Australian Government
Australian Institute of Health and Welfare

bulletin 20

Key national indicators of children's health, development and wellbeing

Introduction

Monitoring the progress of Australia's children is central to the National Agenda for Early Childhood (Family and Community Services 2004). The AIHW has been monitoring the health, development and wellbeing of Australia's children since 1996 with funding from the Department of Health and Ageing. To date, the Institute has produced four comprehensive national reports in this area—*Australia's Children* (Moon et al. 1998 and AIHW: Al-Yaman et al. 2002) and *Australia's Young People* (Moon et al. 1999 and AIHW: Al-Yaman et al. 2003). These reports covered important health conditions and injuries among children and young people, as well as major risk factors and determinants of health, development and wellbeing. The reports have also identified the importance of family, social and community contexts on young people's health outcomes.

In keeping with a new emphasis on a whole-of-government, cross-sectoral approach to childhood policy, the AIHW has broadened its reporting framework in this area to encompass a wider set of influences on childhood development. This work has been guided by an Advisory Committee comprising key experts and jurisdictional representatives, the Australian Government Taskforce on Child Development, and the Australian Council for Children and Parenting (ACCAP). This bulletin provides an overview of the key indicators—developed by AIHW and chosen with the benefit of advice from these expert groups—to be published in *A Picture of Australia's Children 2005*, as part of a national program of indicator development, data collection and regular reporting.

CONTENTS

Key national indicators of children's health, development and wellbeing

Developing a key national indicator framework

The key national indicators presented in this bulletin build upon an earlier set developed by the AIHW in collaboration with an expert committee. This initial set was based on a conceptual framework for the organisation of national child health information. The framework consisted of three broad groups of indicators of child health: health status, risk and protective factors, and the delivery of health services and interventions. The framework was endorsed by the AIHW Advisory Committee, discussed at a workshop convened by the AIHW in 1998 and subsequently endorsed by the Australian Health Ministers' Advisory Council. While this original framework was primarily focused on health, subsequent indicator development and national monitoring of the wellbeing of children undertaken by the Institute has progressively broadened.

The 2005 report aims to encompass reporting on the wider social, community and economic contexts in which young people in Australia are growing up and the way in which these influences affect outcomes for children. This approach is consistent with the international research literature and the shift in government policy towards early intervention and prevention. Recent research findings have emphasised the importance of early childhood exposures (such as family environment, social interaction, and education) in shaping children's health, development and wellbeing later in life (for a summary of this research, see Waters et al. 2002; McCain & Mustard 2002).

Recognising the significance and benefits of investing in the early years of life, the Australian Government established a Task Force on Child Development, Health and Wellbeing in September 2001, to develop a 'whole of government' approach to the early years of life. A major responsibility of the Task Force is to lead the development of the National Agenda for Early Childhood announced in September 2002. The focus of this national policy agenda is on early child and maternal health, early learning and care, and supporting child-friendly communities. Central to this agenda is the capacity to be able to monitor regularly over time how Australia's children are faring, and how certain population groups, such as Indigenous children and children from rural and regional Australia, are faring by comparison (ACCAP 2004). Several Australian states and territories have also begun to commission reports monitoring the progress of children within their jurisdiction (Centre for Epidemiology and Research 2002; NSW and QLD Commissions for Children and Young People 2004; Queensland Commission for Children and Young People 2004; Tennant et al. 2003).

In March 2004 ACCAP hosted a workshop that brought together a variety of leading academic experts, and government and non-government stakeholders, to consider a national reporting framework for Australia's children. A draft set of indicators developed by the AIHW was discussed at this workshop, and later finalised by the Advisory Committee for the *Picture of Australia's Children* project (see Appendix). The final set of key national indicators now covers a broad range of risk and protective factors that affect early childhood development and influence children's outcomes, in line with current research that children's experiences early in life affect their health and wellbeing later in life (McCain & Mustard 2002; Prior et al. 2000). The national indicators selected for this report have also been influenced by international indicator

development in Europe (European Union Community Health 2002), in Canada (Canadian Council On Social Development 2002), and in America (Federal Interagency Forum on Child and Family Statistics 2003), as well as indicator development within Australia (Waters et al. 2002; Zubrick et al. 2000).

Indicator selection criteria

Checklists of the desirable qualities of indicators and caveats on their use are common adjuncts to statistical indicators. The process of selecting the national indicators of children's health, development and wellbeing took into account existing criteria developed by the National Health Performance Committee (NHPC 2001:19) and also those used in developing the AIHW Indicators of Australia's Welfare (AIHW 2001 & 2003). According to the NHPC guidelines, national indicators should:

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

The key national indicators

The following tables set out the key national indicators of children's health, development and wellbeing that have emerged out of the consultative process outlined above. They present the indicator and a brief justification explaining the relevance to child wellbeing.

