impact on the child’s wellbeing.

3.8 Participation

Participation in the community and decision-making activities provides opportunities for children and young people to learn new skills; communicate and cooperate with their peers; build community networks; and express their opinions and views. These activities improve children’s self esteem and confidence and have a range of benefits for the community (Bradshaw et al. 2006). Enabling children and young people to contribute to the community is also one of the principles of ARACY’s *Commitment to Young Australians*.

3.9 Environment

The environment contributes to the wellbeing of children and young people through both health and socio-economic impacts.

Exposure to environmental toxins has an adverse impact on the health of children and young people in the present and future. Children are more susceptible to environmental hazards because of their small physical size and the greater consumption of food relative to this weight, immature organs, higher metabolic rate, and behaviour that stems from their natural curiosity and development stage, such as the use of hand to mouth activity (Victorian Government Department of Human Services 2006; UNEP et al. 2002).

The future livelihoods of children and young people also depend on future environmental conditions and the availability and quality of natural resources. Excessive and inefficient consumption and resource use now, will hinder the future prosperity of children and young people (UNEP et al. 2002). Furthermore, damage to the environment through climate change and pollution has adverse socio-economic impacts ranging from more frequent and severe drought and more intense rainfall and flooding, to a higher incidence of extreme weather events and reduced agricultural yields and food shortages (UNICEF UK 2008).

Chapter 4

Methods

4.1 Introduction

In Australia and internationally, wellbeing indicators and measures are increasingly being developed and used to drive policy. However, some domains in the ARACY Report Card, such as relationships, subjective wellbeing, participation and environment, have limited indicators and measures associated with them. Limited measures and indicators were available for these domains for a number of reasons: the lack of consistent data definitions across countries; the lack of data collection of any kind for these measures; and the frequency with which the data are collected (numerous ‘one-off’ collections).

This is an inaugural report card which will ‘set the stage’ for further report cards. Many of the challenges inherent in producing the first report may be resolved in the future and therefore this should be considered a dynamic document that will change as new information becomes available, new data collections are undertaken and standard data definitions are agreed upon.

This chapter summarises the four steps taken to build the ARACY Report Card:

- Step one: selecting domains
- Step two: selecting indicators and measures
- Step three: seeking expert advice on the draft framework
- Step four: sourcing data

4.2 Step one: selecting domains

The Australian Research Alliance for Children and Youth (ARACY) chose the six domains of health and wellbeing used by UNICEF (2007) as the starting point for their report card: material wellbeing, health and safety, educational wellbeing, peer and family relationships, behaviours and risks, and subjective wellbeing. ARACY also specified two additional domains: participation — consistent with the approach adopted in the EU’s Index of Child Wellbeing (Bradshaw et al. 2006) — and environment.

4.3 Step two: selecting indicators and measures

To identify indicators and measures for the Report Card, the Allen Consulting Group reviewed the indicators and measures used in other frameworks of wellbeing for children and young people, and compiled a list of those which appeared most useful. The Australian frameworks reviewed were:

- AIHW 2005, *A Picture of Australia’s Children*, cat. no. PHE 58. AIHW, Canberra.
- AIHW 2008, *Technical Paper on Operational Definitions and Data Issues For Key National Indicators of Children’s Health, Development And Wellbeing*, Preliminary report, cat. no. WP 59. AIHW, Canberra.

- AIHW 2008, *Key National Indicators and Headline Indicators of Children's Health, Development and Wellbeing*, Bulletin 58, cat. no. AUS100. AIHW, Canberra.
- Department of Human Services 2006, *Headline Indicators for Children's Health, Development and Wellbeing*, pub. no. P3-3659, Melbourne.
- SCRGSP (Steering Committee for the Review of Government Service Provision) 2007, *Overcoming Indigenous Disadvantage: Key Indicators 2007*, Productivity Commission, Canberra.
- Social Policy Research Centre 2007, *Left Out and Missing Out: Towards New Indicators of Social Exclusion and Material Deprivation*, University of New South Wales, Sydney.
- The Smith Family 2008, *A National Framework For Early Years Outcomes*, Discussion paper, Sydney.
- COAG National Reform Agenda, *Human Capital Indicative outcomes and Associated Progress Measures Across the Lifespan 2006*, Attachment D; COAG Communiqué 14 July 2006, Canberra.
- Scutella P. and Smyth P. 2005, *The Brotherhood's Social Barometer, Monitoring Children's Chances*, The Brotherhood of St Laurence, Victoria.
- Department of Human Services 2007, *The State of Victoria's Children 2006*, Melbourne.

The international frameworks reviewed at this stage were:

- UNICEF 2007, *Child Poverty in Perspective; An Overview of Child Well-being in Rich Countries*, UNICEF Innocenti Research Centre, Florence
- Bradshaw J., Hoelscher P. and Richardson D. 2006, *An Index of Child Wellbeing in the European Union*, Social Indicators Research, York.
- Land K. 2007, *The Foundation for Child Development Child and Youth Well-Being Index (CWI), 1975–2005, with projections for 2006: A Composite Index of Trends in The Well-Being of America's Children and Youth*, Foundation for Child Development, Durham.
- The National Children's Office-Ireland 2005, *A National Set of Child Well-Being Indicators*, Dublin.
- Save the Children 2005, *The Wellbeing of Children in the UK*, University of York.
- The Search Institute 2006, *40 Developmental Assets for Adolescents*, Minneapolis.
- Children First for Oregon 2007, *Report Card 2007 – The Status of Children in Oregon*, Children First for Oregon, Oregon.
- The Annie E. Casey Foundation 2008, Kids Count Data Centre, www.kidscount.org/datacenter
- Melel Xojobal 2007, *Childhood Matters to Mexico 2007*, Network for Children's Rights in Mexico, San Cristobal de Las Casas.

We then identified possible data sources for each of the potential indicators for the Australian, Indigenous, and best international comparator populations. Our initial search began with the data sources that were used in the relevant frameworks but in many cases these data sources did not include Australian data, or were out of date. We then searched the internet, looking for valid international and national data sources. From this process, we identified the gaps in the data for each of the indicators and measures considered.

To select draft indicators and measures, all potential indicators and measures were grouped into the pre-selected seven domains and tested against the selection criteria described in Chapter 1. Where more than one measure was suitable for an indicator and met the selection criteria, options were included in the draft framework.

4.4 Step three: expert advice on draft framework

The next step was to present the draft indicators and measures, and data limitations to the project reference group. This was a group of Australian experts in the wellbeing of children and young people. We proposed seven domains with 28 indicators and 43 measures. The reference group considered two major questions when reviewing the proposed indicators and measures — these are outlined in Box 4.1.

Box 4.1

REFERENCE GROUP CONSIDERATIONS

Are the indicators/measures the ‘right ones’?

- Do the indicators ‘resonate’?
- Are there too few or too many?
- Do the ‘measures’ adequately describe the ‘indicator’?
- Is there an adequate number of measures for each indicator?
- If more indicators/measures are desired, how do we keep the Report Card simple?

How do we handle data limitations?

- Should the Report Card include indicators/measures that do not allow comparability between Australia and other countries?
- Should the Report Card include ‘place holders’ for indicators/measures that have not been fully developed yet (such as child abuse and breastfeeding)?

The reference group responded to the above questions and provided the following input:

- the suggestion of several new indicators, measures and data sources
- elimination of several indicators/measures
- the addition of a new domain — environment;
- advice about the treatment of measures where data are not comparable or standards definitions do not exist

- advice about the treatment of indicators that represent significant aspects of wellbeing but where no data are currently available.

The result was an agreed draft framework with eight domains, 30 indicators and 42 measures.

4.5 Step four: sourcing data

We then began to source data for the 42 agreed measures of wellbeing. In many cases we had identified possible data sources in step three. However, the reference group had identified a number of new indicators and measures requiring data sources. For all data sources, we needed to identify and compare:

- data definitions
- data collection standards
- coverage of countries
- availability of trend data or dates that data were collected
- frequency of data collection.

During this phase we found that there were numerous gaps in the data and that reporting on all 42 of the selected measures would not be possible. Where reporting was not possible, we attempted to find a substitute measure that had data available and allowed comparisons to be made.

There is great variation between wellbeing indicators for children and young people and locating measures with similar definitions within Australia and across countries was problematic. In the end, the measures included in the Report Card were chosen because data already existed, it was of acceptable quality and it was comparable across countries. There are several exceptions to this; for measures that were felt to be particularly important, data are presented only for one or two of the groups of interest. The hope is that policy makers will recognise this data deficit and take action to improve collections in the future.

The data for the ARACY Report Card primarily came from two main sources: sample surveys and administrative datasets/reports. In total there were 23 data sources used in the ARACY Report Card, which are listed in Box 4.2.

Box 4.2

DATA SOURCES USED IN THE ARACY REPORT CARD

Sample surveys

- ABS Adult Literacy and Life Skills Survey
- ABS General Social Survey (GSS)
- ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS)
- ABS National Health Survey (NHS)
- AIHW National Drug Strategy Household Survey
- Australian Early Development Index (AEDI)
- International Association for the Evaluation of Educational Achievement (IEA) Civics Education Survey (CIVED)
- European School Survey Project on Alcohol and Other Drugs (ESPAD)
- OECD Programme for International Student Assessment (PISA)

- OECD Income and Distribution Study
 - WHO Health Survey
 - WHO Health Behaviour in School-aged Children Survey (HBSC)
- Administrative datasets or reports
- ABS Births
 - ABS and AIHW Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples (2008)
 - AIHW Juvenile Justice Minimum Dataset
 - AIHW Mothers and Babies 2003–2007
 - OECD Education at a Glance
 - OECD Environmental Indicators
 - OECD Health database
 - WHO Surveillance of Risk Factors Report Series (SURF)
 - WHO mortality database
 - World Bank Group HNP Statistics 2008
 - World Bank World Development Indicators

4.6 Final ARACY Report Card (technical report)

The final Report Card (technical report) consists of eight domains, 30 indicators and 42 measures and is summarised in Table 4.1 below.

Table 4.1

DOMAINS, INDICATORS AND MEASURES FOR THE ARACY REPORT CARD

| Domain | Indicator | Measure |
|-----------------------|-----------------------------|---|
| Material wellbeing | Relative income poverty | • % children in households with income <50% of median |
| | Households without jobs | • % of jobless households with children |
| | Reported deprivation | • % children reporting having less than eleven books at home |
| Health and safety | Infant health | • Infant mortality rate • Low birth weight rate • Very low birth weight rate |
| | Immunisation | • % of children appropriately immunised at 12–23 months |
| | Mental health | • Intentional self-injury death rate for young people (aged 15–24 years) • % of young people (aged 18–24 years) with high or very high levels of psychological distress |
| | Accident/Injury | • Deaths from accidents and injuries under age 19 • Age specific death rates from all injuries for children aged 0–4 years, 5–9 years and 10–14 years |
| Educational wellbeing | Child abuse and neglect | • Non-accidental deaths under age 19 |
| | Early childhood development | • Proportion of children entering school that are developmentally vulnerable |
| | School achievement | • Average achievement in reading, maths and science for 15 year olds |
| | Adult literacy | • % of adults that achieved at least a level 3 score in prose literacy |
| | School retention | • % of 15–19 year olds remaining in education |
| Relationships | Transition to employment | • % of 15–19 year olds not in education, training or employment |
| | Social capital | • Proportion of young people able to get support in time of crisis from persons living outside the household |
| | Family relationships | • % of children who report eating the main meal of the day with parents several times per week • % of children who report that their parents spend time ‘just talking’ to them more than once a week |
| Behaviours and risks | Sense of belonging | • % of children who report feeling a sense of belonging in their school |
| | Overweight and obesity | • % of children aged 6–11 with BMI score above the international cut-off point for ‘overweight’ (measured) • % of young people (aged 18–24) who are ‘overweight’ for their age and sex (measured) • % of young people (aged 18–24) who are ‘obese’ for their age and sex (measured) |
| | Cigarette smoking | • % of children aged 13 who smoke at least one cigarette at least once a week • % of young people (aged 18–24) who smoke cigarettes daily |
| | Harmful alcohol use | • % of young people aged 13 who have engaged in ‘binge drinking’ • % young people aged 16 who consumed five or more drinks in a row in the last month |
| | Teenage fertility | • Age specific fertility rate for females aged 15–19 |
| | Crime | • Rate of young people aged 10–17 in Juvenile Justice supervision |
| | Illicit drug use | • % of young people (aged 16 years) who have used illicit drugs |
| | Road deaths | • Rate of deaths from road accidents for young people (aged 15–19 years) • Rate of death from road accidents for young people (aged 20–24 years) |

| Domain | Indicator | Measure |
|----------------------|-------------------------|---|
| Subjective wellbeing | Self-reported health | • % of young people aged 15–24 satisfied with their health |
| | Personal wellbeing | • % of young people aged 18–24 who are satisfied with life |
| Participation | Community participation | • % of 14 year olds participating in student organisations • % of 14 year olds participating in voluntary activities |
| | Political interest | • % of 14 year olds interested in politics |
| Environment | Climate change | • Total greenhouse gas emissions per capita (CO ₂ equivalents) |
| | Resource use | • Forest harvest as a percentage of annual growth • Water abstractions per capita |
| | Biodiversity | • % of threatened bird species |

Part 2

Findings

The report card findings

Each chapter in this section corresponds to the Report Card domains, with each domain having an individual chapter. Each chapter includes findings from the data analysis and provides a detailed record of the data collected for each of the chosen measures. It describes data characteristics including source, type of collection, frequency of collection, and age groupings included in the collection. The report also provides a definition of each measure, the calculations used for reporting the measure and the countries included in the comparison. The findings and analysis are presented graphically and include brief written commentary as well as discussion regarding any data limitations or qualifications. Where ‘best international’ is available, the country achieving that status in the most recent year is named in the graph and in the commentary. Where data are missing for any group an explanation is given.

In addition, Appendix B of the report provides ‘data tables’ for each measure. These tables provide the actual data used to produce the graphs in the body of the report and should be used when numerical data are required.

Chapter 5

Material wellbeing

5.1 Introduction

Material circumstances significantly affect the wellbeing of children and young people. Poverty and deprivation limit a family's capacity to purchase services and the necessities of life, but also, as Bradshaw et al. (2006) observe, impose strain on the relationships that children and young people have with family members and members of their community.

Material wellbeing is also linked to a range of outcomes in other domains, such as health, education and exposure to risky behaviours. Poverty during early life is associated with poorer longer-term outcomes. Such outcomes include a number of health and social outcomes, including socio-emotional functioning, mental health, physical health, educational attainment and later employment prospects (AIHW 2005a). Children who experience poverty early in life are at risk of ongoing disadvantage if their deprivation prevents them from developing the early capacities they need for their development (Feinstein 2003).

Three indicators comprise the material wellbeing domain:

- relative income poverty
- joblessness
- reported deprivation

This chapter discusses the findings for these indicators.

5.2 Indicator 1: Relative income poverty

Measure:

Percentage of children in households with equivalent income less than 50% of the median household income

Rationale

This is a measure of relative income — a poverty 'rate'. While the poverty rate is a common measure of poverty, other measures exist — for example, the poverty gap. Indeed, Bradshaw observes that the poverty gap is the average gap between the income of the poor and the poverty threshold (the income below which a person is regarded as living in poverty). The poverty gap shows how far the poor are below the threshold. The issue is whether it is better for a nation to have a low poverty gap and a high poverty rate, or vice versa (Bradshaw 2008).

For the Report Card, a measure of relative income has been used rather than a measure of the income distribution. A relative income measure allows comparison with numerous international jurisdictions.

Data characteristics

Table 5.1

PERCENTAGE OF CHILDREN IN HOUSEHOLDS WITH INCOME < 50% OF MEDIAN

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|-------------------------|---|-----------------------|---|
| Data source | Forster and d'Ercole 2005 from OECD Income Distribution Study | NA | Forster and d'Ercole 2005 from OECD Income Distribution Study |
| Frequency of collection | Every 5 years | NA | Every 5 years |
| Trend data availability | From 1994 | NA | From 1974 for some countries |
| Method of collection | Survey | NA | Survey |
| Age group | 0–17 years | NA | 0–17 years |

Source: i and ii Forster and D'Ercole 2005

Definition

The number of children in households surveyed with equivalised income less than 50% of the median as a percentage of the total number of households with children.

Calculations

Numerator: total number of households with children surveyed with income less than 50% of the median.

Denominator: total number of households with children surveyed.

Fraction multiplied by 100.

Countries included in comparison

OECD.

Qualifying comments

The availability of this data in the future is dependent, to some extent, on future OECD Income Distribution Surveys or other similar international survey work.

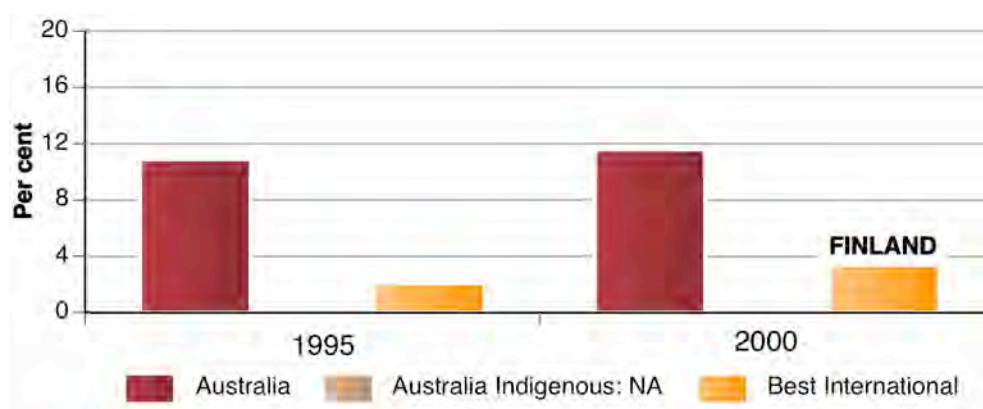
OECD data are collected through a standard questionnaire using common assumptions and definitions to increase cross-country comparability. The data are based on the concept of equivalised disposable income of individuals (i.e. the disposable income of households, adjusted for the number of individuals in the household) broken down by gross income components and presented for a variety of socio-demographic characteristics of individuals and households.

No Indigenous Australian data were available for this indicator at this time.

Results and analyses

Figure 5.1

PERCENTAGE OF CHILDREN IN HOUSEHOLDS WITH INCOME < 50% OF MEDIAN



Between 1995 and 2000, the percentage of children in households with income less than 50% of the median has changed. Some OECD countries have experienced a decrease in the proportion of children in low income households while other countries have shown an increase. In 2000, the 'best international' comparison was Finland with only 3.4% of children in households with income less than 50% of the median, up from 2.1% in 1995. The percentage of children in households with income less than 50% of the median in Australia rose from 10.9% in 1995 to 11.6% in 2000.

5.3 Indicator 2: Joblessness

Measure:

Percentage of jobless households with children

Rationale

Unemployment within a family can have wide ranging impacts on all family members. As Shonkoff and Phillips (2000) have demonstrated, the stress that adults can experience as a result of unemployment is often passed on to children and young people within the home, and the home environment can become less warm and supportive, and less conducive to healthy childhood development. In turn, children and young people can absorb the stresses of adult family members.

Joblessness can also increase the likelihood of other risks to young people's wellbeing, such as poverty and deprivation. Since employment is closely linked to income, households where no adult is employed are more likely to experience lower levels of income (ABS 2006d). Income levels can affect the educational and developmental opportunities to which children and young people are exposed.

Data characteristics

Table 5.2

PERCENTAGE OF JOBLESS HOUSEHOLDS WITH CHILDREN

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|-------------------------|--|-----------------------|--|
| Data source | Whiteford and Adema 2007 from OECD Income Distribution Study | NA | Whiteford and Adema 2007 from OECD Income Distribution Study |
| Frequency of collection | Irregular | NA | Irregular |
| Trend data availability | From 1994 | NA | From 1974 for some countries |
| Method of collection | Survey | NA | Survey |
| Age group | 0–17 years | NA | 0–17 years |

Source: i and ii Whiteford and Adema 2007 from OECD Income Distribution Survey

Definition

The number of jobless households with children surveyed expressed as a percentage of the total number of households with children surveyed.

Calculations

Numerator: total jobless households with children surveyed.

Denominator: total households with children surveyed.

Fraction multiplied by 100.

Countries included in comparison

All OECD

Qualifying comments

The availability of this data in the future is dependent, to some extent, on future OECD Income Distribution Surveys or other similar surveys. In view of the strong demand for cross-national indicators on the situation of families and children, the OECD has developed an on-line database on family outcomes and family policies with indicators for all OECD countries. Development of the family database is an ongoing process. Only some indicators are currently available on a cross-national basis. 'Children in families by employment status' is a component of the database that is yet to be published.

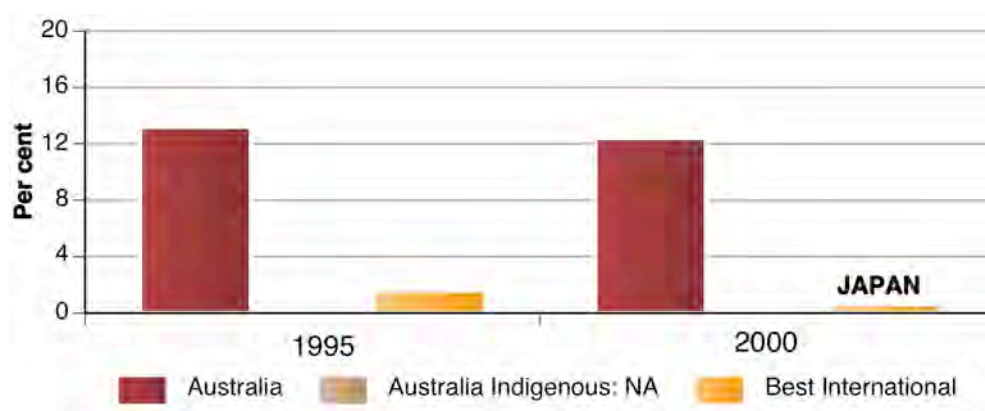
OECD data are collected through a standard questionnaire using common assumptions and definitions to increase cross-country comparability.

No Indigenous Australian data were available for this indicator at this time.

Results and analyses

Figure 5.2

PERCENTAGE OF JOBLESS HOUSEHOLDS WITH CHILDREN



The percentage of jobless households with children has decreased between 1995 and 2000 for Australia and for the best international comparator, Japan. Only a few OECD countries, including Australia, saw an improvement in this indicator over this time. However, Australia's percentage of jobless households is much higher than for Japan. In 2000, only 0.6% of households with children in Japan were jobless, compared to 12.4% in Australia.

5.4 Indicator 3: Reported deprivation

Rationale

While Section 5.2 emphasised the potential impact of poverty on wellbeing for children and young people, deprivation is another factor that can limit their opportunities. As Bradshaw et al. (2006) observe, data on deprivation describes the direct impact of low family income on children and young people's development. Deprivation is therefore a valuable addition to other indicators of material wellbeing.

UNICEF uses 'having fewer than 11 books at home' as an indicator of deprivation. As Sobolweski and Amato (2005, cited in Bradshaw et al. 2006) have observed, a lack of access to educational resources is one possible explanation of the link between family income and children's educational achievement.

Measure:

Percentage of children who report having fewer than 11 books in their home.

Data characteristics

Table 5.3

PERCENTAGE OF CHILDREN WHO REPORT HAVING FEWER THAN 11 BOOKS IN THEIR HOME

| Data characteristic | Australiaⁱ | Indigenous Australianⁱⁱ | Internationalⁱⁱⁱ |
|--------------------------------|---------------------------------------|---|---------------------------------------|
| <i>Data source</i> | PISA 2000, 2003, 2006 | PISA 2000, 2003, 2006 | PISA 2000, 2003, 2006 |
| <i>Frequency of collection</i> | Triennial | Triennial | Triennial |
| <i>Trend data availability</i> | From 2000 | From 2000 | From 2000 |
| <i>Method of collection</i> | Survey | Survey | Survey |
| <i>Age group</i> | 15 years 3 months – 16 years 2 months | 15 years 3 months – 16 years 2 months | 15 years 3 months – 16 years 2 months |

Source: i, ii and iii PISA 2000, 2003, 2006

Definition

The number of children reporting having fewer than 11 books in their home as a percentage of all children surveyed.

Calculations

Numerator: total number of students surveyed reporting having fewer than 11 books in their home.

Denominator: total number of students surveyed.

Fraction multiplied by 100.

Countries included in comparison

OECD

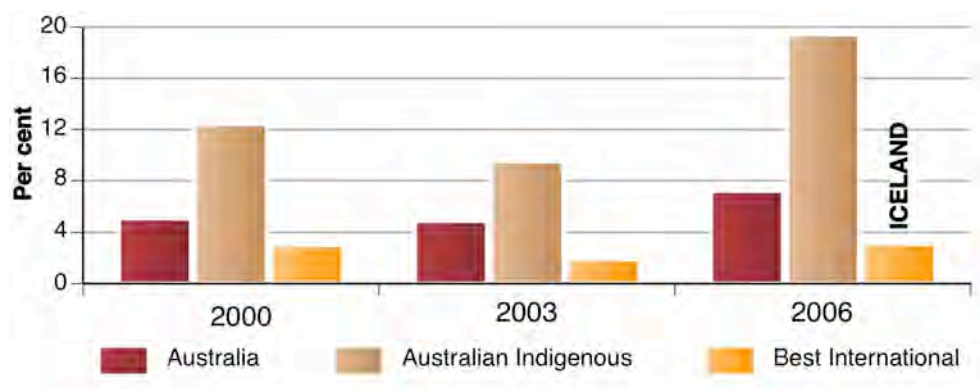
Qualifying comments

In 2000, respondents were given the option of 'none', 1–10 books, 11–50 books, 51–100 books, 101–250 books, 251–500 books, more than 500 books. In 2003 and 2006 respondents were not given the option of 'none' and instead, were given the option of 0–10 books, 11–25 books, 26–100 books, 101–200 books, 201–500 books, more than 500 books.

Results and analyses

Figure 5.3

PERCENTAGE OF CHILDREN WHO REPORT HAVING FEWER THAN 11 BOOKS IN THEIR HOME



The overall trend in the percentage of children reporting having fewer than 11 books at home has increased since 2000 for a number of countries, including Australia. A higher percentage of Australian children reported having fewer than eleven books in 2006 (7.2%) than in 2003, when 4.9% of Australian children reported having fewer than eleven books at home. The proportion of children reporting deprivation varies considerably among the Australian, Indigenous Australian and the best international comparator populations. In 2006, the best international comparator was Iceland, with 3.1% of children having less than 11 books in their home, significantly lower than 7.2% for the total Australian proportion and 19.4% for Indigenous children. Reported deprivation for both the total Australian population and Indigenous population worsened between 2000 and 2006.

Chapter 6

Health and Safety

6.1 Introduction

The health and safety of children is a strong indicator of the value placed on children generally in society. Health and safety are basic human rights, and health and safety contribute directly to children's wellbeing. The World Health Organization states that 'the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition' (WHO 1946) and the United Nations Convention of the Rights of the Child indicates that 'every child has the right to enjoy the highest attainable standards of health and to have an adequate standard of living for physical, mental, spiritual, moral and social development' (Hood et al. 2006, p. 31). For all children, a safe and secure physical and social environment is essential for proper emotional and physical development and wellbeing.

Six indicators comprise the health and safety domain:

- infant health
- immunisation
- mental health
- injury
- child abuse and neglect
- breastfeeding.

This chapter discusses each of these indicators.

6.2 Indicator 1: Infant health

Rationale

The health of a child at birth is significantly related to its overall wellbeing in childhood and into adult life. Internationally, the infant mortality rate is considered the leading measure of a nation's infant health status; this rate is also directly correlated to the quality and accessibility of primary health care available to pregnant women and infants. Birth weight is a widely used measure of the general health of infants, with very low birth weight used as a proxy for preterm delivery. Children born too early, or too small, are at increased risk of long-term poor health outcomes, impaired or delayed development (e.g. motor and social development) and poor school performance. Together, the infant mortality rate and the low birth weight (<2500 g) rate are measures that give a strong indication of a nation's infant health status.

