Shelter

Development of a Children's Headline Indicator

Information paper

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Acknowledgments

Abbreviations

ABS	Australian Bureau of Statistics
AESOC	Australian Education Systems Officials Committee
AHMC	Australian Health Ministers' Conference
AIHW	Australian Institute of Health and Welfare
CDSMC	Community and Disability Services Ministers' Conference
COAG	Council of Australian Governments
ECD Strategy	National Early Childhood Development Strategy
FaHCSIA	Australian Government Department of Families, Housing, Community Services and Indigenous Affairs
MCEETYA	Ministerial Council on Education, Employment and Training and Youth Affairs
SIH	Survey of Income and Housing

Summary

The Children's Headline Indicators are a set of measures designed to focus policy attention, and to help guide and evaluate policy development on key issues for children's health, development and wellbeing in 19 priority areas. The Children's Headline Indicators were endorsed by health, community and disability services ministers and education systems officials in 2006. Children's Headline Indicators were defined for 16 of the 19 priority areas. For the remaining 3—*family social network, social and emotional wellbeing* and *shelter*—more work was needed to conceptualise and identify the most important aspects of these areas to children's health, development and wellbeing.

This information paper outlines the process of identifying and defining a Headline Indicator for the *shelter* priority area.

Identifying and defining a Headline Indicator

The process of developing a Headline Indicator for *shelter* involved:
* conceptualising the area of *shelter*; that is, defining the scope, theoretical basis, and main elements of the area
* reviewing the literature associated with *shelter* and children's wellbeing
* identifying possible indicators through a review of indicator frameworks and reports
* consultation with key experts and stakeholders.

This process resulted in the identification of three areas in which a potential Headline Indicator for *shelter* could focus: housing affordability; security of tenure (including housing mobility, home ownership and homelessness); and appropriateness of housing (including overcrowding and dwelling attributes). An indicator incorporating these multiple aspects of *shelter* is consistent with the research evidence, is more closely associated with the agreed conceptual basis for *shelter* and received a high level of support through the consultation and review process.

An indicator of housing disadvantage is therefore recommended as the Children's Headline Indicator for the area of *shelter* and is defined as ***the proportion of children aged 0–12 years living in households experiencing at least one of the specified aspects of housing disadvantage:***
* homelessness (currently experiencing primary, secondary or tertiary homelessness)
* overcrowding (where one or more additional bedrooms are required)
* housing stress (children living in low-income households paying greater than 30% of household income on housing costs)
* forced residential mobility.

Next steps

Currently there is no single data collection to support reporting against all four components of the housing disadvantage indicator. Therefore in order to report on this indicator, two data sources are required: the Australian Bureau of Statistics (ABS) Census of Population and Housing and the ABS Survey of Income and Housing (SIH). It is proposed that the Census be used to capture data for the homelessness component of the indicator and the SIH be used to capture data relating to overcrowding, housing stress and forced residential mobility.

1 Introduction

In 2005, the Australian Health Ministers' Conference (AHMC) and the Community and Disability Services Ministers' Conference (CDSMC) approved a project to develop a set of national, jurisdictionally agreed, Children's Headline Indicators to help policy and planning by measuring progress on a set of indicators that could potentially change over time by prevention or early intervention.

In 2006, the project report *Headline Indicators for children's health, development and wellbeing* (Vic DHS 2008) mapped out 19 priority areas for children's health, development and wellbeing. These priority areas were endorsed by AHMC, the CDSMC and the then Australian Education Systems Officials Committee (AESOC).

Headline Indicators were initially defined for 16 of the 19 priority areas (see Appendix 3). Data for 10 of the priority areas with defined Headline Indicators were published for the first time in June 2009 in the Australian Institute of Health and Welfare (AIHW) report, *A picture of Australia's children 2009* (AIHW 2009c). Six priority areas with defined Headline Indicators could not be reported on initially, due to lack of available data, and for 3 priority areas—*family social network, social and emotional wellbeing* and *shelter*—further work was required to conceptualise and define Headline Indicators.

In 2009, the AIHW received funding from the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) to progress indicator development on these 3 remaining priority areas.

The AIHW's role involved:
* establishing an expert working group to provide strategic advice and input into the development of these indicators
* conceptualising each of the priority areas: *family social network*, *shelter* and *social and emotional wellbeing*[1]; that is, defining the scope, theoretical basis, and main conceptual elements of these areas
* reviewing the literature for each area to determine the relationship with children's health, development and wellbeing
* proposing indicators for each area
* undertaking a data mapping exercise and identifying data gaps in each area
* organising workshops to consider proposed indicators for *family social network*, *shelter* and *social and emotional wellbeing*
* producing information papers describing the development process and containing recommendations for reporting on indicators for *family social network*, *shelter* and *social and emotional wellbeing*.

This information paper outlines the process of identifying and defining a Headline Indicator for *shelter*:
* **Chapter 2** outlines the definition of *shelter* used in this paper, and the conceptual approach taken to develop an indicator in this area.
* **Chapter 3**reviews the evidence of associations between *shelter* and children's health, development and wellbeing.

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[1] Conceptualisation of the *social and emotional wellbeing* priority area built on a report by Hamilton and Redmond (2010) commissioned by the AIHW and the Australian Research Alliance for Children and Youth (ARACY).

- **Chapter 4** describes policy initiatives relevant to *shelter* that aim to improve children's health, development and wellbeing.
- **Chapter 5** provides information about potential indicators that were identified and considered, and how the selected indicator was chosen.
- **Chapter 6** discusses currently available data relevant to the selected indicator, the methods used to collect these data, and other potential data sources.

1.1 Process of identifying a Headline Indicator

The objective of the Children's Headline Indicators project is to form a core set of high-level summary statistics for reporting on progress in children's health, development and wellbeing (Vic DHS 2008). Only one Headline Indicator is selected to reflect each policy priority area. *Shelter* is a broad and multidimensional priority area, as there are several elements of *shelter* that are associated with children's wellbeing. This makes it hard to identify a single suitable Headline Indicator for this priority area.

A number of steps were taken in identifying a suitable Headline Indicator, including:
- reviewing the literature to establish a definition and conceptual basis for the term *shelter* and associations between *shelter* and children's wellbeing
- reviewing relevant national and international frameworks and indicator reports
- consulting with key experts and stakeholders, supported by a discussion paper, in which some potential indicators were proposed
- developing this report with a recommendation for a single *shelter* Headline Indicator.

More detail about each of these steps is provided below.

A review of the literature

A literature review was conducted to identify aspects of *shelter* that were strongly associated with children's wellbeing. However, a lack of research into *shelter* and its associations with children's wellbeing, particularly in the Australian context, made it difficult to determine which aspect of *shelter* is the most important for children's health, development and wellbeing outcomes. The literature review identified research that showed evidence of associations between children's wellbeing and a range of concepts that might be relevant to *shelter*, such as affordability, security of tenure, overcrowding, quality and appropriateness of dwelling. These concepts are described and discussed in greater detail in Chapter 2 and the implications for children's health, development and wellbeing outcomes are considered in Chapter 3.

Review of relevant indicator frameworks and reports

A number of relevant national and international indicator frameworks and reports were reviewed, in order to identify indicators that were developed and reported on in the area of *shelter* (see Appendix 4 for a list of the indicator frameworks and reports). A few relevant indicators recurred in different reports and were related to the areas of home ownership, housing affordability and residential mobility. This review of relevant indicator frameworks and reports, and previous work on the conceptualisation and definition of *shelter*, were then brought together in a discussion paper.

Consultation with experts

Headline Indicator Data Development Expert Working Group

The AIHW established a Headline Indicator Data Development Expert Working Group to provide strategic advice and input into the development of Headline Indicators for *family social network*, *social and emotional wellbeing* and *shelter*. The working group included experts in child health, development and wellbeing, subject matter experts in the 3 priority areas, data experts and representatives from relevant government departments (see Appendix 1 for a list of members).

The AIHW presented a background paper on the 3 priority areas to the first expert working group meeting in October 2009. The background paper raised issues related to the conceptualisation and definition of *shelter*, presented a summary of the research evidence, and identified a range of potential indicators and data sources.

Discussion paper

The AIHW prepared a discussion paper to help with the process of identifying a Headline Indicator for *shelter*. The discussion paper defined the scope and conceptual basis for the area of *shelter* and reviewed the research evidence for associations between *shelter* and children's health, development and wellbeing. Based on this conceptual approach, and supported by research evidence cited in the discussion paper, the following aspects of *shelter* were identified as being associated with children's wellbeing: home ownership, housing affordability, residential mobility and homelessness. The discussion paper also reviewed relevant national and international indicator frameworks and reports to find established indicators used to measure aspects of *shelter*.

This information was used to identify several potential indicators for *shelter*. Data issues associated with specific indicators were also discussed. The discussion paper concluded with a description of some current government policy initiatives, illustrating the importance governments are attaching to improving children's wellbeing and supporting early childhood development by providing families with better services and support. These policy initiatives recognise the continuing importance of the *shelter* priority area.

Workshop

The AIHW conducted a workshop in March 2010 to consider the options for a *shelter* Headline Indicator outlined in the discussion paper. The main purpose of the workshop was to obtain agreement on a Headline Indicator for this priority area. The workshop participants were experts working in the field of children's wellbeing from relevant government departments, research organisations and academic institutions (see Appendix 2 for a list of workshop participants).

The discussion paper formed the basis of consultation at the workshop. Participants were asked to consider if there were any major gaps in the discussion paper, such as important research evidence or alternative indicators. They were also asked to consider the most significant aspect of *shelter* for children's health, development and wellbeing and consider if any of the proposed indicators might be a suitable Headline Indicator for this area.

Workshop participants recognised the difficulty of identifying a single indicator to cover the area of *shelter*, but it was agreed that the priority area of *shelter* should focus on the physical and social dimensions. However, while agreement on an indicator to cover the area of *shelter* was not reached, it was agreed that further work by the AIHW should be pursued to

investigate the feasibility of reporting on an indicator that measures multiple aspects of housing disadvantage, in terms of the definitional issues, availability of data, ease of interpretation and policy relevance.

Bringing it all together

This information paper defines the scope and conceptual basis used in the development of a Headline Indicator for *shelter* and reviews the research evidence for associations between aspects of *shelter* and children's health, development and wellbeing. It identifies and defines the recommended Headline Indicator for *shelter,* and presents the rationale for this recommendation. It also compares the available data relevant to the selected indicator and provides information about current and potential data sources.

This information paper builds on the AIHW discussion paper and the outcomes from consultation with key experts and stakeholders.

2   Definition and conceptualisation

This chapter describes the definitional and conceptual approaches to the term *shelter* that were used to develop a Headline Indicator for this priority area. The report *Headline indicators for children's health, development and wellbeing* (Vic DHS 2008) provides background to the Headline Indicator project and the development of the priority areas, and is a useful starting point for understanding what is meant by *shelter*. The rationale for including *shelter* as a priority area in the 2008 report is because:

> A child's access to stable, adequate, shelter is recognised as a basic human need. Having adequate housing enables people and children to engage with the wider community — socially, recreationally, and economically, and can influence both their physical and mental health (Vic DHS 2008).

The inclusion of *shelter* as a policy-relevant priority area for Children's Headline Indicators recognises that housing conditions and stability, and their social determinants, affect the health, development and wellbeing of children. This is supported by a recent study on the relationship between housing and health, which concluded that housing conditions can be considered as one of the mechanisms through which social inequalities may translate into health inequalities (WHO 2009).