National indicators on socioeconomic, familial and health-related factors are well developed and good quality data have been available for some time on these measures. However, indicators on the cultural, educational, psychological and environmental wellbeing of children are, at present, less well developed. Even where indicators exist,

Key national indicators of children's health, development and wellbeing

such as with school readiness, emotional development and parental style, national data to measure them are not yet available. For these indicators, only contextual data, research and information can be reported in 2005.

The AIHW project team has organised the key indicators around answering questions vital to assessing the wellbeing of Australia's children, such as:

- How healthy are Australia's children?
- How well are we promoting healthy child development?
- What factors can affect children adversely?
- How safe and secure are Australia's children?
- How well are Australia's children learning and developing?
- What kind of families and communities do Australian children live in?

While the majority of Australian children are faring well, as evidenced by the decline in mortality rates over the last two decades, not all are doing so well (AIHW 2004a, AIHW:Al-Yaman et al. 2002). Hence it is important for any national report to provide information on how wellbeing varies according to population groups, such as children from rural and regional Australia, children according to socioeconomic background and Indigenous children. This information will be included in *A Picture of Australia's Children 2005* where quality data are available.

Key national indicators of children's health, development and wellbeing[1]

How healthy are Australia's children?

Indicator	Measure	Justification
Mortality	Infant mortality rate	Infant mortality is an important indicator to monitor the health status of children, as the majority of childhood deaths occur in the first year of life (AIHW 2004a). It is also used internationally as the key indicator of the hygiene and health conditions prevailing in a community.
	Sudden infant death syndrome (SIDS) rate	For the last 25 years, SIDS has been the major cause of death in infants. Because of the national prevention campaign in the early 1990s, there has been a substantial decrease in SIDS (AIHW: Al-Yaman et al. 2002). In 2002, there were 119 cases.
	Death rate for children aged 1–14 years	Death rates are one of the most widely used measures of health in a population.

continued...

1 These tables present information about the rationale for including these indicators in the *Picture of Australia's Children 2005* report. They are not intended to be interpreted as a conceptual framework for the organisation of child health, development and wellbeing information. In consultation with the relevant stakeholders, work is currently in progress to develop a framework of this kind.

How healthy are Australia's children? (continued)

Indicator	Measure	Justification
Morbidity	Proportion of children aged 0–14 years with asthma as a long-term condition	Asthma is the leading cause of disease burden among children, and is one of the seven National Health Priority Areas endorsed by Australian Health Ministers. The prevalence of childhood asthma in Australia increased during the 1980s and early 1990s but it is not clear whether there has been any change since that time (ACAM 2003). It is important to continue to monitor asthma to detect further changes in prevalence.
	New cases of cancer per 100,000 children aged 0–14 years	Cancer is the second most common cause of death for children aged 1–14 years (injury is by far the most common cause among this age group) (AIHW: Al-Yaman et al. 2002). Cancer is a National Health Priority Area.
	Five-year relative survival rate for leukaemia in children aged 0–14 years	
	New cases of children aged 0–14 years receiving insulin on the National Diabetes Register as a rate per 100,000 children	Diabetes is one of the seven National Health Priority Areas and is one of the most common chronic diseases among children. There is evidence that the incidence of Type 1 diabetes is on the rise (AIHW 2004a). It is important to monitor this emerging trend as well as the increase in Type 2 diabetes among children which has been observed in other countries and in some parts of Australia (McMahon et al. 2004).
Disability	Proportion of children aged 0–14 years with severe or profound core activity restrictions	Children with severe disabilities may be in poor health, but may also have long-term activity limitations and participation restrictions which they and their parents must manage. Childhood disability can create serious financial hardship for families and may limit the opportunities to fully participate in society for both children themselves and their carers (AIHW: Al-Yaman et al. 2002).
Mental health	Proportion of children aged 4–14 years with mental health problems	Mental health is one of the seven National Health Priority Areas. Mental health problems and disorders account for the second highest burden of disease among children. Many children experience mental health problems which, if left untreated, may develop into clinical disorders (Raphael 2000, Sawyer et al. 2000).
	Proportion of children aged 6–14 years with mental health disorders (ADHD, depressive disorder, conduct disorder)	
	Suicide death rate for children aged 10–14 years	Although suicide is rare in children, it is important to continue to monitor such deaths in order to detect emerging patterns and trends. Suicide rates among young people have generally increased over the last couple of decades (Mitchell 2000), but have been declining in the past few years. The suicide rate is greater for boys than for girls. Suicide deaths are also often associated with mental illness, especially depression (Groholt et al. 2000).

Key national indicators of children's health, development and wellbeing

How well are we promoting healthy child development?

