



9

Needs, interventions, outcomes: measurement frameworks

9.1 Introduction

Welfare services and assistance are provided within the environment created by social and economic conditions and the range of other services that may affect the welfare of the population. The interrelationships between social conditions, welfare services and assistance, and the outcomes of these interventions are illustrated in Figure 9.1, from the Institute's first biennial report (AIHW 1993). Each of the preceding chapters of this current report is based on the form of this diagram and recognises the broad context in which services are delivered and in which needs for services are measured; the chapters include relevant population data and information on trends in policy and the provision of services and assistance. Nevertheless, each chapter focuses on a particular service area, population group or aspect of service provision. The goal of this chapter is to reflect more broadly on the welfare system as a whole and on the environment in which these services are provided.

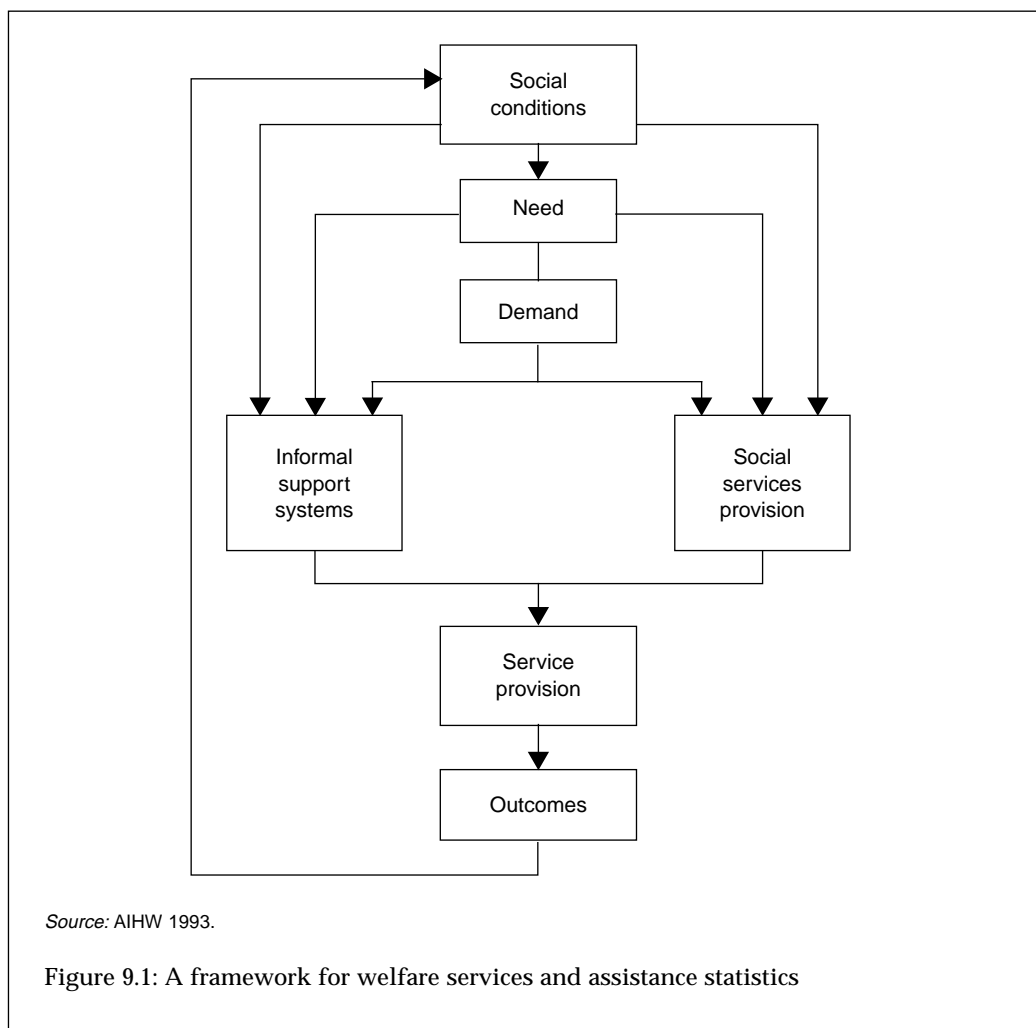
The need to reflect this wider perspective was recognised some time ago by senior welfare administrators. A national plan for community services information, endorsed by the chief executives of relevant government departments, recognised the need for national data in a framework comprising: population wellbeing, service provision and utilisation, and client and carer outcomes (SCCSISA 1999). This chapter moves into this more general framework. One of the purposes is to work towards providing a broader scope of information in future biennial reports, to enhance their usefulness as a public and parliamentary information resource.