Measure:*Infant mortality rate (per 1000 live births)***Data characteristics**

Table 6.1

INFANT MORTALITY RATE PER 1000 LIVE BIRTHS

| Data characteristic | Australiaⁱ | Indigenous Australianⁱⁱ | Internationalⁱⁱⁱ |
|--------------------------------|--------------------------------|--|------------------------------------|
| <i>Data source</i> | OECD health data 2007 | ABS and AIHW 2008, Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples | OECD health data 2005 |
| <i>Frequency of collection</i> | Annual | Before 2008 (latest release), every 2 years. | Annual |
| <i>Trend data availability</i> | From 1999 | No | From 1999 |
| <i>Method of collection</i> | Administrative records | Administrative records | Administrative records |
| <i>Age group</i> | Babies less than 1 year of age | Babies less than 1 year of age | Babies less than 1 year of age |

Source: i OECD health data ii ABS and AIHW 2008, Table 9.8 iii OECD health data

Definition

The number of deaths of children aged under 1 year that occurred in a given year (years) expressed per 1000 live births.

Calculations

Numerator: number of deaths.

Denominator: number of live births.

Fraction multiplied by 1000.

Countries included in comparison

OECD.

Qualifying Comments

Consistent data on gestational age is not available, so the very low birth weight rate is used as a proxy to measure the incidence of babies born too early.

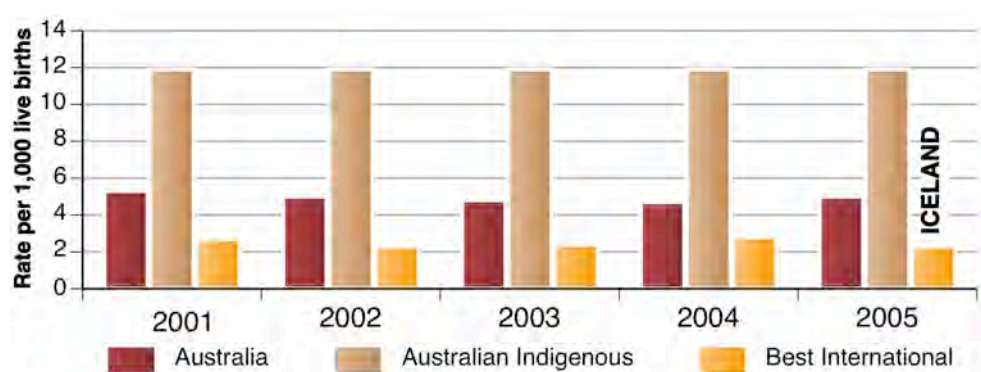
The Indigenous infant mortality rate combines data from Queensland, Western Australia, South Australia and the Northern Territory. The remaining jurisdictions were excluded due to poor administrative record coverage or small numbers. Indigenous deaths are based on 'year of occurrence of death' for 1999–2002 and 'year of registration of death' for 2003. The Indigenous infant mortality rate is an average rate over the years 2001–2005. For this report this average rate is reported for each of the years from 2001 to 2005.

The OECD notes that some of the international variation in infant and neonatal mortality rates may be due to variations in the way that countries register premature infants (i.e. whether they are reported as live births or not). In several countries, such as in the United States, Canada and the Nordic countries, very premature babies (with relatively low odds of survival) are registered as live births, which increases mortality rates compared with other countries that do not register them as live births (OECD health data).

Results and analyses

Figure 6.1

INFANT MORTALITY RATE



Overall, the trends in infant mortality rates for total Australia, Indigenous Australia and the best international comparator have remained stable in the first half of this decade. There are, however, considerable differences in the infant mortality rates for the total Australian, Indigenous Australian and best international comparator populations. In 2005, the lowest international infant mortality rate was in Iceland — 2.3 deaths per 1000 live births. Australia's infant mortality rate in 2005 was higher at 5 deaths per 1000 live births and the Indigenous Australian infant mortality rate is more than double the Australian rate at 11.9 deaths per 1000 live births.

Measure:

Low birth weight rate (<2500 g) per 1000 live births

Data characteristics

Table 6.2

LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|------------------------|---------------------------------------|------------------------------|
| Data source | OECD health data 2007 | Australia's mothers and babies 2007–8 | OECD health data 2007 |
| Frequency of collection | Annual | Annual | Annual |
| Trend data availability | From 1999 | From 1991 | From 1999 |
| Method of collection | Administrative records | Administrative records | Administrative records |
| Age group | At birth | At birth | At birth |

Source: i OECD Health data ii Laws et al. 2007, 2006, 2005, 2004a, 2004b iii OECD health data

Definition

The number of live births weighing less than 2500 grams as a percentage of the total number of live births for the corresponding year.

Calculations

Numerator: total number of births with birth weight less than 2500 grams.

Denominator: total number of births.

Fraction multiplied by 1000.

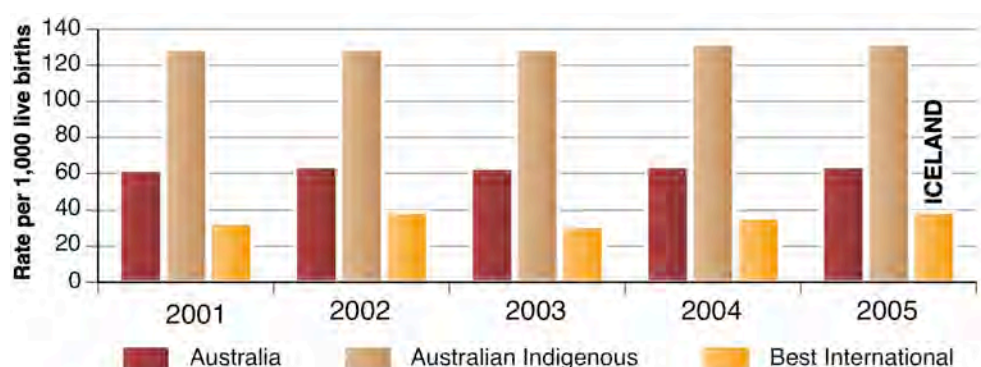
Countries included in comparison

OECD.

Results and analyses

Figure 6.2

LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS



These low birth weight rates have remained relatively stable during the first half of this decade. However, the rates vary considerably in the total Australian, Australian Indigenous and best international populations. In 2005, the best international comparator was Iceland with a rate of 39 low birth weight babies per 1000 live births. The total Australian rate was higher, with 64 low birth weight babies per 1000 live births and the Indigenous Australian rate was significantly higher, with 132 low birth weight babies per 1000 live births. Babies born to Indigenous Australian mothers are over three times more likely to be born with low birth weight than babies born in Iceland, and over twice as likely as babies born in the total Australian population.

Measure:

Very low birth weight rate (<1500 g)(per 1000 live births)

Data characteristics

Table 6.3

VERY LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International |
|--------------------------------|--|-------------------------------------|---------------|
| <i>Data source</i> | Australia's mothers and babies 2003–07 | | NA |
| <i>Frequency of collection</i> | Annual | | NA |
| <i>Trend data availability</i> | From 1991 | | NA |
| <i>Method of collection</i> | Administrative records | | NA |
| <i>Age group</i> | At Birth | | NA |

Source: i and ii Laws et al. 2007, 2006, 2005, 2004a, 2004b

Definition

The number of live births weighing less than 1500g as a percentage of the total number of live births for the corresponding year.

Calculations

Numerator: total number of births with a birth weight of less than 1 500 grams.

Denominator: total number of births.

Fraction multiplied by 1000.

Countries included in comparison

Australia

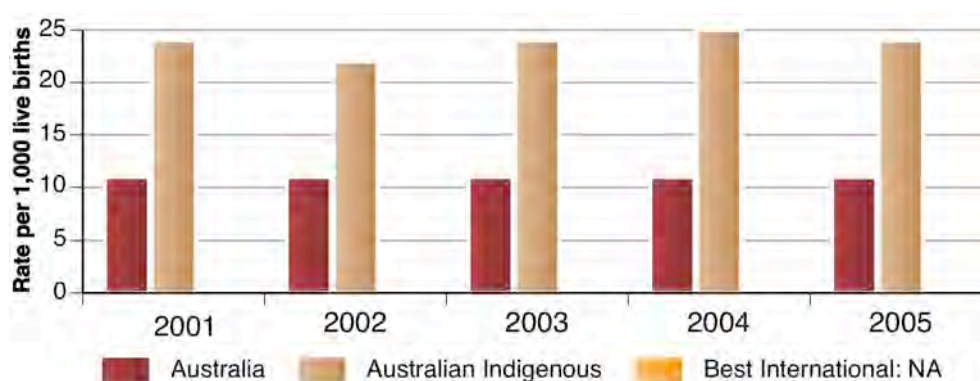
Qualifying Comments

No international data were available for this indicator at this time.

Results and analyses

Figure 6.3

VERY LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS



Both the Australian and Indigenous Australian very low birth weight rates have been stable over the first half of this decade. The Indigenous Australian very low birth weight rate is much higher than the total Australian very low birth weight rate — in 2005, 24 Indigenous Australian babies per 1000 live births were born at a very low birth weight compared with 11 in the total Australian population. Babies born to Indigenous Australian mothers are twice as likely to be born very low birth weight compared to babies born to mothers in the total Australian population.

6.3 Indicator 2: Immunisation

Rationale

Immunisation rates serve as a measure of the commitment nations have to the provision of primary health services for children. This indicator also provides a clear indication of the level of protection against vaccine preventable illnesses for populations. While levels of immunisation are high in Australia and in most OECD countries, maintaining these levels is essential to assure ‘herd immunity’ for the population. Herd immunity means that immunisation levels are so high that the disease is unlikely to spread among the minority who are not immunised; herd immunity is particularly important for the health of newborns and the elderly.

Measure:

Percentage of children age 12–23 months immunised against the major vaccine-preventable diseases (diphtheria, tetanus, pertussis, measles, and polio)

Data characteristics

Table 6.4

PERCENTAGE OF CHILDREN IMMUNISED AGAINST DTP, MEASLES AND POLIO

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|--|--|--|
| <i>Data source</i> | OECD Health Data 2007 and the World Bank Group HNP Statistics 2008 | ABS and AIHW 2008, Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples | OECD Health Data 2007 and the World Bank Group HNP Statistics 2008 |
| <i>Frequency of collection</i> | Annual | Before 2008 (latest release), every 2 years. | Annual |
| <i>Trend data availability</i> | From 1999 | No | From 1999 |
| <i>Method of collection</i> | Administrative records | Administrative records | Administrative records |
| <i>Age group</i> | 1 or 2 years of age | Babies less than 1 year of age | 1 or 2 years of age |

Source: i OECD health data ii ABS and AIHW 2008, Table 6.10 iii OECD health data

Definition

Percentage of children aged 1 or 2 years who have been fully immunised against diphtheria, tetanus and pertussis (the DTP vaccine).

Percentage of children aged 1 or 2 years who have been fully immunised against measles.

Percentage of children aged 1 year who have been fully immunised against polio.

Calculations

Numerator: number of children fully immunised at one and two years of age.

Denominator: number of children at one and two years of age.

Countries included in comparison

OECD.

Qualifying comments

The Indigenous data covers New South Wales, Victoria, Western Australia, South Australia and the Northern Territory. Trend data for Indigenous Australians is not available. The ABS and AIHW note that:

The Australian Childhood Immunisation Register (ACIR), managed by the Health Insurance Commission, holds information on childhood immunisation coverage. All children under seven years of age, enrolled in Medicare, are automatically included on the ACIR. Children who are not eligible to enroll in Medicare can be added to the ACIR when details of a vaccination are received from a doctor or immunisation provider. It should be noted that coverage estimates for Aboriginal and Torres Strait Islander children include only those who are identified as such and are registered on the ACIR.

Children identified as Indigenous on the ACIR may not be representative of all Aboriginal and Torres Strait Islander children, and thus coverage estimates should be interpreted with caution.

ABS and AIHW 2008, p. 113

Comparisons with international data should be made with caution because the age of complete immunisation differs across countries, due to differing immunisations schedules. In addition, some countries administer diphtheria, tetanus and pertussis vaccines separately. In a few countries however, (e.g. Germany, Greece, Italy, Luxembourg) immunisation rates against pertussis are somewhat lower than immunisation rates against the two other diseases. In these cases, the data are those referring to immunisation against diphtheria and tetanus (OECD health data).

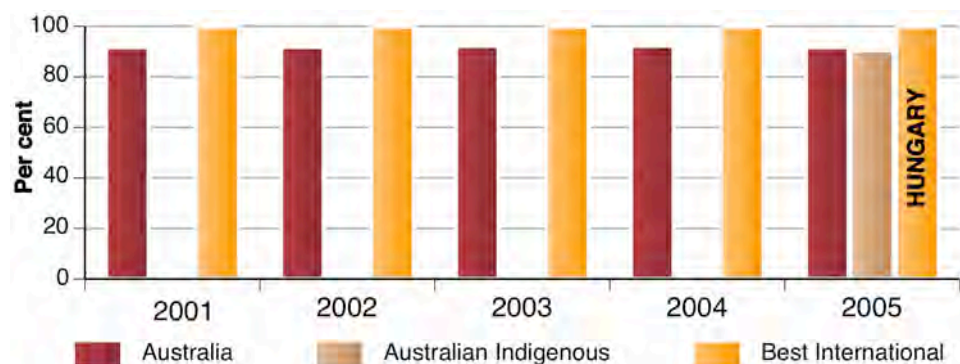
Data for Indigenous Australian children is for the measles, mumps and rubella (MMR) vaccine.

Results and analyses

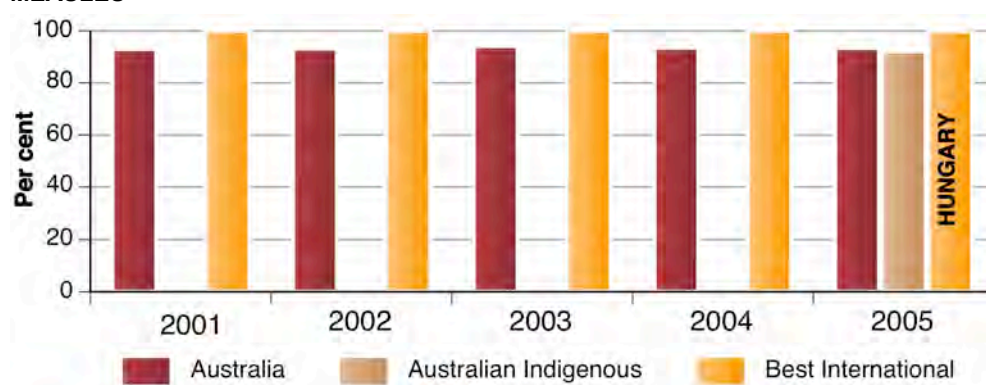
Figure 6.4

PERCENTAGE OF CHILDREN (ONE OR TWO YEARS OF AGE) IMMUNISED AGAINST DTP, MEASLES AND POLIO

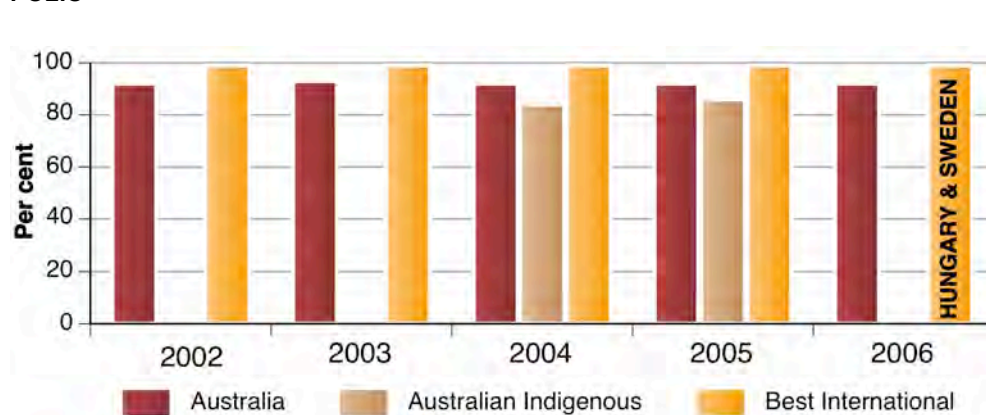
DTP



MEASLES



POLIO



DTP

The trends for immunisation against DTP have been relatively stable from 2001 to 2005 for the total Australian and the best international comparator populations. In 2005, Hungary had 99.8% of children aged 12–23 months immunised against DTP. In 2005, 92.3% of Australian children aged 12–23 months were immunised against DTP, with trends showing a slight increase between 2001 and 2005. The percentage of Indigenous Australian children immunised against DTP was lower than the percentage for children in the total Australian population, at 90.5%.

Measles

The trends for immunisation against measles have been stable from 2001 to 2005. In 2005, 93.4% of children aged 12–23 months from the total Australian population were immunised against measles. A slightly lower percentage — 92.1% — of Indigenous Australian children at this age were immunised against measles. Both percentages were lower than Hungary, where 99.8% of children aged 12–23 months were immunised against measles.

Polio

The trends for immunisation against polio have been consistent over the first half of the decade. However, the percentages are different for the total Australian, Indigenous Australian and best international comparator populations. In both Hungary and Sweden, 99% of children aged 12 months had been immunised against polio in 2005. In the same year, 92% of children from the total Australian population were immunised against polio. The percentage of Indigenous children immunised against polio in 2004 was 86%; Indigenous Australian children were less likely to be immunised against polio than children from the total Australian population.

6.4 Indicator 3: Mental health**Rationale**

Mental health is a state of successful performance of mental functions that result in productive activities, fulfilling relationships with others and the ability to adapt to change and to cope with adversity. Mental health is an essential component of personal wellbeing, family relationships and the ability to contribute and participate in community. Measuring mental health for children and young people is fraught with definitional and methodological problems; many issues are subjective and vary across sub-population groups. The most recent reliable population data in Australia comes from the National Survey of Mental Health and Wellbeing, completed in 1997. However, because this survey data is over ten years old, it was not used in this report.

For the reasons listed above, the intentional self-injury rate was used as a proxy measure for mental health.

Measure:

Intentional self-injury death rate for young people aged 15 – 24 years

Data characteristics

Table 6.5

INTENTIONAL SELF-INJURY DEATH RATE FOR YOUNG PEOPLE AGED 15–24 YEARS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|--|---|------------------------------|
| <i>Data source</i> | WHO mortality database, Suicides Australia | The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples | WHO mortality database |
| <i>Frequency of collection</i> | Annual | Pooled annual | Annual |
| <i>Trend data availability</i> | Differs for each country | No | Differs for each country |
| <i>Method of collection</i> | Administrative records | Administrative records | Administrative records |
| <i>Age group</i> | 15–24 years | 0–24 years | 15–24 years |

Source: i WHO Mortality Database, ABS 2005 ii ABS and AIHW 2008 iii WHO Mortality Database

Definition

Intentional self-injury death rate for young people aged 15–24 years per 100 000 young people, averaged over three years.

Calculations

Numerator: number of deaths from self-injury for young people aged 15–24 years.

Denominator: number of young people aged 15–24 years.

Fraction multiplied by 100 000.

Countries included in comparison

OECD.

Qualifying comments

Australia's most recent entries into the WHO mortality database were in 2003 and the latest international entries are in 2006. Results and analysis focus on the years between 2000 and 2003.

A number of countries had missing data elements from the WHO mortality database.

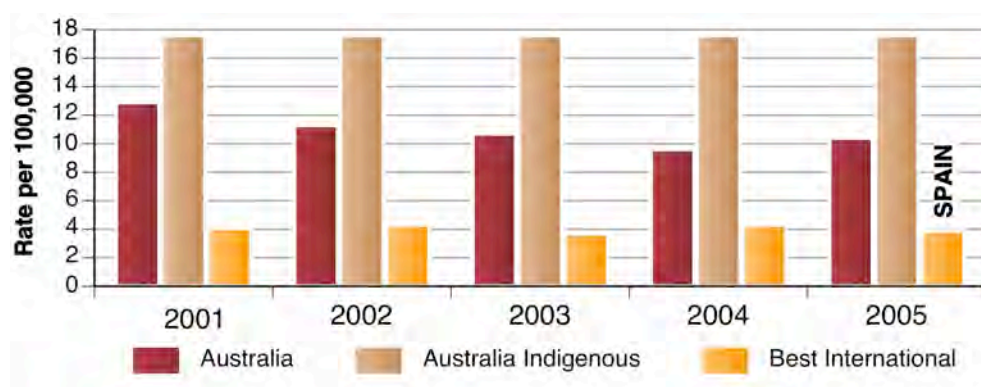
Self-injury is defined using World Health Organization International Classification of Disease codes (ICD10 codes X60 through to X84).

Data for self-injury by Indigenous Australian young people is pooled for the years 2001–2005 and is for a different age group to the total Australia and best international data.

Results and analyses

Figure 6.5

INTENTIONAL SELF-INJURY DEATH RATE FOR YOUNG PEOPLE AGED 15–24 YEARS



Death from self-injury is higher amongst Indigenous Australians young people than for young people from the total Australian population, or from the best international comparator. In 2005 in Spain, the death rate from self injury for young people aged 15–24 years was 3.9 per 100 000. As a comparison, the death rate for this age group was 10.4 for the total Australian population in 2005 and 17.6 for the Indigenous Australian population. All rates have remained relatively stable from 2001–2005.

Measure:

Percentage of young people aged 18–24 years with high or very high levels of psychological distress

Data characteristics

Table 6.6

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WITH HIGH OR VERY HIGH LEVELS OF PSYCHOLOGICAL DISTRESS

| Data characteristic | Australia ⁱ | Indigenous Australian | International |
|-------------------------|------------------------------------|-----------------------|---------------|
| Data source | ABS National Health Survey 2004–05 | NA | NA |
| Frequency of collection | 2004–05 | NA | NA |
| Trend data availability | No | NA | NA |
| Method of collection | Survey | NA | NA |
| Age group | 18–24 years | NA | NA |

Source: ⁱ ABS 2006a, Table 14

Definition

Percentage of young people aged 18–24 years with ‘high’ or ‘very high’ levels of current psychological distress as measured by the Kessler 10 scale. ‘High’ or ‘very high’ levels of psychological distress correspond to a score of 22–50.

Calculations

Numerator: number of surveyed young people aged 18–24 years with ‘high’ or ‘very high’ levels of psychological distress

Denominator: number of surveyed young people aged 18–24 years

Countries included in comparison

None.

Qualifying comments

No Indigenous Australian or international data was available for this measure at this time.

Results and analyses

In 2004–05, 15.5% of Australian young people aged 18–24 years experienced ‘high’ or ‘very high’ levels of psychological distress.

6.5 Indicator 4: Injury**Rationale**

Injuries are defined as being either intentional or unintentional and can have a major impact upon the life of a child or young person. Having safe physical and social environments is crucial to promoting children’s emotional wellbeing and healthy development. Children dying from intentional and unintentional causes is a basic measure of child safety. While child mortality is, fortunately, a rare event it nonetheless measures both the most extreme result of injury and also serves as a valid proxy for the overall safety of children on an international scale.

Measure:

Deaths from accidents and injuries for young people under age 19, average of latest three years available (per 100 000 young people).

Data characteristics

Table 6.7

DEATHS FROM ACCIDENTS AND INJURIES UNDER AGE 19, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100 000 YOUNG PEOPLE)

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|-------------------------|------------------------|-----------------------|-----------------------------|
| Data source | WHO Mortality Database | NA | WHO Mortality Database |
| Frequency of collection | 2007 | NA | 2007 |
| Trend data availability | No | NA | No |
| Method of collection | Administrative records | NA | Administrative records |
| Age group | Under 19 years of age | NA | Under 19 years of age |

Source: i and ii WHO Mortality Database.

Definition

Deaths from accidents and injuries under age 19 per 100 000 young people reported as an average of the latest three years of data available.

Calculations

Numerator: number of deaths from accidents and injuries under age 19

Denominator: number of young people under age 19

Fraction multiplied by 100 000.

Countries included in comparison

OECD.

Qualifying comments

Data for deaths were aggregated data for all kinds of accidental deaths — murder, suicide and deaths with undetermined cause — to construct one variable (UNICEF 2007).

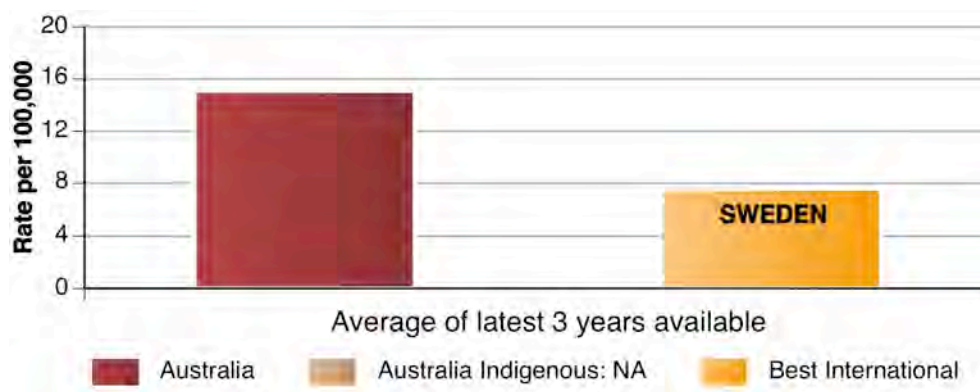
Data from Switzerland is based on the new ICD10 classification. Data for all other countries uses ICD9 classifications.

No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 6.6

DEATHS FROM ACCIDENTS AND INJURIES UNDER AGE 19, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100 000 YOUNG PEOPLE)



The rate of accidental deaths for young people under age 19 is twice as high in Australia (15.1 deaths per 100 000 young people, as an average of the latest three years of available data) as in Sweden (7.6 deaths per 100 000 young people, for the same time period).

Measure:

Age specific death rates from all injuries for children aged 0–4, 5–9 and 10–14 years (per 100 000 children)

Data characteristics

Table 6.8

AGE SPECIFIC DEATH RATES FROM ALL INJURIES FOR CHILDREN AGED 0–4, 5–9 AND 10–14 YEARS (PER 100 000 CHILDREN)

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|--------------------------|-----------------------|-----------------------------|
| <i>Data source</i> | WHO mortality database | NA | WHO mortality database |
| <i>Frequency of collection</i> | Annual | NA | Annual |
| <i>Trend data availability</i> | Differs for each country | NA | Differs for each country |
| <i>Method of collection</i> | Administrative records | NA | Administrative records |
| <i>Age group</i> | 0–14 years | NA | 0–14 years |

Source: i and ii WHO Mortality Database

Definition

The age specific death rate per 100 000 children from all injuries for children aged 0–4, 5–9 and 10–14 annually.

Calculations

Numerator: total number of deaths of children aged 0–4, 5–9 and 10–14 from injury.

Denominator: total number of children aged 0–4, 5–9 and 10–14.

Fraction multiplied by 100 000.

Countries included in comparison

OECD countries — however several countries had missing data for various years. In addition, Greece, Belgium, Ireland and Turkey did not submit data in the WHO mortality database.

Qualifying comments

Australia's most recent entries into the WHO mortality database were in 2003 and the latest international entries are in 2006. Results and analysis focus on the years between 2000 and 2003.

Injury is defined using ICD10 codes V01 through to Y09.