Indicator	Measure	Justification
Immunisation	Proportion of children who are fully vaccinated at 1, 2 and 6 years of age	Immunisation against communicable diseases is an effective public health intervention that has significantly reduced the morbidity and mortality arising from childhood diseases (AIHW 2004a). The Immunise Australia program includes vaccination against diphtheria, tetanus, whooping cough (pertussis), poliomyelitis, measles, mumps, rubella, Haemophilus influenzae type B (Hib), hepatitis B, meningococcal C and pneumococcal disease.
Breastfeeding	Proportion of infants exclusively breastfed at ages 3 and 6 months	In Australia, in accordance with World Health Organisation guidelines, exclusive breastfeeding is recommended to six months of age, before additional fluids and solids need to be introduced (NHMRC 2003).
Dental health	Proportion of children decay-free at age 6 years and at age 12 years	The proportion of children free from tooth decay experience has been increasing in recent years indicating improvements in the dental health of children (AIHW DSRU: Armfield, Roberts-Thomson & Spencer 2003) It is important to continue monitoring trends in oral health to detect any changes in the current pattern of improvement.
	Mean decayed, missing or filled teeth scores at age 6 years at age 12 years	Since the introduction of the School Dental Scheme in 1977, the dental health of Australian children has improved. There has been a decline in the average number of dental caries experienced. It is important to continue monitoring trends in oral health to detect any changes in the current pattern of improvement.

What factors can adversely affect children?

Indicator	Measure	Justification
Birth weight and premature births	Proportion of infants weighing less than 2,500 grams at birth	Low birthweight is an indicator of general health of newborns and a key determinant of infant survival, health and development. Low birthweight babies are at a greater risk of dying during the first year of life (AIHW NPSU: Ford et al. 2003).
Healthy weight	Proportion of children aged 2–14 years whose body weight is at an acceptable/ unacceptable level as measured by BMI scores	Children who are overweight or obese are at a greater risk of being overweight or obese in adulthood (Whitaker et al. 1997). People who are overweight or obese as adults have higher mortality and morbidity rates for a number of diseases and conditions, such as Type 2 diabetes, coronary heart disease, respiratory disease and some types of cancers.
Tobacco and alcohol use	Proportion of children aged 12–14 who are current smokers	Tobacco use is associated with many chronic and life-threatening diseases. It is the risk factor associated with the greatest disease burden in Australia (AIHW 2004a). Cigarette smoking at young ages is strongly correlated with smoking at adult ages.
	Proportion of children aged 12–14 who have engaged in high-risk (5 or more drinks in a row) drinking at least once in the last 2 weeks	NHMRC dietary guidelines state that alcohol is not recommended for children. Children are more vulnerable to the risks of alcohol use than adults—they are physically smaller, they lack experience of drinking and its effects, and do not have a built up tolerance to alcohol (DoHA 2003).
Tobacco smoking during pregnancy	Proportion of women smoking during pregnancy	Smoking during pregnancy restricts the flow of oxygen to the foetus and can result in a multitude of poor birth outcomes (AIHW NPSU: Ford et al. 2003). This behaviour is one of the most important known modifiable risk factors for low birthweight and infant mortality.
Exposure to tobacco smoke	Proportion of households with children aged 0–14 years where adults smoke inside	Young or un-born children who are exposed to tobacco smoke are at risk of serious health problems, including increased risk of asthma, lower respiratory tract illnesses, low birthweight and sudden infant death syndrome (NHMRC 1997).

How safe and secure are Australia's children?