Against this background, this introductory section first outlines some major frameworks, both national and international, that support the complex task of identifying and measuring components of welfare and aspects of the welfare system.

Then, in Section 9.2, a simplified version of Figure 9.1 is presented as a framework for discussion in the chapter and for data presentation in the future. There is a brief discussion of each of the main areas of this framework: welfare and its components; interventions, services and assistance; and other factors that affect welfare. Section 9.3 proposes more detailed topics for welfare measurement in Australia, some illustrative indicators and some sources of meaningful data. Section 9.4 concludes with suggested directions for further development and data to be presented in future biennial reports.

Major existing frameworks and indicator sets

There is currently renewed international interest in social indicators, and the literature on indicator development and related frameworks in the health and welfare fields, already considerable, continues to grow.¹ While there is an extensive literature on human wellbeing and its measurement, this chapter does not attempt to review it. Rather, the focus here is on key national and international frameworks that are derived from and consistent with this literature and that are relevant to national statistical presentation.



1 Recent reviews of some aspects of the literature can be found in Zapf (2000), Berman and Phillips (2000) and Hagerty et al. (2001).

OECD social indicators

In its development of a structured grouping of social indicators, the OECD, in a decision supported by the Australian Government as an OECD member, has adapted the Pressure-State-Response (PSR) framework originally derived for environmental performance assessment (OECD 1993). The PSR framework has three primary components: pressures, state and response. The conceptual thinking behind the framework is that pressures are exerted on the state, which elicits (societal) responses that change the state and thereby feed back to lessen pressures. The three components are largely, but not solely, linked by a linear relationship, with a feedback loop from response back to pressure.

The OECD social indicators framework replaces the customary PSR components with social context, social status and societal actions (OECD 1999). The component social status is used to measure social situations as influenced by policy action and is hence a measure of policy effectiveness and resultant social outcomes. Social context gives contextual background and explanation to social status and is used to measure social conditions. The third component, societal actions, reveals what society is doing in relation to social status and focuses on policy actions.

Four primary objectives of social policy were identified for the selection and classification of indicators: promotion of autonomy,² equity, healthy living and social cohesion. Indicators within each objective are further classified as relating to one of the three components. The OECD exercise is specifically located in the context of public policy designed to ameliorate the social situation. Despite the use of neutral terms in its title (social indicators), one of its key stated objectives is the indication of wellbeing.

Indicators of autonomy measure active participation in the economy and society and include employment and unemployment rates, labour force participation, educational participation and literacy attainment. Equity is defined in terms of equity of outcome and can be measured in terms of indicators such as income distribution, minimum wages and social expenditure. Healthy living uses indicators of life expectancy and infant mortality, health care spending, and availability of personnel and equipment. The final objective of social cohesion is yet to be defined but indicators have been selected. Most of these identify pathologies considered to undo social cohesion, such as crime and suicide rates and work stoppages, but also include indicators measuring group membership and election participation rates. A new social indicators publication *Society at a Glance: OECD Social Indicators* is scheduled for publication in late 2001.