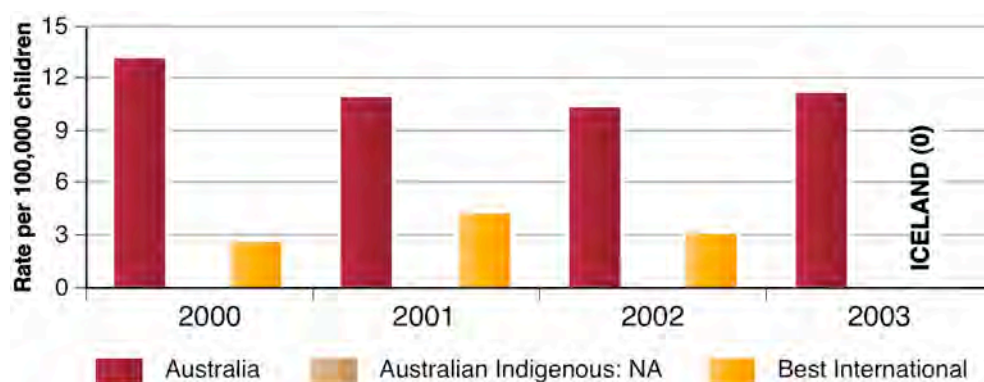
No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

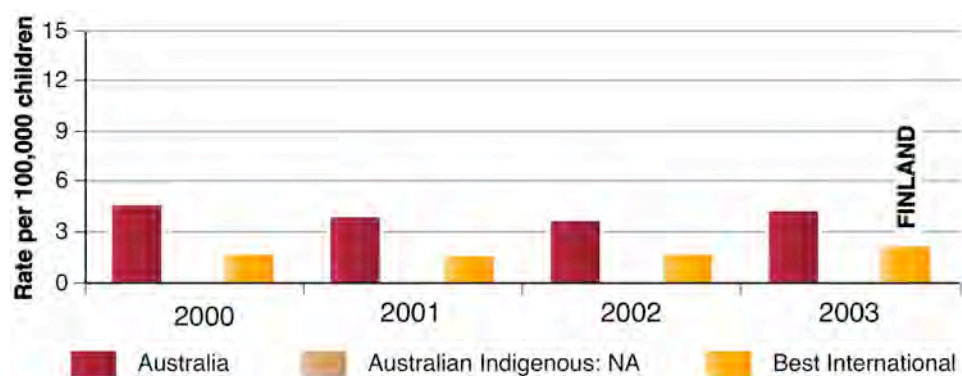
Figure 6.7

AGE SPECIFIC DEATH RATES FROM ALL INJURIES FOR CHILDREN AGED 0–4, 5–9 AND 10–14 YEARS (PER 100 000 CHILDREN)

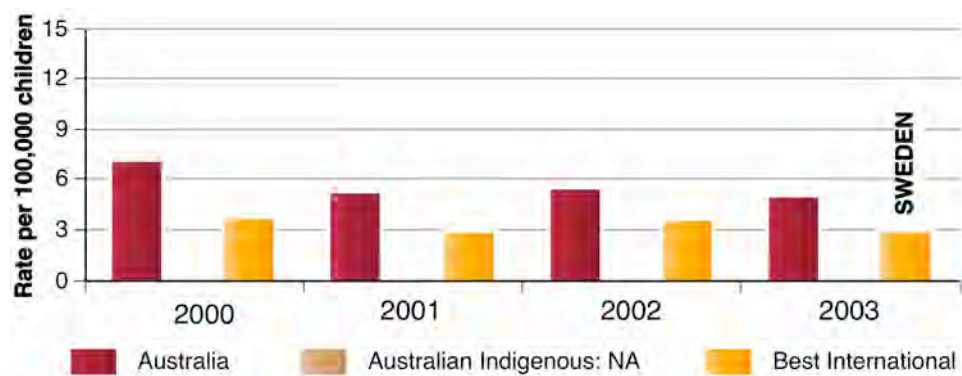
0–4 YEARS



5–9 YEARS



10–14 YEARS



Age group 0–4 years

Australia's age specific death rate from all injuries for children aged 0–4 is over twice as high as the best international rate. In 2003 in the Australian population, 11.38 children died from injury per 100 000 children. In contrast, no children (per 100 000 children of this age) died from injury in Iceland.

Age group 5–9 years

Australia's age specific death rate from all injuries for children aged 5–9 is nearly twice as high as the best international rate. In 2003 in Australia, 4.41 children died from injury per 100 000 children. As a comparison — 2.25 children per 100 000 of this age died from injury in Finland.

Age group 10–14 years

Australia's age specific death rate from all injuries for children aged 10–14 is higher than the best international rate. In 2003 in Australia 5.15 children per 100 000 died from injury. As a comparison — 3.05 children per 100 000 of this age died from injury in Sweden.

6.6 Indicator 5: Child abuse and neglect***Rationale***

Children who are exposed to unsafe, abusive environments are at risk of short and long-term adverse consequences. These consequences manifest themselves as long-term poverty and disadvantage, shortened life spans, poor physical and mental health, educational issues such as leaving school early and/or poor performance, and homelessness (UNICEF 2005). Child maltreatment takes many forms including neglect, physical violence (including homicide), emotional/psychological abuse and sexual abuse. The risk factors known to contribute to child maltreatment include poor parental mental health, low socio-economic status leading to economic disadvantage, substance abuse and family disruption.

Reporting on the prevalence of child abuse and neglect within Australia and internationally is difficult because of lack of common definitions and inconsistencies between countries in classifications and reports of abuse. The non-accidental death rate for children under 19 measures child and adolescent mortality caused by non-accidental means and is commonly used as a proxy for child abuse/neglect mortality.

Measure:

Non-accidental deaths under age 19, average of latest three years available (per 100 000 children)

Data characteristics

Table 6.9

NON-ACCIDENTAL DEATHS UNDER AGE 19, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100 000 YOUNG PEOPLE)

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|------------------------|-----------------------|-----------------------------|
| <i>Data source</i> | WHO mortality database | NA | WHO mortality database |
| <i>Frequency of collection</i> | Annual | NA | Annual |
| <i>Trend data availability</i> | 1979–2003 | NA | 1979–2006 |
| <i>Method of collection</i> | Administrative records | NA | Administrative records |
| <i>Age group</i> | 0–19 years | NA | 0–19 years |

Source: i and ii WHO Mortality Database

Definition

The non-accidental death rate for young people under age 19 per 100 000 children expressed as an average of the latest three years.

Calculations

Numerator: number of deaths by non-accidental means.

Denominator: number of children aged under 19.

Fraction multiplied by 100 000.

Fractions from the latest three years available are averaged.

Countries included in comparison

OECD.

Qualifying comments

Non-accidental deaths are defined using ICD10 codes X85 through to Y09 as consistent with WHO mortality classification of assault.

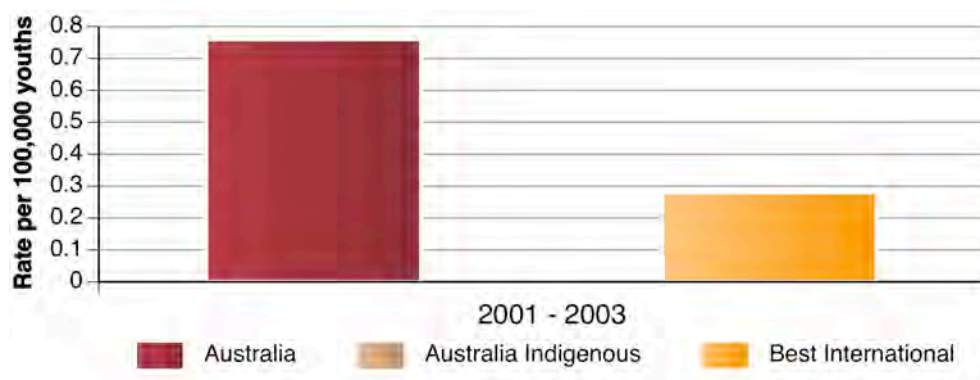
The average of the previous three years refers to the average of the best international comparators for the latest three years of data and therefore there is no one best comparator.

No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 6.8

NON-ACCIDENTAL DEATHS UNDER AGE 19, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100,000 YOUNG PEOPLE)



Australia's death rate from non-accidental deaths for young people aged under 19 is higher than the best international rate averaged over 3 years. For the 3 year between 2001 and 2003 period the death rate for Australian children was 0.76 deaths per 100 000 young people, which compared negatively with the best international rate of 0.28 per 100 000.

6.7 Indicator 6: Breastfeeding

Rationale

Breastfeeding provides optimal nutrition for infants and promotes maternal–infant attachment. In addition, breast milk protects the infant from diseases such as gastrointestinal illness, lower respiratory infection, otitis media, eczema and necrotising enterocolitis (Hector et al. 2004) and assists in the proper development of the child's immune system. Evidence also shows that breastfeeding has long-term advantages, including improved cognitive development and reduction in heart disease. From a policy perspective, the rate of breastfeeding could be an indicator of the public perception of, and uptake of, health research and information.

The OECD does not report this indicator due to lack of a consistent definition and because the data does not exist for the majority of OECD countries. In Australia lack of consistency limits reporting this measure.

Due to the difficulties in collecting this data we suggest that a breastfeeding indicator be included in the ARACY Report Card when there is consistent data available in Australia and internationally.

Chapter 7

Education, training and employment

7.1 Introduction

Educational achievement and participation are indicators of current child and young people's wellbeing and also predict outcomes later in life. For younger children, access to high-quality early childhood education and care can improve social, educational and behavioural outcomes (Sylva et al. 2004). Formal education through school develops children's competencies and builds the foundations for lifelong learning.

Participation in secondary education is an indicator of future outcomes for children and young people, because it is closely related to future employment outcomes, which in turn affect income. Educational achievements are outcomes of child and young people's wellbeing, with schools and families being the strongest influences on achievement. As with participation, school achievement also predicts employment outcomes later in life (Cunha et al. 2006).

Four indicators comprise the education, training and employment domain:

- early childhood development
- school achievement
- school retention
- transition to employment.

This chapter discusses each of these indicators in turn.

7.2 Indicator 1: Early childhood development

Rationale

It is widely understood that the early years of a child's life are critically important for future development, health and wellbeing. A number of diverse factors related to the child and the family influence children's lives. Both learning and development are essential for children's health and wellbeing, and research has shown that early indicators of learning and development (such as those measured in the Australian Early Development Index — AEDI) are powerful indicators of life-long outcomes. Understanding these factors at an early age is instrumental in building capacity for governments and communities to provide supports and services for children and their families in order to increase the chances for favourable outcomes (Centre for Community Child Health and Telethon Institute for Child Health Research 2005).

Measure:

Percentage of children entering school that are developmentally vulnerable

Data characteristics

Table 7.1

PERCENTAGE OF CHILDREN ENTERING SCHOOL THAT ARE DEVELOPMENTALLY VULNERABLE (AEDI AND EDI)

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|---|-----------------------|---|
| <i>Data source</i> | Australian Early Development Index (AEDI) | NA | Early Development Index (EDI) |
| <i>Frequency of collection</i> | Variable | NA | Variable |
| <i>Trend data availability</i> | No | NA | No |
| <i>Method of collection</i> | Teacher measurements using a 100-question checklist | NA | Teacher measurements using a 100-question checklist |
| <i>Age group</i> | First year of school | NA | First year of school |

Source: i Sayers 2008 ii Offord Centre for Child Studies, McMaster University 2007.

Definition

The Australian definition is percentage of children surveyed that were ‘developmentally vulnerable’ on two or more domains of the Australian Early Development Index (AEDI). The five domains of the AEDI are:

- language and cognitive skills
- physical health and wellbeing
- communication skills and general knowledge
- emotional maturity
- social competence.

Calculations

The data were weighted to Socio-Economic Indexes For Area (SEIFA) to control for disadvantage as communities up to 2009 nominated to join the project. The SEIFA index uses ABS Census information to measure levels of socio-economic disadvantage.

This calculation will change to the proportion of developmentally vulnerable children against all Australian children when the AEDI is implemented nationally.

Countries included in comparison

Australia and Canada.

Qualifying comments

‘Developmentally vulnerable’ children in Australia are identified by the respective domain cut-off. These children demonstrate a much lower than average ability in the skills measured in that developmental domain. Children who are developmentally vulnerable in two or more domains are considered to be at particularly high risk developmentally. Because the starting age for the first year of formal full-time school can differ among Australian states the analysis controls for the age of the children.

The AEDI was developed from the original early development index (EDI) in Canada, and the Canadian data measure vulnerability against the same domains. Vulnerable children in Canada were identified as scoring below the tenth percentile of the site population in two or more of the five domains. Canada is the only other country that measures a comparable EDI.

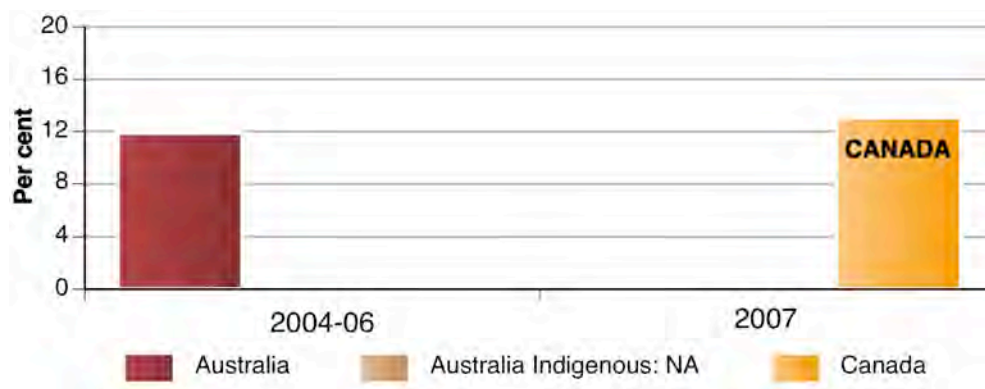
In Australia, a national implementation of the AEDI will be available from 2009 and it is anticipated that the AEDI survey would be conducted nationally every three years.

No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 7.1

PERCENTAGE OF CHILDREN ENTERING SCHOOL THAT ARE DEVELOPMENTALLY VULNERABLE (AEDI AND EDI)



In 2004–06 in Australia, 11.9% of children were considered to be developmentally vulnerable. In Canada 2007, 13.1% of children were considered to be developmentally vulnerable.

7.3 Indicator 2: School achievement

Rationale

Education achievement is an indicator of children's current wellbeing but also an important influence on future life chances. Children with low literacy and numeracy skills have higher rates of not completing secondary school or higher education, and are more likely to experience unemployment later in life. The ability to apply knowledge is essential to succeeding. Developing key literacies, beginning at an early age, helps children to develop the skills needed to fulfil their potential and to participate and contribute to society.

Measure:

Average achievement in reading, maths and science for students aged 15 years

Table 7.2

AVERAGE ACHIEVEMENT IN READING, MATHEMATICS AND SCIENCE FOR STUDENTS AGED 15 YEARS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|---|---|---|
| <i>Data source</i> | Programme for International Student Assessment (PISA) | Programme for International Student Assessment (PISA) | Programme for International Student Assessment (PISA) |
| <i>Frequency of collection</i> | Every 3 years | Every 3 years | Every 3 years |
| <i>Trend data availability</i> | From 2000 | From 2000 | From 2000 |
| <i>Method of collection</i> | Randomly selected students (aged approximately 15 years) participate in a standardised test that measures their reading, maths and science literacy | Randomly selected students (aged approximately 15 years) participate in a standardised test that measures their reading, maths and science literacy | Randomly selected students (aged approximately 15 years) participate in a standardised test that measures their reading, maths and science literacy |
| <i>Age group</i> | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months |

Source: i OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5 ii Thomson S and De Bortoli L 2008, Tables 3.4, 5.9 & 6.6; 2004, Table 4.7. iii OECD 2007a, Tables 2.1c, 6.1c, 6.2c ; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5.

Definition

PISA measures of student performance in reading, mathematics and scientific literacy are scaled to a mean of 500 and a standard deviation of 100 across OECD countries.

Calculations

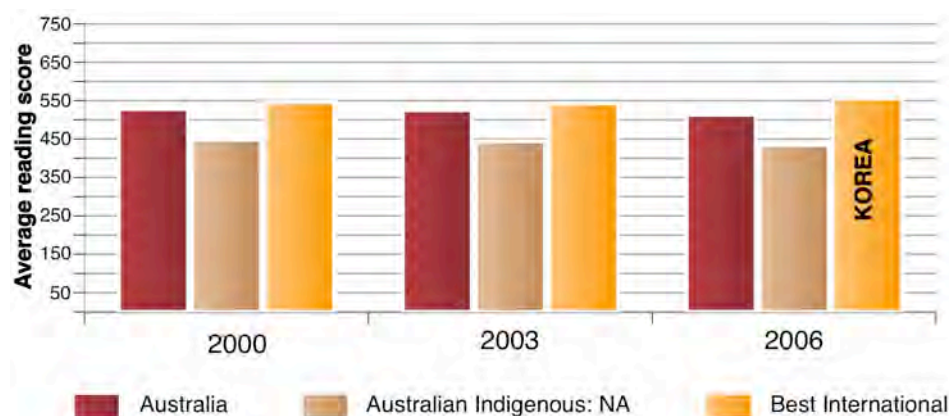
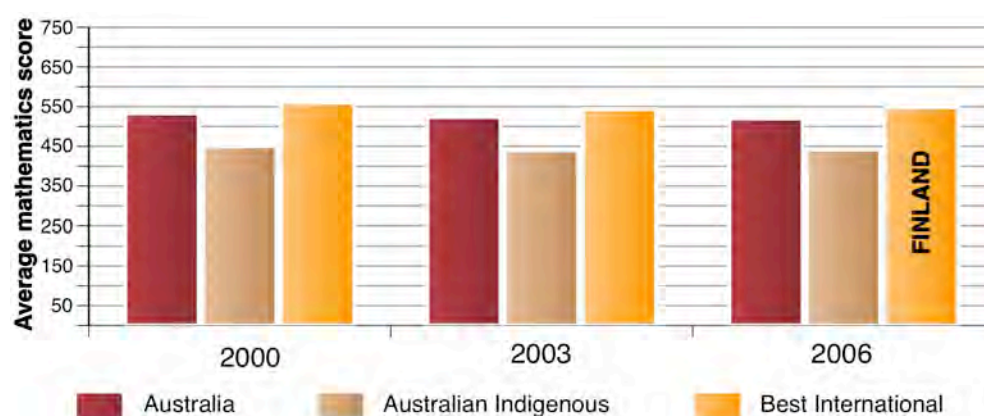
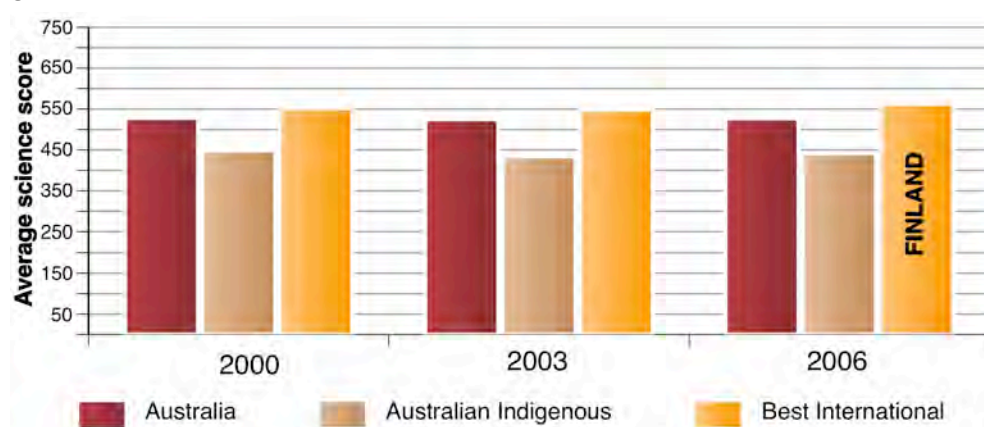
Reported mean student score.

Countries included in comparison

All OECD countries.

Results and analyses

Figure 7.2

AVERAGE ACHIEVEMENT IN READING, MATHEMATICS AND SCIENCE FOR STUDENTS AGED 15 YEARS**READING****MATHEMATICS****SCIENCE**

Reading:

Performance in reading for 15-year-olds from both the total Australian and Indigenous Australian populations has declined slightly since 2000. Conversely, the best international performance increased in 2006 to 556 (from 543 in 2003) after decreasing between 2000 and 2006. The average reading score in Korea was higher than both total Australian and Indigenous Australian average scores. Indigenous Australian average scores were lower than total Australian average scores — in 2006 the total Australian average score was 513 and the Indigenous Australian score was 434. The difference between the total Australian and best international average scores is smaller than the difference between the average scores for the total Australian and Indigenous Australian populations.

Mathematics:

The performance in mathematics from 15-year-olds from the total Australian population has declined marginally while the Indigenous Australian average score and the best international average score shows slight improvement between 2003 and 2006. The best international score (from Finland) was 548 in 2006, which was higher than both the total Australian and Indigenous Australian average scores. The average mathematics score for young people from the total Australia population is consistently higher than the average mathematics score for Indigenous Australians — in 2006, the total Australian average score was 520 and the Indigenous Australian score was 442. The difference between the total Australian and best international average scores is smaller than the difference between the average scores for the total Australian and Indigenous Australian populations.

Science:

Performance in science improved slightly for all groups from 2003 to 2006 after some worsening from 2000 to 2003. However, both the total Australian and Indigenous Australian average scores did not improve to reach their respective average scores in 2000. Finland's average score in 2006 was 563, which was higher than the total Australian average score of 527 and the Indigenous Australian average score of 441. The best international score was consistently higher than the total Australia score and the total Australia score was consistently higher than the Indigenous Australian score. The difference between the total Australian and best international average scores is smaller than the difference between the average scores for the total Australian and Indigenous Australian populations.

Measure:

Adult literacy – Percentage of adults (aged 16–44 years) achieving at least a level 3 score in prose literacy

Children up to the age of five who have had limited exposure to printed language and who have not been read to as a child have increased risk for reading failure and general poor school performance. Parents who have poor literacy skills may not use written materials such as newspapers, magazines, and books to receive information and may find it difficult to convey messages to their child(ren) using written language (Klass 2004).

Data characteristics

Table 7.3

PERCENTAGE OF ADULTS (AGED 16–44 YEARS) ACHIEVING AT LEAST A LEVEL 3 SCORE IN PROSE LITERACY

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <i>Data source</i> | Adult Literacy and Life Skills 2006 | NA | Adult Literacy and Life Skills 2003 |
| <i>Frequency of collection</i> | Not regular | NA | Not regular |
| <i>Trend data availability</i> | No | NA | No |
| <i>Method of collection</i> | Survey | NA | Survey |
| <i>Age group</i> | 16–44 years | NA | 16–44 years |

Source: i and iii ABS 2008, Table 7.

Definition

Percentage of adults (aged 16–44 years) that attained a level 3, 4 or 5 score in prose literacy. Prose literacy is the ability to understand and use information from various kinds of narrative texts, including texts from newspapers, magazines and brochures:

Level 3 (276–275)

Tasks in this level tend to require respondents to make literal or synonymous matches between the text and information given in the task, or to make matches that require low-level inferences. Other tasks ask respondents to integrate information from dense or lengthy text that contains no organisational aids such as headings. Respondents may also be asked to generate a response based on information that can be easily identified in the text. Distracting information is present, but is not located near the correct information.

Level 4 (326–375)

These tasks require respondents to perform multiple-feature matches and to integrate or synthesize information from complex or lengthy passages. More complex inferences are needed to perform successfully. Conditional information is frequently present in tasks at this level and must be taken into consideration by the respondent.

Level 5 (376–500)

Some tasks in this level require the respondent to search for information in dense text which contains a number of plausible distracters. Others ask respondents to make high-level inferences or use specialized background knowledge. Some tasks ask respondents to contrast complex information.

ABS 2008, p. 77

Calculations

Numerator: number of surveyed adults aged 16–24, 25–34 and 35–44 years that achieved at least a level 3 score in prose literacy.

Denominator: number of surveyed adults in each age group.

Percentages for three age groups averaged to generate level of literacy for adults aged 16–44 years.

Countries included in comparison

Australia, Bermuda, Canada, Italy, Norway, Switzerland and the United States.

Qualifying comments

Level 1 is the lowest measured level of literacy. Level 3 is regarded by the survey developers as the minimum requirement for individuals to meet the complex demands of everyday life and work in emerging knowledge-based economies (Statistics Canada in ABS 2008).

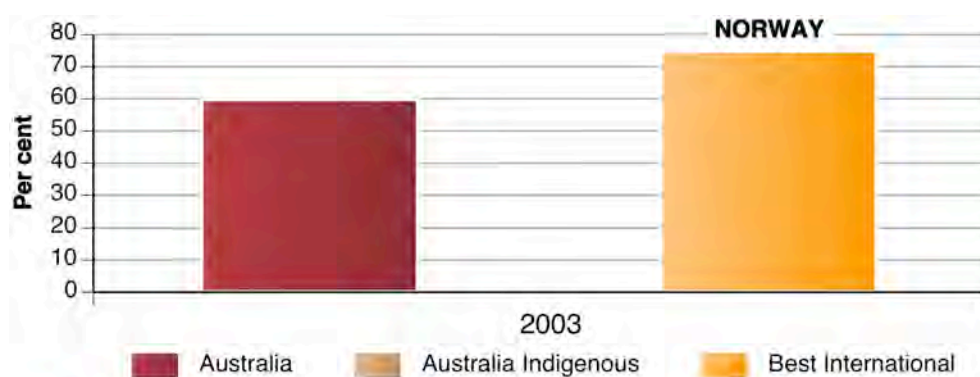
The international data should be treated with caution as different levels of non-response could impact on the comparisons.

No Indigenous Australian data were available for this indicator at this time.

Results and analyses

Figure 7.3

PERCENTAGE OF ADULTS (16–44) THAT ACHIEVED AT LEAST A LEVEL 3 SCORE IN PROSE LITERACY



The percentage of Australian adults with at least a level 3 score in prose literacy in 2003 was 59.9 per cent. As a comparison, 75 per cent of Norwegian adults had at least a level 3 score in prose literacy in 2003.

7.4 Indicator 3: School retention

Rationale

The skills and knowledge gained in formal education give young people the tools to deal effectively with life's challenges. By participating in education beyond the compulsory years, young people not only build a strong foundation for their future in terms of literacy, maths and science, they also gain critical social knowledge and skills. On the other hand, early school leavers face a higher risk in the labour market which persists over time. Research has shown that young people with low levels of school attainment face great difficulty transitioning from school to work and experience higher levels of unemployment and socio-economic disadvantage long term.

Measure:

Percentage of young people aged 15–19 years remaining in education.

Data characteristics

Table 7.4

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS REMAINING IN EDUCATION

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|----------------------------|-------------------------------------|------------------------------|
| <i>Data source</i> | OECD Education at a Glance | NA | OECD Education at a Glance |
| <i>Frequency of collection</i> | Annually | NA | Annually |
| <i>Trend data availability</i> | From 1985 | NA | From 1985 |
| <i>Method of collection</i> | Administrative records | NA | Administrative records |
| <i>Age group</i> | 15–19 years | NA | 15 –19 years |

Source: OECD 2007b, OECD 2006c, Table c2.1

Definition

Percentage of young people aged 15–19 years remaining in education. Enrolment rates are by age and include full-time and part-time students in public and private institutions (OECD 2007b).

Calculations

Numerator: number of young people aged 15–19 years remaining in education.

Denominator: number of young people aged 15–19 years.

Countries included in comparison

OECD.