Indicator	Measure	Justification
Neighbourhood safety	Proportion of households with children aged 0–14 years where neighbourhood is perceived as unsafe	Children living in unsafe, particularly violent, neighbourhoods are more likely than their peers in safer communities to display or experience anti-social behaviours (such as aggression or bullying), suffer from stress, anxiety or depression, and/or start to fail at school (Aneshensel & Succo 1996; Attar et al. 1994; Coulton et al. 1996; Schwartz & Proctor 2000; Stewart et al. 2002; Wilson 1987, in Coulton et al. 1996). This association is strongest where lack of safety is real, but perceived feelings of living in an unsafe neighbourhood may also affect these responses (Colder et al. 2000).
Injuries to children	Injury death rate for children aged 0–14 years	Injuries are the single major underlying cause of death for children aged 1–14 years (AIHW: Al-Yaman et al. 2002). Injury prevention and control is one of seven National Health Priority Areas endorsed by Australian Health Ministers in recognition of the national burden of injury. Many of the causes of injuries are preventable and are therefore amenable to intervention (AIHW NISU: Moller and Kreisfeld 1997).
	Road transport accident death rate for children aged 0–14 years	Road transport accidents are of particular concern because they represent a major cause of death for children. Many of the causes of road transport accidents are preventable and therefore amenable to intervention (AIHW NISU: Moller & Kreisfeld 1997).
	Accidental drowning death rate for children aged 0–14 years	Accidental drowning is a leading cause of childhood deaths, especially among toddlers and preschoolers (ages 1–4 years) (AIHW: Al-Yaman et al. 2002).
	Hospitalisation rate for children aged 0–14 years for injuries from assault	Hospitalisation rates for assault capture serious incidents of intentional harm inflicted by other people. This group includes hospitalisations for injuries from domestic violence and child abuse.
	Hospitalisation rate for children aged 0–14 years for accidental injuries (poisoning, burns and scalds, pedestrian accidents, pedal cycling)	Injuries are a major reason for hospitalisations of children aged 1–14 years. Injury is one of the six National Health Priority Areas. Serious injury may lead to chronic and disabling conditions.
Abuse and neglect	Rate of children aged 0–14 years who are the subject of child protection substantiation	Abuse of or harm to children is substantiated if, in the professional opinion of officers of the child protection authority, there is reasonable cause to believe that a young person has been, is being or is likely to be abused or neglected or otherwise harmed. Abuse and neglect can have both short-term and long-term adverse consequences for children, including injuries, lower social competence, poor school performance, depression and suicidal and self-injurious behaviours (Shonkoff & Phillips 2000).
	Rate of children aged 0–14 years who are the subject of care and protection orders	Recourse to the court is generally a last resort and is used in situations where supervision and counselling are resisted by the family, where other avenues for resolution of the situation have been exhausted, or where removal of a child into out-of-home care requires legal authorisation. Children on orders are those children whose safety and wellbeing are of serious concern (AIHW 2003).
	Assault death rate for children aged 0–14 years	Although deaths from assault are relatively rare among children, fatal outcomes from intentionally inflicted injuries or homicide provide a practical indicator of the nature and extent of extreme interpersonal violence in this age group. Interpersonal violence, which includes domestic violence and child abuse, can be associated with parental drug and alcohol misuse and with mental health problems.
Homelessness	Rate of children aged 0–15 years accompanying a parent or guardian seeking assistance from Supported Accommodation Assistance Program	Children in a homeless situation can be disadvantaged in a number of ways: missing out on attending school, lacking parental affection, having to look after younger siblings, and lacking the opportunities for social interaction with peers, all of which affect children's social and emotional development (AIHW 2004b).
Victims of violence	Rate of children aged 0–14 years who have been the victim of physical and sexual assault	A large body of international research suggests that physical and sexual abuse has multi-faceted short-and long-term negative effects on childhood development (Paolucci et al. 2001). In particular, a history of child abuse has been associated with psychopathology, depression, anxiety disorder, phobias, panic disorder, post traumatic stress disorder, and substance abuse (Molnar et al. 2001).

Key national indicators of children's health, development and wellbeing

How well are Australia's children learning and developing?

Indicator	Measure	Justification
Early learning and school readiness	Proportion of children aged <1 year and 4 years of age who are read to by an adult on a regular basis	Pre-literacy and literacy skills are important predictors of how well children learn, cope and develop (De Lemos & Mellor 1994). Pre-literacy skills are an important component of school readiness. School readiness encompasses linguistic, behavioural, pre-literacy, pre-numeracy, social, emotional and physical attributes that enable a child to adjust well to entering formal schooling. School readiness is recognised as a benchmark for how well prepared children are to cope with the transition to formal schooling (Janus & Offord 2000). Children who are not school ready risk school failure.
	Proportion of children aged 3–4 years enrolled at preschool	Preschool services offer educational and developmental programs for children in the year or two before full-time school. The role of preschool is to further children's social, emotional, physical and intellectual (particularly literacy and numeracy) development, their knowledge and understanding of the world and to enhance their transition to school. Research suggests that early learning experiences assist children to assimilate better to the curriculum content demands of formal schooling (AIHW: 2003; Doherty 1997).
Educational benchmarks	Percentages of children in Years 3, 5 and 7 meeting national literacy (reading & writing) and numeracy benchmarks	National benchmarks represent the minimum acceptable standard without which a student will have difficulty making sufficient progress at school. These benchmarks are nationally agreed standards for literacy and numeracy at particular year levels (MCEETYA 2001). Academic performance in early grades is considered a significant predictor of children's school retention at high school/college years (Doherty 1997).
Social and emotional development	Under development Data gaps being addressed by the Longitudinal Study of Australian Children	Research suggests that if psycho-social problems are not resolved in childhood, they can lead to lowered quality of life, physical health problems, mental disorders, lowered academic and vocational attainment, risky behaviours, substance use, suicidal ideation and attempts, and family discord (Raphael, 2000).
Involvement with the juvenile justice system	Rate of children aged 10–14 years who are in detention in juvenile justice facilities	Many young offenders have pre-existing mental health and behavioural problems (Bickel & Campbell 2002), as well as substance use problems and health conditions. Many are homeless and live in poverty (Cunneen & White 1995). For some juveniles, involvement with the juvenile justice system is also associated with offending behaviour in adulthood. These young people are also characterised by high levels of instability in their lives and poor educational outcomes (Lynch et al. 2003).

What kind of families and communities do Australian children live in?