The importance of s*helter* is further recognised in the Australian Government's Social Inclusion Agenda, where several priority groups are closely related to *shelter*. This reflects that the housing environment, and its locality, can place a household, particularly children, at risk of social exclusion. The prominence of social inclusion and exclusion in current policy and research agendas highlights the importance of improving people's wellbeing by supporting individuals and families to take part in society. Further information on the Social Inclusion Agenda is provided in Chapter 4.

2.1   Defining s*helter*

The home environment provides a sense of identity and security for children that is fundamental to their development. This concept is further explained by Hulse & Saugeres' description of ontological security as applied to housing:

> …at its core, it is about having a safe place of one's own in which the routines of daily life can be established, privacy can be negotiated, and where there is a secure base from which to engage in social interactions based on trust which enable self-esteem to be enhanced and self-identity to be maintained (2008).

Therefore, *shelter* can be seen as the nexus for both children's and parent's interactions with broader society. From this perspective *shelter* is closely linked to social and emotional aspects of children's health and wellbeing, and not merely to the structural features of the built environment. This approach is consistent with the view that children's interactions with their immediate environment, and the relationship between children's immediate environments and larger social contexts, are critical to their development (Wise 2003).

Shelter as a concept lacks an agreed definition and is often used interchangeably with 'housing' or 'place' (Bonnefoy 2007). Few authors state a working definition of *shelter* preferring to define *shelter* in terms of adequacy for a range of characteristics. For example, the United Nations (1996) Habitat Agenda declared:

Adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost. Adequacy should be determined together with the people concerned, bearing in mind the prospect for gradual development. Adequacy often varies from country to country, since it depends on specific cultural, social, environmental and economic factors. Gender-specific and age-specific factors, such as the exposure of children and women to toxic substances, should be considered in this context (United Nations 1996).

At the extreme end of the spectrum, homelessness deprives children of the physical and social advantages of a home and places them at risk of a range of adverse outcomes including poor academic achievement, emotional and behavioural problems, and developmental delays (ACT Department of Disability Housing and Community Services 2006).

This information paper will use the following definition for *shelter* that incorporates both the physical and social dimensions:

In the Australian context, *shelter* is synonymous with housing, which for most is a dwelling that provides safety, security and privacy. Access to stable, adequate housing is recognised as a basic human need and plays a major role in the health and wellbeing of families, and in particular children, by providing:

- a safe environment
- the security that allows participation in the social, educational, economic, and community aspects of their lives
- the privacy to foster autonomy as an individual and a family unit (AIHW 2009a).

The absence of these aspects of housing, and the interactions between them, may affect children's health, behaviour, developmental and education outcomes, and their opportunities for wider engagement with society. Key components of this definition are related to the accessibility, affordability, security and appropriateness of housing.

While the impact of the emotional and mental aspects of *shelter* (housing) are important, particularly in relation to domestic violence and its links to homelessness, these aspects are already captured under other Headline Indicators, such as child abuse and neglect and social and emotional wellbeing, and are therefore not considered further in relation to a Headline Indicator for *shelter*.

2.2 Relevant concepts

The term *shelter* is broad and multidimensional, and not widely used in policy or research. However, housing, while not always used as a concept, is widely used, particularly in relation to the measurement and assessment of the impact of issues associated with accessibility, affordability, availability, appropriateness, and quality of housing.

Under the broad heading of *shelter*, the project report *Headline indicators for children's health, development and wellbeing* (Vic DHS 2008) uses a number of different concepts to explain the rationale for selecting *shelter* as a priority area of children's health, development and wellbeing, including *stable*, *adequate*, *affordability*, *availability*, *quality*, and *overcrowding*.

It is useful to consider how these various terms, capturing different aspects of housing in the Australian context, are related and how this helps illustrate the concept of *shelter*. The definitions for several of these terms are provided below.

Secure tenure

Secure (stable) housing refers to the extent that occupants have the right to continue living in that dwelling (security of tenure). It is made up of two parts—the length of leases and if tenant moves are voluntary. Although length of stay in a dwelling does not directly measure security of tenure, continuity of tenure can reflect a tenant's level of security (AIHW 2009b).

Statistics New Zealand (2005) defined security of tenure as the state that:

> …offers dwelling occupants the confidence that their tenure is guaranteed for a specified period of time to which they have agreed.

It also notes that although tenure is subject to preference and aspiration, the concept of tenure security is defined in terms of wellbeing and independence. Statistics New Zealand has developed a model of tenure security based on tenure type (Box 2.1). Under this model, owning a home without a mortgage is considered to be the most secure form of tenure, and chronic homelessness the least secure (AIHW 2009b).

Box 2.1: Statistics New Zealand model of tenure security

1. Dwelling owned without a mortgage
2. Dwelling owned with a mortgage
3. Dwelling provided rent-free
4. Dwelling rented (state)
5. Dwelling rented (private)
6. Transitionally and episodically homeless
7. Chronically homeless (Statistics New Zealand 2005)

Availability

Refers to an adequate supply of housing options to meet demand in a given area. When housing demand exceeds supply, indicating a housing shortfall, a number of problems can arise, including: households needs and preferences unmet; inadequate levels of dwellings, in both type and location; and insufficient affordable housing options (AIHW 2009a). The greater the gap between supply and demand, the greater the potential impact on housing availability and prices (Australian Government 2009).

Affordability

Refers to the capacity of households to meet housing costs while maintaining the ability to meet other basic costs of living. Affordable housing conveys the notion of reasonable housing costs in relation to income (AHURI 2004).

Overcrowding

Overcrowding is defined as occurring when the dwelling size is too small for the size and composition of the household living in it according to a national standard (see also description for appropriateness). In Australia, the Canadian National Occupancy Standard is used to measure the bedroom requirements of a household based on the number, age, sex and relationships of household members.

Appropriateness

Appropriateness (adequacy) of housing can be defined as the suitability of a residential dwelling to permit a reasonable quality of life and adequate access to employment and education, health and community services, public amenities and social supports. This means that appropriateness is considered in terms of the following properties: is of sufficient size so that a family is not living in overcrowded conditions; is in reasonable repair; provides the basic amenities considered essential by the community; has security of tenure; and is in a location suited to the family (Karmel 1998). Therefore, appropriate (adequate) housing incorporates the quality and safety aspects of both the dwelling and neighbourhood location.
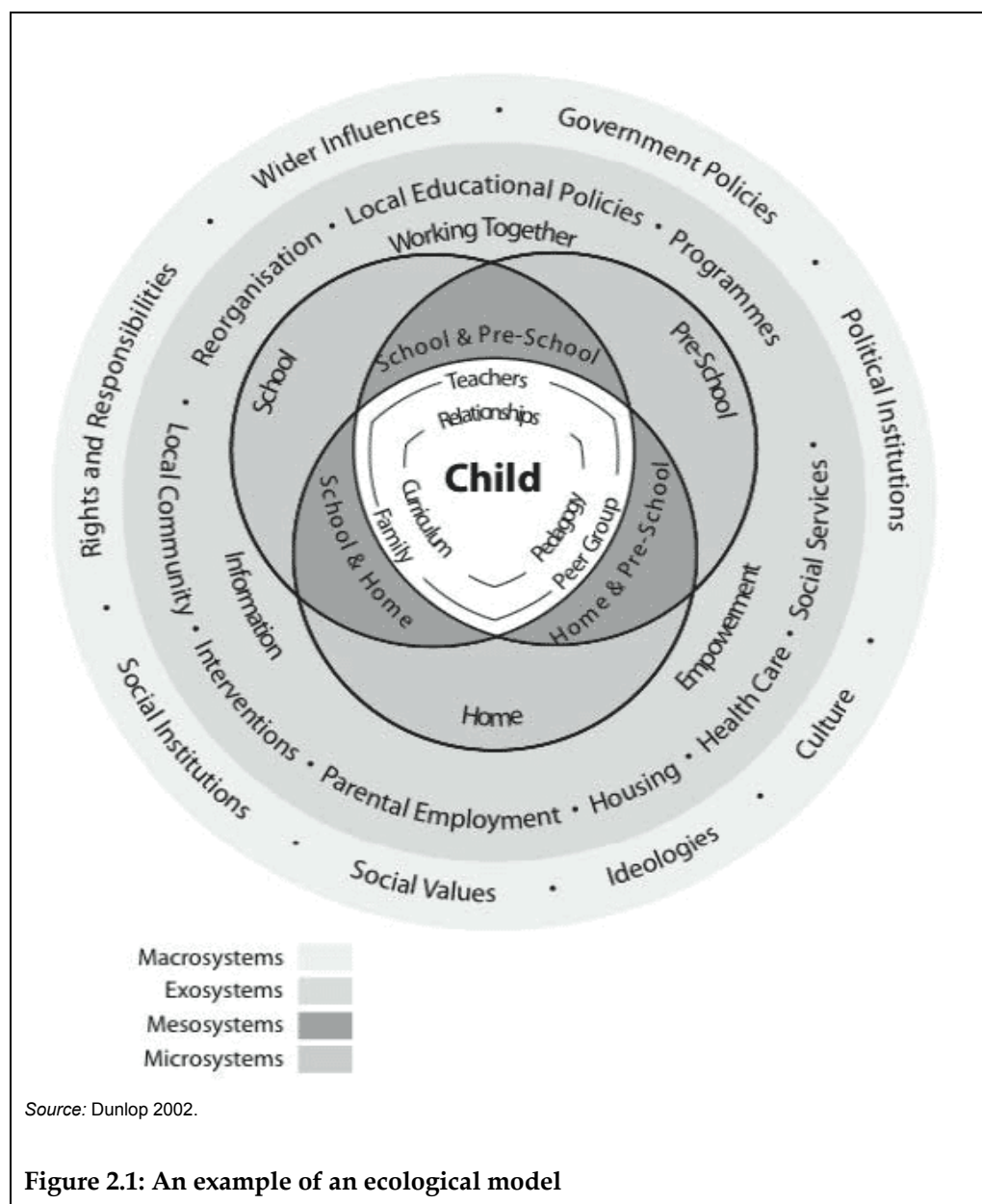
2.3   An ecological approach

The concepts identified in Section 2.2 show the multidimensional nature of housing, the interactions between the various aspects and how they are influenced by factors related to the individual, physical and location attributes of the dwelling, characteristics of the family unit, and community at the broader societal level. Such an approach is supported by Bronfenbrenner's ecological model that delineates and describes children's social environments and the relationships and interactions within them.

The project report *Headline indicators for children's health, development and wellbeing* states that the policy priority areas are based on the principle that each priority area should 'recognise issues at the individual, family and community level, and hence be based on an ecological approach' (Vic DHS 2008).

Bronfenbrenner's ecological model was the first to articulate the importance of interrelationships within and across social environments or systems in which a child exists (Figure 2.1). This model identified four dimensions, comprising:

- settings in which children actively take part through personal, face-to-face interactions such as immediate family, child care and educational settings, peers, the family doctor, neighbours (such a setting is described as a 'microsystem')
- interrelationships between children's immediate settings and the extent to which these settings have similar styles, expectations or values ('mesosystem')
- settings in which the child does not actively take part but which may influence the child indirectly such as the parental workplace ('exosystem')
- broader social contexts ('macrosystem') (Wise 2003).