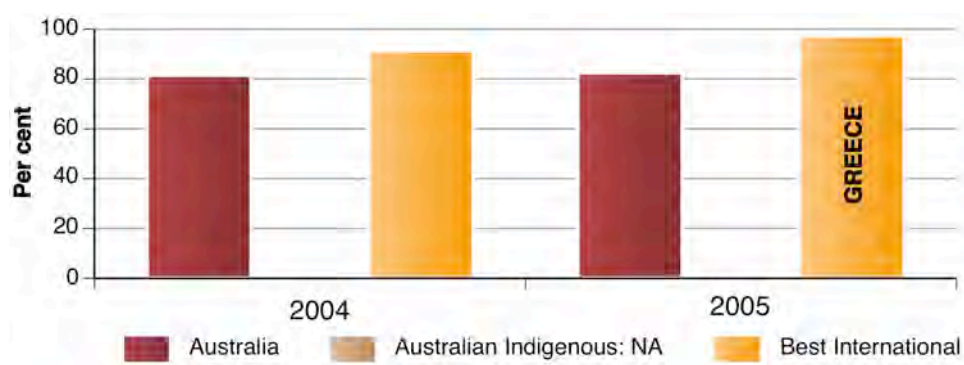
Qualifying comments

No Indigenous Australian data was available for this indicator at this time.

Results and analyses

Figure 7.4

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS REMAINING IN EDUCATION



The percentage of young people aged 15–19 years remaining in education increased slightly in Australia between 2004 and 2005. The percentage of young people in Australia remaining in education rose to 82.5%. However, this is more than ten percentage points less than the percentage of young people remaining in education in Greece, which had 97.4% of young people remaining in education in 2005.

7.5 Indicator 4: Transition to employment

Rationale

The transition from education to employment is a critical milestone in the lives of young people. Several factors influence this transition, including a person's skills and qualifications obtained through schooling and also through the training and employment opportunities available afterwards. Young people who are not in school, training or employment are at increased risk of being excluded from participating and contributing to society.

Measure:

Percentage of young people aged 15–19 years not in education, training or employment.

Data characteristics

Table 7.5

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS NOT IN EDUCATION, TRAINING OR EMPLOYMENT

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|----------------------------|-----------------------|-----------------------------|
| <i>Data source</i> | OECD Education at a Glance | NA | OECD Education at a Glance |
| <i>Frequency of collection</i> | Annually | NA | Annually |
| <i>Trend data availability</i> | From 1985 | NA | From 1985 |
| <i>Method of collection</i> | Administrative records | NA | Administrative records |
| <i>Age group</i> | 15–19 years | NA | 15–19 years |

Source: i and ii OECD 2007b, OECD 2006c, Table c4.3

Definition

Percentage of young people aged 15–19 years not participating in education, training or employment.

Calculations

Numerator: number of young people aged 15–19 years not in education, training or employment.

Denominator: population aged 15–19 years.

Countries included in comparison

OECD.

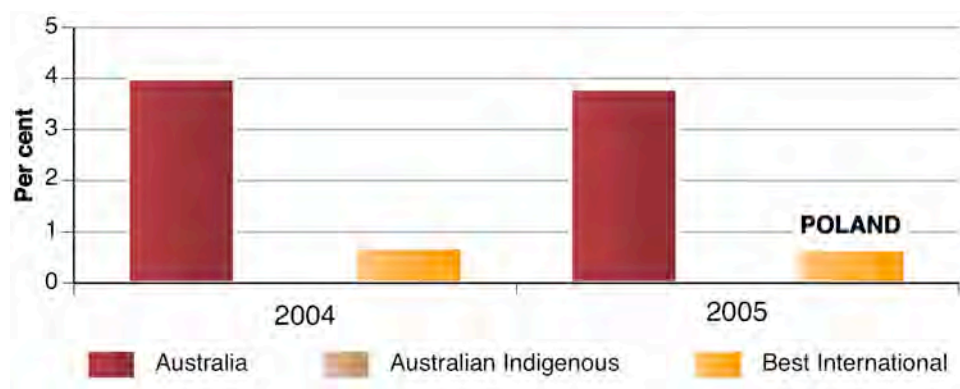
Qualifying comments

No Indigenous Australian data were available for this indicator at this time.

Results and analyses

Figure 7.5

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS NOT IN EDUCATION, TRAINING OR EMPLOYMENT



The percentage of young people aged 15–19 years not in education, training or employment increased slightly from 2004 to 2005 for both Australia and Poland, the best international comparator. However, Poland had a much smaller percentage of young people not taking part in education, training or employment — 0.6% in 2005 compared with 3.8% in Australia.

Chapter 8

Peer and family relationships

8.1 Introduction

The relationships that children and young people form influence their development throughout life. Shonkoff and Phillips (2000) have demonstrated that healthy relationships with both families and peers help children to develop strong social skills, resilience and self esteem. As noted in Chapter 3, caring, quality family relationships have a significant and lasting effect on a child's development and social and emotional wellbeing. Stable and secure family relationships also protect children from stress, illness and hazards (NSCDC 2004).

Unhealthy relationships — where relationships are characterised by conflict or social stress — can adversely affect wellbeing (NSCDC 2005). As children and young people mature, peer relationships are increasingly important sources of advice and support. Equally, friends provide young people with a sense of belonging. Young people who do not have strong peer relationships can feel isolated and alone.

Accordingly, four indicators were identified to measure children and young people's peer and family relationships. However, family structure could not be presented in the Report Card because there were no standardised, comparable indicators for family structure at this point in time. The four indicators included are:

- family relationships
- family structure
- sense of belonging
- social capital.

8.2 Indicator 1: Family relationships

Rationale

While family structures can be an indicator of children's outcomes, another indicator is necessary to measure the strength and quality of children's relationships with family members. Families are the most fundamental social unit in the lives of most children and young people, and a range of robust evidence has emerged that emphasises the importance of healthy family relationships to children's health and wellbeing.

In an analysis of a large data set of young people, Quilgars et al. (2005) found a significant correlation between the quality of young people's relationships with their parents and their subjective wellbeing. Furthermore, in the National Survey of Mental Health and Well-being, Sawyer et al. (2001) observed that children with emotional and behavioural problems were more likely to live in families that were not cohesive. Family relationships, then, can be an indicator of wellbeing for children and young people across a range of domains.

Measure:

Percentage of young people who report eating the main meal of the day with parents several times per week

Data characteristics

Table 8.1

PERCENTAGE OF YOUNG PEOPLE WHO REPORT EATING THE MAIN MEAL OF THE DAY WITH PARENTS SEVERAL TIMES PER WEEK

| Data characteristic | Australiaⁱ | Indigenous Australianⁱⁱ | Internationalⁱⁱⁱ |
|--------------------------------|---|---|---|
| <i>Data source</i> | PISA 2000 | PISA 2000 | PISA 2000 |
| <i>Frequency of collection</i> | 2000 only | 2000 only | 2000 only |
| <i>Trend data availability</i> | From 2000 | From 2000 | From 2000 |
| <i>Method of collection</i> | Survey | Survey | Survey |
| <i>Age group</i> | 15 years 3 months– 16 years 2 months | 15 years 3 months– 16 years 2 months | 15 years 3 months– 16 years 2 months |

Source: i PISA 2000 ii De Bortoli and Cresswell 2004 iii PISA 2000.

Definition

Percentage of surveyed students aged 15 years who report eating the main meal of the day with parents several times per week.

Calculations

Numerator: number of young people who report eating the main meal of the day with parents several times a week.

Denominator: number of surveyed young people.

Countries included in comparison

OECD.

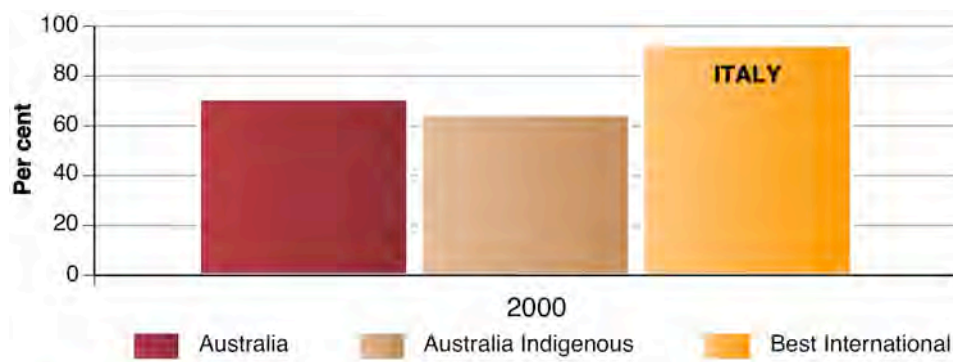
Qualifying comments

This question was asked in the 2000 PISA survey only and will not be repeated in subsequent surveys.

Results and analyses

Figure 8.1

PERCENTAGE OF YOUNG PEOPLE WHO REPORT EATING THE MAIN MEAL OF THE DAY WITH PARENTS SEVERAL TIMES PER WEEK



In total Australia, 70.98% of students aged 15 years and 64.71% of Indigenous Australian students aged 15 years reported eating the main meal of the day with parents more than once a week in 2000. By comparison, 92.61% of students from Italy reported eating the main meal of the day with parents more than once per week.

Measure:

Percentage of young people who report that parents spend time 'just talking' to them more than once a week

Data characteristics

Table 8.2

PERCENTAGE OF CHILDREN WHO REPORT THAT PARENTS SPEND TIME 'JUST TALKING' TO THEM SEVERAL TIMES PER WEEK

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Data source | PISA 2000 | PISA 2000 | PISA 2000 |
| Frequency of collection | 2000 | 2000 only | 2000 |
| Trend data availability | From 2000 | From 2000 | From 2000 |
| Method of collection | Survey | Survey | Survey |
| Age group | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months |

Source: i PISA 2000 ii De Bortoli 2008 iii PISA 2000.

Definition

Percentage of surveyed students aged 15 years who report that their parents spend time ‘just talking’ to them more than once per week.

Calculations

Numerator: number of young people who report that parents spend time ‘just talking’ to them more than once per week.

Denominator: number of surveyed young people.

Countries included in comparison

All OECD.

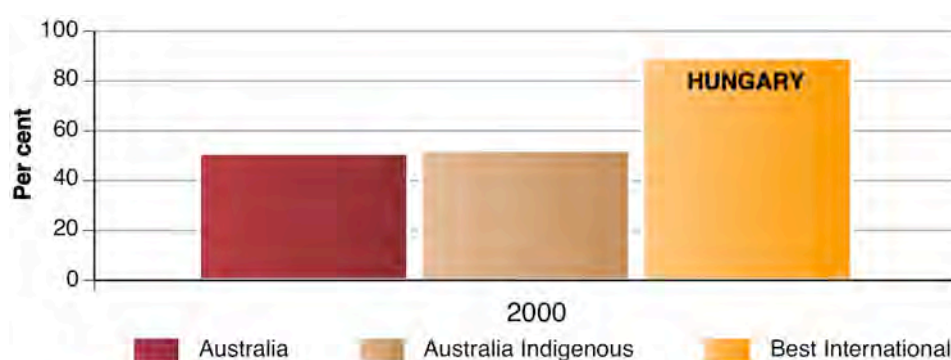
Qualifying comments

This question was asked in the 2000 PISA survey only and will not be repeated in subsequent surveys.

Results and analyses

Figure 8.2

PERCENTAGE OF YOUNG PEOPLE WHO REPORT THAT PARENTS SPEND TIME ‘JUST TALKING’ TO THEM SEVERAL TIMES PER WEEK



In total Australia, 51.13% of students aged 15 years and 52.38% of Indigenous Australian students aged 15 years reported that parents spent time ‘just talking’ to them more than once a week in 2000. By comparison, 89.41% of students from Hungary reported that parents ‘just talk’ to them more than once per week.

8.3 Indicator 2: Sense of belonging

Rationale

In addition to family relationships, the relationships that young people form with their peers profoundly affect their wellbeing (Hanafin and Brooks 2005). Many of the most important peer relationships in young people’s lives are those developed in the school context. Consequently, as Currie et al. (2004) observe, young people’s feelings about school reflect their interactions with both their peers and the wider school environment.

Measure:

Percentage of young people who report feeling a sense of belonging in their school

Data characteristics

Table 8.3

PERCENTAGE OF YOUNG PEOPLE WHO REPORT FEELING A SENSE OF BELONGING IN THEIR SCHOOL

| Data characteristic | Australiaⁱ | Indigenous Australianⁱⁱ | Internationalⁱⁱⁱ |
|--------------------------------|-------------------------------------|---|-------------------------------------|
| <i>Data source</i> | PISA 2000, PISA 2003 | PISA 2000 | PISA 2000, PISA 2003 |
| <i>Frequency of collection</i> | 2000 and 2003 | 2000 only | 2000 and 2003 |
| <i>Trend data availability</i> | 2000 & 2003 only | 2000 & 2003 only | 2000 & 2003 only |
| <i>Method of collection</i> | Survey | Survey | Survey |
| <i>Age group</i> | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months |

Source: i PISA 2000; PISA 2003 ii De Bortoli 2008 iii PISA 2000, PISA 2003.

Definition

Percentage of surveyed students aged 15 years who report ‘agree’ or ‘strongly agree’ to the statement ‘my school is a place where I feel like I belong’.

Calculations

Numerator: number of students who report feeling a sense of belonging in their school.

Denominator: number of surveyed students.

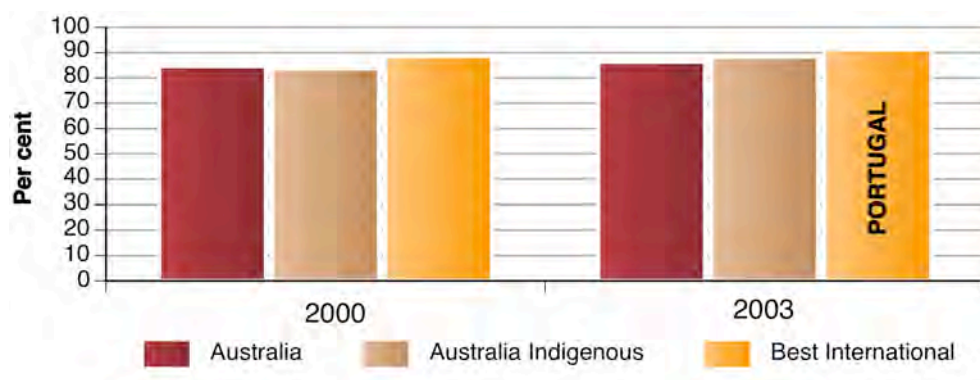
Countries included in comparison

All OECD countries.

Results and analyses

Figure 8.3

PERCENTAGE OF YOUNG PEOPLE WHO REPORT FEELING A SENSE OF BELONGING IN THEIR SCHOOL



In total Australia in 2003, 86.36% of students aged 15 years reported that they felt a sense of belonging in their school. By comparison, 91.18% of students aged 15 years from Portugal reported that they felt a sense of belonging in their school in 2003. In 2003, 88.32% of Indigenous Australian children aged 15 years reported that they felt a sense of belonging in school.

Measure:

Percentage of students aged 15 years who feel awkward and out of place at school

Data characteristics

Table 8.4

PERCENTAGE OF STUDENTS AGED 15 YEARS WHO FEEL AWKWARD AND OUT OF PLACE AT SCHOOL

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Data source | PISA 2003 | PISA 2003 | PISA 2003 |
| Frequency of collection | Every three years | Every three years | Every three years |
| Trend data availability | 2000 & 2003 only | 2000 & 2003 only | 2000 & 2003 only |
| Method of collection | Survey | Survey | Survey |
| Age group | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months | 15 years 3 months–16 years 2 months |

Source: i PISA 2000 ii De Bortoli 2008 iii PISA 2000

Definition

The percentage of students aged 15 years who agree with the statement ‘my school is place where I feel awkward and out of place’.

Calculations

Numerator: number of students aged 15 years that report agreeing or strongly agreeing to the statement ‘my school is a place where I feel awkward and out of place’.

Denominator: number of surveyed students.

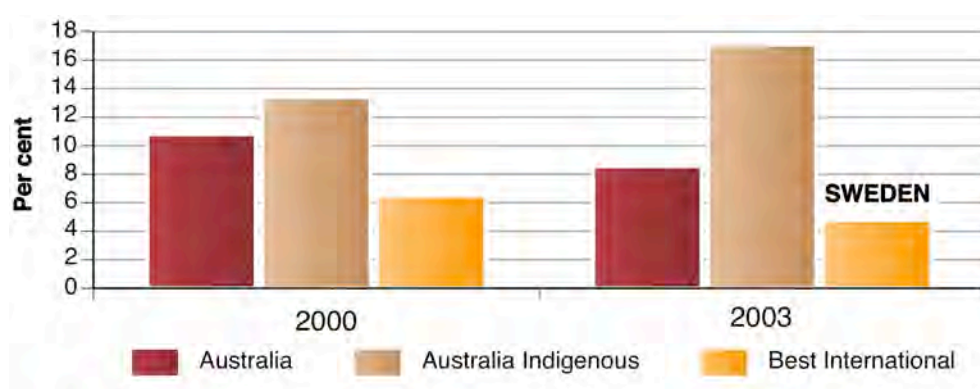
Countries included in comparison

All OECD countries.

Results and analyses

Figure 8.4

PERCENTAGE OF STUDENTS AGED 15 YEARS WHO FEEL AWKWARD AND OUT OF PLACE AT SCHOOL



In total Australia in 2003, 8.56% of students aged 15 years felt awkward and out of place at school and 17.1% of Indigenous Australians aged 15 years felt the same way. By comparison, 4.8% of students aged 15 years felt the same way in Sweden in 2003.

8.4 Indicator 3: Social capital

Rationale

Social capital refers to the interactions and networks that draw communities and groups together. Putnam (2000) found that communities with high levels of social capital are cohesive, have strong civil institutions, and encourage trusting, reciprocal relationships among individuals.

In recent years, policy makers have focused increasing attention and resources on building and maintaining social capital across a wide range of policy areas, including education, health and community services. The focus of Australian governments' policy in COAG that relates to children's development in particular has emphasised the role of children's services in building human and social capital. Putnam's (2000) research supports this perspective and suggests that social capital is important in encouraging healthy children's development. The characteristics of communities with high levels of social capital — trust, reciprocity and connectedness — provide optimal conditions for healthy children's development.

The percentage of young people reporting they are able to get support in a time of crisis from outside the household as a percentage of all children surveyed indicates the existence of a support network.

Measure:

Proportion of young people able to get support in time of crisis from persons living outside the household

Data characteristics

Table 8.5

PROPORTION OF YOUNG PEOPLE ABLE TO GET SUPPORT IN TIME OF CRISIS FROM PERSONS LIVING OUTSIDE THE HOUSEHOLD

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International |
|-------------------------|----------------------------------|--|---------------|
| Data source | ABS General Social Surveys (GSS) | ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) | NA |
| Frequency of collection | Quadrennially | Irregular, next due 2008 | NA |
| Trend data availability | From 2002 | From 2002 | NA |
| Method of collection | Survey | Survey | NA |
| Age group | 18–24 years | 15–24 years | NA |

Source: i ABS 2006c ii ABS 2006b

Definition

The number of young people reporting they are able to get support in a time of crisis from persons living outside the household (family members, friends, neighbours, work colleagues or various community, government and professional organisations) as a percentage of all young people in the sample. Support could be in the form of emotional, physical or financial help. In this case, young people are defined as between the age of 15–24 years (NATSISS) and 18–24 years (GSS).

Calculations

Numerator: total number of young people able to get support in time of crisis from persons outside the household.

Denominator: total number of young people in the sample.

Fraction multiplied by 100.

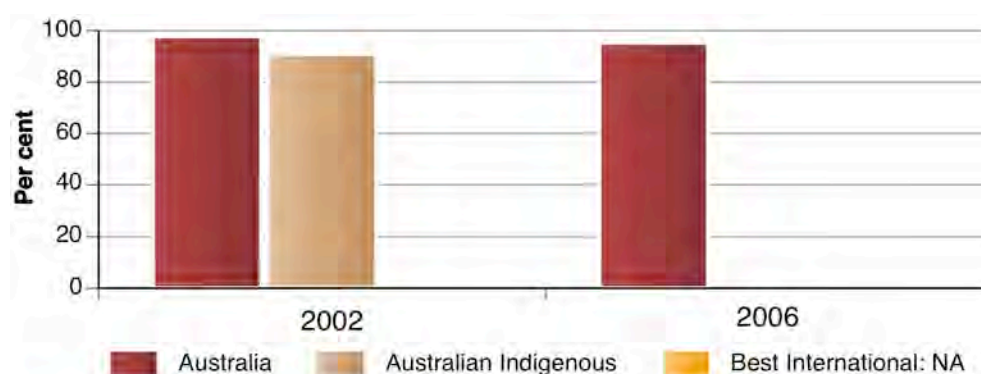
Countries included in comparison

No international data were available for this indicator at this time.

Results and analyses

Figure 8.5

PROPORTION OF YOUNG PEOPLE ABLE TO GET SUPPORT IN TIME OF CRISIS FROM PERSONS LIVING OUTSIDE THE HOUSEHOLD



The trend in Australia shows a reduction in the proportion of young people reporting they are able to access support in a time of crisis, from 97.8% in 2002 to 95.3% in 2006. Fewer Indigenous young people reported being able to access support in a time of crisis compared with total Australian young people. In 2002, 90.9% of Indigenous young people said they could access support compared with 97.8% of Australian young people.

Chapter 9

Behaviours and risks

9.1 Introduction

Healthy behaviours, such as regular exercise and nutritional eating, are protective health factors that contribute positively to child and young people's wellbeing. In contrast, wanting to belong often results in adolescents engaging in risky behaviour, such as alcohol and other drug use or unprotected sex. These behaviours negatively impact on wellbeing as they may contribute to poor health or social outcomes, for example unwanted pregnancy or involvement with the criminal justice system.

Although a wide range of behaviours have either a positive or negative effect on health and wellbeing, seven indicators have been identified to measure the key behaviours and risks that affect wellbeing outcomes:

- overweight and obesity
- cigarette smoking
- harmful alcohol use
- teenage fertility
- crime
- illicit drug use
- road deaths.

This chapter discusses each of these indicators in turn.

9.2 Indicator 1: Overweight and obesity

Rationale

Childhood overweight and obesity has become a major public health concern both internationally and in the Australian context. The high prevalence, coupled with the range of physical and psychosocial consequences in the short and long term, make it a significant indicator of child and young people's wellbeing.

In 1995, 21% of boys and 23% of girls aged 2–17 years were overweight or obese (Booth et al. 2001). Significant increases in childhood obesity have been seen in recent years. In the period between 1985 and 1997, childhood overweight doubled and obesity trebled among children aged 7–15 years (Booth et al. 2003). The prevalence of obesity in Australian children and young people is among the highest in the world and is also increasing at one of the fastest rates (Lobstein et al. 2004).

Childhood obesity is an important determinant of wellbeing both in the short and long term. In the short term, children and adolescents who are overweight or obese are more likely to develop gastrointestinal, endocrine and certain orthopaedic problems than children of normal weight (Must and Strauss 1999). Obese children are also more likely to develop the risk factors for heart disease, stroke and diabetes. In addition, obesity is associated with a number of psychosocial problems, including social isolation, discrimination and low self esteem (Strauss 2000, Dietz 1998).

In the long term, there is now clear evidence that obesity persists into adulthood. Estimates suggest that around two-thirds of obese children become obese adults (Margarey et al. 2003). The health impacts of adult obesity are well documented and include increased risk of diabetes, cardiovascular diseases and musculoskeletal problems (WHO 2000).

Measure:

The percentage of children aged 6–11 years whose body mass index (BMI) score is above the international cut-off points for ‘overweight’ for their age and sex

We are unable to report on this indicator at present. However, these data will be available in future report cards, so the indicator remains as a ‘place-holder’.

Measure:

The percentage of young people aged 18–24 years whose body mass index (BMI) score is above the international cut-off points for ‘overweight’ for their age and sex

Data characteristics

Table 9.1

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE ‘OVERWEIGHT’ FOR THEIR AGE AND SEX

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|------------------------------------|--|--|
| Data source | ABS National Health Survey 2004–05 | National Aboriginal and Torres Strait Islander Health Survey 2004–05 | WHO Global Infobase Surf 2 County Profiles |
| Frequency of collection | 1995, 2001 and 2004–05 | 2001 and 2005 | Collaboration of data from OECD countries |
| Trend data availability | 1995 and from 2001 | From 2001 | No |
| Method of collection | Survey | Survey | Administrative records |
| Age group | 18–24 years | 18–24 years for 2004–05 and 15–24 years for 2001 | 15–24 years |

Source: i ABS 2006a, Table 25. ii ABS 2006b, Table 21. iii WHO 2005

Definition

Percentage of young people aged 18–24 years with a Body Mass Index (BMI) above the international cut-off points for ‘overweight,’ and ‘obese,’ for their age and sex. The international cut-offs are a BMI of 25 and 30 for overweight and obesity, respectively.

Calculations

Numerator: number of young people aged 18–24 years with a BMI above international cut-off points for ‘overweight’ and ‘obese’.

Denominator: number of surveyed young people aged 18–24 years.

Countries included in comparison

Australia.

Qualifying comments

The Australian data are based on self-reported height and weight. The ‘overweight’ and ‘obese’ measures are comparable with the WHO and the NHMRC guidelines. Population-level benchmarks are based on the estimated resident population (ERP) for 31 December 2004 adjusted for the scope of the survey so they do not match other estimates of the Australian resident population.

The 2004–05 NATSIHS was benchmarked to the estimated Indigenous resident population living in private dwellings in each state and territory at 31 December 2004. The estimates were based on the results from the 2001 ABS Census of Population and Housing.

The data for Indigenous females and males in 2001 are for the 15–24-year-olds. There are no Indigenous Australian data for 1995.

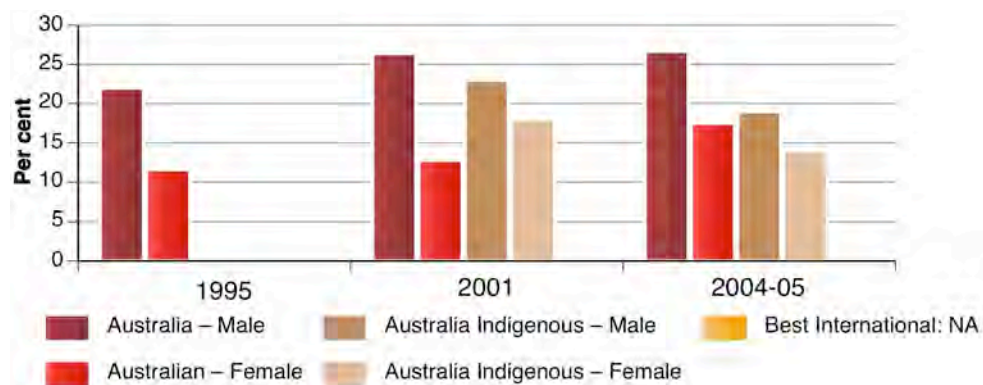
International data are only available for obesity prevalence. Japan provides data for overweight prevalence; however, the age group for this indicator is 20–29 years.

Furthermore, age grouping differs between country data, so caution must be taken when interpreting the results and analyses.

Results and analyses

Figure 9.1

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE 'OVERWEIGHT' FOR THEIR AGE AND SEX

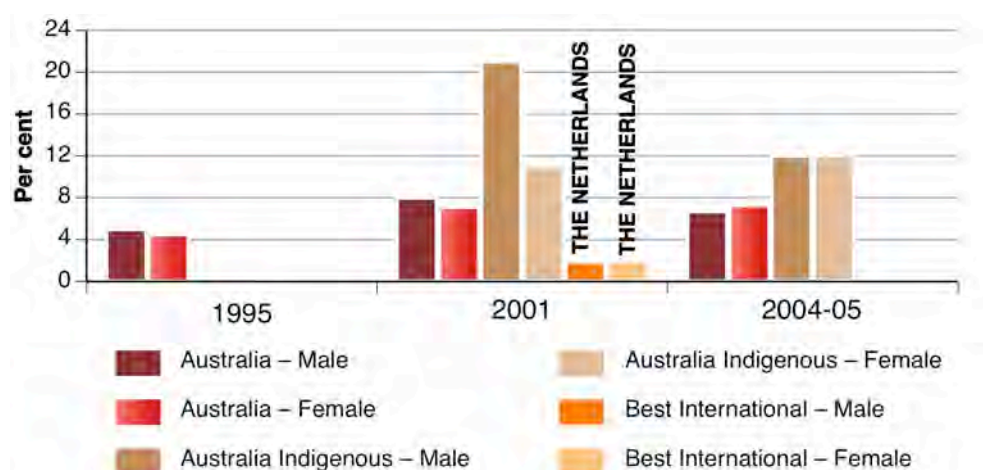


Percentage of young people aged 18–24 years who are 'overweight' for their age and sex

A greater percentage of males are overweight than females for both total Australia and Indigenous Australia. In 2004, the proportion of overweight young people for total Australia was lower than for Indigenous Australia — 26.7% and 17.5% for total Australian males and females respectively compared with 19% and 14% for male and female Indigenous Australians respectively. The trend for overweight young people is decreasing for Indigenous Australia — both males and females. However, it is increasing for total Australia in both males and females.