Indicator	Measure	Justification
Family functioning	Proportion of children aged 4–12 years living in families where family cohesion is low	The National Survey of Mental Health and Well-being found that children with more emotional and behavioural problems lived in less cohesive families (Sawyer et al. 2000:16).
Children in non-parental care	Rate of children aged 0–14 years in out-of-home care	Young people in out-of-home care represent a particularly disadvantaged group. Most of them have suffered child abuse or neglect, as well as the breakdown of their families. Compared with the general population, young people in out-of-home care have higher levels of aggressive/violent behaviour, higher levels of substance use, a higher incidence of intellectual disability, mental health problems and poorer educational outcomes (Jackson 2001).

continued...

What kind of families and communities do Australian children live in? (continued)

Indicator	Measure	Justification
Economic security	Proportion of children aged 0–14 years living in families where no parent is employed	Families with no parent employed generally have low incomes and live in poor economic circumstances—they are also more likely to be socially isolated than families with an employed parent. Living in a jobless family may have long-term effects on children's development, their educational progress and their own employment prospects. Long-term unemployment often leads to stress, tension and family conflict, which may impact on children's emotional and mental health (McClelland 1994).
Social support networks	Proportion of households with children under 15 years of age where respondent was able to get support in time of crisis from persons living outside the household	A cohesive society is one that promotes wellbeing via a large range of mutually supportive interactions, at the individual, group and social level (AIHW 2003). This is a relatively new area for statistical measurement but one whose importance is increasingly recognised.
Parents with disability and chronic illness	Proportion of parents with a disability	Parental disabilities may be associated with children's lateness and poor school attendance, and also have adverse effects on basic parenting tasks (Cassino et al. 1997). Children may also be 'young carers' of a disabled parent, which can restrict social and educational opportunities and increase stress (Mukherjee et al. 2002).
	Proportion of parents rating their health as 'fair' or 'poor'	Parents' health and wellbeing impact on the health and wellbeing of the child in several ways. Children rely on their primary carer for their physical, emotional, and economic needs and support. When disruption to parenting or caregiving occurs, as sometimes happens with the onset of a physical or mental illness, the needs of the child may receive less attention or may not be met at all (Silburn et al. 1996).
Parental mental health	Proportion of parents with a mental health problem	While many parents who have a mental illness are capable parents, mental health problems can affect parent–child relationships in a number of ways. Problems may include relationship discord, discontinuity of care, poor general parenting skills, social isolation and exclusion (AICAFMHA 2001).

A complete picture?

Through these key indicators, the Picture of Australia's Children 2005 report will aim to present data on as many aspects of children's health, development and wellbeing possible. The contexts and influences that are known to be so important in determining outcomes for children will be presented in one report for the very first time.

The challenge that remains, however, is that there are still aspects of children's wellbeing for which there are no national or even jurisdictional data available to paint a statistical picture. Themes such as parenting style, postnatal depression, father's involvement in parenting, school absenteeism, bullying, aspects of disability and motor and social development are just some of the areas for which national data development are required and data collection are vital.

In addition, the available statistical information in areas such as children's mental health and overweight and obesity is now outdated. Renewed data collection in these areas is needed before they risk adding to existing data gaps.

The data emerging from *Growing Up in Australia—The Longitudinal Study of Australian Children* will go some way to filling these data gaps by providing a snapshot of two cohorts of children, starting with infants and children 4 years of age, which may be useful

for monitoring in some areas. However, the real purpose and power of this type of longitudinal data is really to investigate the latent effects of poor child health and the impact of cumulative exposures, not to provide the basis for national monitoring.

Monitoring is different from the more complex analysis possible in other research. For example, it is expected that the Growing Up in Australia study will be able to answer questions about how child outcomes are interlinked with their wider circumstances and environment, and while some population estimates will be available, the focus of that study is to examine two cohorts and their journey through time. So it is important that a national program for indicator development dovetails with the research program for projects such as the Growing Up in Australia data so that information needs are covered from both the individual/longitudinal and population/point-in-time perspectives.

Data sources

The selected indicators are derived from a wide range of national and jurisdictional data sources, including: the AIHW mortality, morbidity and cancer clearinghouse databases, AIHW child protection and supported accommodation assistance program data, AIHW National Diabetes Register, ABS surveys and recorded crime statistics, disease surveillance data and state-based surveys. Data derived from Wave 1 of Growing up in Australia, being undertaken by the Australian Institute of Family Studies (and funded by the Australian Government Department of Family and Community Services), provide a new national data source for the report (Australian Institute of Family Studies 2003, Nicholson & Sanson 2003). As with any report based on key indicators, the number of potential indicators is restricted by current data limitations and data gaps. The final report will identify limitations in existing data sources and outline the areas where new information needs to be developed. Through partnership with key stakeholders, including state and territory jurisdictions, the AIHW is either developing or implementing national minimum data sets in children's services, juvenile justice, out-of-home-care and child protection to fill some of these gaps and improve data quality in existing collections.