Macrosystems ▭
Exosystems ▭
Mesosystems ▭
Microsystems ▭

Figure 2.1: An example of an ecological model
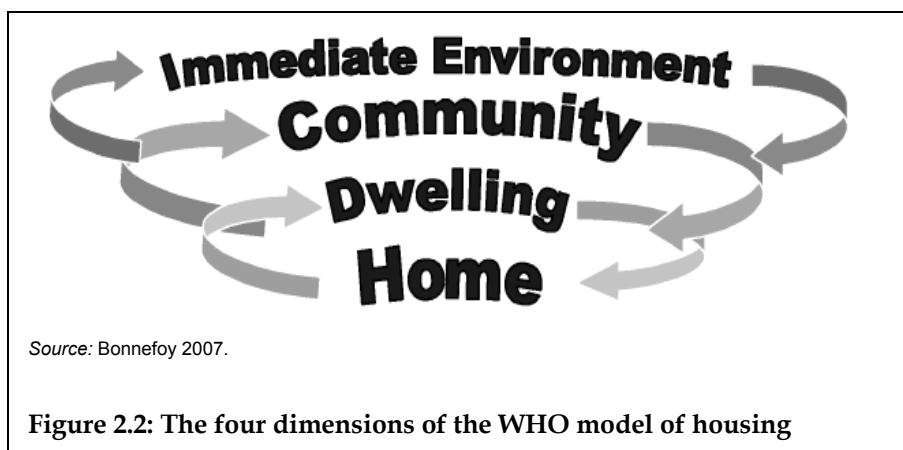
Bronfenbrenner's model suggests that shelter can impact child development at a number of different levels. Firstly, in this model, children's sense of ontological security or 'home' is derived largely from the quality of personal interactions with their immediate family, and to a lesser extent from the physical characteristics of their dwelling. As the child grows, the quality and diversity of interactions with others from different settings serves to enhance their development (microsystem). Secondly, the interactions with different settings are also an important factor in child development. For example, a safe and secure home environment can help prepare children for a successful transition to primary school, and for further academic achievement (mesosystem). Thirdly, child development can be affected by settings in which they do not directly participate. For example, unemployment or lack of affordable housing may affect children indirectly through poor parent-child interactions in the home setting (exosystem). The last system, the macrosystem, operates through broader social mechanisms such as government housing policies, culture and social values. For example,

policies and programs that support low-income families by providing them with rental assistance may increase the resources available for child development.

The World Health Organization also takes an ecological approach to housing by taking into account the physical structure and social understanding of a home, and the external dimensions of the community and the immediate housing environment (Figure 2.2). The WHO model is based on a four-layered approach, with each layer related to aspects of physical, mental or social health and wellbeing. Bonnefoy (2007) describes the four layers as follows:

- *Home* represents a refuge from the outside world that enables the development of a sense of identity and attachment, as an individual or family, and provides space to be oneself.

- Inadequate *dwelling* conditions may trigger direct effects on health. These include mould growth, indoor air pollution, emissions from building materials, infestations, inefficiency of heating systems and insulation measures, and lack of hygiene and sanitation amenities. Structural features and the design can also contribute by posing potential safety threats, limiting the social functionality of a dwelling and by the degree of limitation it presents for residents with disability. Exposure to noise and overcrowding are also important factors.

- The social characteristics of a *community* may also impact on health such as the level of education, socioeconomic status and ethnic composition. Also, the social cohesion of the community, and the sense of trust and collective efficacy are to some extent related to the quality of the neighbourhood. This can promote or impede social interactions through the provision of diverse public places and facilities for social life.

- The *immediate housing environment* can impact on health through the quality of urban design. Poorly planned or deteriorated residential areas that lack public services, greenery, parks, playgrounds and walking areas have been associated with a lack of physical exercise, increased prevalence of obesity, cognitive problems in children, and the loss of the ability to socialise.

Source: Bonnefoy 2007.

Figure 2.2: The four dimensions of the WHO model of housing

The ecological view presented by both Bronfenbrenner's ecological model and the WHO model of housing provide a range of pathways through which *shelter* can affect child health, development and wellbeing. Bronfenbrenner's model is focused on the quality of interactions that a child has with other people and their environment, while the WHO model separates the social and emotional wellbeing aspects of the home from the physical characteristics of the dwelling, and places community influences in the context of the built environment. Evidence for how these pathways affect child health, development and wellbeing is presented in Chapter 3.

3 Shelter and children's wellbeing

There is a diverse range of evidence for the relationship between housing and health and wellbeing; however, there is a lack of research that concentrates specifically on housing and child health, development and wellbeing outcomes. Also, much of the research is conducted outside of Australia and may not be applicable in some circumstances due to differences in housing policy and culture.

This chapter will consider evidence for links between housing and children's health, development and wellbeing outcomes in the areas of:

- housing affordability
- security of tenure (including housing mobility, home ownership and homelessness)
- appropriateness of housing (including overcrowding and dwelling attributes).

These areas of housing affect child development from a physical aspect, such as the dwelling condition, but also importantly, through social mechanisms that act at the individual, family and broader societal levels, such as housing affordability. This is consistent with Bronfenbrenner's ecological model and the WHO model of housing, which show that the pathways through which *shelter* can affect children's outcomes extend beyond the dwelling's physical characteristics, and include the social and emotional wellbeing aspects of the home (refer to Section 2.3).

Housing affordability, security of tenure and appropriateness of housing are highly correlated—in particular, a lack of affordable housing can result in housing stress, which can impact on levels of overcrowding and homelessness and affect quality of housing (due to limited choices).

3.1 Housing affordability

Housing costs are usually the largest and least flexible item in a family budget. In Australia, housing affordability is usually measured in terms of housing stress and is considered affordable if less than 30% of a household's income is spent on housing costs (that is, rent or mortgage payments). Those paying more than 30% are considered to be experiencing housing stress (Chapman 2006). Low-income households are particularly vulnerable to housing stress, as they tend to spend a greater proportion of their incomes on housing.

In a United States national survey of families, high housing costs were found to adversely affect child wellbeing through the experience of financial or material hardships (Harkness & Newman 2005). For some families spending a disproportionate amount of income on housing can mean cutting back on basic necessities including food, clothing, healthcare, and heating. A study exploring the housing affordability of Australians found that stresses common to both home purchasers and renters included being over-committed financially and facing pressures on family life and health. For example, children going without adequate health and dental care, or missing out on activities, such as school excursions and sporting activities. The findings also highlighted that ongoing financial stress can impact on health and family relationships (Burke et al. 2007; McNamara et al. 2010).

Children experiencing food insecurity may become deficient in vitamins and minerals, and be more likely to develop learning disorders, emotional problems, and behaviour problems in school (Lippman 2005). Food insecurity also places infants and toddlers at greater risk of

hospitalisation for illnesses and poor health (Cook et al. 2006). Experiencing financial hardship also limits opportunities for recreation and other activities that foster greater social inclusion.

Lack of affordable housing can also indirectly affect children via parental wellbeing. Family stress may be related to housing affordability if housing costs are the primary source of economic hardship or family conflict. Parents faced with financial hardship can experience chronic stress, depression and partner conflict, which, in turn, are associated with more inconsistent, unsupportive, harsh, and punitive parenting behaviour (Leventhal & Newman 2010). The resulting lower quality interactions between parent and child are associated with emotional and school problems for children and also places children at higher risk for health and psychological problems (Harkness & Newman 2005; Leventhal & Newman 2010).

Despite these potentially negative effects on children's wellbeing as a result of parental financial stress, Harkness & Newman (2005) suggest that the adverse effects of unaffordable housing on children's wellbeing are more likely to occur through material deprivation in early childhood. Material resources may be more beneficial for cognitive outcomes compared with social and emotional outcomes, at least among young children (Linver et al. 2002; Yeung et al. 2002; Leventhal & Newman 2010). The effect of economic resources on children's social and emotional wellbeing may be mediated by parental behaviour or family stress, whereas a lack of material resources during early childhood can have a direct negative effect on children's cognitive development (Leventhal & Newman 2010). That is, poor children's outcomes are primarily affected by a lack of basic necessities when young and the adverse effects are cumulative with age.

However, when families pay more for housing to live in better quality neighbourhoods there are potentially positive effects. It is possible that the benefits of living in a community with good quality schools, low crime rates, or other elements that support healthy child development could mitigate the negative effects of stress on families with high housing costs (Leventhal & Newman 2010). Harkness, Newman, and Holupka (2009) found no evidence that unaffordable housing markets were associated with adverse outcomes for children living in poverty. If high-priced housing markets can provide better quality services and amenities, these resources may counteract the negative effects of high housing cost burdens.

Household income affects the quality, type and size of housing a household can afford. Often the most affordable housing is also that of least quality, in terms of both the dwelling and the neighbourhood. The quality of housing can be compromised due to its age, inadequate maintenance, lack of basic amenities and poor design, and can lead to indoor air quality hazards including mould growth and the presence of toxic substances such as lead paint or asbestos (Cooper 2001). Families living in substandard housing place children at greater risk of health, social, and developmental problems, however, the association between housing quality and child health may vary for children of different ages. Because younger children spend more time inside the home compared with adolescents, there may be a stronger association between housing quality and physical health for younger children (Leventhal & Newman 2010). Exposure to environmental allergens has strong and critical effects during infancy and early childhood and respiratory health may be determined by such exposure during the first year of life (Salam et al. 2004). Poor quality housing is usually situated in poorer neighbourhoods and risk factors associated with these neighbourhoods also contribute to unfavourable child outcomes (Cooper 2001; Dockery et al. 2010).

While some families experiencing housing stress make trade-offs in basic necessities, other families trade-off owning a car. Working families then have to decide where they live and balance preferences for home features against factors such as schools, neighbourhood

amenities, and access to work. When jobs are located in central cities, but affordable housing is located on the outer urban fringe, many working households must choose to either pay high housing costs or incur lengthy travel from areas with more affordable housing. Spending excessive amounts of time commuting decreases the time parents have to spend with their children. Unaffordable housing may also result in parents working longer hours, also reducing time with their children.

In order to combat the effects of housing stress, some households may be forced to live in overcrowded conditions, share housing with other families, move frequently as more affordable housing is attained, or in the most extreme situations become homeless (Dockery et al. 2010). These elements are discussed in further detail in the following sections.

3.2   Security of tenure

This section considers security of tenure in relation to housing mobility and type of tenure. The tenure types, home ownership and homelessness, are discussed in more detail, as home ownership is considered the most secure form of tenure, and homelessness the least secure.

Security of tenure can convey a number of benefits including a sense of autonomy, identity, and control over the living environment (Lewis 2006). Security of tenure assists residential stability and enables people to feel more in control, settled and less stressed, giving people greater capacity to focus on family relationships and children's education. Security of tenure reduces parental stress and improves a household's child rearing capacity. In contrast, unwanted relocation can disrupt children's education and increase parental stress (Lewis 2006). Improvements in children's education outcomes can occur in relatively short time periods as a result of stabilised housing (AHURI 2004).

Lack of a secure home can make it hard to establish a sense of identity and self-esteem. For example, children may experience difficulty establishing bonds (e.g. friends, parks) that make them feel secure and develop healthy social habits (Roy et al. 2008). Housing insecurity also affects family functioning via social connectedness. That is, moving may alter social connections to communities by removing a family's close ties and social networks that provide emotional support and information about the community.