Figure 9.2

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE 'OBESE' FOR THEIR AGE AND SEX



Percentage of young people aged 18–24 years who are 'obese' for their age and sex

Trends in obesity have increased for total Australian and Indigenous Australian female young people, and at the same time have decreased for total Australian and Indigenous Australian male young people. In 2004–05, Indigenous young people had a higher proportion of obesity than total Australian young people. Both total Australia and Indigenous Australia compare negatively with the best international comparator — the percentage of obese males and females in the Netherlands was 1.9% and 2.0% respectively in 2001. In 2004–05, the percentage of obese males and females in total Australia was 6.7% and 7.3% respectively. However, the percentages for Indigenous Australians were 12% for both males and females.

9.3 Indicator 2: Cigarette smoking

Rationale

Despite having one of the lowest smoking rates in the world, tobacco remains the leading cause of preventable deaths and hospitalisation in Australia. Around 90% of adult smokers start smoking in their teenage years, and the younger smokers begin, the less likely they are to quit (Khuder et al. 1999).

Smoking has both immediate and longer term effects on a person's health. Smoking-related respiratory problems can be observed within weeks of a child or young person starting to smoke (VicHealth Centre for Tobacco Control 2001). The adverse long-term health effects of smoking are well documented and include an increased risk of developing:

- respiratory problems
- emphysema
- coronary disease
- numerous cancers, including lung, throat, mouth, bladder, kidney, cervical and stomach
- peripheral vascular disease due to decreased blood flow (VicHealth Centre for Tobacco Control 2001).

Measure:

The percentage of children aged 13 years who are current weekly smokers

The percentage of children aged 15 years who are current weekly smokers

Data characteristics

Table 9.2

PERCENTAGE OF CHILDREN AGED 13 YEARS AND 15 YEARS WHO ARE CURRENT WEEKLY SMOKERS

| Data characteristic | Australiaⁱ | Indigenous Australian | Internationalⁱⁱ |
|--------------------------------|---|------------------------------|--|
| <i>Data source</i> | Smoking behaviours of Australian secondary students in 2005 | NA | Health Behaviour in School-aged Children (HBSC) Survey |
| <i>Frequency of collection</i> | NA | NA | Every four years |
| <i>Trend data availability</i> | No | NA | From 1998 |
| <i>Method of collection</i> | Survey | NA | Survey |
| <i>Age group</i> | 13 and 15 years | NA | 13 years |

Source: i White and Hayman 2006. ii Currie et. al 2008, 2004

Definition

Percentage of children aged 13 and 15 years who smoke at least one cigarette at least once per week.

Calculations

Numerator: number of surveyed children aged 13 and 15 years who are current weekly smokers.

Denominator: number of surveyed children aged 13 and 15 years.

Countries included in comparison

Australia, Austria, Belgium, Canada, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States of America.

Qualifying comments

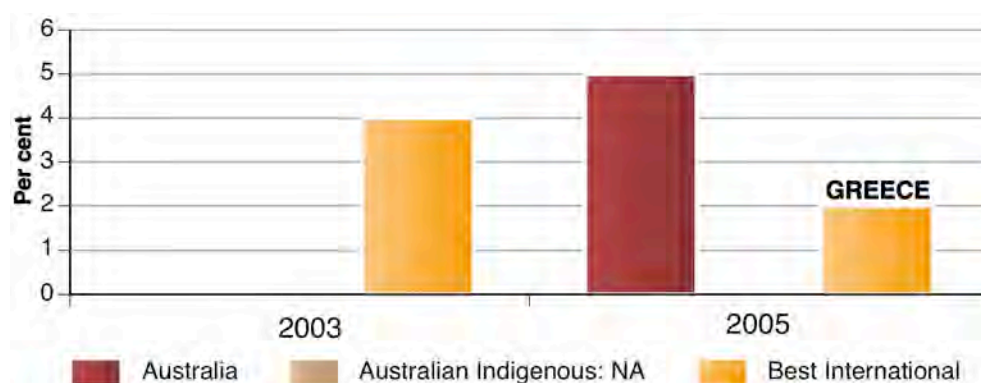
No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Percentage of children aged 13 years who are current weekly smokers

Figure 9.3

PERCENTAGE OF CHILDREN AGED 13 YEARS WHO ARE CURRENT WEEKLY SMOKERS

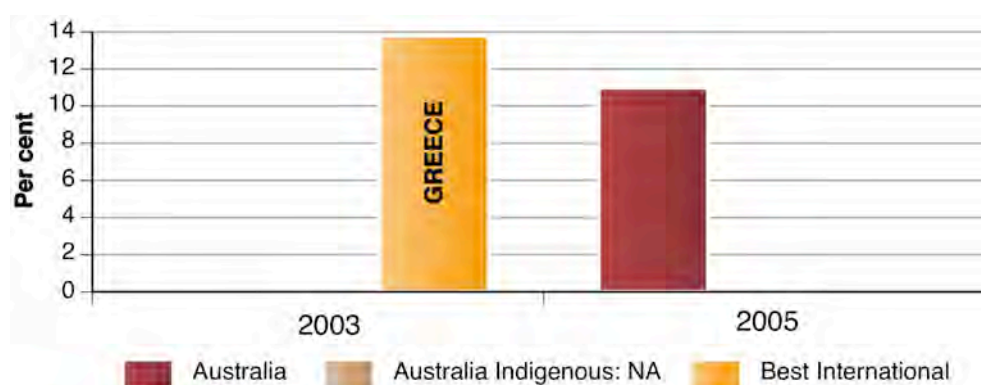


In 2005, the proportion of Australian children aged 13 years who were current weekly smokers in 2005 was higher than the best international comparator. In Australia, 5% of 13-year-olds were weekly smokers compared with 2% of Greek 13-year-olds. Australians aged 13 years were more than twice as likely to smoke as the best international comparator (Greece). The proportion of current smokers aged 13 years from the best international comparator declined from 2003 to 2005.

Percentage of children aged 15 years who are current weekly smokers

Figure 9.4

PERCENTAGE OF CHILDREN AGED 15 YEARS WHO ARE CURRENT WEEKLY SMOKERS



The proportion of Australian children aged 15 who were current weekly smokers in 2005 was lower than the international comparator for 2003. In Australia in 2005, 11% of young people aged 15 years were weekly smokers compared with 13.8% of Greek young people in 2003.

Measure:

The percentage of young people aged 18–24 years who smoke cigarettes daily

Data characteristics

Table 9.3

PERCENTAGE OF YOUNG PEOPLE AGED 18 TO 24 YEARS WHO SMOKE CIGARETTES DAILY

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|---------------------------------------|-------------------------------------|------------------------------|
| Data source | National Health Survey 2005–04 & 2001 | | WHO 2005 |
| Frequency of collection | 1995, 2001 and 2004–05 | | Irregular |
| Trend data availability | 1995 and from 2001 | | No |
| Method of collection | Survey | | Survey |
| Age group | 18 to 24 years | | 18 to 24 years |

Source: i and ii ABS 2006b, Graphs 8.2 and 8.3 iii WHO 2005.

Definition

Percentage of young people aged 18–24 years who smoke one or more cigarettes daily on average at the time of the survey.

Calculations

Numerator: number of young people aged 18–24 years who reported smoking one or more cigarettes daily.

Denominator: number of young people aged 18–24 years.

Countries included in comparison

OECD.

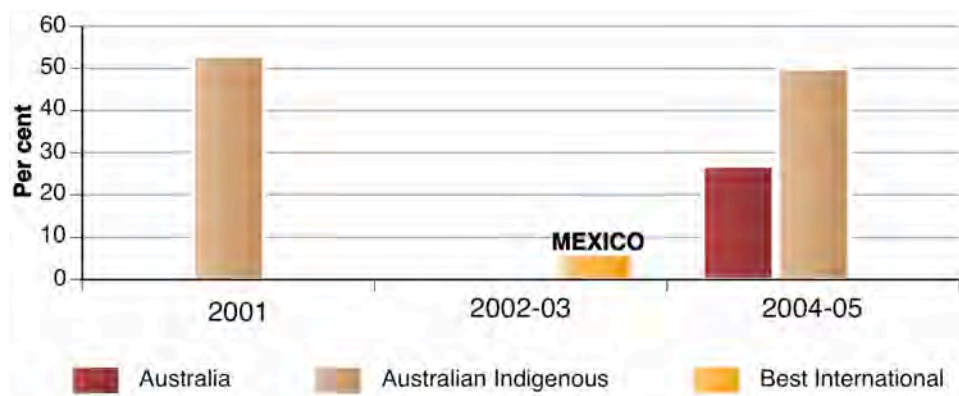
Qualifying comments

International country data are taken from a variety of sources and as such are not directly comparable with other international country data or with Australian data in terms of age groups and available years. However, the definition of a daily smoker is similar in most international jurisdictions. The daily smoker definition in Mexico (the best international comparator) is ‘current daily user’.

Results and analyses

Figure 9.5

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO SMOKE CIGARETTES DAILY



Although the prevalence of cigarette smoking reduced substantially in the past two decades, the numbers of young people smoking is still significant — approximately 180 000 Australian teenagers smoke daily (AIHW 2005b). There has also been a concerning increase in tobacco use in adolescent girls in recent years (ADCA 2003).

The percentage of young people aged 18–24 years who smoke cigarettes daily varies considerably between total Australians, Indigenous Australians and the best international comparator, Mexico. In 2004–05 in total Australia, 26.9% of young people were current daily smokers compared with 50% of Indigenous young people. Only 6.1% of Mexican young people were current daily smokers in 2002–03.

Australia's Indigenous population has an extremely high smoking rate compared with the total Australian population and internationally.

9.4 Indicator 3: Harmful alcohol use

Rationale

Drinking at risky levels is a leading cause of death and injury for young Australians (aged 15–24 years). For example, around 80% of all the alcohol consumed by young people aged 14–17 years is consumed at risky levels for acute harm.

In the 10 years between 1993 and 2002, an estimated 2643 young people aged 15–24 years died from alcohol-attributable injury — around 15% of *all* deaths in that age group. Following declines in the number of alcohol-related deaths in young people in the 1990s, several states and territories have seen an increase in the death rates from alcohol use in recent years. Assaults also account for almost a third of all alcohol-related hospitalisations of young people (Chikritzhs et al. 2004a).

In addition, teenage drinking is predictive of problematic use in later years, which is a risk factor for a number of chronic health conditions (Chikritzhs et al. 2004, 2004a). Earlier initiation of alcohol use and more frequent alcohol use in adolescence is related to alcohol problems later in life (Fergusson et al. 1994).

Measure:

The percentage of young people aged 13 years who drink at risky levels in the short term

Data characteristics

Table 9.4

THE PERCENTAGE OF YOUNG PEOPLE AGED 13 YEARS WHO DRINK AT RISKY LEVELS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|--|-------------------------------------|--|
| <i>Data source</i> | AIHW 2008, National Drug Strategy Household Survey | NA | Health Behaviour in School-aged Children (HBSC) Survey |
| <i>Frequency of collection</i> | Every 3 years | NA | Every 4 years |
| <i>Trend data availability</i> | From 2001 | NA | From 1998 |
| <i>Method of collection</i> | Survey | NA | Survey |
| <i>Age group</i> | 13 years | NA | 13 years |

Source: i Batts 2008 iii Currie C et al. 2008, 2004 Fig. 3.12.

Definition

Australia: percentage of children drinking alcohol to the level of risk of harm in the short term (i.e. at risky or high-risk levels), monthly. Australian risk levels are determined by the *Australian Alcohol Guidelines* (NHMRC 2001), such that risky or high-risk-level drinking in the short term is seven or more drinks on any one day for males, and five or more drinks on any one day for females (however, these levels are based on adult drinkers; risky levels for young people may differ).

International: percentage of young people who have been drunk two or more times.

Calculations

Numerator (Australia): percentage of children aged 13 years who drink at risky levels.

Numerator (international): percentage of children aged 13 years who have been drunk two or more times.

Denominator: number of children aged 13 years surveyed.

Countries included in comparison

Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States of America.

Qualifying comments

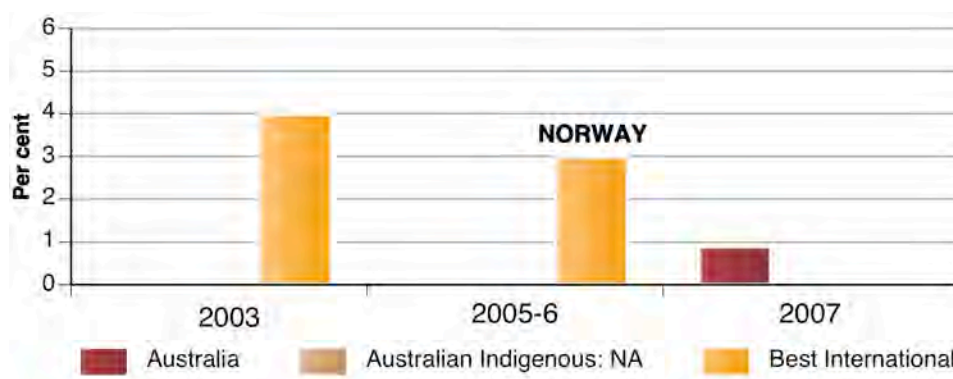
The specific populations selected for sampling were young people attending school who were aged 13 years; that is, in their fourteenth year. In some countries and regions, each age group is in the same grade, because young people are promoted each year. In others, some young people are held back and others are put forward, and these need to be sampled, as well as those who move from grade to grade at the normal rate. Of the respondents, 90% should be within six months of the mean age for each age group and the remaining 10% no more than 12 months from the mean age. The desired mean age for the three age groups is 13.5 years (Currie et al. 2008)

The sample size used in the Australian sample is 239 young people and as such, the result is statistically indistinguishable from zero or one (Batts 2008). The international comparator is a proxy for the Australian data, because there is a different definition. Furthermore, because the definitions of 'risky drinking' in Australia are based on adults, not adolescents, caution must be taken when interpreting the results and analyses.

No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 9.6

PERCENTAGE OF YOUNG PEOPLE AGED 13 YEARS WHO DRINK AT RISKY LEVELS

On the basis of the small sample surveyed, the proportion of Australians aged 13 years who drink at risky levels was low. In 2007, an estimated 0.9% of young people aged 13 years drank at risky levels. This could be compared to Norway (the best international comparator) where 3% of young people aged 13 years reported drinking at risky levels in 2006.

Measure:

The percentage of young people aged 16 years who drink at risky levels

Data characteristics

Table 9.5

THE PERCENTAGE OF YOUNG PEOPLE AGED 16 YEARS WHO DRINK AT RISKY LEVELS

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|--|-------------------------------------|---|
| Data source | AIHW 2008, National Drug Strategy Household Survey | NA | European School Survey Project on Alcohol and Other Drugs (ESPAD) |
| Frequency of collection | Every 3 years | NA | Every 4 years |
| Trend data availability | From 2001 | NA | From 1995 |
| Method of collection | Survey | NA | Survey |
| Age group | 16 years | NA | 16 years |

Source: i Batts 2008 iii Hibell et al. 2004.

Definition

Australia: percentage of children drinking to risk of harm (i.e. at risky or high-risk levels) in the short term, monthly. Australian risk levels are determined by the *Australian Alcohol Guidelines* (NHMRC 2001) such that risky or high-risk-level drinking in the short term is seven or more drinks on any one day for males, and five or more drinks on any one day for females (however, these levels are based on adult drinkers and risky levels for young people may differ).

International: the proportion of students who reported 'binge drinking'; that is, drinking five or more drinks in a row at one drinking occasion (Hibell et al. 2004).

Calculations

Numerator (Australia): percentage of surveyed children aged 16 years who drink at risky levels.

Numerator (international): the proportion of surveyed students who reported 'binge drinking'.

Denominator: number of surveyed children aged 16 years.

Countries included in comparison:

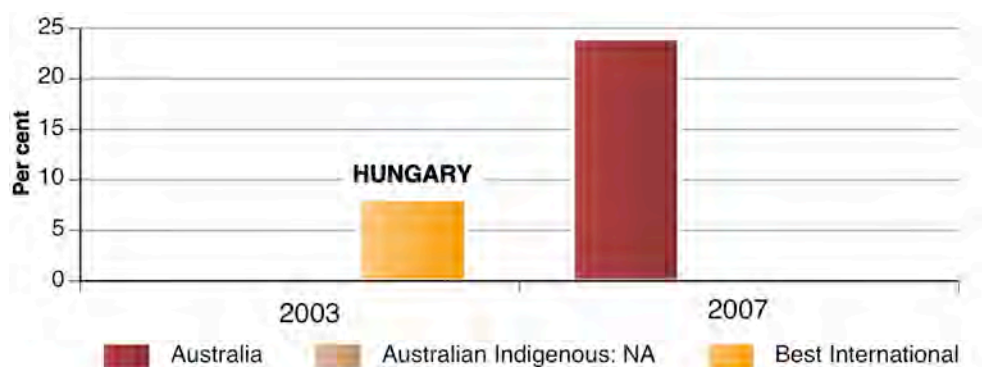
Australia, Austria, Belgium, The Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Sweden, Switzerland, Turkey (six cities), the United Kingdom.

Qualifying comments:

The international and Australian data are not directly comparable due to different definitions of drinking at 'risky levels'. No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 9.7

PERCENTAGE OF YOUNG PEOPLE AGED 16 YEARS WHO DRINK AT RISKY LEVELS

The proportion of Australians aged 16 years who drink at risky levels is higher than the best international comparator (Hungary). In 2007, 24% of Australians aged 16 years drank at risky levels. This is much higher than levels from Hungary, where 8.4% of young people aged 16 years reported drinking at risky levels in 2003.

9.5 Indicator 4: Teenage fertility**Rationale**

Having children while still a teenager (teenage fertility) is associated with poor outcomes for both the mother and baby. Teenage mothers generally have their education disrupted at a critical time and have significantly lower participation in education, employment and training after compulsory age. Low participation, coupled with low school attainment before motherhood, means that by age 30, teenage mothers are significantly more likely to live in poverty and are less likely to have a partner and be employed (UK Department of Health 2007). Furthermore, teenage mothers experience poorer mental health and wellbeing after the birth of their child, compared with women aged over 20 years.

Even when other factors are controlled, children born to teenage mothers show poorer health and development outcomes than children born to mothers aged 20 years or over. These outcomes include:

- *poorer health outcomes* — children born to teenage mothers have higher rates of infant mortality, higher risk of pre-term birth and low birth weight, and higher rates of accidents and falls in infancy; they are also more likely to develop emotional disturbances and behavioural problems (in part due to higher levels of poor emotional health among teenage mothers)

- *poorer socio-economic outcomes* — children born to teenage mothers are much more likely to live in poverty and are less likely to graduate from high school; they are more likely to engage in early sexual activity and become teenage parents themselves (evidence summarised in Schorr and Marchand 2007, UK Department of Health 2007).

Measure 1:

Age-specific fertility rate for females aged 15–19 years

Data characteristics

Table 9.6

AGE-SPECIFIC FERTILITY RATE FOR FEMALES AGED 15–19 YEARS (PER 1000 FEMALES)

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|--------------------------------|------------------------|-------------------------------------|-----------------------------------|
| <i>Data source</i> | ABS Births 2007 | | World Development Indicators 2005 |
| <i>Frequency of collection</i> | Annual | | Annual |
| <i>Trend data availability</i> | From 1996 | | From 1960 |
| <i>Method of collection</i> | Administrative records | | Administrative records |
| <i>Age group</i> | 15–19 years | | 15–19 years |

Source: i ABS 2007a, Table 1.9 ii ABS 2007a, Table 3.9; 2005, Table 3.6; 2003, Table 9.1. iii The World Bank Group 2007.

Definition

The fertility rate is expressed as the number of births to females aged 15–19 years per 1000 females in that age group.

Calculations

Numerator: number of live births to females aged 15–19 years.

Denominator: total number of females aged 15–19 years.

Fraction multiplied by 1000.

Countries included in comparison

OECD.

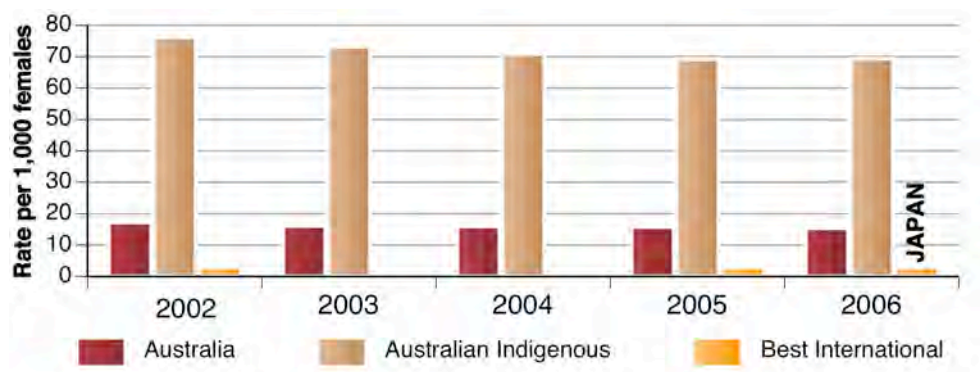
Qualifying comments

Data were not available for international jurisdictions in 2003 or 2004.

Results and analyses

Figure 9.8

AGE-SPECIFIC FERTILITY RATE FOR FEMALES AGED 15–19 YEARS (PER 1000 FEMALES)



The fertility rate for females aged 15–19 years decreased for total Australian females but remained constant for Indigenous Australians. In 2006, the age-specific fertility rate for Japanese females aged 15–19 years was 3 births per 1000 females. This compared with 15.4 births per 1000 Australian females and 69.3 per 1000 Indigenous females. In 2006, Indigenous females aged 15–19 years were 4.5 times more likely to have babies than total Australians, and 23.3 times more likely than Japanese females in the same age group.

9.6 Indicator 5: Crime

Rationale

Juvenile justice clients present with much more complex health needs than other young people, including young people with mental health and intellectual disability, substance abuse, sexually transmitted diseases and infection. Moreover, young people in custody are at an increased risk of injuries and assault, and suicide and self harm (Kenny et al. 2006).

Measure:

The rate of young people aged 10–17 years in juvenile justice supervision

Data characteristics

Table 9.7

RATE OF YOUNG PEOPLE AGED 10–17 YEARS IN JUVENILE JUSTICE SUPERVISION

| Data characteristic | Australia ⁱ | Australian ⁱⁱ | International |
|-------------------------|---------------------------------------|--------------------------|---------------|
| Data source | AIHW Juvenile Justice Minimum dataset | | NA |
| Frequency of collection | Annually | | NA |
| Trend data availability | From 2002–03 | | NA |
| Method of collection | Administrative records | | NA |
| Age group | 10–17 years | | NA |

Source: i AIHW 2006, Table 3.2 ii Anderson 2008; ABS 2004a, Table 33.

Definition

Young people under juvenile justice supervision is defined as those young people aged 10–17 years who have spent at least one day in juvenile justice supervision — community based and detention based — in the collection year.

Calculations

Numerator: number of young males (females) aged 10–17 years in juvenile justice supervision.

Denominator: number of young males (females) aged 10–17 years.

Fraction multiplied by 1000.

Countries included in comparison

None.

Qualifying comments

Some of the young people have experienced both community and detention settings in the same collection year. In addition, the numerator may include some young people aged 18–20 years from Victoria due to this state's juvenile justice process. The Australian Capital Territory was not included in the numerator for 2002–03, because no data were available.

Indigenous population figures (denominator) are based on the ABS high series estimate from the 2001 census to be consistent with the Australian Institute of Criminology (AIC) juveniles in detention publications (Anderson 2008). The denominator was calculated on the assumption that the number of 15–19-year-olds is evenly spread between the 15–19-year age group; therefore, the number of males and females aged 10–17 years is the sum of the 10–14-year age group and three-fifths of the 15–19-year age group.

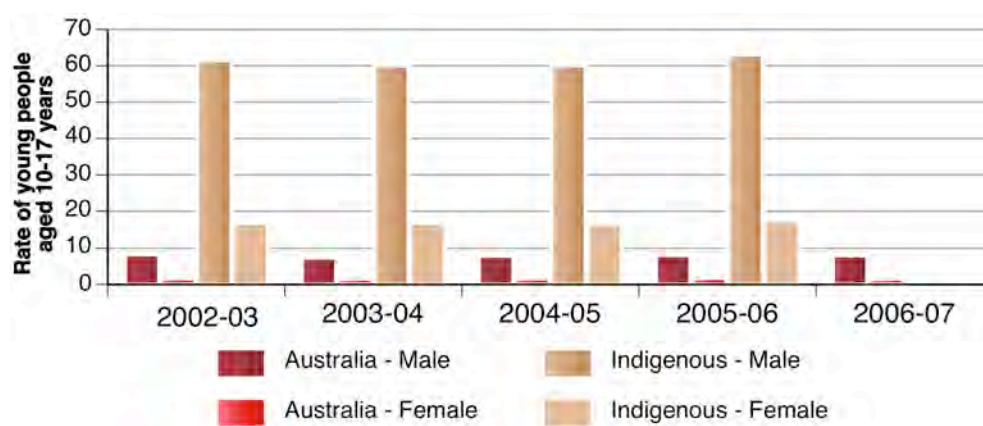
The number of Indigenous males and females under juvenile justice supervision (numerator) does not include young people of unknown Indigenous status.

No international data were available for this indicator at this time.

Results and analyses

Figure 9.9

RATE OF YOUNG PEOPLE AGED 10–17 YEARS IN JUVENILE JUSTICE SUPERVISION



The rate of young people in juvenile justice systems differs between total Australian young people and Indigenous young people. In 2006, 8 males per 1000 males, and 1.8 females per 1000 females, were in juvenile justice supervision compared with 63.1 Indigenous Australian males per 1000 and 17.5 Indigenous Australian females per 1000. The rates for Indigenous young people are substantially higher than the rates for total Australian young people. For both groups, the rate for females is lower than the rate for males. The trend for females in both groups has been stable over the past four years. However, in both groups, the rate for males has increased since 2002.

9.7 Indicator 6: Illicit drug use

Rationale

Risk-taking behaviour is widely known to occur during adolescence and is often associated with peer group acceptance. Many young people experiment with substances that can cause serious health problems. However, this experimentation does not develop into an on-going pattern of addiction for most young people. For a minority of young people, especially those who participate in chronic or multiple substance use, there is the possibility of serious present and long-term health and social consequences (AIHW 2007, Pitman et al 2003).

Measure:

Percentage of young people aged 16–17 years who have used illicit drugs

Data characteristics

Table 9.8

PERCENTAGE OF YOUNG PEOPLE AGED 16–17 YEARS WHO HAVE USED ILLICIT DRUGS

| Data characteristic | Australia ⁱ | Australian | International ⁱⁱ |
|-------------------------|---|------------|-----------------------------|
| Data source | AIHW 2004 National Drug Strategy Household Survey | NA | The ESPAD Report 2003 |
| Frequency of collection | | NA | Every four years |
| Trend data availability | From 1991 | NA | From 1995 |
| Method of collection | Survey | NA | Survey |
| Age group | 16–17 years | NA | 16 years |

Source: i Batts 2008 ii Hibell et al. 2003.