European Union system of social indicators

A recent proposal for a system of social indicators for the European Union was based on an extensive review of social reporting activities and conceptual frameworks, as well as an analysis of various European treaty documents. Three main categories of social goals were identified from the treaty documents: economic and social progress, improvement of quality of life; strengthening economic and social cohesion; and

2 The OECD in its more recent work (e.g. Pearson et al. 2000) refers to 'self sufficiency' rather than autonomy.

sustainable development. The authors then proceed to integrate both perspectives the scientific and political perspective into a common conceptual framework (Berger-Schmitt & Noll 2000:37).

The resulting social indicator framework is based on the concepts of quality of life, social cohesion and sustainability. Each concept is related to goals that aim to: improve objective living conditions, enhance subjective wellbeing, reduce disparities and inequalities, strengthen social capital, and preserve and enhance human and natural capital. The goals are considered relevant to 14 life areas: population; households and families; housing; transport; leisure, media and culture; social and political participation and integration; education and vocational training; labour market and working conditions; income, standard of living and consumption patterns; health; environment; social security; public safety and crime; and total life situation. Groups of indicators are still being developed to measure attainment of the goals in these life areas but are already substantial in number and diversity.

UNDP Human Development Index

The Human Development Index or HDI uses the concepts of capabilities and the enhancement of choice as goals of development and hence wellbeing (UNDP 1990). The index itself is an aggregate measure of four indicators reflecting three life components crucial to individuals and their capability: longevity, knowledge and standard of living.³ In Australia, Castles (2000) and others have expressed reservations about the use of a single index and related statistical issues. Conceptually, however, the HDI's value lies in generating cross-country comparison and, through assessment of each component, examining the inequalities or disparities existing between different demographic groups.

Various UN initiatives and summits have generated indicator sets across the social spectrum. To date, there is no common framework, although the UN Statistical Commission has initiated some work on rationalisation.

Australian frameworks and indicator sets

AIHW welfare and health information frameworks

A framework for welfare services and assistance was developed in 1993 and has since provided a common structure for many of the chapters of each edition of *Australia's Welfare* (in terms of needs, services and outcomes). The framework illustrates the relationship between social conditions and the social service and support systems, and acknowledges the concepts of need and demand engendered by social conditions, and from which the type and level of service provision are generated (Figure 9.1). Outcomes were also incorporated into the framework as being a direct result of services received and their effects on social conditions are illustrated through a feedback relationship.

3 The HDI is a composite indicator rather than a framework, although it relies on strong intellectual underpinning from the work of Sen (UNDP 1999).

The framework has since been used as a template for an illustration of the major players and structures in the disability services field, as part of a study designed to integrate theory and practice in indicator development in this field (AIHW 2000a). The evolution and application of the welfare services framework illustrate how a general and relatively simple structure can be modified and built on to produce a more detailed framework relevant to a specific field.

Major health frameworks in use in Australia are more immediately related to the OECD PSR conceptualisation. In the AIHW biennial health report, health and wellbeing are visualised as a state affected both by determinants of health (environmental and individual) and by health service interventions of various kinds (AIHW 2000b). A framework to measure health performance in Australia has recently been developed, based on both the AIHW health framework and a Canadian Health Indicators framework (AIHW 2001a; Canadian Institute for Health Information 1999, 2000). This framework is a three-tiered system of components, the three tiers being Health Outcomes, Determinants of Health and Health System Performance. Work is now progressing to enhance information infrastructure by reviewing and harmonising the National Health Information Model, and health performance indicator frameworks of national significance.

Information models and data dictionaries

Increasingly important in data development, in Australia and elsewhere, is the systematic specification of information models and data definitions. Such work is reflected in Australian data dictionaries in the health, housing and community services fields and provides the technical infrastructure for national efforts to improve the quality and consistency of national health and welfare information, particularly service-related data (see also Chapter 1). These models and dictionaries are the means by which the scope of data collections and the data definitions themselves are refined and standards set. The high-level information models and system-wide data dictionaries provide the structure and menu for service-specific (business) information models and data sets, and related performance indicator frameworks and sets (see, for example, AIHW 2000c, 2001b).