In Australia, Hulse and Saugeres (2008) found that housing mobility is considered as one dimension of insecure housing, exacerbated by short-term lease arrangements that provide little security for renters (6 to 12 months). Housing mobility is associated with a range of negative child and adolescent outcomes. However, most research relates to school-age children and the evidence for younger children and adult outcomes is less established. Mobility is strongly associated with a decrease in children's short-term academic achievement and an increase in social, emotional and behavioural problems (Colton 1996; Rubin et al. 1996). However the long-term relationship between mobility and educational attainment also appears to be negative (Leventhal & Newman 2010). Frequent family moves are linked with increased grade repetitions, school suspensions and expulsions and other psychological issues. The magnitude of the effect of frequent moves increases with the addition of risk factors such as poverty, minority race, one-parent family, low levels of parental education, and young maternal age (Cooper 2001). Housing mobility may also alter the level of community resources available to children, such as quality schools and child care, availability of recreational and social programs, and neighbourhood safety (Leventhal & Newman 2010).

The quality of the neighbourhood moved to may exacerbate or buffer the impact of relocation (Jellyman & Spencer 2008). When moves are intentional and result in a higher

quality house and neighbourhood, then future advantages may offset any potential negative short-term effects (Leventhal & Newman 2010; Jellyman & Spencer 2008). However, studies often cannot determine if relocation was intentional or beyond the occupants control; or if the relocation was advantageous.

Private renters, especially those on low incomes, experience higher levels of mobility and the negative effects of mobility are magnified with cumulative moves and when changes in schools and residential mobility are combined (Leventhal & Newman 2010). High levels of child and parental stress can be expected with disrupted living arrangements. One study found an increased risk of behavioural problems where the total number of lifetime moves exceeded three, but almost no difference in risk between non-movers and those having moved once or twice (Jellyman & Spencer 2008). More than three moves could be increasingly detrimental (Leventhal & Newman 2010). Unaffordable housing (as discussed in Section 3.1) can precipitate chronic mobility, particularly among low-income families, and homelessness can also eventuate from chronic mobility (Auh et al. 2006).

High rates of mobility are associated with a range of negative outcomes, but the ways these outcomes influence children's development are unclear. The relationship between instability and negative outcomes for children may be due to several factors, many of which are also associated with financial hardship. It is difficult to sort the effects of financial hardship from the effects of instability, or other factors associated with high numbers of moves, such as, family disruptions (Leventhal & Newman 2010; Jellyman & Spencer 2008). Domestic violence, separation and divorce were identified as common reasons for frequent moves and housing disruptions (Cooper 2001) and mobility appears to be especially harmful for children from single and step-parent families (Leventhal & Newman 2010). Mobility may most negatively impact children in single and step-parent families due to the cumulative effects of how many stressful family transitions they have experienced or due to a loss of family and community social capital (Tucker et al. 1998).

Home ownership

There are several studies conducted in the United States that suggest home ownership provides a range of direct and indirect benefits to children and their families (Harkness & Newman 2003; Haurin et al. 2001; Mohanty & Raut 2003). For example, Haurin et al (2001) studied the impact of home ownership on the cognitive and behavioural outcomes of young children. They found that home owners provide a more stimulating and emotionally supportive home environment for children than renters, as shown by higher cognitive test scores and fewer behavioural problems. Also, a review by Harkness and Newman (2003) suggested home ownership is beneficial because:

- home owners are less likely to relocate and therefore provide greater home and educational stability
- home owners invest more in their properties, and have increased management responsibilities, resulting in greater home stability and improved parenting
- home ownership may generate greater life satisfaction and self-esteem in parents which positively affect the home environment
- home ownership provides an asset for parents to borrow against in times of need, and provides tax advantages
- owned homes are more likely to be single family, detached homes than rental properties.

However, a recent study by Barker and Miller (2009) contends that the effects of home ownership on child outcomes found by Haurin et al (2001) are weaker than previously

thought, and that the goal of increasing home ownership may be detrimental to low-income earners, and in turn, to child outcomes. Sanders (2008) also notes that home ownership may be an unrealistic policy goal for remote Aboriginal and Torres Strait Islander communities due to the lack of income and employment opportunities. Despite this, the association between home ownership and positive child outcomes remains an active research area.

In Australia there are few studies on the relationship between housing and health outcomes. However, Waters (Waters 2001) studied the impact of housing conditions on health inequalities between Australia's rich and poor and found that renters were more likely than home owners to:

- report fair or poor health
- be smokers
- have a higher number of serious health conditions
- have a higher number of doctor visits in the previous 2 weeks or12-month period.

In Australia, renters tend to be on lower incomes than home owners (Wulff & Maher 1998) and the above findings are similar to those for low-income compared with high-income earners in general. There was also some evidence of a gradient of outcomes by tenure type, with renters having worse health outcomes than purchasers, and in turn, than outright home owners (Haurin et al. 2001). This is consistent with research from Canada that found individuals in rental tenure reported the highest level of psychological distress while outright home owners reported the lowest (Cairney & Boyle 2004).

Despite some controversy in the literature from the United States, the weight of evidence suggests that home ownership does have positive effects on the health and wellbeing of children and adults.

Homelessness

The Australian Bureau of Statistics uses the 'cultural' definition of homelessness that refers to the degree to which people's housing needs are met within conventional expectations or minimum community standards. In the Australian context this is described as having one room to sleep in, one to live in, and one's own kitchen and bathroom, and having security of tenure. The degree to which these housing needs are unmet provides a further level of categorisation as follows:

- primary homelessness—people without conventional accommodation, such as people living on the street, in parks, under bridges, in derelict buildings, improvised dwellings
- secondary homelessness—people moving between various forms of temporary shelter including staying with friends, emergency accommodation, youth refuges, hostels and boarding houses
- tertiary homelessness—people living in single rooms in private boarding houses, without their own bathroom, kitchen or security of tenure.

Homelessness can vary along temporal dimensions such as first-time, episodic, or chronic, however, homelessness on any dimension is incompatible with a safe and nurturing childhood (Nooe & Patterson 2010). The causes of homelessness are complex with multiple risk factors interacting to produce homelessness. Economic and structural factors such as poverty, unemployment, discrimination, housing affordability or instability, can interact with individual factors such as family conflict, domestic violence, mental illness or substance abuse (Nooe & Patterson 2010).

Two of the enabling conditions of positive child outcomes, adequate income and supportive community environments, are clearly missing when families are homeless. Homelessness is a complex problem that places children at increased risk of long-term poverty, homelessness in adulthood, unemployment, chronic ill-health, and other forms of disadvantage and social exclusion (AIHW 2009a).

Although Australian data on the health and development of homeless children are limited, studies in the Unites States show that homeless children are at risk of experiencing learning, developmental and behavioural problems. Infants and toddlers may experience delays in physical and mental development (Cooper 2001; Horn & Jordan 2007) and about 50% of all homeless children may exhibit developmental delays or language development issues (Hicks-Coolick et al. 2003). One Australian study of homeless preschoolers also reported that about 50% of the study sample suffered significant emotional developmental delays (Neil & Fopp 1992;Dockery et al. 2010).

Compared with children from low-income households that have never been homeless, children from homeless families are likely to experience twice the number of hospitalisations and make significantly more visits to hospital emergency departments (Weinreb et al. 1998). A higher incidence of asthma and other respiratory problems, infectious diseases, trauma-related injuries, lead poisoning, chronic diarrhoea, visual and neurological deficits, delayed immunisations, tooth decay, ear and skin infections, conjunctivitis, and mental health problems and behavioural disorders have also been found (Cooper 2001; Karim et al. 2006, Molnar et al. 1990; Weinreb et al. 1998, Yu 2008). Significant numbers of homeless children experience chronic hunger, although obesity is also common (Cooper 2001). Both under-fed and over-fed children suffer from poor nutrition and, consequently, from problems with their health, growth and development.

Children that lack stable housing have lower rates of school attendance (Molnar et al. 1990) which contributes to lower scores on achievement tests, grade repetition and lower expectations for secondary educational attainment (Cooper 2001; Rafferty et al. 2004; Roy et al. 2008). Homeless children also change schools more frequently which may contribute more to poor academic performance than absenteeism (Rubin et al. 1996).

Parents in homeless families are also likely to suffer from depression and stress which may mean they are unable to give their children enough attention or affection (AIHW 2009c). The inability of parents to provide suitable housing can also lead to intervention by child protection agencies and the placement of children in foster care, which can cause further stress for these children (Dockery et al. 2010). Homeless people typically have smaller social networks and higher levels of relationship conflict, accidents and violence (Nooe & Patterson 2010). They are also at an increased risk for alcohol and drug dependence, depression, schizophrenia and suicide (Nooe & Patterson 2010).

Nooe & Patterson (2010) suggest the risk factors for homelessness directly related to housing include a shortage of affordable housing, particularly rental housing, and housing instability. Low-income families with a history of housing instability are at particular risk, as are households headed by single mothers, especially if substance abuse or mental health problems are present. Limited availability of supportive housing, particularly for women escaping domestic violence, is problematic as is discrimination from landlords.

3.3 Appropriateness of housing

This section considers the appropriateness of housing in terms of overcrowding and dwelling attributes.

Overcrowding

Overcrowding is a risk factor for adverse child outcomes. The lack of space that children experience when living in crowded conditions can negatively impact on their sense of autonomy, social behaviour, health, developmental outcomes, and school performance (Dockery et al. 2010).

Living in overcrowded conditions may facilitate transmission of infection-based illnesses within a household (Leventhal & Newman 2010; Lippman 2005) and has been linked to the spread of communicable diseases such as meningococcal meningitis, respiratory illness (Baker et al. 1998; Mann et al. 1992), gastrointestinal problems in the short and long-term (Galpin et al. 1992; McCallion et al. 1996) and higher adult mortality rates (Coggon et al. 1993; Leventhal & Newman 2010). Catching illnesses can interfere with children's daily routines and interrupt their schooling (Dockery et al. 2010;Solari & Mare 2007). In Australia, Waters (Waters 2001) found an increased risk of infectious disease and poor mental health among occupants of overcrowded dwellings, however, no Australian studies were found that investigated the association between overcrowding and child-health outcomes.

Children in overcrowded housing may also have less sleep and irregular sleep patterns due to different schedules of household members that can lead to difficulty concentrating during the day and negatively affect mood and behaviour (Solari & Mare 2007).

The lack of privacy for all household members can result in stress and difficult social interactions (Evans et al. 1998). When parents have to cope with overcrowding it reduces optimal parenting behaviour and can lead to increased conflict between children and parents, as well as influence marital conflict (Dockery et al. 2010; Evans et al. 1998). As a way of coping with overcrowding adults may socially withdraw, reducing their social support network, which may affect how they interact with their children. In overcrowded homes parents may be less verbally responsive to young children (Evans et al. 1999; Wachs & Camli 1991) which may later translate into less participation in parent-teacher interactions at school, less monitoring of children's academic performance, or less help with their child's schoolwork (Solari & Mare 2007). Insufficient play space within the home also increases parental stress and can lead to an overuse of television to occupy children and manage family tension (Bartlett 1998). Children living in overcrowded homes may also experience abuse due to the greater difficulty they face in removing themselves from potentially volatile situations (Bartlett 1997).