Definition

Life-time experience of any illicit drug, including marijuana or hashish, amphetamines, lysergic acid diethylamide (LSD) or other hallucinogens, crack, cocaine, ecstasy and heroin.

Calculations

Numerator: number of surveyed young people aged 16–17 years who have used illicit drugs.

Denominator: number of surveyed young people aged 16–17 years.

Countries included in comparison

Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Sweden, Switzerland, Turkey (six cities), the United Kingdom.

Qualifying comments

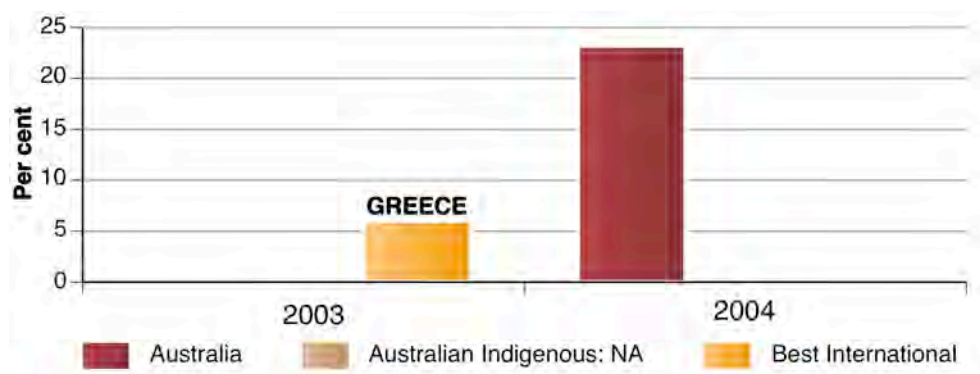
Of the OECD countries included in the ESPAD survey, Turkey had the lowest use of illicit drugs (5%). However, Turkey's data were for limited coverage so this analysis used the next best country — Greece (6%).

No data for Indigenous Australians were available for this indicator at this time.

Results and analyses

Figure 9.10

PERCENTAGE OF YOUNG PEOPLE AGED 16 YEARS WHO HAVE USED ILLICIT DRUGS



The proportion of Australian young people aged 16 years who have used illicit drugs is higher than that of the best international comparator, Greece. In 2007, 23.25% of Australian young people aged 16 years had used illicit drugs in their lifetime, which was significantly higher than 6.5% of young people aged 16 years from Greece.

9.8 Indicator 7: Road deaths

Rationale

Road deaths represent wasted life and potential, and are a tragedy that could be reduced by effective prevention strategies. There is a well-recognised association between socio-economic status and road-related child mortality. Additionally, a link between social deprivation and nonfatal road injuries has also been identified. According to Hallem (2008) a combination of factors are responsible for an increased risk of road-related morbidity and mortality for disadvantaged children. These factors include (Hallem 2008):

- neighbourhood characteristics — exposure to risk is increased in disadvantaged urban areas with high levels of traffic
- housing design — rates of child pedestrian incidents are increased if children have insufficient space to play in their homes or live in a home that opens directly to the street
- family circumstances — disadvantaged children tend to walk to school, often unattended by an adult. They also are less likely to be supervised at road crossings than their more affluent counterparts
- individual behavioural and emotional factors — children who experience hyperactivity have an increased risk of being involved in accidents with moving vehicles.

Measure:

Rate of deaths from road accidents for young people aged 15–19 years and 20–24 years (per 100 000 in those age groups)

Data characteristics

Table 9.9

RATE OF DEATHS FROM ROAD ACCIDENTS FOR YOUNG PEOPLE AGED 15–19 YEARS AND 20–24 YEARS (PER 100 000 YOUNG PEOPLE)

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|---|-----------------------|---|
| <i>Data source</i> | WHO Mortality Database | NA | WHO Mortality Database |
| <i>Frequency of collection</i> | Annual | NA | Annual |
| <i>Trend data availability</i> | Differs for each country | NA | Differs for each country |
| <i>Method of collection</i> | Administrative records | NA | Administrative records |
| <i>Age group</i> | Young people aged 15–19 years and 20–24 years | NA | Young people aged 15–19 years and 20–24 years |

Source: i and ii WHO Mortality Database

Definition

Annual rate of deaths from road accidents per 100 000 for young people aged 15–19 years and 20–24 years.

Calculations

Numerator: number of deaths from road accidents in that age group.

Denominator: population aged 15–19 years and 20–24 years.

Fraction multiplied by 100 000.

Countries included in comparison

All OECD countries; however, several countries had missing data for various years. In addition, Greece, Belgium, Ireland and Turkey did not submit data to the WHO Mortality Database.

Qualifying comments

Australia's most recent entries into the WHO Mortality Database were in 2003 and the latest international entries were in 2006. Results and analysis focus on the years between 2000 and 2003.

Deaths from road accidents are identified as those deaths coded V20–V29 (motorcycle rider injured in transport accident), V40–V49 (car occupant injured in transport accident) and V50–V59 (occupant of pick-up truck or van injured in transport accident).

No data for Indigenous Australians were available for this indicator at this time.

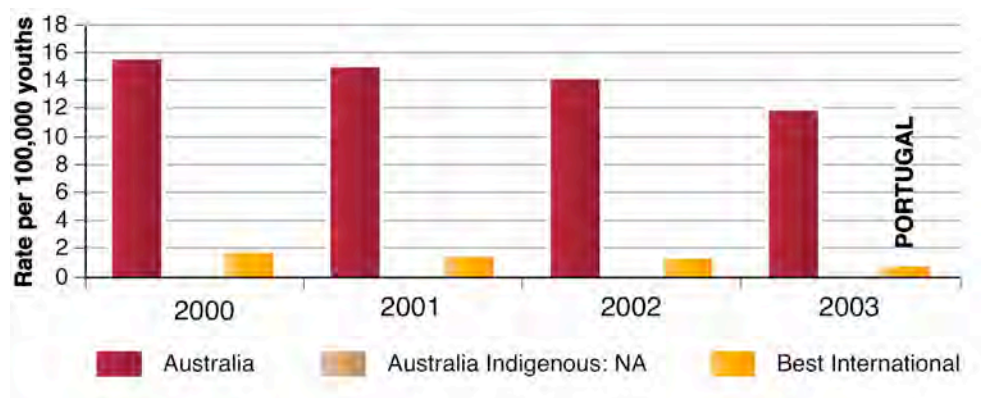
The relationship between deprivation and accidents may apply within countries, but not across them, since poorer countries often have quite low levels of road deaths, simply because they have fewer cars per head of population (Redmond 2008).

Results and analyses

Rate of deaths from road accidents for young people aged 15–19 years (per 100 000 young people)

Figure 9.11

RATE OF DEATHS FROM ROAD ACCIDENTS FOR YOUNG PEOPLE AGED 15–19 YEARS (PER 100 000 YOUNG PEOPLE)

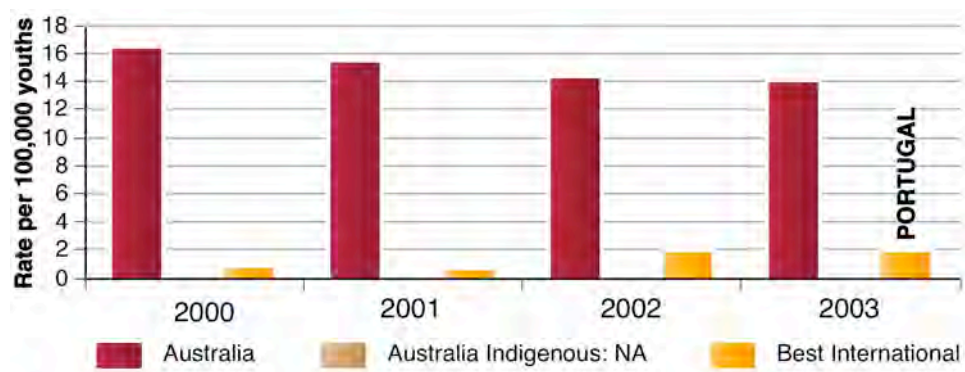


The rate of deaths from road accidents for young people aged 15–19 years declined between 2000 and 2003. However, Australia's rate of death from road accidents remains much higher than the best international comparator. In 2003, the rate of deaths from road accidents in Portugal was 0.97 per 100 000 young people aged 15–19 years compared with 12.02 deaths per 100 000 young people aged 15–19 years for Australia.

Rate of deaths from road accidents for young people aged 20–24 years (per 100 000 young people)

Figure 9.12

RATE OF DEATHS FROM ROAD ACCIDENTS FOR YOUNG PEOPLE AGED 20–24 YEARS (PER 100 000 YOUNG PEOPLE)



The rate of deaths from road accidents for young people aged 20–24 years has declined in Australia in the first half of the decade. However, Australia's rate of death from road accidents remains higher than the best international comparator (Portugal). In 2003, the rate of deaths from road accidents in Portugal was 2.01 per 100 000 young people aged 20–24 years in comparison with 14.22 deaths per 100 000 young people aged 20–24 for Australia.

Chapter 10

Subjective wellbeing

10.1 Introduction

Together with the health and safety domain, subjective wellbeing represents the personal resources that children and young people have to achieve their wellbeing. Subjective wellbeing is:

... how children [and young people] feel about themselves and their environment. It is a result of how children respond to the demands and resources in their environment.

Bradshaw et al. 2006

Subjective wellbeing assists in understanding how risk and protective factors are actually playing out for children and young people.

Two indicators have been identified to measure subjective wellbeing:

- self-reported health
- personal wellbeing.

This chapter discusses these indicators in turn.

10.2 Indicator 1: Self-reported health

Rationale

Self-reported health ratings are a simple measure of perceived overall health status and are used internationally. As noted by the WHO:

people are usually well informed about their health status, the positive and negative effects of their behaviour on their health and their use of health care services. Yet their perceptions of their health can differ from what administrative and examination-based data show about levels of illness within populations. Thus, survey results based on self-reporting at the household level complement other data on health status and the use of services.

WHO 2004

Measure:

Percentage of young people aged 15–24 years satisfied with their health

Data characteristics

Table 10.1

PERCENTAGE OF YOUNG PEOPLE AGED 15–24 YEARS SATISFIED WITH THEIR HEALTH

| Data characteristic | Australia ⁱ | Indigenous Australian ⁱⁱ | International ⁱⁱⁱ |
|-------------------------|------------------------------------|--|------------------------------|
| Data source | ABS National Health Survey 2004–05 | National Aboriginal and Torres Strait Islander Health Survey 2004–05 | OECD health data 2007 |
| Frequency of collection | 1995, 2001 and 2004–05 | 2001 and 2005 | Annual |
| Trend data availability | 1995 and from 2001 | From 2001 | From 1999 |
| Method of collection | Survey | Survey | Survey |
| Age group | 15–24 years | 15–24 years | 15–24 years |

Source: i ABS 2006a, Table 3. ii ABS 2006b, Table 7 iii OECD health data 2007

Definition

Percentage of young people aged 15–24 years rating their health as good, very good or excellent.

Calculations

Numerator: number of young people aged 15–24 years rating their health as good, very good or excellent.

Denominator: number of young people aged 15–24 years surveyed.

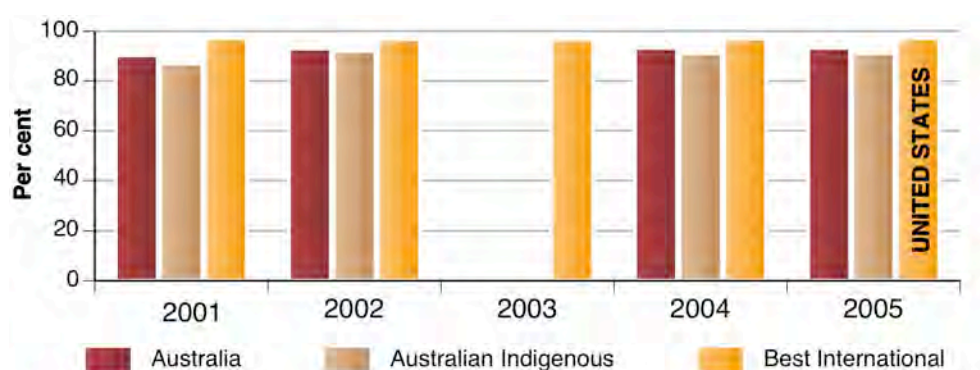
Countries included in comparison

OECD.

Results and analyses

Figure 10.1

PERCENTAGE OF YOUNG PEOPLE AGED 15–24 YEARS SATISFIED WITH THEIR HEALTH



The percentage of young people aged 15–24 years satisfied with their health has remained relatively constant for the first half of the decade. The best international comparator (United States) had a consistently higher percentage of young people satisfied with their health than the total Australian population. Similarly, a consistently higher percentage of young people from the total Australian population were satisfied with their health compared to Indigenous Australian young people. In 2005, 97.1% of Americans were satisfied with their health compared with 93.3% of total Australians and 91.0% of Indigenous Australians.

10.3 Indicator 2: Personal wellbeing

Rationale

The way young people perceive themselves and their lives determines the way they relate to their peers. Negative self perception is associated with depression and hopelessness, which may translate into a less assertive style of interaction. This in turn may lead to children becoming a target for bullying (Salmivalli and Isaacs 2005).

Self-reported personal wellbeing is also an indicator of mental, social and emotional wellbeing.

Measure:

Percentage of young people aged 18–24 years who are satisfied with life

Data characteristics

Table 10.2

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE SATISFIED WITH LIFE

| Data characteristic | Australiaⁱ | Indigenous Australian | International |
|--------------------------------|---|------------------------------|----------------------|
| <i>Data source</i> | Australian Centre for Quality of Life Surveys | NA | NA |
| <i>Frequency of collection</i> | 2–3 times per year | NA | NA |
| <i>Trend data availability</i> | From 2001 | NA | NA |
| <i>Method of collection</i> | Survey | NA | NA |
| <i>Age Group</i> | 18–24 years | NA | NA |

Source: i Australian Centre for Quality of Life

Definition

Proportion of young people aged 18–24 years surveyed that reported a life satisfaction score of at least five on a scale of 0–10.

Calculations

Numerator: number of young people aged 18–24 years that reported a life satisfaction score of at least 5 (out of a possible 10).

Denominator: number of young people aged 18–24 years surveyed.

Countries included in comparison

Australia.

Qualifying comments

Data for 17 surveys undertaken from 2001–2007 were pooled to construct one measure.

No Indigenous Australian or international data were available for this indicator at this time.

Results and analyses

Most young Australians aged 18–24 years are satisfied with their lives. From 2001–2007, 92.5% of Australian's surveyed young people were satisfied with their life.

Chapter 11

Participation

11.1 Introduction

Participation in civic activities provides opportunities for children and young people to learn new skills; to communicate and cooperate with their peers; to build community networks; and to express their opinions and views. These activities improve children's self esteem and confidence and have a range of benefits for the community (Bradshaw et al. 2006). Enabling children and young people to contribute to the community is also one of the principles of ARACY's *Commitment to Young Australians* and the *National Youth Agenda*².

Two indicators have been identified to measure participation:

- community participation
- political interest.

This chapter will discuss these indicators in turn.

11.2 Indicator 1: Community participation

Rationale

Through participation in community activities, children and young people build community networks. Community networks provide similar benefits to the wellbeing of close personal networks for young people — they build self esteem and confidence, as well as relationships and critical thinking skills (Williams 2004). Community networks have also been shown to have a positive effect on a number of child and adolescent health outcomes. In particular, participation in civic activities can improve behavioural and developmental scores, and improve social and emotional development (Runyan et al. 1998).

Engaging young people in community networks also involves a range of benefits for the community. These include (Pope 2006):

- generating positive attitudes, such as a sense of belonging, acceptance of diversity, and feeling safe in local areas
- modelling and instilling positive norms and behaviours that have been shown to reduce crime, violence and community disharmony.

Measure:

The percentage of young people aged 14 years participating in student organisations

The percentage of young people aged 14 years participating in voluntary organisations

² http://www.aracy.org.au/AM/Template.cfm?Section=Statement_of_Commitment

Data characteristics

Table 11.1

PERCENTAGE OF STUDENTS AGED 14 YEARS PARTICIPATING IN STUDENT ORGANISATIONS AND PARTICIPATING IN VOLUNTARY ACTIVITIES

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|---|-----------------------|---|
| <i>Data source</i> | Civics Education (CIVED) survey 1999 | NA | Civics Education (CIVED) survey 1999 |
| <i>Frequency of collection</i> | Every three years (previously every five years) | NA | Every three years (previously every five years) |
| <i>Trend data availability</i> | No — survey to be repeated in 2009 | NA | No — survey to be repeated in 2009 |
| <i>Method of collection</i> | Survey | NA | Survey |
| <i>Age group</i> | 14 years | NA | 14 years |

Source: i and ii Torney-Purta et al. 2001, Table 7.2

Definition

Percentage of students aged 14 years who reported having participated in student council or student government or class or school parliament.

Percentage of students aged 14 years who reported having participated in a group conducting voluntary activities to help the community.

Calculations

Numerator: number of students aged 14 years surveyed who participated in student organisations and number of students aged 14 years surveyed who participated in voluntary activities.

Denominator: number of students aged 14 years surveyed.

Fraction weighted by student school class weights to produce an unbiased percentage.

Countries included in comparison

Australia, Belgium (French), the Czech Republic, Denmark, England, Finland, Germany, Greece, Hungary, Italy, Norway, Poland, Portugal, Romania, the Slovak Republic, Sweden, Switzerland and the United States.

Qualifying comments

The CIVED data are from 1999.

No Indigenous Australia data were available for this indicator at this time.

Results and analyses

Figure 11.1

PERCENTAGE OF STUDENTS AGED 14 YEARS PARTICIPATING IN STUDENT ORGANISATIONS

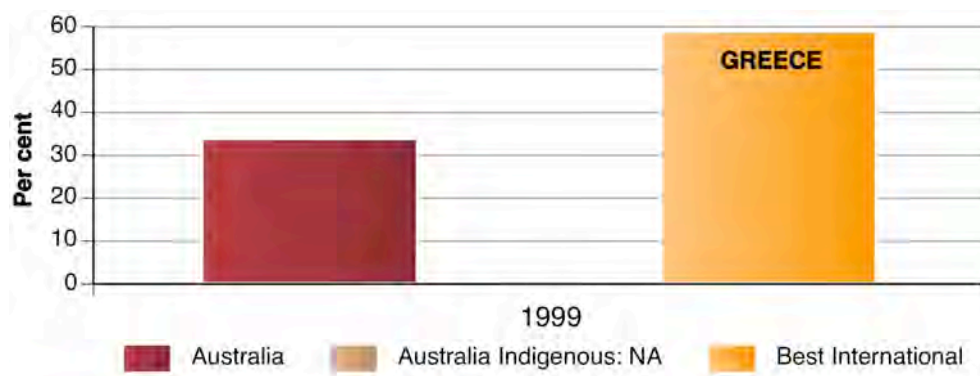
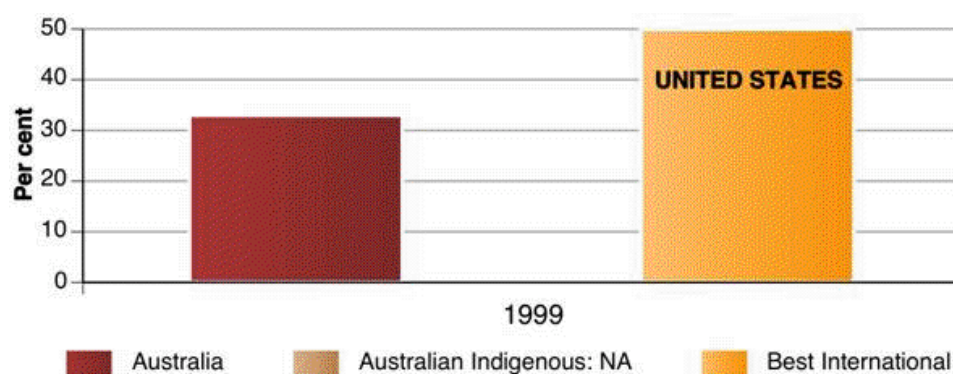


Figure 11.2

PERCENTAGE OF STUDENTS AGED 14 YEARS PARTICIPATING IN VOLUNTARY ACTIVITIES



Participating in student organisations

In 1999, fewer Australian students aged 14 years participated in student organisations than the best international comparator. In Australia, 34% of students aged 14 years participated in a student organisation compared with 59% of students aged 14 years from Greece.

Participating in voluntary activities

In 1999, one-third of Australia's students aged 14 years participated in voluntary activities compared with 50% of young people from the best international comparator, the United States.

11.3 Indicator 2: Political interest

Rationale

How interested and engaged children and young people are in politics reflects the extent to which this is encouraged by their environment. Engaging young people in politics (including in their school or community) has a range of benefits for young people and for the community more broadly. Landsdown (2001) identifies the following benefits:

- it results in better decisions — young people know about the issues that affect them and they have a different perspective from adults
- it strengthens young people's commitment to, and understanding of, democracy — children can learn what their rights and duties are, and through opportunities to participate in democratic decision-making processes within school and local communities, they learn to live by the decisions they make.

Measure:

Percentage of young people aged 14 years reporting political interest above the median score

Data characteristics

Table 11.2

PERCENTAGE OF YOUNG PEOPLE AGED 14 YEARS INTERESTED IN POLITICS

| Data characteristic | Australia ⁱ | Indigenous Australian | International ⁱⁱ |
|--------------------------------|---|-----------------------|---|
| <i>Data source</i> | Civics Education (CIVED) survey 1999 | NA | Civics Education (CIVED) survey 1999 |
| <i>Frequency of collection</i> | Every three years (previously every five years) | NA | Every three years (previously every five years) |
| <i>Trend data availability</i> | No — survey to be repeated in 2009 | NA | No — survey to be repeated in 2009 |
| <i>Method of collection</i> | Survey | NA | Survey |
| <i>Age group</i> | 14 years | NA | 14 years |

Source: i and ii Torney-Purta et al. 2001, Table 6.1

Definition

Percentage of students who 'Agree' or 'Strongly Agree' with the statement, 'I am interested in politics' (Torney-Purta et al. 2001).

Calculations

Numerator: percentage of students surveyed who are interested in politics.

Denominator: number of students surveyed.

Fraction weighted by student school class weights to produce an unbiased percentage.

Countries included in comparison

Australia, Belgium (French), Czech Republic, Denmark, England, Finland, Germany, Greece, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Sweden, Switzerland and the United States.

Qualifying comments

The data are from 1999.

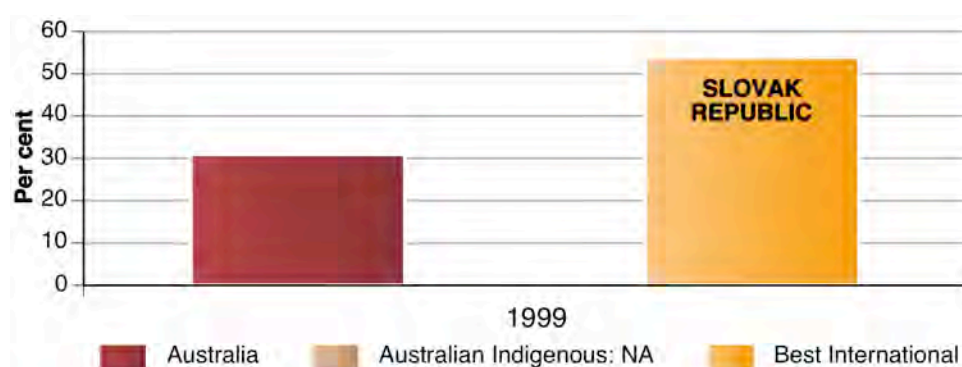
Both Australia and the Slovak Republic have statistically significant sex differences at the 0.05 level. Percentages were based on valid responses.

No Indigenous Australian data were available for this indicator at this time.

Results and analyses

Figure 11.3

THE PERCENTAGE OF YOUNG PEOPLE AGED 14 YEARS INTERESTED IN POLITICS



In 1999, fewer Australian young people reported political interest than young people in the best international comparator: in Australia, 31% of young people reported political interest compared with 54% of young people from the Slovak Republic.

Chapter 12

Environment

12.1 Introduction

The environment contributes to the wellbeing of children and young people through both health and socio-economic impacts. Exposure to environmental toxins has an adverse impact on the health of children and young people, now and into the future. In addition, excessive and inefficient consumption and natural resource use now will hinder the future prosperity of children and young people (UNEP et al. 2002). Furthermore, damage to the environment through climate change and pollution has adverse socio-economic impacts ranging from more frequent and severe drought and more intense rainfall and flooding, to a higher incidence of extreme weather events and reduced agricultural yields and food shortages, and to an increased number of threatened species (UNICEF UK 2008).

Three indicators have been identified to measure the environment domain:

- climate change
- resource use
- biodiversity.

Each of these indicators is discussed below.

12.2 Indicator 1: Climate change

Rationale

The impacts of climate change on children are likely to be many and varied. It is forecast that climate change, through temperature and precipitation change, will impact on:

- health — mortality and morbidity will increase from the sudden onset of extreme weather events, communicable diseases and a decline in food security and access to water
- safety — likely increased conflict over resources and forced migration
- prosperity — loss of agricultural yield and natural resource degradation (UK UNICEF 2008).

These issues will affect the children of today as they become adults, and the children of the future. Research from the United Kingdom has also shown that children have a high level of anxiety about climate change, which is likely to affect their emotional wellbeing (UK UNICEF 2008).

Measure:

Total greenhouse gas emissions per capita (CO₂ equivalents)

Data characteristics

Table 12.1

TOTAL GREENHOUSE GAS EMISSIONS PER CAPITA (CO₂ EQUIVALENTS)

| Data characteristic | Australia ⁱ | International ⁱⁱ |
|---------------------|-------------------------------|-----------------------------|
| Data source | OECD environmental indicators | |

Source: i and ii OECD 2005, Table 1

Definition

Tonnes of CO₂ — gross direct emissions from energy use per capita.

Calculations

Numerator: .

Denominator: total population.

Countries included in comparison

All OECD countries.

Qualifying comments

The following CO₂ elements are not included in this measure:

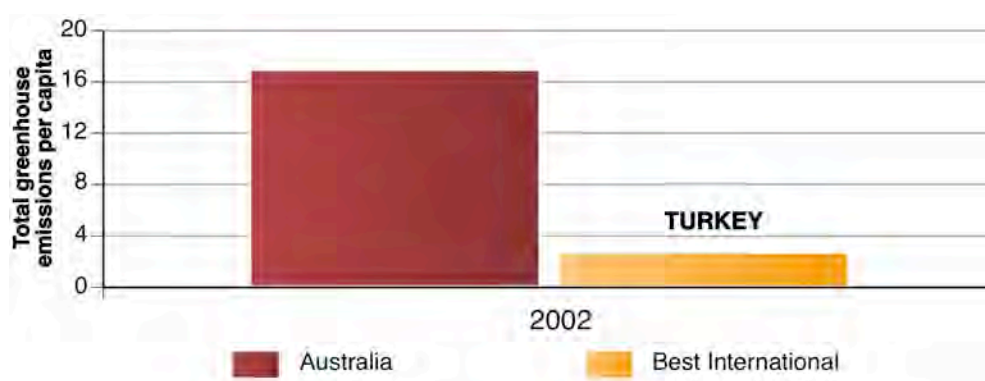
- CO₂ removal by sinks, indirect emissions from land use changes and indirect effects through interactions in the atmosphere are not taken into account
- the data refer to CO₂ emissions from fossil fuel combustion; emissions from other human activities (industrial processes, biomass burning) are not included
- oil and gas for non-energy purposes, such as feedstocks in the chemical and petrochemical industries, are excluded
- oil held in international marine and aviation bunkers is excluded at the national level.