Collaborating partners

Much of the Institute's work on reporting and monitoring of Australia's children has been carried out with collaboration from national bodies such as the Australian Bureau of Statistics and the Australian Institute of Family Studies. At the jurisdictional level, the AIHW collaborates with working groups, such as the National Child Protection and Support Services Data Working Group, the Juvenile Justice Data Sub Committee, the Children's Services Data Working Group and the National Community Services Management Information Group. The Institute's collaborating partners, such as the National Perinatal Statistics Unit, based at the University of New South Wales, also play an important role in meeting the information requirements needed to monitor early childhood.

Acknowledgments

Departmental officers from the Department of Health and Ageing including Jean Douglass, Frances Byers, Judy Straton and Joy Eshpeter, along with members of the Picture of Australia's Children Advisory Committee, chaired by Professor George Patton, have made significant contributions to the AIHW's development and refinement of the key national indicators of children's health, development and wellbeing. We especially wish to acknowledge Dr Sharon Goldfeld, who generously gave her time and expert advice to the development of these indicators. Meredith Bryant and Kerry Carrington compiled this bulletin, based on the collective work of many within the Institute, spanning several years, including Indrani Pieris-Caldwell, Euan Kennedy, Cathy Hotstone, Hilary Sargeant, Fadwa Al-Yaman, Sam Bricknell, Kuldeep Bhatia, Paul Magnus, Lynelle Moon, Naila Rahman, Jacqueline Grau, Paul Meyer, Helen Moyle, Richard Madden, Ching Choi and Diane Gibson.

References

ACAM (Australian Centre for Asthma Monitoring) 2003. Asthma in Australia 2003. AIHW Asthma Series 1. AIHW Cat. No. ACM1. Canberra: AIHW.

ACCAP (Australian Council for Children and Parenting) 2004. 'A Picture of Australia's Children' national workshop report. Melbourne: Reckon Community and Organisational Development.

AICAFMHA (Australian Infant, Child, Adolescent and Family Mental Health Association) 2001. Children of parents affected by a mental illness—a scoping project. Canberra: Mental Health and Special Programs Branch, Department of Health and Aged Care.

AIFS (Australian Institute of Family Studies). 2003 Growing up in Australia: A longitudinal study of Australia's children. Melbourne: Australian Institute of Family Studies.

AIHW (Australian Institute of Health and Welfare) 2001. Australia's welfare 2001. Canberra: AIHW.

AIHW 2003. Australia's welfare 2003. Canberra: AIHW.

AIHW 2004a. Australia's health 2004. Canberra. AIHW.

AIHW 2004b. Children accompanying homeless clients 2002–03. AIHW Cat. No. HOU 106. Canberra: AIHW (SAAP NDCA report).

AIHW: Al-Yaman F, Bryant M & Sargeant H 2002. Australia's children: their health and wellbeing 2002. AIHW Cat. No. PHE 36. Canberra: AIHW.

AIHW: Al-Yaman F, Sargeant H & Bryant M 2003. Australia's young people: their health and wellbeing 2003. AIHW Cat. No. PHE 50. Canberra: AIHW.

AIHW DSRU (Australian Institute of Health and Welfare Dental Statistics Research Unit): Armfield, Roberts-Thomson & Spencer 2003. The child dental health survey, Australia 1999. AIHW Dental Statistics and Research Unit Series No. 10. Adelaide: AIHW DSRU.

Key national indicators of children's health, development and wellbeing

AIHW NISU (Australian Institute of Health and Welfare National Injury Surveillance Unit): Moller JN & Kreisfeld R 1997. Progress and current issues in child injury prevention. Australian Injury Prevention Bulletin 15. Adelaide: AIHW NISU.

AIHW NPSU (Australian Institute of Health and Welfare National Perinatal Statistics Unit): Ford J, Nassar N, Sullivan EA, Chambers G & Lancaster P 2003. Reproductive health indicators Australia 2002. AIHW Cat. No. PER 20. Canberra: AIHW NPSU.

Aneshensel CS & Succo CA 1996. The neighbourhood context of adolescent mental health. Journal of Health and Social Behavior 37:293–310.

Attar BK, Guerra NG & Tolan PH 1994. Neighborhood disadvantage, stressful life events, and adjustment in urban elementary-school children. Journal of Clinical Psychology 23:391–400.

Bickel R & Campbell A 2002. Mental health of adolescents in custody: the use of the 'Adolescent Psychopathology Scale' in a Tasmanian context. Australian and New Zealand Journal of Psychiatry 36:603–9.

Canadian Council On Social Development 2002. The progress of Canada's children 2002. Government of Canada 2002. The wellbeing of Canada's young children. Federal/Provincial/Territorial Early Childhood Development Agreement.

Cassino C et al. 1997. Effect of maternal asthma on performance of parenting tasks and children's school attendance. Journal of Asthma 34:499–507.