The negative effects of overcrowding during childhood can persist throughout life, ultimately affecting future socioeconomic status and adult wellbeing. Children raised in overcrowded homes may take their educational, behavioural, and physical health disadvantages with them throughout their lives. Poor performance in school decreases a person's chances for accessing higher education. Low levels of education also directly affect the occupations and wages for which people are qualified, in turn affecting their socioeconomic status. Behavioural problems can lead to difficulties interacting with others. Poor social interactions with teachers, parents, and peers during childhood, can lead to future social challenges in forming personal and professional networks in adulthood. Children growing up in overcrowded homes are more likely than others to find themselves in a similar situation as their parents, leading to the intergenerational transmission of social inequality (Solari & Mare 2007).

Dwelling attributes

The physical features of dwellings are known to directly and indirectly affect the health and wellbeing of children and adults. Children are particularly vulnerable to inadequate housing because they:

- are physiologically more susceptible to environmental hazards such as damp, mould, allergens, cold and hot temperatures and tobacco smoke
- spend more time in the home and are therefore more exposed to environmental hazards
- are more susceptible to physical features of a home that may result in injury
- have limited communication abilities and control over their environment.

The WHO has recognised that poorly constructed housing and inadequately maintained housing can put people's health and lives at risk. In its 1998 world health report it identified several features of the housing environment that directly or indirectly affect the health of occupants, including:

- the shelter's structure, including the extent it protects the occupants from the elements
- the provision of adequate water supplies
- the provision of proper sanitation and waste disposal
- overcrowding, which can lead to household accidents and the increased transmission of airborne infections such as acute respiratory infectious diseases, pneumonia and tuberculosis (WHO 1998).

In the United States, the National Center for Healthy Housing (National Center for Healthy Housing 2009) reviewed housing and neighbourhood interventions that impact on health status. Interventions found that support health and wellbeing, particularly for children, included: tailored asthma plans, pest management, control of moisture levels, smoking bans, lead hazard controls, smoke alarms, four-sided pool fencing and temperature control of hot water systems. An earlier review (Sandel et al. 2005) identified asthma, lead poisoning and residential injuries as children's key health issues that relate to housing.

In Australia, there are few studies on the relationship between housing conditions and health; however, Waters (2001) found that damp, cold and mouldy dwellings place occupants at greater risk of respiratory conditions, meningococcal infection and asthma. In turn, children with chronic conditions have reduced school attendance, leading to poorer educational and social outcomes.

4   Policy context

The Headline Indicator priority areas for children's health, development and wellbeing were selected 'in relation to their relevance to government policy and their potential to be amenable to change through prevention and early intervention' (Vic DHS 2008). Investing in the health, education, development and care of children benefits children and their families, communities and the economy, and is critical to lifting workforce participation and delivering the Australian government's productivity agenda (DEEWR 2010). As previously mentioned, access to stable, adequate housing plays a major role in the health and wellbeing of families, and in particular children, by providing:

- a safe environment
- the security that allows participation in the social, educational, economic, and community aspects of their lives
- the privacy to foster autonomy as an individual and a family unit.

Housing is relevant to a number of current government policies occurring through the Council of Australian Governments (COAG) agenda, and is therefore relevant to policies of the state and territory governments. This chapter presents information on the relevance of housing in relation to four important policy areas:

- Social Inclusion Agenda
- Early Childhood Reform Agenda
- National Affordable Housing Agreement
- National Indigenous Reform Agreement (Closing the gap).

4.1   Social Inclusion Agenda

The Australian Government's Social Inclusion Agenda aims to reduce disadvantage by ensuring that all people can fully participate in society. To be socially included means that people have the resources, opportunities, and capabilities they need to:

- *Learn*—participate in education and training
- *Work*—participate in employment, unpaid or voluntary work including family and carer responsibilities
- *Engage*—connect with people, use local services and participate in local, cultural, civic and recreational activities
- *Have a voice*—influence decisions that affect them (Australian Social Inclusion Board 2010).

The prominence of social inclusion and exclusion in current policy and research agendas highlights the importance of improving people's wellbeing by supporting individuals and families to participate in society. The Australian Government's Social Inclusion Agenda focuses on seven priority groups:

- homeless people
- children at risk of long-term disadvantage
- Indigenous Australians
- people living with mental illness or disability
- communities experiencing concentrations of disadvantage and exclusion

- jobless families, including the long-term unemployed and the recently unemployed
- low-skilled adults that are at greater risk of unemployment (Australian Social Inclusion Board 2010).

Shelter is closely related to a number of these priority groups as the housing environment and its locality, can place a household, particularly children, at risk of social exclusion.

Social inclusion of parents and children is particularly important to child development as the home environment can be negatively affected by disadvantage arising from each of these areas. The Monitoring and Reporting Framework for Social Inclusion lists housing as one of the 12 domains of social inclusion (Australian Social Inclusion Board 2010). Within the housing domain are indicators relating to homelessness, housing affordability and repeat homelessness; each of which has a bearing on child development outcomes (refer to Appendix 4 for details).

4.2   Early Childhood Reform Agenda

In July 2009, COAG agreed to the Investing in the Early Years—A National Early Childhood Development Strategy (the Strategy). The Strategy recognises that a child's early years are critical to their future health, learning, and social and cultural outcomes. The ECD Outcomes Framework in the ECD Strategy reflects the early childhood reform priorities agreed by COAG in early 2008. It focuses on what Australia needs to achieve to fulfil the vision that 'by 2020 all children have the best start in life to create a better future for themselves and for the nation'. A number of policy objectives relate to this vision, including greater social inclusion; improved outcomes for the majority of children, but specifically Indigenous children and the most disadvantaged; and increased productivity and international competitiveness (COAG 2009a).

Seven outcomes are identified in the ECD Strategy where support for children is needed to realise the vision. These outcomes fall into two groups. The first group focuses on the child and broadly describes a young child's developmental pathway, beginning in the antenatal period:
- children are born and remain healthy
- children's environments are nurturing, culturally appropriate and safe
- children have the knowledge and skills for life and learning
- children benefit from better social inclusion and reduced disadvantage, especially Indigenous children
- children are engaged in and benefiting from educational opportunities.

The second group recognises the primary importance of the family. The ECD Strategy seeks outcomes for families related to parenting relationships and workforce participation that underpin the five previous outcomes:
- families are confident and have the capabilities to support their children's development
- quality early-childhood development services that support the workforce participation choices of families (COAG 2009a).

A number of these outcomes have a strong relationship to *shelter*.

An indicator-based reporting framework is currently under development and will enable monitoring of achievements against the ECD Outcomes Framework to inform COAG of progress towards the vision and policy objectives of the ECD Strategy outlined above.

4.3 National Affordable Housing Agreement

Over the last few years there were significant changes to and an increased focus on housing policy and the delivery of housing assistance, particularly in relation to an increased commitment to providing affordable housing options for all Australians. Housing assistance in Australia is provided through a variety of programs funded through the National Affordable Housing Agreement (NAHA) and associated National Partnership Agreements (social housing, remote Indigenous housing and homelessness), the First Home Owner Grant, Commonwealth Rent Assistance, and various state and territory specific programs.

The NAHA's objective is that all Australians have access to affordable, safe and sustainable housing that contributes to social and economic participation (COAG 2009b). This agreement commits the Australian Government and state and territory governments to the following outcomes:

- people who are homeless or at risk of homelessness achieve sustainable housing and social inclusion
- people are able to rent housing that meets their needs
- people can purchase affordable housing
- people have access to housing through an efficient and responsive housing market
- Indigenous people have the same housing opportunities as other Australians
- Indigenous people have improved housing amenity and reduced overcrowding, particularly in remote areas and discrete communities.

To help assess the progress made by the Australian Government in achieving these outcomes, performance will be measured by indicators that focus on:

- levels of housing stress
- availability of affordable homes
- homelessness
- homeownership
- overcrowding
- supply meeting demand
- housing market efficiency.

The NAHA also identifies a number of priority areas for reform that have a social inclusion focus, particularly in relation to increasing employment opportunities and creating mixed communities that promote social and economic participation.

Providing housing assistance is a vital social safety net for various population groups (ABS 2008) and has become increasingly important due to recent growing pressures on households, particularly those with low incomes. These pressures include a decline in housing affordability, increased living expenses and changes in the labour market (AIHW 2009a) that can significantly affect the health and wellbeing of families and their capacity to secure safe and appropriate housing.

Housing assistance is targeted to low-income households to both secure and maintain home ownership, and help establish and maintain their tenancies in the private rental market. Assistance is also available to those experiencing homelessness and provides for emergency, short-term, medium-term and long-term housing needs (AIHW 2009a).

4.4   National Indigenous Reform Agreement (Closing the gap)

The National Indigenous Reform Agreement was established to frame the task of Closing the gap in Indigenous disadvantage. It sets out the objectives, outcomes, outputs, performance indicators and performance benchmarks agreed by COAG. It also provides links to those national agreements and national partnership agreements across COAG that include elements aimed at Closing the gap in Indigenous disadvantage (COAG 2009c).

COAG recognises that overcoming Indigenous disadvantage will require a long-term, generational commitment and has identified the following priority areas to address the current state of disadvantage:

- healthy homes
- safe communities
- health
- early childhood
- schooling
- economic participation
- governance and leadership (Australian Government 2008).

The first 4 priority areas are particularly relevant to children. The healthy homes priority area recognises that a healthy home is a fundamental precondition for a healthy population. Important contributors to the current unsatisfactory living conditions include inadequate water and sewerage systems, waste collection, electricity and housing infrastructure (design, stock, and maintenance). Children need to live in accommodation with adequate infrastructure conducive to good hygiene and study and free of overcrowding (Australian Government 2008).

The safe communities priority area recognises the need for Indigenous people (men, women and children) to be safe from violence, abuse and neglect, and that fulfilling this need involves improving family and community safety through law and justice responses, victim support, child protection, and preventative approaches (Australian Government 2008).

The health priority area is focused on improved outcomes for children and recognises the need for access to, and delivery of, effective primary and preventative health care, as well as responsive community primary health services. It also recognises that parental health and parenting skills are critical to supporting children (Australian Government 2008).

The early childhood priority area recognises that Indigenous children need early learning, development and socialisation opportunities for an equal start in life. Access to quality early childhood education and care services, family support services are critical, and appropriate facilities, physical infrastructure, a sustainable early childhood education and health workforce, learning frameworks and opportunities for parental engagement are also important (Australian Government 2008).

5 Defining and identifying a Headline Indicator for *shelter*

The Children's Headline Indicators project's objective is to identify and define a single Headline Indicator of children's health, development and wellbeing for each of the 19 priority areas. It is difficult to identify a single Children's Headline Indicator for *shelter* due to the broad and multidimensional nature of this priority area. Others have experienced this challenge—the ABS has recognised the difficulties in developing a single indicator that succinctly captures whether people's many needs and desires for suitable housing are being met. As a result, the ABS 2006 *Measures of Australia's progress* report does not include a Headline Indicator for housing. The ABS states that:

> …there are many aspects to housing that affect the quality of people's lives. Dwelling attributes, such as size, number of bedrooms, physical condition, location relative to amenities and services, and affordability, are all important in this regard (ABS 2006b).

The process of defining and selecting a Children's Headline Indicator for *shelter* involved identifying aspects of shelter that were most strongly associated with children's health, development and wellbeing through a review of the literature, reviewing relevant national and international frameworks and indicator reports, and consultation with key experts.

This chapter describes the process of defining and selecting a Children's Headline Indicator for *shelter*.

5.1 Agreed conceptual basis

The report *Headline indicators for children's health, development and wellbeing* (Vic DHS 2008) was the starting point for establishing the conceptual basis for a *shelter* Headline Indicator. The report, which maps out the priority areas for the Children's Headline Indicators project, highlights the importance of a child's access to stable, adequate shelter to enable them to engage with the wider community—socially, recreationally and economically—noting the influence on both their physical and mental health.