Data are estimates based on the default methods and emission factors from the Revised 1996 *IPCC Guidelines for National Greenhouse Gas Inventories* and on the IEA-OECD data for total primary energy supply (OECD 2005).

Results and analyses

Figure 12.1

TOTAL GREENHOUSE GAS EMISSIONS PER CAPITA (CO₂ EQUIVALENTS)



In 2002, Australia's total greenhouse gas emissions per capital were much higher than the best international comparator, Turkey. Australian young people were exposed to 17.0 greenhouse gas emissions (CO₂ equivalents) per capita. This was over six times more greenhouse gas emissions than experienced by young people in Turkey who were exposed to 2.8 greenhouse gas emissions per capita.

12.3 Indicator 2: Resource use

Rationale

The way resources are used today will impact on the futures of today's children and their ability to live prosperous and healthy lives. In Australia, water is a precious and scarce resource. Australians rely on water not only for drinking but also to support our agricultural economy. Furthermore, around 80% of the country is classified as semiarid and demand for water will remain strong in the future (ABS 2006).

Measure:

Water abstractions per capita (m³)

Data characteristics

Table 12.2

WATER ABSTRACTIONS PER CAPITA (M³)

| Data characteristic | Australia ⁱ | International ⁱⁱ |
|---------------------|-------------------------------|-----------------------------|
| Data source | OECD environmental indicators | |

Source: i and ii, OECD 2005, Table 12

Definition

Water abstractions in metres cubed, per capita per year for the early 2000s.

Calculations

Numerator: water abstractions in metres cubed.

Denominator: population.

Countries included in comparison

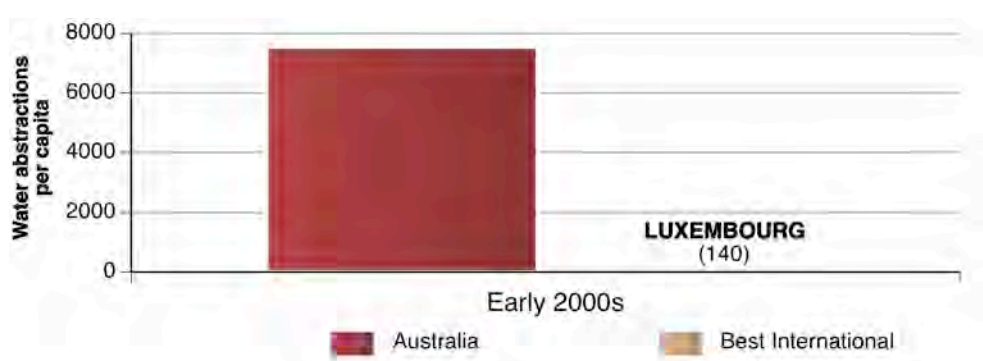
OECD.

Qualifying comments

Abstractions accounts for total water withdrawal without deducting water that is reintroduced into the natural environment after use.

Results and analyses

Figure 12.2

WATER ABSTRACTIONS PER CAPITA (M³)

In the early 2000s, Australia's water abstractions per capita significantly bypassed those in the best international comparator. In Luxembourg, 140 m³ of water was abstracted per capita. By comparison, in Australia, 7545 m³ of water was abstracted per capita — more than 53 times the abstractions in Luxembourg.

Measure:

Forest harvest as a percentage of annual growth

Data characteristics

Table 12.3

FOREST HARVEST AS A PERCENTAGE OF ANNUAL GROWTH

| Data characteristic | Australia ⁱ | International ⁱⁱ |
|---------------------|-------------------------------|-----------------------------|
| Data source | OECD environmental indicators | |

Source: i and ii OECD 2005, Table 14

Definition

Data refer to the annual forest growth (gross increment) divided by annual harvest (tree fellings).

Calculations

Numerator: annual growth in forest.

Denominator: annual harvest.

Countries included in comparison

OECD.

Qualifying comments

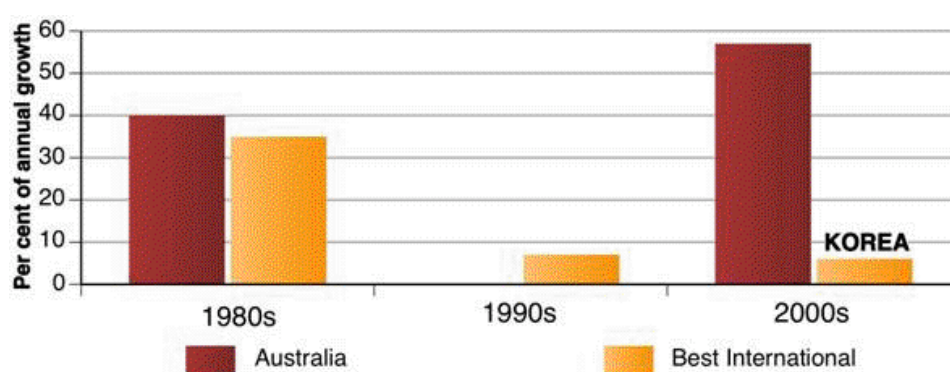
2000s refers to the year 2000 or the latest available year.

The data exclude Iceland.

Results and analyses

Figure 12.3

FOREST HARVEST AS A PERCENTAGE OF ANNUAL GROWTH



In 2000, Australia increased its forest harvest as a percentage of growth. This contrasts with the best international trend that decreased over the same period. Australia currently harvests 57% of annual forest growth while Korea harvests 6% of annual growth — this has decreased from 35% in the 1980s.

12.4 Indicator 3: Biodiversity

Rationale

Biodiversity is defined as the variety and the variability among living organisms. Conserving this diversity is essential and forms an integral part of sustainable development for current and future members of the human race. Pressures that affect the ecosystem, and thus the level of biodiversity, include physical, chemical and biological factors. When species become endangered, it means that the health of the ecosystem is deteriorating. This deterioration has long-lasting impacts on the benefits that humans enjoy from a healthy ecosystem — these benefits can be medicinal, commercial, recreational, tourism, agriculture, aesthetic and spiritual.

Measure:

Percentage of threatened bird species

Data characteristics

Table 12.4

PERCENTAGE OF THREATENED BIRD SPECIES

| Data characteristic | Australia ⁱ | International ⁱⁱ |
|---------------------|-------------------------------|-----------------------------|
| Data source | OECD environmental indicators | |

Source: i and ii, OECD 2005, p. 98

Definition

Percentage of known bird species threatened — either critically endangered, endangered or vulnerable. Extinct species are not included.

Calculations

Numerator: number of threatened species.

Denominator: number of known species.

Countries included in comparison

All OECD countries.

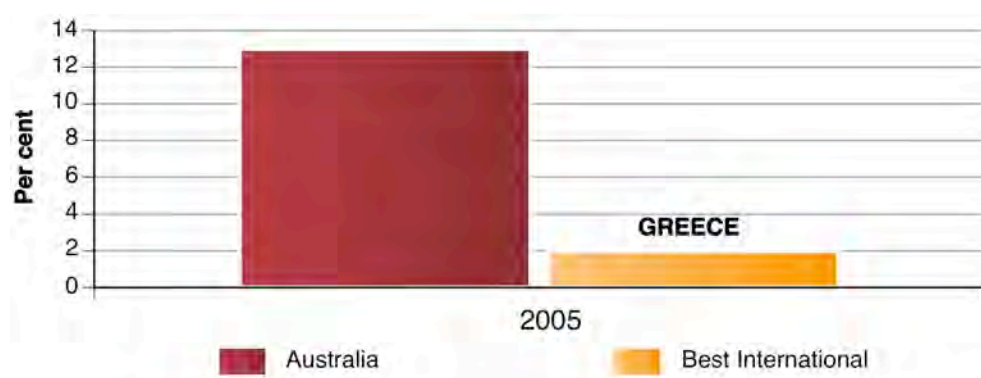
Qualifying comments

The number of species known does not necessarily reflect the number of species in existence and definitions are applied with varying degrees of rigour in different countries. The International Union for the Convention of Nature (IUCN) and the OECD are promoting standardisation.

Results and analyses

Figure 12.4

PERCENTAGE OF THREATENED BIRD SPECIES



In 2005, 13% of known bird species were threatened in Australia. The best international comparator, Greece, had 2% of bird species threatened.

Appendix A

References

Australian Bureau of Statistics (ABS) & Australian Institute of Health and Welfare (AIHW) 2008, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*, cat. no. 4704.0, AusInfo, Canberra.

ABS 2008 (reissue), *Adult Literacy and Life Skills Survey, Summary Results*, cat. no. 4228.0, AusInfo, Canberra.

ABS 2007a, *Births*, cat. no. 3301.0, AusInfo, Canberra.

ABS 2007b, *Labour Force Australia Labour Force Status and Other Characteristics of Families*, cat. no. 6224.0.55.001, AusInfo, Canberra.

ABS 2007c, *Australian Social Trends 2007*, cat. no. 4102.0, AusInfo, Canberra.

ABS 2006a, *National Health Survey: Summary of Results 2004-05*, cat. no. 4364.0, AusInfo, Canberra.

ABS 2006b, *National Aboriginal and Torres Strait Islander Health Survey Australia 2004-05*, cat. no. 4715.0, AusInfo, Canberra.

ABS 2006c, *General Social Survey Summary Results 2006*, cat. no. 4156, AusInfo, Canberra.

ABS 2006d, *Measures of Australia's Progress*, cat. no. 1370.0, AusInfo, Canberra.

ABS 2006e *Household Income and Income Distribution, Australia, 2005-06, Data Cubes*, available at:
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6523.02005-06?OpenDocument>, Accessed 18 April 2008.

ABS 2005, *Births*, cat. no. 3301.0, AusInfo, Canberra.

ABS 2004a, *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians*, cat. no. 3238.0, AusInfo, Canberra.

ABS 2004b, *National Aboriginal and Torres Strait Islander Survey 2002*, cat. no. 4714.0, AusInfo, Canberra.

ABS 2004c *Labour Force, Australia, Detailed*. Cat. no. 6291.0.55.001, AusInfo, Canberra.

ABS 2003, *Births*, cat. no. 3301.0, AusInfo, Canberra.

Alcohol and other Drugs Council of Australia (ADCA) 2003, *Policy Position: Tobacco*.

Australian Centre on Quality of Life, *Surveys 1-17 complete data files*, http://acqol.deakin.edu.au/index_wellbeing/index.htm, Accessed 1 July 2008.

AIHW 2008, Technical paper on operational definitions and data issues for key national indicators of children's health, development and wellbeing, AIHW Working Paper. cat. no. WP 59, Canberra.

AIHW 2008a, *Key national indicators of children's health, development and wellbeing: Indicator framework for A picture of Australia's children 2009*, cat. no. AUS100, Canberra.

AIHW 2007, *Young Australians: their health and wellbeing*, AIHW cat. No. PHE88, AIHW, Canberra.

AIHW 2006, *Juvenile justice in Australia 2005-06*, AIHW cat. no. JUV 3. AIHW (Juvenile Justice series no. 3), Canberra.

AIHW 2005a, *A picture of Australia's children*, cat. no. PHE 58. AIHW, Canberra.

AIHW 2005b, *2004 National Drug Strategy Household Survey: First Results*, AIHW cat. no. PHE 57. AIHW (Drug Statistics Series No. 13), Canberra.

AIHW 2003, *Australia's Welfare 2003*, cat. no. AUS41. AIHW, Canberra.

Anderson P., Head, Community Services Integration and Linkage Unit, AIHW, pers. comms., 23 July 2008.

Barker D. 1998, *Mothers, Babies and Health in Later Life*, Churchill Livingstone, Edinburgh.

Batts D., AIHW, pers. comms., 30 July 2008.

Beresford B., Soper T., Bradshaw J. (2005) 'Physical Health'. in Bradshaw, J. and Mayhew, E. (eds). *The Well-being of Children in the UK* (second edition). London: Save the Children, 65-107.

Bolger K., Pateterson C., Thompson W., (1995) 'Psychosocial Adjustment Among Children Experiencing Persistent and Intermittent Family Economic Harship'. *Child Development*, 66, 4, 1107-29.

Booth, M, Wake, M, Armstrong, T, Chey, T, Hesketh, K & Mathur, S 2001, 'The epidemiology of overweight and obesity among Australian children and adolescents, 1995-1997', *Australian and New Zealand Journal of Public Health*, vol. 25, pp. 162-9.

Bourke L. & Geldens P. 2007, 'What does wellbeing mean? Perspectives of wellbeing among young people and youth workers in rural Victoria', *Youth Studies Australia*, vol. 26, no. 1, pp. 41-49.

Bradshaw J., Professor, Social Policy Research Unit, University of York, pers. comms., 20 August 2008.

Bradshaw J., 2006 'Child poverty and child well being,' *Paper to the Social Policy Conference*, jrb1@york.ac.uk.

Bradshaw J., Hoelscher P. & Richardson D. 2006a, 'Comparing Child Well-being in OECD Countries: Concepts and Methods', *Innocenti Working Paper No. 2006-03*, United Nations Children's Fund Innocenti Research Centre, Florence.

Bradshaw J., Hoelscher P. & Richardson D. 2006b, 'An index of child well-being in the European Union', *Social Measures Research*, <http://www.york.ac.uk/inst/cdw/childEU.pdf>, Accessed 30 January 2008.

Bronfenbrenner U., and Morris P. 1998 The Ecology of Developmental Processes in Damon, W. and Lerner, R (eds). *Handbook of Child Psychology* (fifth edition, volume 1). *Theoretical Models of Human Development*, New York: Wiley.

Centre for Community Child Health and Telethon Institute for Child Health Research 2005, *Australian Early Development Index: Building Better Communities for Children – Community Results 2004-2005*, Melbourne.

Chey T., Wake M., Norton K., Hesketh K., Dollman J. & Robertson I. 2003, 'Change in the prevalence of overweight and obesity among young Australians, 1969–1997', *American Journal of Clinical Nutrition*, vol. 77, pp. 29–36.

Chikritzhs T. & Pascal R. (2004). Trends in Youth Alcohol Consumption and Related Harms in Australian Jurisdictions, 1990–2002. Bulletin No. 6. National Drug Research Institute, Curtin University of Technology, Perth, Western Australia.

Chikritzhs T., Pascal R. & Jones P. (2004a). Under-aged drinking among 14-17 year olds and related harms in Australia. Bulletin No. 7. National Drug Research Institute, Curtin University of Technology, Perth, Western Australia.

COAG National Reform Agenda-Human Capital Indicative outcomes and associated progress measures across the lifespan 2006, Attachment D; COAG Communiqué 14 July 06, Canberra.

Cunha, F., Heckman J., Lochner L. & D.V. Masterov 2005, 'Interpreting the Evidence of Life-Cycle Skill Formation', IZA Discussion Paper Series, No. 1575, Institute for the Study of Labour, Bonn, Germany, July.

Currie C., Gabhainn S.N., Godeau E., Roberts C., Smith R., Currie D., Pickett W., Richter M., Morgan A. & Barnekow V. 2008, *Inequalities in Young People's Health HBSC International Report from the 2005/2006 Survey*, http://www.euro.who.int/eprise/main/WHO/InformationSources/Publications/Catalogue/20080617_1, Accessed 19 June 2008.

Currie C., Roberts C., Morgan A., Smith R., Settertobulte W., Samdal O. & Rasmussen V.B 2004, *Young people's health in context – Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/2002 survey*, http://www.euro.who.int/eprise/main/who/informationresources/publications/catalogue/20040518_1, Accessed 19 June 2008.

De Borloti L., research fellow, ACER, pers. comms., 21 August 2008.

De Bortoli L. & Cresswell J. 2004, Australia's Indigenous Students in PISA 2000: Results from an International Study, Australian Council for Educational Research, Camberwell.

Dietz W. 1998, 'Health consequences of obesity in youth: childhood predictors of adult disease', *Pediatrics*, 101, 518-25.

Dumesnil S., and Le Fur P. (2003) 'Etat de Sante des Enfants Pauvres et Recours Aux Soins en Ambulatoire'. Paper presented at the CERC-CGP-CNAF-DREES Conference Poor Children in France, Paris, 21 March 2003.

Dumont M. & Provost M.A. 1999, 'Resilience in adolescents: protective role of social support, coping strategies, self esteem, and social activities on experience of stress and depression', in *Journal of Youth and Adolescence* vol. 28, No. 3, pp. 343-363.

Duncan G., and Brooks-Gunn J., (2000)'Family Poverty, Welfare Reform, and Child Development'. *Child Development*, 71, 1, 188-96.

Duncan G., Brooks-Gunn J., and Klebanov P. (1994) 'Economic Deprivation and Early Childhood Development'. *Child Development*, 65, 296-318.

Feinstein L. 2003 'Inequality in the Early Cognitive Development of British Children in the 1970 cohort', *Economica*, vol.70, pp.73-79.

Fergusson D., Lynskey M. & Horwood L. 1994, Childhood exposure to alcohol and adolescent drinking patterns. *Addiction*, 89, 1007-16.

Förster M. & D'Ercole M. 2005, 'Income Distribution and Poverty in OECD Countries in the Second Half of the 1990s', *OECD Social, Employment and Migration Working Papers*: Paris, France.

Friedman M. (1997) 'A Guide to Developing and Using Performance Measures in Results-Based Budgeting'. The Finance Project, Washington DC.

Halfon N., DuPlessis H. & Inkelas M. 2007, 'Transforming the US Child Health System', *Health Affairs*, Vol.26, No.2.

Hallem A. 2008, *The effectiveness of interventions to address health inequalities in the early years: a review of relevant literature*, Scottish Government, Health Analytical Services Division, Edinburgh.

Hanafin S. & Brooks A.M. 2005, *Report on the Development of a National Set of Child Well-being Measures in Ireland*, The National Children's Office, Dublin.

Hawker D.S. & Boulton M.J. 2000, 'Twenty years' research on peer victimization and psychosocial maladjustment: a meta-analytic review of cross-sectional studies', *Journal of Child Psychology & Psychiatry & Allied Disciplines*, vol. 41, pp. 441-55.

Heckman J. & Masterov D. 2004, 'The productivity argument for investing in young children', Working Paper 5, Invest in Kids Working Group, Committee for Economic Development, <http://jenni.uchicago.edu/Invest/>.

Hector D, King L, Webb K. (2004) 'Overview of recent reviews of interventions to promote and support breastfeeding' NSW Centre for Public Health Nutrition, Sydney.

Hibell B., Andersson B., Bjarnason T., Ahlstrom S., Balakireva O., Kokkevi A. & Morgan M. 2004, *The ESPAD Report 2003, Alcohol and Other Drug Use Among Students in 35 European Countries*, The Swedish Council for Information on Alcohol and Other Drugs, Stockholm.

Hood S., Goldfeld S., Muth P., Cleary J., Farooqui, A. and Hayes L. 2006, 'The State of Victoria's Children Report 2006: Every Child, Every Chance', Melbourne.

Idler E. & Benyamini Y. 1997, Self-rated health and mortality: a review of twenty-seven community studies. *Journal of Health & Social Behavior*, 38, 21-37.

Kamerman S.B., Neuman M., Waldfogel J. & Brooks-Gunn J. 2003, *Social Policies, Family Types and Child Outcomes in Selected OECD Countries*, OECD Social, Employment and Migration Working Papers No 6 (OECD, Paris).

Kenny D., Nelson P., Butler T., Lennings C., Allerton M. & Champion, U. 2006, NSW young people on community orders health survey 2003-2006: Key Findings Report, University of Sydney, Sydney.

Khuder S., Dayal H. & Mutgi A. 1999, Age at smoking onset and its effect on smoking cessation. *Addictive Behaviors*, 24, pp. 673-7.

Klass, P. 2004, 'Promoting Early Literacy', in *Developmental and Behavioral Pediatrics – A Handbook for Primary Care*, eds Parker S, Zuckerman B, Augustyn M, Lippincott Williams & Wilkins, Philadelphia, pp. 27.

Land K. 2007, 'The Foundation for Child Development Child and Youth Well-Being Index (CWI), 1975-2005, with projections for 2006: A composite index of trends in the well-being of America's children and youth', Foundation for Child Development, Durham.

Landsdown G. 2001, 'Promoting Children's Participation in Democratic Decision-making', UNICEF Innocenti Research Centre, Florence.

Laws P., Abeywardana S., Walker J. & Sullivan E. A. 2007, *Australia's mothers and babies 2005*, cat. no. PER 40, AIHW National Perinatal Statistics Unit, Sydney.

Laws P., Grayson N. & Sullivan E. A. 2006, *Australia's mothers and babies 2004*, cat. no. PER 34, AIHW National Perinatal Statistics Unit, Sydney.

Laws P. & Sullivan E. A. 2005, *Australia's mothers and babies 2003*, cat. no. PER 29, AIHW National Perinatal Statistics Unit, Sydney.

Laws P. & Sullivan E. A. 2004a, *Australia's mothers and babies 2002*, cat. no. PER 28, AIHW National Perinatal Statistics Unit, Sydney.

Laws P. & Sullivan E. A. 2004b, *Australia's mothers and babies 2001*, AIHW National Perinatal Statistics Unit, Sydney.

Lewis M. 2006, *Measures at the EU level: Measuring Children's Poverty and Social Exclusion*, Eurochild.

Lobstein T., Baur L. & Uauy R. 2004, 'Obesity in children and young people: a crisis in public health', *Obesity Review*, vol. 5, suppl. 1, pp. 4-85.

Magarey A.M., Daniels L.A., Boulton T.J. & Cockington R.A. 2003, 'Predicting obesity in early adulthood from childhood and parental obesity', *International Journal of Obesity and Related Metabolic Disorders*, vol. 27, no. 4, pp. 505-13.

McClelland A. 1994, 'Families and financial disadvantage', *Family Matters* vol. 37, pp. 29-33, Australian Institute of Family Studies, Melbourne.

McLanahan S., 1997 'Parent Absence or Poverty: Which Matters More?' in Duncan, G and Brooks-Gunn, J. (eds), *Consequences of Growing Up Poor*. New York: Russell Sage Foundation, 35-48.

Melel X., 2007, 'Childhood Matters to Mexico 2007', Network for Children's Rights in Mexico, San Cristobal de Las Casas.

Melhuish E. 2004, *Child Benefits: The Importance of investing in quality childcare in Facing the Future: Policy Papers*, The Institute for the Study of Children, Families and Social Issues, Birkbeck, University of London.

Milunpalo S., Vuori I., Oja P., Pasanen M & Urponen H 1997, Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *Journal of Clinical Epidemiology*, 50, 517-28.

Must A. & Strauss R. 1999, 'Risks and consequences of childhood and adolescent obesity', *International Journal of Obesity*, 23(Suppl): S2-S11.

Mustard J.F. 2006, *Early Child Development and Experience-based Brain Development — The Scientific Underpinnings of the Importance of Early Child Development in a Globalized World*, paper for The World Bank International Symposium on Early Child Development – A Priority for Sustained Economic Growth & Equity, September 27-29, 2005, <http://www.brookings.edu/views/papers/200602mustard.htm>, Accessed 5 May 2008.

National Children's Office-Ireland, 2005, 'A National Set of Child Well-being Indicators', Dublin.

NHMRC (National Health and Medical Research Council) 2001, Australian Alcohol Guidelines: Health Risks and Benefits, <http://www.nhmrc.gov.au/publications/synopses/ds9syn.htm>, Accessed 20 May 2008.

NHPC (National Health Performance Committee) 2004, *National report on health sector performance measures 2003*, AIHW, Canberra.

NSCDC (National Scientific Council on the Developing Child) 2005, *Excessive Stress Disrupts the Architecture of the Developing Brain*, Working Paper 3.

NSCDC 2004, *Young Children Develop in an Environment of Relationships*, The Heller School, Brandeis University, Working Paper 1.

Neely A., Adams C. & Kennerley M. 2002, *The Performance Prism: The scorecard for measuring and managing business success*, Prentice Hall, London.

OECD Health Data, OECD (Organisation for Economic Co-operation and Development), updated annually

OECD 2007a, *PISA 2006 Science Competencies for Tomorrow's World*, http://www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1_1,00.html, Accessed 26 May 2008.

OECD 2007b, *Education at a Glance 2007*, *OECD Indicators*, OECD.

OECD 2007c, *Health at a Glance 2007*, OECD, Paris.

OECD 2007d, *OECD Family Database 2007*, http://www.oecd.org/document/4/0,3343,en_2649_34819_37836996_1_1_1_1,00.html, Accessed 30 January 2008.

OECD 2006a, *Programme for International Student Assessment*, International Interactive Dataset, <http://www.pisa.oecd.org/>, Accessed 2 June 2008.

OECD 2006b, *Programme for International Student Assessment*, National Dataset, Australian Centre for Educational Research, <http://www.acer.edu.au/ozpisa/reoprts.html>, Accessed 10 June 2008.

OECD 2006c, *Education at a Glance, OECD Indicators*, OECD.

OECD 2005, *Environment at a Glance, OECD Environmental Indicators*, OECD Publishing, Paris.

OECD 2003a, *Learning for Tomorrow's World – First results from PISA 2003*, http://www.oecd.org/document/55/0,3343,es_32252351_32236173_33917303_1_1_1_1,00.html, Accessed 26 May, 2008.

OECD 2003b, *Programme for International Student Assessment*, International Interactive Dataset, <http://www.pisa.oecd.org/>, Accessed 2 June 2008.

OECD 2003c, *Programme for International Student Assessment*, National Dataset, Australian Centre for Educational Research, <http://www.acer.edu.au/ozpisa/reoprts.html>, Accessed 10 June 2008.

OECD 2001, *Knowledge and Skills for Life – First results from the OECD program for international student assessment (PISA) 2000*, http://www.oecd.org/document/46/0,3343,en_32252351_32236159_33688686_1_1_1_1,00.html, accessed 26 May, 2008.

OECD 2000a, *Programme for International Student Assessment*, International Interactive Dataset, <http://www.pisa.oecd.org/>, Accessed 2 June 2008.

OECD 2000b, *Programme for International Student Assessment*, National Dataset, Australian Centre for Educational Research, <http://www.acer.edu.au/ozpisa/reports.html>, Accessed 10 June 2008.

Peters H., and Mullis N. 1997 'The role of Family Income and Sources of Income on Adolescent Achievement,'. In Duncan, G. and Brooks-Gunn, J. (eds), *Consequences of Growing Up Poor*. New York: Russell Sage Foundation, 340-81.

Phillips D. 2006, *From Neurons to Neighborhoods: 6 years on*, 19th Biennial meeting of the International Society for the Study of Behavioural Development, Melbourne.

Pitman S., Herbert T., Land C. & O'Neill C. 2003 '*Profile of young Australians: Facts and Figures*', Foundation for Young Australians, Melbourne.

Pope J. 2006, *Indicators of Community Strength; a Framework and Evidence*, Department for Victorian Communities, Melbourne.

Productivity Commission 2006, *Performance Benchmarking of Australian Business Regulation*, <http://www.pc.gov.au>, Accessed 30 January 2008.

Putman R. 2000, *Bowling Alone: The collapse and revival of American community*, Simon and Schuster, New York.

Quilgars D., Searle B. & Keung A. 2005, 'Mental health and well-being', in Bradshaw J and Mayhew E (eds), *The Well-being of Children in the UK* (second edition), Save the Children, London.

Redmond G., 2008 Social Policy Research Centre, University of New South Wales, e-mail communication, 9 July 2008.

Runyan D., Hunter W., Socolar R., Amaya-Jackson L., English D., Landsverk J., Dubowitz H., Browne D., Bangdiwala S. & Mathew R. 1998 'Children who prosper in unfavorable environments: the relationship to social capital' *Paediatrics*. 101(1): 12-18.