Centre for Epidemiology and Research 2002. New South Wales Child Health Survey 2001. NSW Public Health Bulletin 13(S-4). NSW: Department of Health.

Colder CR, Mott J, Levy S & Flay B 2000. The relation of perceived neighbourhood danger to childhood aggression: a test of mediating mechanisms. American Journal of Community Psychology 28(1):83–103.

Coulton CJ, Korbin JE & Su M 1996. Measuring neighborhood context for young children in an urban area. American Journal of Community Psychology 24(1):5–32.

Cunneen C & White R 1995. juvenile justice: an Australian perspective. Melbourne: Oxford University Press.

Daly A & Roberts L 2001. Child health survey: an overview. WA: Department of Health.

De Lemos M & Mellor E 1994. A longitudinal study of developmental maturity, school entry age and school progress. Journal of Australian Research in Early Childhood Education. 1:42–50.

DoHA (Commonwealth Department of Health and Ageing) 2003. Alcohol and young people (up to about 18 years): fact sheet 10. National Alcohol Strategy. Canberra: DoHA.

Doherty G 1997. Zero to Six: the Basis for School Readiness Applied Research Branch. Ottawa: Human Resources Development Canada.

European Union Community Health 2002. Child health indicators of life and development (CHILD): report to the European Commission. European Union Community Health.

Family and Community Services, 2004. National agenda for early childhood: A draft framework. Canberra: Department of Family and Community Services.

Federal Interagency Forum on Child and Family Statistics 2003. America's children: key national indicators of well-being, 2003. Federal Interagency Forum on Child and Family Statistics, Washington, DC: US Government Printing Office.

Groholt B, Ekeberg O, Wichstrom L & Haldorsen T 2000. Young suicide attempters: a comparison between a clinical and an epidemiological sample. Journal of the American Academy of Child and Adolescent Psychiatry 39(7):868–75.

Janus M & Offord D 2000. Readiness to learn at school. Canadian Journal of Policy Research 1(2): 71–75.

Lynch M, Buckman J & Krenske L 2003. Youth justice: criminal trajectories. Trends and Issues in Criminal Justice No. 265. Canberra: Australian Institute of Criminology.

McClelland A 1994. Families and financial disadvantage. Family Matters 37:29–33. Melbourne: Australian Institute of Family Studies.

McMahon SK, Haynes A, Ratnam M, Grant MT, Carne CL, Jones TW & Davis EA 2004. Increase in type 2 diabetes in children and adolescents in Western Australia. Medical Journal of Australia 180:459–461.

McCain M & Mustard F. 2002. The Early Years Study, three years later, from early child development to human development: enabling communities. Canada: Canadian Institute for Advanced Research.

MCEETYA (Ministerial Council on Education, Employment, Training and Youth Affairs) 2001. National Report on Schooling in Australia: National Benchmark results, Reading, Writing and Numeracy, Years 3 & 5. Canberra: MCEETYA.

Mitchell P 2000. Valuing young lives: evaluation of the National Youth Suicide Prevention Strategy. Melbourne: Australian Institute of Family Studies.

Molnar B, Buka S & Kessler R 2001. Child sexual abuse and subsequent psychopathology: Results from the national comorbidity survey. American Journal of Public Health 91(5):753–60.

Moon L, Meyer P & Grau J 1999. Australia's young people: their health and wellbeing 1999. Cat. No. PHW 19. Canberra: AIHW.

Moon L, Rahman N & Bhatia K 1998. Australia's children: their health and wellbeing 1998. AIHW Cat. No. PHE 7. Canberra: AIHW.

Mukherjee S, Sloper P & Lewin R 2002. The meaning of parental illness to children: the case of inflammatory bowel disease. Child Care Health and Development 28:479–85.

NHMRC (National Health and Medical Research Council) 1997. The health effects of passive smoking—a scientific information paper. Canberra: NHMRC.

NHMRC (National Health and Medical Research Council) 2003. Dietary guidelines for children and adolescents in Australia incorporating the infant feeding guidelines for health workers. Canberra: NHMRC.

Nicholson JM & Sanson A 2003. A new longitudinal study of the health and wellbeing of Australian children: how will it help?. Medical Journal of Australia 178(6):282–284.

Key national indicators of children's health, development and wellbeing

New South Wales and Queensland Commissions for Children and Young People 2004. A Head start for Australia: an early years framework. Government Printers.

Office of the Assistant Secretary for Planning and Evaluation 2003. Trends in the Well-Being of America's Children and Youth 2003. US Department of Health and Human Services.

Paolucci E, Genuis M & Violato C 2001. A meta-analysis of the published research on the effects of child sexual abuse. Journal of Psychology 135(1):17–36.

Prior M, Sanson A, Smart D & Oberklaid F 2000. Infancy to adolescence: Australian Temperament Project 1983–2000. Melbourne: Australian Institute of Family Studies.