In Section 2.1, the following definition of *shelter* was proposed, incorporating both the physical and social dimensions:

In the Australian context, *shelter* is synonymous with housing, which for most is a dwelling that provides safety, security and privacy. Access to stable, adequate housing is recognised as a basic human need and plays a major role in the health and wellbeing of families, and in particular children, by providing:

- a safe environment
- the security that allows participation in the social, educational, economic, and community aspects of their lives
- the privacy to foster autonomy as an individual and a family unit (AIHW 2009a).

The key parts of this definition are access to affordable, secure and appropriate housing. Table 5.1 presents the detailed elements within each of these components and the broad conceptual areas. This has been guided by Bronfenbrenner's ecological model and the WHO model of housing (Section 2.3); a review of the evidence linking *shelter* to child health,

development and wellbeing outcomes (Chapter 3); and the current policy environment (Chapter 4). As such, two broad conceptual areas were identified: physical and social.

Through the consultation process, it was acknowledged and agreed that the majority of children in Australia live in adequate housing from the perspective of the physical dimension. The social dimension was therefore deemed to have greater relevance to children in Australia, and is considered to have broader and more far-reaching impacts on children's health, development and wellbeing. The social dimension was therefore recommended as the focus for a *shelter* Headline Indicator for children. This is also consistent Bronfenbrenner's ecological model and the WHO model of housing (Section 2.3) which shows that the pathways through which *shelter* can affect children's outcomes extend beyond the physical characteristics of the dwelling, and includes the social and emotional wellbeing aspects of the home.

Table 5.1: Broad conceptual areas, components and detailed concepts of *shelter*

Broad conceptual areas	Important subcomponents	Detailed elements
Physical dimension	Appropriateness	Size, number of bedrooms (match of dwelling to household size, e.g. overcrowding)
		Dwelling condition (quality and safety)
		Exposure to toxins/other environmental hazards
		Location relative to amenities and services
		Neighbourhood (quality and safety)
Social dimension	Affordability	Housing stress
	Security of tenure	Tenure type (including home ownership, homelessness)
		Tenure stability (e.g. mobility)

Links between *shelter* and children's outcomes

As discussed in Chapter 3, research exploring the links between *shelter* and outcomes for child health, development and wellbeing, is underdeveloped in Australia. However, the available research, mostly international, demonstrates that housing affordability, overcrowding and security of tenure (including housing mobility and homelessness), are particularly significant in relation to their impact on children's health, development and wellbeing.

Housing costs are usually the largest and least flexible item in a family budget. Low-income households are particularly vulnerable to housing stress as they tend to spend a greater proportion of their incomes on housing, which for some families can mean cutting back on basic necessities including food, clothing, healthcare, and heating. High housing costs can adversely affect child wellbeing through the experience of financial and material hardship and the impact of parental wellbeing and family stress. Household income also influences the quality, type and size of housing a household can afford. Often the most affordable housing is also that of least quality, both in terms of the dwelling and the neighbourhood.

In order to combat the effects of housing stress, some households may be forced to live in overcrowded conditions, move frequently when more affordable housing is found, or in extreme situations become homeless.

Overcrowding

The lack of space that children experience when living in overcrowded conditions can negatively impact on a child's sense of autonomy, social behaviour, health, developmental outcomes and school performance. Living in overcrowded conditions may also facilitate the transmission of infection-based illnesses, which can interrupt children's schooling, and the lack of privacy can result in stress and difficult social interactions. Children raised in overcrowded conditions may take their educational, behavioural, and physical health disadvantages with them throughout their lives.

Housing mobility

Housing mobility disrupts children's education, decreasing their short-term academic achievement, and increases children's social, emotional and behavioural problems and parental stress. The magnitude of the effects of frequent moves increases with the addition of other factors such as poverty, minority race, one-parent family, low levels of parental education and young maternal age. Mobility may also alter the level of community resources available to children, such as quality schools, availability of recreational and social programs and neighbourhood safety.

Homelessness

Homelessness is the least secure form of tenure. Two of the enabling conditions of positive child outcomes, adequate income and supportive environments, are missing when families are homeless. Homelessness is a complex problem that places children at increased risk of long-term poverty, homelessness in adulthood, unemployment, chronic ill health, and other forms of disadvantage and social exclusion. International studies show that homeless children are at risk of learning, developmental and behavioural problems and have lower rates of school attendance.

5.2   Assessment of potential indicators

Based on a review of national and international literature and key indicator frameworks, and through the consultation process, several potential indicators were identified for the *shelter* priority area (refer to Appendix 4 for details). These indicators were then considered at a workshop, where it was recognised that there is currently a lack of research identifying which aspect of *shelter* was most important for children's health, development and wellbeing outcomes, particularly in the Australian context. It was also agreed that indicators covering a single aspect, such as those identified in Appendix 4, would not capture the multidimensional aspect of *shelter*.

One of the key outcomes from the workshop was to further investigate the feasibility of an indicator for *shelter* that incorporates multiple aspects of housing disadvantage, such as homelessness, overcrowding, housing stress and forced residential mobility. Definitional and methodological issues, data availability, ease of interpretation and policy implications were identified as issues requiring more exploration.

Another review of the literature has identified housing affordability as one of the key issues for *shelter* in terms of children's outcomes, particularly due to its correlation with overcrowding and homelessness.

Through these processes, two options for a Headline Indicator for the priority area of *shelter* were identified. The first option considers the feasibility of an indicator incorporating multiple aspects of housing disadvantage and the second an indicator of housing affordability.

Housing disadvantage indicator

An indicator of housing disadvantage would incorporate such components as homelessness, overcrowding, housing stress and forced residential mobility, which are all supported by the evidence presented in Chapter 3 and the consultations with key experts and stakeholders. These components of housing affect child development from both a physical and social dimension operating at the individual, family and societal levels. In particular, these components can impact on children's health, developmental and educational outcomes as a result of a variety of factors including, experiences of financial and material hardship; parental wellbeing; family stress; disruptions to education; and social exclusion. They can also contribute to social, emotional and behavioural problems in children, as well as their future socioeconomic status and adult health and wellbeing.

In order to capture these multiple components of housing disadvantage each component of housing disadvantage would need to be calculated separately, preferably using the same data source. An indicator of housing disadvantage would include the following individual components:

- children that are currently homeless
- children living in overcrowded conditions, that is, where one or more additional bedrooms are required
- children living in low-income households paying greater than 30% of household income on housing costs
- children living in households that were forced to move.

If a household experiences at least one of these four components of housing disadvantage they would be counted once in the indicator.

Advantages of this indicator include its ability to:

- summarise multidimensional concepts into a single measure via the use of a single data source
- be communicated easily to the wider public through a 'headline measure'
- facilitate comparisons between countries or regions that might perform quite differently on each component of the indicator (McNamara et al. 2008).

Disadvantages of such an indicator include:

- by summarising a number of components, significant results may be obscured— particularly if there are substantial differences in the level of performance of each of the components
- the final result will reflect the choice of inputs and the method of construction, which are by necessity subjective
- their tendency to support simplistic conclusions (McNamara et al. 2008).

Housing affordability indicator

As discussed in Section 5.1, the impact of housing affordability (or housing stress) on children's health, development and wellbeing is considered as significant, particularly because of its correlation with overcrowding and homelessness. There are numerous ways to measure housing affordability. For most homebuyers, housing affordability refers to the terms on which housing is purchased. It is typically measured by the ratio of average household income required to meet repayments on the mortgage needed to buy a median-priced dwelling, and housing affordability decreases when house prices grow faster than borrowing capacity. For renters, housing affordability refers to the relationship between rents and incomes (Australian Government 2009).

In comparing households' housing costs with their income, keep in mind that households have a variety of housing preferences. Some people may choose to live in an area with high land values due to its proximity to their place of employment and therefore they have lower transport costs. Some people choose to incur relatively high housing costs because they prefer a relatively high standard of housing. High mortgage repayments might also reflect a choice to purchase a relatively expensive home, or pay off a mortgage relatively rapidly, as a form of investment (ABS 2007b).

While households with above-average incomes may afford to spend more than 30% of their income in meeting their housing costs, low-income households tend to have insufficient resources available for non-housing costs if they spend greater than 30% of their income on housing costs. In addition, low-income households tend to be constrained in their housing choices and are particularly vulnerable in an environment where rental and home loan affordability are deteriorating (Australian Government 2009; AIHW 2009a).

As a greater number of low-income households are renting privately than buying, private renters are more likely to experience housing stress than home buyers, due to low vacancy rates, higher rents and an inadequate supply of affordable rental dwellings (Australian Government 2010). In addition, low-income households can't access some of the rental stock that would be affordable to them as it is occupied by higher-income households and housing remains expensive for low-income households, particularly in capital cities (Australian Government 2010).

However, while some households choose, and can afford, to pay higher proportions of their income on their mortgage, spending greater than 30%of household income on mortgage payments is still likely to be a problem for low-income households (COAG Reform Council 2010).

The advantages of a housing affordability indicator include its ability to be:
- measured and interpreted easily
- tracked over time
- transparent with results
- captured from a single data source consistently over time.

The disadvantages of a housing affordability indicator are:
- its inability to support multidimensional concepts
- that while families may not be experiencing 'housing stress', they may be living in housing that is inappropriate in other respects, for example, size, dwelling condition, location and neighbourhood.

5.3   Selecting a single Headline Indicator

In deciding which indicator is the most suitable as a Children's Headline Indicator for *shelter*, several issues were considered, based on the indicator selection criteria outlined in the project report *Headline indicators for children's health, development and wellbeing* (Vic DHS 2008). It is unlikely that there will be an ideal indicator that strictly meets all these criteria but the Headline Indicator should be chosen according to which indicator best fits the criteria. These criteria include whether the indicator is:

- worth measuring, that is, if it reflected how Australian children were faring for a broad conceptual issue
- relevant to current Australian Government and state and territory government policy agendas
- sensitive to intervention and amenable to change
- clear in meaning, interpretation and based on sound empirical evidence
- able to be presented using data collected, analysed and reported in a statistically reliable and valid way and measured consistently and repeatedly over time
- capable of reflecting differences and diversity.

The selected Headline Indicator for *shelter* should be considered the 'best fit' with the indicator selection criteria outlined above, and not necessarily reflect an 'ideal' indicator that strictly meets all criteria, particularly in the area of data availability.

Table 5.2 presents an assessment of the proposed indicators of housing disadvantage and housing affordability against these criteria. This assessment shows that an indicator of housing affordability performs slightly better due to the feasibility of collection, reporting and availability of data. However, an indicator's capacity to include the multidimensional nature of *shelter* and facilitate international comparisons are important attributes of the housing disadvantage indicator. In addition, a housing disadvantage indicator:

- is consistent with the evidence that demonstrates housing affordability, overcrowding, housing mobility and homelessness, as critical aspects in relation to children's health, development and wellbeing outcomes, and that due to their high level of correlation it is very difficult to identify which has the greatest impact
- is more closely associated with the agreed conceptual basis for a *shelter* Headline Indicator and the key components of the definition relating to affordability, security and appropriateness of housing (refer to Section 5.1)
- received a higher level of support through the consultation and review process.