Salmivelli C. & Isaacs J. 2005, 'Prospective Relations Among Victimization, Rejection, Friendlessness and Children's Self and Peer Perceptions', *Child Development*, 76, pp. 1161-71.

Sawyer M., Arney F., Baghurst P., Clark J., Graetz B., Kosky R., Nurcombe B., Patton G., Prior M., Raphael B., Rey J., Whaites L. & Zubrick S. 2001, 'The mental health of young people in Australia: key findings from the child and adolescent component of the national survey of mental health and well-being', *Australian and New Zealand Journal of Psychiatry* vol. 35, No. 6, pp. 806-814.

Sawyer, M, Arney, F, Baghurst, P, Clark, J, Graetz, B, Kosky, R, Nurcombe, B, Patton, G, Prior, M, Raphael, B, Rey, J, Whaites, L, & Zubrick, S 2000, *The Mental Health of Young People in Australia*, Mental Health Branch, Commonwealth Department of Health and Aged Care, Canberra.

Sayers M, National AEDI Program Manager, AEDI National Support Centre, pers. comm., 14 May 2008.

Schorr L. & Marchand V. 2007, *Pathway to Children Ready for School and Succeeding at Third Grade*, Pathways Mapping Initiative, at <http://www.pathwaystooutcomes.org/index.cfm>, Accessed 2 March 2008.

SCRGSP (Steering Committee for the Review of Government Service Provision) 2007, *Overcoming Indigenous Disadvantage: Key Indicators 2007*, Productivity Commission, Canberra.

Search Institute, 2006, '40 Developmental Assets for Adolescents', Minneapolis.

Scutella P. and Smyth P., 2005 'The Brotherhood's Social Barometer, Monitoring children's chances', The Brotherhood of St Laurence, Melbourne.

Serdula M., Ivery D. & Coates R. 1993, 'Do obese children become obese adults? A review of the literature', *Prev Med* 1993; 22(2):167-77.

Shields M. 2006, 'Overweight and obesity among children and youth,' *Health Reports*, Vol. 17 No. 3, August pp. 27-42.

Shonkoff J. & Phillips D. 2000, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. National Academy Press, Washington, DC.

Social Policy Research Centre, 2007 'Left Out and Missing Out: Towards New Indicators of Social Exclusion and Material Deprivation', University of New South Wales, Sydney.

Strauss R. 2000, 'Childhood obesity and self-esteem', *Pediatrics*, 105, e15.

Sylva K, Melhuish, E., Sammons, P., Siraj-Blatchford, I. and Taggart, B., 2004 The Effective Provision of Pre-School Education (EPPE) Project: Final Report, DfES and Institute of Education, University of London. London.

The Offord Centre for Child Studies, McMaster University 2007, *National SK Cohort*, <http://www.offordcentre.com/readiness/results.html>, accessed 4 June 2008.

The Smith Family, 2008 A National Framework for Early Years Outcomes Discussion paper, Sydney.

The World Bank Group 2007, World Development Indicators, <http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=135>, Accessed 10 April 2008.

Thomson S. & De Bortoli L. 2008, *Exploring scientific literacy: how Australia measures up: the PISA 2006 survey of students' scientific, reading and mathematical literacy skills*, Australian Council for Educational Research Ltd (ACER), Camberwell.

Thomson S., Cresswell J. & De Bortoli L. 2004, Facing the future: a focus on Mathematical Literacy Among Australian 15-year-old Students in PISA 2003, ACER, Camberwell.

Torney-Purta J., Lehman R., Oswald H. & Schulz W. 2001, *Citizenship and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen*. IEA, Delft.

United Kingdom (UK) Department of Health 2007, *Teenage Parents Next Steps: Guidance for Local Authorities and Primary Care Trusts*, at www.everychildmatters.gov.uk/teenagepregnancy, Accessed May 2 2008.

UNEP (United Nations Environment Program), UNICEF & WHO 2002, *Children in the New Millennium: environmental impact on health*, at <http://www.unep.org/ceh/>, Accessed May 2 2008.

UNICEF 2005 Child Poverty in Rich Countries, 2005. *Innocenti Report Card* No. 6, UNICEF Innocenti Research Centre, Florence.

UNICEF UK 2008, Our Climate, Our Children, Our Responsibility: the implications of climate change for the world's children, at www.unicef.org.uk/campaigns, Accessed May 2 2008.

UNICEF 2007 Child poverty in perspective; An overview of child well-being in rich countries, *Innocenti Report Card* No. 7, UNICEF Innocenti Research Centre, Florence.

U.S Department of Health and Human Services Centers for Disease Control and Prevention 2007, *Prevalence of Overweight Among Children and Adolescents: United States, 1999-2002*, <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm#Table%201>, Accessed 8 July 2008.

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

Victorian Government Department of Human Services (DHS) 2006, *The State of Victoria's Children Report 2006*, Victorian Government Melbourne.

Walsh P., Milford C. & Cain L. 2003, *More than just a roof: a study of family homelessness in Queensland*, Queensland University of Technology, Brisbane.

White V. & Hayman J., 2006, *Smoking behaviours of Australian secondary students in 2005*, The Cancer Council Victoria, Melbourne.

Whiteford, P. & Adema W. 2007, 'What Works Best in Reducing Child Poverty: A Benefit or Work Strategy?' *OECD Social Employment and Migration Working Papers*, <http://www.oecd.org/els/workingpapers>, Accessed 2 June 2008.

Williams, E 2004, *Children's Participation and Policy Changes in South Asia*, Childhood Poverty Research and Policy Centre, London.

WHO (World Health Organisation) Mortality Database, ICD 10, World Health Organisation, annual updating.

WHO 2005, *WHO Global Infobase SuRF 2 Country Profiles*, http://www.who.int/infobase/surf2/country_list.html, Accessed 30 June, 2008.

WHO 2004, *Highlights on Health: United Kingdom*, at http://www.euro.who.int/eprise/main/who/progs/chhunk/self/20050315_1, Accessed 15 March 2008.

WHO 2000, *Obesity: preventing and managing the global epidemic*, WHO, Geneva.

WHO 1946, *The World Health Organisation Constitution*, adopted by the International Health Conference, held in New York from 19 June to 22 July 1946 and signed on 22 July 1946 by the representatives of 61 States.

Appendix B

Data Tables

Material Wellbeing

Relative Income Poverty

Table B.1

PERCENTAGE OF CHILDREN IN HOUSEHOLDS WITH INCOME < 50% OF MEDIAN

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2000 | 11.6 | NA | 3.4 (Finland) |
| 1995 | 10.9 | NA | 2.1 |

Source: i and ii Forster and D'Ercole 2005

Households without jobs

Table B.2

PERCENTAGE OF JOBLESS HOUSEHOLDS WITH CHILDREN

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2000 | 12.4 | NA | 0.6 (Japan) |
| 1995 | 13.2 | NA | 1.6 |

Source: i and ii Whiteford and Adema 2007 (from OECD Income Distribution Survey)

Reported deprivation

Table B.3

PERCENTAGE OF CHILDREN REPORTING HAVING LESS THAN 11 BOOKS IN THEIR HOME

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2006 | 7.2 | 19.4 | 3.1 (Iceland) |
| 2003 | 4.9 | 9.5 | 1.9 |
| 2000 | 5.1 | 12.4 | 3.0 |

Source: i and ii OECD 2006b, OECD 2003b, OECD 2000b iii OECD 2006a, OECD 2003a, OECD 2000a

Health and Safety

Infant Health

Table B.4

INFANT MORTALITY RATE PER 1000 LIVE BIRTHS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2005 | 5.0 | 11.9 | 2.3 (Iceland) |
| 2004 | 4.7 | 11.9 | 2.8 |
| 2003 | 4.8 | 11.9 | 2.4 |
| 2002 | 5.0 | 11.9 | 2.3 |
| 2001 | 5.3 | 11.9 | 2.7 |

Source: i OECD health data ii ABS and AIHW 2008, Table 9.8 iii OECD health data

Table B.5

LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2005 | 64 | 132 | 39 (Iceland) |
| 2004 | 64 | 132 | 36 |
| 2003 | 63 | 129 | 31 |
| 2002 | 64 | 129 | 39 |
| 2001 | 62 | 129 | 33 |

Source: i OECD health data ii Laws et al. 2007, 2006, 2005, 2004a, 2004b iii OECD health data

Table B.6

VERY LOW BIRTH WEIGHT RATE PER 1000 LIVE BIRTHS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International |
|------|------------------------|------------------------------------|--------------------|
| 2005 | 11 | 24 | – |
| 2004 | 11 | 25 | – |
| 2003 | 11 | 24 | – |
| 2002 | 11 | 22 | – |
| 2001 | 11 | 24 | – |

Source: i and ii Laws et al. 2007, 2006, 2005, 2004a, 2004b

Immunisation

Table B.7

PERCENTAGE OF CHILDREN IMMUNISED AGAINST DTP

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2005 | 92.3% | 90.5% | 99.8% (Hungary) |
| 2004 | 92.3% | — | 99.8% |
| 2003 | 92.2% | — | 99.8% |
| 2002 | 91.8% | — | 99.8% |
| 2001 | 91.7% | — | 99.8% |

Source: i OECD health data ii ABS and AIHW 2008, Table 6.10 iii OECD health data

Table B.8

PERCENTAGE OF CHILDREN IMMUNISED AGAINST MEASLES

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2005 | 93.4% | 92.1% | 99.8% (Hungary) |
| 2004 | 93.5% | — | 99.9% |
| 2003 | 94.1% | — | 99.9% |
| 2002 | 93.2% | — | 99.9% |
| 2001 | 93.0% | — | 99.9% |

Source: i OECD health data ii ABS and AIHW 2008, Table 6.10 iii OECD health data

Table B.9

PERCENTAGE OF CHILDREN IMMUNISED AGAINST POLIO

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2006 | 92% | — | 99% (Hungary and Sweden) |
| 2005 | 92% | 86% | 99% |
| 2004 | 92% | 84% | 99% |
| 2003 | 93% | — | 99% |
| 2002 | 92% | — | 99% |

Source: i OECD Health data ii ABS and AIHW 2008, Table 6.10 iii OECD health data

Mental Health

Table B.10

INTENTIONAL SELF-INJURY DEATH RATE FOR YOUNG PEOPLE 15–24 YEARS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2005 | 10.4 | 17.6 | 3.9 (Spain) |
| 2004 | 9.6 | 17.6 | 4.3 |
| 2003 | 10.7 | 17.6 | 3.7 |
| 2002 | 11.3 | 17.6 | 4.3 |
| 2001 | 12.9 | 17.6 | 4.1 |

Source: i WHO Mortality Database ii ABS 2005 iii WHO Mortality Database

Table B.11

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WITH HIGH OR VERY HIGH LEVELS OF PSYCHOLOGICAL DISTRESS

| Year | Australia ⁱ | Indigenous Australia | Best International |
|---------|------------------------|----------------------|--------------------|
| 2004–05 | 15.5% | – | – |

Source: i ABS 2006a, Table 14

Accident/Injury

Table B.12

DEATHS FROM ACCIDENTS AND INJURIES UNDER AGE 19 YEARS, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100 000 YOUNG PEOPLE)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|-------------------------------------|------------------------|----------------------|----------------------------------|
| Average of latest 3 years available | 15.1 | – | 7.6 (Sweden) |

Source: i and ii UNICEF 2007

Table B.13

AGE SPECIFIC DEATH RATES FROM ALL INJURIES FOR CHILDREN AGED 0–4 YEARS (PER 100 000 CHILDREN)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2003 | 11.38 | – | 0 (Iceland) |
| 2002 | 10.54 | – | 3.27 |
| 2001 | 11.07 | – | 4.45 |
| 2000 | 13.37 | – | 2.81 |

Source: i and ii WHO Mortality Database

Table B.14

AGE SPECIFIC DEATH RATES FROM ALL INJURIES FOR CHILDREN AGED 5–9 YEARS (PER 100 000 CHILDREN)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2003 | 4.41 | – | 2.25 (Finland) |
| 2002 | 3.86 | – | 1.82 |
| 2001 | 4.07 | – | 1.74 |
| 2000 | 4.74 | – | 1.84 |

Source: i and ii WHO Mortality Database

Table B.15

AGE SPECIFIC DEATH RATES FROM ALL INJURIES FOR CHILDREN AGED 10–14 YEARS (PER 100 000 CHILDREN)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2003 | 5.15 | – | 3.05 (Sweden) |
| 2002 | 5.56 | – | 3.71 |
| 2001 | 5.32 | – | 3.02 |
| 2000 | 7.25 | – | 3.84 |

Source: i and ii WHO Mortality Database

Child abuse and neglect

Table B.16

NON-ACCIDENTAL DEATHS UNDER 19 YEARS, AVERAGE OF LATEST THREE YEARS AVAILABLE (PER 100 000 YOUNG PEOPLE)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|-----------|------------------------|----------------------|----------------------------------|
| 2001–2003 | 0.76 | – | 0.28 |

Source: i and ii WHO Mortality Database

Educational Wellbeing

Early Childhood Development

Table B.17

PROPORTION OF CHILDREN ENTERING SCHOOL THAT ARE DEVELOPMENTALLY VULNERABLE (AEDI AND EDI)

| Year | Australia ⁱ | Indigenous Australia | Canada ⁱⁱ |
|---------|------------------------|----------------------|----------------------|
| 2007 | – | – | 13.1% |
| 2004–06 | 11.9% | – | – |

Source: i Sayers 2008 ii Offord Centre for Child Studies, McMaster University 2007

School Achievement

Table B.18

AVERAGE ACHIEVEMENT IN READING FOR STUDENTS AGED 15 YEARS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2006 | 513 | 434 | 556 (Korea) |
| 2003 | 525 | 444 | 543 |
| 2000 | 528 | 448 | 546 |

Source: i OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5 ii Thomson and De Bortoli 2008, Tables 3.4, 5.9 and 6.6; 2004, Table 4.7 iii OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5

Table B.19

AVERAGE ACHIEVEMENT IN MATHEMATICS FOR STUDENTS AGED 15 YEARS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2006 | 520 | 442 | 548 (Finland) |
| 2003 | 524 | 440 | 544 |
| 2000 | 533 | 450 | 560 |

Source: i OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5 ii Thomson and De Bortoli 2008, Tables 3.4, 5.9 and 6.6; 2004, Table 4.7 iii OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5

Table B.20

AVERAGE ACHIEVEMENT IN SCIENCE FOR STUDENTS AGED 15 YEARS

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2006 | 527 | 441 | 563 (Finland) |
| 2003 | 525 | 434 | 548 |
| 2000 | 528 | 448 | 552 |

Source: i OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5 ii Thomson and De Bortoli 2008, Tables 3.4, 5.9 and 6.6; 2004, Table 4.7 iii OECD 2007a, Tables 2.1c, 6.1c, 6.2c; 2003, Tables 4.1, 4.2; 2001, Tables 2.4, 3.2, 3.5

Adult literacy

Table B.21

PERCENTAGE OF ADULTS (16–44) THAT ACHIEVED AT LEAST A LEVEL 3 SCORE IN PROSE LITERACY

| Year | Australia ⁱ | Indigenous Australia | Best International |
|------|------------------------|----------------------|--------------------|
| 2003 | 59.9% | – | 75.0% (Norway) |

Source: i ABS 2008, cat. no. 4228.0, Table 7

School retention

Table B.22

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS REMAINING IN EDUCATION

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2005 | 82.5% | – | 97.4% (Greece) |
| 2004 | 81.6% | – | 91.4% |

Source: i and ii OECD 2007b, OECD 2006c Table C2.1

Transition to employment

Table B.23

PERCENTAGE OF YOUNG PEOPLE AGED 15–19 YEARS NOT IN EDUCATION, TRAINING OR EMPLOYMENT

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2005 | 3.8% | – | 0.6% (Poland) |
| 2004 | 4.0% | – | 0.7% |

Source: i and ii OECD 2007b, OECD 2006c Table C4.3

Relationships

Family relationships

Table B.24

PERCENTAGE OF CHILDREN WHO REPORT EATING THE MAIN MEAL OF THE DAY WITH PARENTS SEVERAL TIMES PER WEEK

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2000 | 70.98% | 64.71% | 92.61% (Italy) |

Source: i and iii PISA 2000 ii De Bortoli 2008

Table B.25

PERCENTAGE OF CHILDREN WHO REPORT THAT THEIR PARENTS SPEND TIME 'JUST TALKING' TO THEM SEVERAL TIMES PER WEEK

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2000 | 51.13% | 52.38% | 89.41% (Hungary) |

Source: i and iii PISA 2000, 2003 ii De Bortoli 2008

Sense of belonging

Table B.26

PERCENTAGE OF CHILDREN WHO REPORT A SENSE OF BELONGING IN THEIR SCHOOL

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2003 | 86.36% | 88.32% | 91.18% (Portugal) |
| 2000 | 84.62% | 83.75% | 88.64% |

Source: i PISA 2000, 2003 ii De Bortoli 2008 iii PISA 2000, 2003

Table B.27

PERCENTAGE OF STUDENTS AGED 15 YEARS WHO FEEL AWKWARD AND OUT OF PLACE AT SCHOOL

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|------|------------------------|------------------------------------|-----------------------------------|
| 2003 | 8.56% | 17.1% | 4.8% (Sweden) |
| 2000 | 10.8% | 13.4% | 6.5% |

Source: i PISA 2000, 2003 ii De Bortoli 2008 iii PISA 2000, 2003

Social capital

Table B.28

PROPORTION OF YOUNG PEOPLE ABLE TO GET SUPPORT IN TIME OF CRISIS FROM PERSONS LIVING OUTSIDE THE HOUSEHOLD.

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International |
|------|------------------------|------------------------------------|--------------------|
| 2006 | 95.3 | – | – |
| 2002 | 97.8 | 90.9 | – |

Source: i ABS General Social Surveys, cat. no. 4159.0 ii NATSISS cat. no. 4714.0

Behaviours and risks

Overweight and obesity

Table B.29

PERCENTAGE OF CHILDREN AGED 6–11 YEARS WHOSE BMI SCORE IS ABOVE THE INTERNATIONAL CUT-OFF

| Year | Australia | Indigenous Australia | Best International ⁱ |
|-----------|-----------|----------------------|---------------------------------|
| 2004 | – | – | 18.1% (Canada) |
| 1999–2002 | – | – | 16% |

Source: i Shields 2006

Table B.30

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE 'OVERWEIGHT' FOR THEIR AGE AND SEX

| Year | Australia ⁱ | | Indigenous Australia ⁱⁱ | | Best international | |
|---------|------------------------|--------|------------------------------------|--------|--------------------|--------|
| | Male | Female | Male | Female | Male | Female |
| 2004–05 | 26.7% | 17.5% | 19.0% | 14.0% | – | – |
| 2001 | 26.4 | 12.8% | 23.0% | 18.0% | – | – |
| 1995 | 22.0% | 11.6% | – | – | – | – |

Source: i ABS 2006a, cat. no. 4364.0, Table 25 ii ABS 2006b, cat. no. 4715.0, Table 21

Table B.31

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO ARE 'OBESE' FOR THEIR AGE AND SEX

| Year | Australia ⁱ | | Indigenous Australia ⁱⁱ | | Best international ⁱⁱⁱ | |
|---------|------------------------|--------|------------------------------------|--------|-----------------------------------|------------------------|
| | Male | Female | Male | Female | Male | Female |
| 2004–05 | 6.7% | 7.3% | 12.0% | 12.0% | – | – |
| 2001 | 8.0% | 7.1% | 21.0% | 11.0% | 1.9% (the Netherlands) | 2.0% (the Netherlands) |
| 1995 | 5.0% | 4.5% | – | – | – | – |

Source: i ABS 2006a, cat. no. 4364.0, Table 25 ii ABS 2006b, cat. no. 4715.0, Table 21 iii WHO 2005

Cigarette smoking

Table B.32

PERCENTAGE OF CHILDREN AGED 13 WHO ARE CURRENT WEEKLY SMOKERS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2005 | 5% | – | 2% (Greece) |
| 2003 | – | – | 4.0% |

Source: i White and Hayman 2006 ii Currie et al. 2008, 2004

Table B.33

PERCENTAGE OF CHILDREN AGED 15 YEARS WHO ARE CURRENT WEEKLY SMOKERS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2005 | 11% | – | – |
| 2003 | – | – | 13.8% (Greece) |

Source: i White and Hayman 2006 ii Currie et al. 2004

Table B.34

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS WHO SMOKE CIGARETTES DAILY

| Year | Australia ⁱ | Indigenous Australia ⁱⁱ | Best International ⁱⁱⁱ |
|---------|------------------------|------------------------------------|-----------------------------------|
| 2004–05 | 26.9% | 50.0% | – |
| 2002–03 | – | – | 6.1% (Mexico) |
| 2001 | – | 53.0% | – |

Source: i and ii ABS 2006b, cat. no. 4715.0, Graphs 8.2 and 8.3 iii WHO Health Survey

Harmful alcohol use

Table B.35

PERCENTAGE OF YOUNG PEOPLE AGED 13 YEARS WHO DRINK AT RISKY LEVELS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|--------|------------------------|----------------------|----------------------------------|
| 2007 | 0.9% | – | – |
| 2005–6 | – | – | 3% (Norway) |
| 2003 | – | – | 4% |

Source: i Batts 2008 ii Currie et al. 2008 p. 132, 2004 fig. 3.12

Table B.36

PERCENTAGE OF YOUNG PEOPLE AGED 16 YEARS WHO DRINK AT RISKY LEVELS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2007 | 24% | – | – |
| 2003 | – | – | 8.5% (Hungary) |

Source: i Batts 2008 ii Hibell et al. 2004

Teenage fertility

Table B.37

AGE SPECIFIC FERTILITY RATE FOR FEMALES AGED 15–19 YEARS (PER 1000 FEMALES)

| Year | Australia ⁱ | Indigenous Australia ⁱ | Best International ⁱⁱⁱ |
|------|------------------------|-----------------------------------|-----------------------------------|
| 2006 | 15.4 | 69.3 | 3 (Japan) |
| 2005 | 15.8 | 69.2 | 3 |
| 2004 | 16.0 | 70.9 | – |
| 2003 | 16.1 | 73.2 | – |
| 2002 | 17.2 | 76.2 | 3 |

Source: i ABS 2007 cat. no. 3301.0, Table 1.9 ii ABS 2007 cat. no. 3301.0, Table 3.9, 2005, Table 3.6, 2003, Table 9.1 iii World Development Indicators

Crime

Table B.38

RATE OF YOUNG PEOPLE AGED 10–17 YEARS IN JUVENILE JUSTICE SUPERVISION

| Year | Australia ⁱ | | Indigenous Australia ⁱⁱ | |
|---------|------------------------|---------|------------------------------------|---------|
| | Males | Females | Males | Females |
| 2006–07 | 8.0 | 1.6 | – | – |
| 2005–06 | 8.1 | 1.8 | 63.1 | 17.5 |
| 2004–05 | 7.9 | 1.7 | 60.1 | 16.6 |
| 2003–04 | 7.4 | 1.6 | 60.1 | 16.8 |
| 2002–03 | 8.3 | 1.7 | 61.5 | 16.8 |

Source: i AIHW 2006, Table 3.2 ii AIHW 2006, requested data and ABS 2004a, Table 33

Illicit drug use

Table B.39

PERCENTAGE OF YOUNG PEOPLE AGED 16 YEARS WHO HAVE USED ILLICIT DRUGS

| Year | Australia | Indigenous Australia | Best International ⁱ |
|------|-----------|----------------------|---------------------------------|
| 2004 | 23.2% | – | – |
| 2003 | – | – | 6% (Greece) |

Source: i Hibell et al. 2003

Road deaths

Table B.40

RATE OF DEATHS FROM ROAD ACCIDENTS FOR YOUNG PEOPLE AGED 15–19 YEARS (PER 100 000 YOUNG PEOPLE ANNUAL)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2003 | 12.02 | – | 0.97 (Portugal) |
| 2002 | 14.34 | – | 1.50 |
| 2001 | 15.15 | – | 1.63 |
| 2000 | 15.75 | – | 1.86 |

Source: i and ii WHO Mortality Database

Table B.41

RATE OF DEATHS FROM ROAD ACCIDENTS FOR YOUNG PEOPLE AGED 20–24 YEARS (PER 100 000 YOUNG PEOPLE)

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 2003 | 14.22 | – | 2.01 (Portugal) |
| 2002 | 14.37 | – | 2.10 |
| 2001 | 15.59 | – | 0.75 |
| 2000 | 16.50 | – | 0.97 |

Source: i and ii WHO Mortality Database

Subjective wellbeing**Self-reported health**

Table B.42

PERCENTAGE OF YOUNG PEOPLE AGED 15–24 YEARS SATISFIED WITH THEIR HEALTH

| Year | Australia ⁱ | Indigenous ⁱⁱ Australia | Best International |
|------|------------------------|------------------------------------|--------------------|
| 2005 | 93.3% | 91.0% | 97.1% (U.S) |
| 2004 | 93.3% | 91.0% | 96.9% |
| 2003 | – | – | 96.7% |
| 2002 | 93.0% | 92.0% | 96.8% |
| 2001 | 90.3% | 87.0% | 97.1% |

Source: i ABS 2006a, cat. no. 4364.0, Table 3. ii ABS 2006b, cat. no. 4715.0, Table 7

Personal wellbeing

Table B.43

PERCENTAGE OF YOUNG PEOPLE AGED 18–24 YEARS ARE SATISFIED WITH LIFE

| Year | Australia ⁱ | Indigenous Australia | Best International |
|-----------|------------------------|----------------------|--------------------|
| 2001–2007 | 92.5% | – | – |

Source: i Australian Centre for Quality of Life

Participation

Community participation

Table B.44

PERCENTAGE OF YOUNG PEOPLE AGED 14 YEARS PARTICIPATING IN STUDENT ORGANISATIONS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 1999 | 34% | – | 59% (Greece) |

Source: i and ii Torney-Purta et al. 2001, Table 7.2

Table B.45

PERCENTAGE OF YOUNG PEOPLE AGED 14 YEAR OLDS PARTICIPATING IN VOLUNTARY ACTIVITIES

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 1999 | 33% | – | 50% (United States) |

Source: i and ii Torney-Purta et al. 2001, Table 7.2

Political interest

Table B.46

PERCENTAGE OF YOUNG PEOPLE AGED 14 YEARS INTERESTED IN POLITICS

| Year | Australia ⁱ | Indigenous Australia | Best International ⁱⁱ |
|------|------------------------|----------------------|----------------------------------|
| 1999 | 31% | – | 54% (Slovak Republic) |

Source: i and ii Torney-Purta et. al. 2001, Table 6.1

Environment

Climate change

Table B.47

TOTAL GREENHOUSE GAS EMISSIONS PER CAPITA (CO₂ EQUIVALENTS)

| Year | Australia ⁱ | Best International ⁱⁱ |
|------|------------------------|----------------------------------|
| 2002 | 17.0 | 2.8 (Turkey) |

Source: i and ii OECD 2005, Table 1

Resource use

B.48

WATER ABSTRACTIONS PER CAPITA (M³)

| Year | Australia ⁱ | Best International ⁱⁱ |
|-------------|------------------------|----------------------------------|
| Early 2000s | 7545 | 140 (Luxembourg) |

Source: i and ii OECD 2005, Table 12

Table B.49

FOREST HARVEST AS A PERCENTAGE OF ANNUAL GROWTH

| Year | Australia ⁱ | Best International ⁱⁱ |
|-------|------------------------|----------------------------------|
| 2000s | 57% | 6% (Korea) |
| 1990s | — | 7% |
| 1980s | 40% | 35% |

Source: i and ii OECD 2005, Table 14

Table B.50

PERCENTAGE OF THREATENED BIRD SPECIES

| Year | Australia ⁱ | Best International ⁱⁱ |
|------|------------------------|----------------------------------|
| 2005 | 13% | 2% (Greece) |

Source: i and ii OECD 2005, p. 98