Queensland Commission for Children and Young People, 2004. Children and young people in Queensland: a snapshot 2003. Brisbane: Queensland Government.

Raphael B 2000. Promoting mental health and wellbeing of children and young people. Discussion paper: Key principles and directions. National Mental Health Working Group. Canberra: Department of Health and Aged Care.

Sawyer M, Arney F, Baghurst P, Clark JJ, Graetz BW, Kosky RJ et al. 2000. The mental health of young people in Australia. Canberra: DHAC.

Schwartz D & Proctor LJ 2000. Community violence exposure and children's social adjustment in the school peer group: the mediating roles of emotion regulation and social cognition. Journal of Consulting and Clinical Psychology 68(4):670–83.

Shonkoff J & Phillips DE 2000. From neurons to neighborhoods: the science of early childhood development. Washington, DC: National Academy Press.

Silburn SR et al. 1996. Western Australian child health survey: family and community health. Western Australia: Australian Bureau of Statistics and the TVW Institute for Child Health Research.

Stewart EA, Simons RL & Conger RD 2002. Assessing neighbourhood and social psychological influence on childhood violence in an African-American sample. Criminology 40(4):801–29.

Tennant S, Hetzel D & Glover J 2003. A social health atlas of young South Australians. Adelaide: Public Health Information Development Unit.

Waters E, Goldfield S & Hopkins S 2002, Indicators for child health, development and wellbeing—a systematic review of the literature and recommendations for population monitoring. Melbourne: Centre for Community Child Health and Royal Children's Hospital.

Whitaker RC, Wright JA, Pepe MS, Seidel KD & Dietz W 1997. Predicting obesity in young adulthood from childhood and parental obesity. New England Journal of Medicine 337(13):869.73.

Zubrick S, Williams A, Silburn S & Vimpani G 2000. Indicators of social and family functioning. Canberra: Department of Family and Community Services.

Appendix

Advisory Group for A Picture of Australia's Children

Chair of Advisory Group	Professor George Patton Head, Centre for Adolescent Health University of Melbourne Royal Children's Hospital
Australian Institute of Health and Welfare	Dr Liz Sullivan Director, National Perinatal Statistics Unit, UNSW (Collaborating Unit with AIHW)
Australian Institute of Health and Welfare	Dr Kerry Carrington Head, Children, Youth and Families Unit
Department of Health and Ageing	Ms Rachel Balmanno Population Health Division
Department of Health and Ageing	Dr Joy Eshpeter Population Health Division
Australian Council for Children and Parenting Representative	Professor Graham Vimpani & Clinical Chair Hunter Children's Health Network
Australian Bureau of Statistics	Mr Carrington Shepherd Head, National Children & Youth Statistics Unit
Department of Education, Science and Training	Ms Eileen Newmarch Director, Early Childhood Education Section
Department of Family and Community Services	Ms Karen Wilson Director, Longitudinal Data Section
Department of Family and Community Services	Mr David Hazlehurst Assistant Secretary, Family and Children's Policy Branch
State Government Jurisdictional Representative NPHIWG representative	Dr Louisa Jorm Director, Centre for Epidemiology and Research NSW Department of Health, Sydney
NPHP Child and Youth Health Intergovernmental Partnership (CHIP) representative	Dr Sharon Goldfeld Paediatrician, Centre for Community Child Health Research Fellow, Murdoch Children's Research Institute Child Health Policy Advisor, Department of Human Services, Victoria
Epidemiology/ Early Childhood Health and Wellbeing	Dr Diana Hetzel Senior Researcher Public Health Information Development Unit The University of Adelaide
Family/Longitudinal Study of Children	Associate Professor Ann Sanson Director, Longitudinal Study of Australian Children
Child Protection and Welfare	Associate Professor Judy Cashmore Sydney Law School, University of Sydney
Ecology of Childhood Health and Development	Professor Steve R Zubrick Head, Division of Population Sciences Telethon Institute for Child Health Research
Early Education and School Readiness	Dr John Ainley Deputy Director Australian Council for Educational Research
Indigenous Representative	Mr Yin Paradies, Northern Territory Centre for the Study of Health and Society University of Melbourne

This publication is part of the Australian Institute of Health and Welfare's Bulletin series. A complete list of the Institute's publications is available from the Media and Publishing Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's website (http://www.aihw.gov.au).

AIHW Cat. No. AUS 53

ISSN 1446-9820

ISBN 1 74024 429 X

Suggested citation

Australian Institute of Health and Welfare 2004. Key national indicators of children's health, development and wellbeing. Bulletin no. 20. AIHW cat. no. AUS 53. Canberra: AIHW.

Australian Institute of Health and Welfare

Any enquiries about or comments on this publication should be directed to:

Meredith Bryant
Children, Youth and Families Unit
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Phone (02) 6244 1000
Email: meredith.bryant@aihw.gov.au

Published by the Australian Institute of Health and Welfare

Printed by New Millennium Print