The strengths and limitations of these two potential indicators, discussed in Section 5.2, were considered when assessing the proposed indicators against the indicator selection criteria. And the extent to which the potential indicators are already captured in other Children's Headline Indicators, for example the *Family economic situation* priority area, was also taken into account.

Based on these considerations it was agreed that an indicator of housing disadvantage would be the most suitable basis for a Children's Headline Indicator for the area of *shelter*.

Table 5.2: Assessment of proposed indicators against indicator selection criteria

Criteria	Housing disadvantage	Housing affordability
Worth measuring	✓	✓
Relevant to current policy agendas	✓	✓
Sensitive to intervention and amenable to change	✓	✓
Clear meaning/interpretation and based on empirical evidence	✓	✓
Feasible to collect/report and measurable over time	X[a]	✓
Capable of reflecting differences and diversity in subgroups	✓[b]	✓

(a)   No single data source currently exists that has the capacity to report against all four aspects of housing disadvantage.

(b)   This is dependent on the data source available, and the level of disaggregation possible.

The Headline Indicator for the area of *shelter* has been broadly defined as ***the proportion of children aged 0–12 years living in households experiencing at least one of the specified aspects of housing disadvantage:***

- homelessness—currently experiencing primary, secondary or tertiary homelessness
- overcrowding—where one or more additional bedrooms are required
- housing stress—children living in low-income households paying greater than 30% of household income on housing costs
- forced residential mobility.

6 Data sources and data issues

This chapter reviews currently available Australian data relevant to the housing disadvantage indicator defined in Chapter 5, that is, *the proportion of children aged 0–12 years living in households experiencing at least one of the specified aspects of housing disadvantage.* The available data collections are compared and this raises some important issues that require further clarification to inform subsequent reporting of this indicator.

6.1 Data sources

Currently in Australia there are two national data sources that could report on some components of the housing disadvantage indicator, they include the:
- ABS Census of Population and Housing
- ABS Survey of Income and Housing (SIH).

There is currently no administrative dataset in Australia that captures all components of the housing disadvantage indicator.

ABS Census of Population and Housing (Census)

The Census aims to provide an accurate measure of the number of people in Australia on census night, their key demographic, social and economic characteristics, and the dwellings in which they live. The Census collects information on housing arrangements, such as all tenure types (home owners/purchasers, private renters and social housing), overcrowding and homelessness. As the Census collects information from all persons and households, reliable data are available for small geographic areas and for subpopulations, such as Aboriginal and Torres Strait Islander people, and people living in remote and very remote areas.

The Census is conducted every 5 years and the most recent data available is for 2006.

ABS Survey of Income and Housing (SIH)

The SIH is a household-based survey that collects information from residents aged 15 years or over on sources of income and amount received, housing and household information. This survey allows analysis of the amount of income received and the source of that income, and how factors such as these vary depending on age, household characteristics, state or territory, or the remoteness of the household. It is also possible to examine housing circumstances such as housing costs and housing stress, overcrowding, housing tenure, housing mobility, housing conditions and dwelling characteristics, rental characteristics, and neighbourhood factors.

In 2007–08, the sample size for the SIH was about 9,500 households and the counting unit was households.

The scope of the survey is residents of private dwellings in urban and rural areas of Australia. Since 2003–04 the survey has been conducted biennially. No reliable national data are currently available by family type, cultural and linguistic diversity, socioeconomic disadvantage or Indigenous status.

6.2 Key data issues

The feasibility and suitability of the two available data sources are important considerations in developing and reporting on an indicator for the *shelter* priority area. Table 6.1 provides details of the numerators and denominators for each of the components of the housing disadvantage indicator that can be calculated based on the data available in the Census and the SIH.

Table 6.1: Numerators and denominators for components of a housing disadvantage indicator

Numerator	Denominator
Homelessness	
Number of children aged 0–12 years that are currently experiencing primary, secondary or tertiary homelessness	All children aged 0–12 years
Overcrowding	
Number of children aged 0–12 years living in households where 1 or more bedrooms are required according to the Canadian National Occupancy Standard	All children aged 0–12 years
Housing stress	
Number of children aged 0–12 years living in lower income households[a] paying greater than 30% of household income on rent or mortgage payments	All children living in low[a]-income households aged 0–12 years
Forced residential mobility	
Number of children aged 0–12 years living in households where the main reason for the last move includes at least one adverse circumstance[b]	All children aged 0–12 years

(a)   Low-income households refer to the 30% of households in the 2nd–4th income deciles of equivalised disposable income.

(b)   Either: notice given by landlord, lost job, family conflict, breakdown of marriage/relationship, reduce rent/mortgage.

Table 6.2 outlines the capacity of the Census and the SIH to support the reporting of a housing disadvantage indicator and illustrates that:

- no single data source currently exists that has the capacity to report against all four components of housing disadvantage. The SIH does not collect information on homelessness and the Census does not collect information on forced residential mobility
- significant variation exists in the sample size between the two data sources
- variation in the timing for the availability of data, i.e. 5-yearly versus biennially
- variation in the level of disaggregation available within the two data sources
- different denominators are required for individual components
- significant issues associated with the measurement of housing stress in the Census indicating its unsuitability for reporting against the housing stress component.

Table 6.2: Comparison of current data sources to support the reporting of a housing disadvantage indicator

Elements		Census of Population and Housing	Survey of Income and Housing
Data source type		Census	Survey
Sample size		All Australian households	9,345 households
Frequency		5-yearly	Biennially (latest year available 2007–08)
Available disaggregation		Sex, household composition, Indigenous status, cultural and linguistic diversity, state and territory, remoteness areas, socioeconomic status areas	Sex, household composition, state and territory, remoteness areas *Note:* the level of disaggregation may also be impacted by the sample size
Counting unit		Households	Households
Capacity to capture components of housing disadvantage			
Homelessness	Availability:	Available	Not available
	Issues:	Timing for the availability of homelessness estimates are dependent on the methodology employed to adjust for the undercount for the Census	
Overcrowding	Availability:	Available	Available
	Issues:	Nil	Nil
Housing stress	Availability:	Available	Available
	Issues:	Denominator inconsistent with other components (refer to Table 6.1)	Denominator inconsistent with other components (refer to Table 6.1)
		Imputations used in deriving household incomes from individual income ranges are likely to understate some household incomes, particularly for single income households, such as one-parent families	
		Reimbursements, such as Commonwealth Rent Assistance, may not be offset in housing costs reported, i.e. they are included in income instead	
		Use of imputed income measures as denominators is problematic as the income ranges are very wide making ratio analysis difficult to interpret	
		Lack of comparability of housing costs to income ratios across tenure and landlord types	
Forced residential mobility	Availability:	Not available	Available
	Issues:		Nil

Note: Further details on limitations of housing cost ratios in Census output are provided in Appendix 5.

There is currently no single data collection to support reporting against all four components of the housing disadvantage indicator. The SIH has the potential to report on overcrowding, housing stress and forced residential mobility, while the Census can be used to report on homelessness and overcrowding. As there is no single data source that can report on all

four components further investigation is required to determine the feasibility of using two data sources.

A large-scale national survey that supports disaggregation by state and territory for subpopulations of children would be the most appropriate data collection vehicle. It is proposed that the Census be used to capture data for the homelessness component, once adjusted estimates are released following the 2011 Census, and the SIH be used to capture data relating to overcrowding, housing stress and forced residential mobility. Using this methodology, the possibility of counting a person in both data collections would be minimised as the SIH collects information by personal interview from usual residents of private dwellings, and by definition excludes the homeless population. The SIH is also considered the preferred data source for measuring housing stress as it is more accurate, more frequent and treats reimbursements, such as Commonwealth Rent Assistance, more appropriately.

However, reliable Indigenous estimates are not available from the, but the National Aboriginal and Torres Strait Islander Social Survey could potentially be used to capture data relating to overcrowding, housing stress and forced residential mobility for Indigenous households with children. In addition, reliable estimates by remoteness may only be available at the national level and for larger jurisdictions from the SIH.

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Appendix 3: Headline Indicators for children's health, development and wellbeing

Priority areas	Headline Indicators	Data source
Infant mortality	Mortality rate for infants less than 1 year of age	AIHW National Mortality Database
Dental health	Mean number of decayed, missing or filled teeth (DMFT) among primary school children aged 12 years	Child Dental Health Survey
Literacy	Proportion of children in Year 5 achieving at or above the national minimum standards for reading	National Assessment Program—Literacy and Numeracy
Numeracy	Proportion of children in Year 5 achieving at or above the national minimum standards for numeracy	National Assessment Program—Literacy and Numeracy
Teenage births	Age-specific birth rate for 15 to 19 year old women	National Perinatal Data Collection
Birthweight	Proportion of live-born infants of low birthweight	National Perinatal Data Collection
Family economic situation	Average real equivalised disposable household income for households with children in the 2nd and 3rd income deciles	ABS Survey of Income and Housing
Injuries	Age-specific death rates from all injuries for children aged 0–4, 5–9 and 10–14 years	AIHW National Mortality Database
Child abuse and neglect	Rate of children aged 0–12 who w ere the subject of child protection substantiation in a given year	AIHW Child Protection Data Collection
Immunisation	Proportion of children on the Australian Childhood Immunisation Register who are fully immunised at 2 years of age	Australian Childhood Immunisation Register
Overweight and obesity	Proportion of children whose body mass index (BMI) score is above the international cut-off points for 'overweight' and 'obese' for their age and sex	ABS National Health Survey
Transition to primary school	Proportion of children entering school with basic skills for life and learning	Australian Early Development Index
Attendance at primary school	Attendance rate of children at primary school	MCEETYA National Report on Schooling in Australia—data not currently suitable for reporting
Smoking in pregnancy	Proportion of women who smoked during the first 20 weeks of pregnancy	National data not available
Breastfeeding	Proportion of infants exclusively breastfed at 4 months of age	National data not available
Attending early childhood education programs	Proportion of children attending an early education program in the 2 years before beginning primary school	National data not available
Social and emotional wellbeing	*Indicator under development*	—
Shelter	*Indicator under development*	—
Family social network	*Indicator under development*	—

Appendix 4: Review of indicator frameworks

A number of frameworks, indicator-based reports and other reports were reviewed to identify indicators for the social dimensions of *shelter*. The frameworks and reports reviewed for *shelter* represented the most relevant recent reports in this area, but the following list is by no means exhaustive. Also, many indicators were derived directly from data sources, and were not found presented in recent reports.

Table A2.1 indicates which reports contained similar indicators to those proposed in the areas of home ownership, housing affordability and residential mobility. The following numbering scheme was used to identify which reports/frameworks included the proposed indicators:

1.   Social Inclusion in Australia: how Australia is faring (Australian Social Inclusion Board 2010)

2.   National Affordable Housing Agreement (COAG 2009b)

3.   National Indigenous Reform Agreement (Closing the gap) (COAG 2009c)

4.   Victorian Child and Adolescent Outcomes Framework (Vic DEECD 2009)

5.   Tasmania Kids Come First Outcomes Framework (Tasmanian Government 2009)

6.   Housing occupancy and costs (ABS 2009b)

7.   HILDA Survey statistical report (Wilkins et al. 2009)

8.   Australian Social Trends (ABS 2009a)

9.   General Social Survey (ABS 2007a)

10. Australia's Welfare 2009 (AIHW 2009a)

Also, many indicators in Table A2.1 were derived directly from data sources, and were not included in recent reports.

Many other frameworks and indicator-based reports were reviewed; however, they did not contain *shelter*-related indicators in these areas and instead included indicators in the physical dimension of *shelter*, such as physical condition of the dwelling, environmental factors and overcrowding (for example, ABS 2006b, AIHW 2009a, Lippman et al. 2009,OECD 2009). Homelessness was also an indicator in a number of frameworks.

Table A2.1: Possible Headline Indicators for the shelter priority area

Indicator	Frameworks/reports using similar indicator	Data sources	Comments
Home ownership			
House ownership (with or without mortgage)	2, 5, 6, 7, 9	ABS Survey of Income and Housing (SIH), 2-yearly (latest 2007–08) ABS National Health Survey (NHS), 3-yearly (latest 2007–08) ABS General Social Survey (GSS), 4-yearly (latest 2006) ABS Census of Population and Housing, 5-yearly (latest 2006) ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS), 6-yearly (latest 2008) HILDA, annual	NATSISS only covers Indigenous population. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.
Proportion of households with children age 0–12 years owning or purchasing a home (i.e., with or without a mortgage).			
Outright house ownership	5, 6, 9	SIH, 2-yearly (latest 2007–08) NHS, 3-yearly (latest 2007–08) GSS, 4-yearly (latest 2006) Census, 5-yearly (latest 2006) NATSISS, 6-yearly (latest 2008) HILDA, annual	NATSISS only covers Indigenous population. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.
Proportion of households with children aged 0–12 years owning the house they live in, without a mortgage.			
Housing affordability			
Housing cost	5, 7	SIH, 2-yearly (latest 2007–08) Rent and mortgage repayment numbers are also available from HILDA, Census, GSS, and NATSISS.	SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.
Index of housing cost for households with children aged 0–14 years, where housing cost includes: • rent (for renters) • general and water rates (for owners) • mortgage repayments to purchase/build • mortgage repayment for alterations/additions (for owners) • repayments on unsecured loans (for owners).			

(continued)

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Table A2.1 (continued): Possible Headline Indicators for the shelter priority area

Indicator	Frameworks/reports using indicator or similar	Data sources	Comments
Housing affordability (cont.)			
Alternative measurement of housing cost		Index of housing cost for households with children aged 0–14 years, where housing cost includes: • rent payments with refunds deducted • body corporate payments with refunds deducted • general and water rates payments with refunds deducted • mortgage repayments to purchase/build (interest component with refunds deducted) • mortgage repayments for alterations/additions (interest component with refunds deducted) • repayments on unsecured loans for housing purposes (interest component with refunds deducted).	SIH, 2-yearly (latest 2007–08). This measure became available since the 2003–04 survey.
Housing affordability ratio	3, 4, 5, 9	For households with children aged 0–12 years, housing cost as a proportion of household income.	Appropriate measures of housing cost and household income need to be chosen to compile this ratio. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.
		SIH (2-yearly, latest 2007–08) contains various information needed to calculate this ratio, including: • housing cost • alternative measure of housing cost • household income from various sources • household disposable income • equivalised disposable household income. GSS (4-yearly, latest 2006) and NATSISS (6-yearly, latest 2008) covers the following items: • rent • mortgage repayment • household gross income • equivalised gross household income.	

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(continued)

Table A2.1 (continued): Possible Headline Indicators for the shelter priority area

Indicator	Frameworks/reports using indicator or similar	Data sources	Comments
Housing affordability (cont.)			
Housing affordability ratio (cont.)		HILDA (annual) covers the following items: • rent • mortgage repayment • household financial year gross income • household financial year disposable income.	Appropriate measures of housing cost and household income need to be chosen to compile this ratio. Households in the 1st income deciles are excluded because many of them are unlikely to be suffering extremely low levels of economic wellbeing. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.
Housing stress	6	SIH (2-yearly, latest 2007–08) contains various information needed to calculate this ratio, including: • housing cost • alternative measure of housing cost • household income from various sources • household disposable income • equivalised disposable household income.	
		Proportion of households with children aged 0–14 years experiencing housing stress. Households experiencing housing stress are measured as those in the 2nd, 3rd, and 4th deciles of needs adjusted or equivalised disposable income distribution and pay more than 30% gross household income on housing cost.	
Housing stress among lower income private renters	1, 5	SIH, 2-yearly (latest 2007–08)	This indicator is likely to overstate the extent of housing stress, because the Government provides rent subsidies (CRA) for private renters in receipt of income support. This is treated as a component of income, rather than a direct offset to the cost of renting. While CRA receipts were collected in the 2007–08 SIH, and used in some reporting for lower income households, the ABS is undertaking further investigation into more comprehensive use of CRA data in reporting results from this survey.
		Proportion of lower income private renters with housing costs exceeding 30% of household income. Lower income households are defined as those containing 30% of people with equivalised disposable income between the 10th and 40th percentiles.	
Difficulty in mortgage or rent payment	8	GSS, 4-yearly (latest 2006) NATSISS, 6-yearly (latest 2008)	
		Proportion of households with children aged 0–14 years that had cash flow problems of paying rent or mortgage in the past 12 months.	

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(continued)

Table A2.1 (continued): Possible Headline Indicators for the shelter priority area

Indicator	Frameworks/reports using indicator or similar	Data sources	Comments
Residential mobility/forced residential mobility			
Household mobility	Proportion of households with children aged 0–14 who have moved in a past time period.	HILDA, annual	The length of the time period can be customised
One-year mobility	Proportion of children aged 0–14 who have moved in the past year.	Can be derived from Census, 5-yearly (latest 2006) NATSISS, 6-yearly (latest 2008)	Proportion of households with children aged 0–14 years can also be derived using GSS (4-yearly, latest 2006). However, assumptions have to be made that children in the same household always move with the interviewed person.
Two-year mobility	Proportion of children aged 0–14 who have moved in the past two years.	NATSISS, 6-yearly (latest 2008) HILDA, annual	NATSISS only covers Indigenous population.
Five-year mobility	Proportion of children aged 0–14 who have moved in the past five years.	Can be derived from Census, 5-yearly (latest 2006) NATSISS, 6-yearly (latest 2008) SIH, 2-yearly (latest 2007–08)	NATSISS only covers Indigenous population. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates. Proportion of households with children aged 0–14 years can also be derived using GSS (4-yearly, latest 2006). However, assumptions have to be made that children in the same household always move with the interviewed person.
Desire to move	Proportion of children aged 0–14 who have the desire to move in the next 12 months	SIH, 2-yearly (latest 2007–08)	SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates.

(continued)

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Table A2.1 (continued): Possible Headline Indicators for the shelter priority area

Indicator	Frameworks/reports using indicator or similar	Data sources	Comments
Residential mobility/forced residential mobility (cont.)			
Forced mobility	Proportion of households with children aged 0–14 who moved in the last 12 months (or 2 years, 5 years etc.) and main reason for last move was 'family moved to a lower rent or mortgage house' or 'Landlord asked family to leave'.	NATSISS, 6-yearly (latest 2008) SIH, 2-yearly (latest 2007–08)	NATSISS only covers the Indigenous population. SIH does not have sufficient coverage of the Indigenous population to produce reliable estimates. Proportion of households with children aged 0–14 years can be calculated using GSS (4-yearly, latest 2006). However, the assumption has to be made that children in the same household always move with the interviewed person.
	Proportion of households with children aged 0–14 who moved in the last 12 months (or 2 years, 5 years etc.) and main reason for last move was 'evicted', 'place no longer available' or 'to move to a smaller/less expensive place'.	HILDA, annual	The assumption has to be made that children in the same household always move with the interviewed person.

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Appendix 5: Comparison of housing cost and income data from the ABS Census

Measures comparing housing costs to income data from the ABS Census of Population and Housing are subject to a number of significant limitations that are briefly described below.

Household income as a denominator

The ABS Census collects individual income in ranges, so before these can be summed to a family or household level, a specific dollar amount needs to be imputed for each person. Median incomes for each range, derived using data from the 2003–04 Survey of Income and Housing, are used for this purpose in deriving family and household income measures for reporting in the 2006 Census.

The method used in the Census to input personal income values within reported individual income ranges was selected as the best practical approximation that would result in the majority of households being included in the same Census household income range that would have been derived had individuals reported their incomes in dollar amounts rather than in ranges. The approximation is expected to generally support analyses looking at various other characteristics of both persons and households in terms of broad household income ranges.

However, the imputation method used in deriving household incomes is likely to understate some household incomes, for lower household incomes in general, but particularly for single-income households. Single income households with lower income levels (such as one-parent families with a principal source of income of government benefits, and sole person households where the resident is aged 65 years or over and principal source of income is government benefits) are most affected by the imputation methodology, as it underestimates their incomes. For example, for one-parent family households with the parent under 45 years of age, analysis shows that nearly twice as many such households were likely to be allocated to the low-income range of $250 to $349 per week than would have been the case had incomes been reported in dollar amounts (with fewer than expected households in higher income ranges). Similarly, for sole person households where the resident is aged 65 years or over, the number of households allocated to the low-income range of $250 to $349 per week was about 15% higher than was expected had incomes been reported in dollar amounts.

Another issue with the use of the imputed income measures as denominators is that the income ranges are very wide making ratio analysis very difficult to interpret. For example, for the household income range from $250 to $349, even for those households that are reasonably placed in this range, any error in allocation within the range can be relatively very large. Therefore a fixed housing costs amount could result in an income ratio that is in the range from 14% to 20%.

A more general issue with reporting on individual income from the Census is that individuals tend to understate their incomes compared with the amounts that would be reported in surveys designed specifically to measure incomes.

For the above reasons, care should be exercised in any use of household income information from the Census that relies on the imputed value rather than the broad range within which that imputed value lies. In particular, the ratio of reported housing costs to imputed incomes

may significantly overstate that ratio for lower income households and for single person households in the Census. This caution extends to comparisons of housing costs to income ratios across geography where the sociodemographic characteristics such as income, age, and family and household composition, vary across those geographies.

Housing costs to income ratios

ABS has no standard measures of housing affordability (housing stress). However, where housing costs to income are to be reported, ABS advises that the analysis should be limited to low-income households. That is, those households in the range from the 10th percentile to the 40th percentile of equivalised disposable household income. The lowest decile is not used as household income is not always a good indicator of the total economic resources available to many people with incomes close to nil or negative (see ABS 2006a for further details).

Information on disposable income is not available from the ABS Census; however, information is available on 'equivalised gross household income'. This equivalence scale is used to adjust household income for household size and composition.

Some of the key issues to consider when using housing costs information from the Census include:

- households are often reimbursed some of their housing costs, but these reimbursements may not be offset in housing costs reported in the Census, however, included instead in income. Employer subsidies and Commonwealth Rent Assistance (CRA) are examples where the housing costs to income ratio is significantly affected by the default treatment of these amounts in Census reporting. This is particularly important when comparing ratios for households in public housing with those that are in receipt of CRA.

- reported mortgage repayments would normally include both an interest component and a principal or capital component. For some analyses repayments of principal may be considered a form of saving rather than a housing cost.

- householder preferences may influence how much they spend on housing costs. For example, some people may choose to live in an area with high housing costs because it is close to their place of employment or is located in a good neighbourhood. Some people choose to incur higher housing costs because they prefer a higher standard of housing instead of other consumption possibilities.

- high mortgage repayments may reflect a choice to purchase an expensive home, or pay off a mortgage faster, as a form of investment.

Together these issues mean that there is a lack of comparability of housing costs to income ratios across tenure and landlord types.

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