Box 9.1: Terminology for the chapter

Frameworks

A framework depicts the structure of a field, showing how related parts fit and unite within a defined border. Frameworks are useful in broad, complex fields such as health and welfare statistics because of the need for structure and perspective in organising data and setting priorities among many possible data development, collection and preservation options. In such fields, frameworks should relate to underlying explanatory models, where these exist, as well as to administrative and policy structures.

Concepts

A concept is a 'thought, idea or notion ... a theoretical construct' (Macquarie University 1988). In this chapter it is, further, a high-level 'idea' on which information is sought. The UN Statistics Division defines concepts as 'abstract summaries, general notions, knowledge etc of a whole set of behaviours, attitudes or characteristics which are seen to have something in common' (UNSD 2001).

(continued)

Box 9.1 (continued): Terminology for the chapter

Components

The term 'component' is used here to mean not only a constituent part (its usual dictionary meaning) but also to represent a step along the way to giving a concrete form to the concept of welfare. That is, in specifying the constituent parts of concepts such as welfare, we are also, in this chapter, taking the extra step of specifying observable phenomena to which measurements can be attached. In some frameworks, components of health and welfare may reflect thoughtful social theory; in some, they reflect statements of specific social policy goals. In others, the specification of 'components' may simply be a useful intermediate step, providing headings that help specify, organise and focus otherwise diffuse lists of indicators.

Indicators

'Indicators' are particular data items or amalgams of data items that relate to key concepts or components within frameworks. The term 'indicator' may suggest a theoretical relationship (possibly causal) or an element of doubt about the direct connection between the data collected and the concept on which information is sought. Indicators may be developed to 'indicate' components whose measurement is difficult, or to summarise complex material (see AIHW 2000a). In a framework encompassing services, indicators are characteristically policy relevant and relate to key policy goals.

'Summary measure' or 'summary indicator' is a term often used for indicators that are composites of other indicators; in the health field, for instance, 'summary health measures' often refer to the combination of indicators of mortality, morbidity and disability into a single 'health status' measure for a population.

Statistics and data items

Statistics, as a discipline, 'deals with the data obtained by counting or measuring the properties of populations'. A 'statistic ... is the name given to an estimate of an unknown measure of a population' (Kendall & Stuart 1958:1,2). Statistics are, thus, counts or estimates of any data item, concept or indicator we wish to measure; statistics embrace quantifiable or statistical indicators. Statistical estimation is characterised by uncertainty, and the need to estimate the degree of 'confidence' to be placed in specific estimates. This uncertainty arises both from the underlying assumptions that are made about the patterns of variation within the population and from the uncertainty or confidence in the available measurement methods. Statistical indicators are the main focus of this chapter, although not all indicators are necessarily in the form of statistics.

Data items in national collections are defined in relation to the concepts, indicators and statistics of importance in the field captured within the framework and agreed to be of national importance.

Terminology in use: an example

To illustrate the use of this terminology: a significant component of wellbeing in society may be enunciated to be 'social and economic participation'. Indicators of such participation could include a range of statistics relating to employment, voluntary work, and family caring responsibilities. Data items in national collections can be defined to produce the necessary statistics.

A framework for community services information

Senior administrators of community services in Australia, in conjunction with the AIHW, published an information development plan for improving data across the field (SCCSISA 1999). The plan identified four key foci for data required: population wellbeing, service provision, service utilisation, and client/carer outcomes. While the plan focused on priorities for action by administrators, in terms of sector-specific collections and national data infrastructure, it also emphasised the importance of data on population wellbeing to monitor population needs and outcomes.

ABS work on social indicators and social trends

From 1976, the Australian Bureau of Statistics (ABS) produced a series of five publications on social indicators, the last of which was its guide to Australian social statistics, which traced the history of the social indicators movement and outlined the system of social statistics available at the time (ABS 1992). The organisational frameworks seen in these publications are largely based on the original conception of areas of concern developed by the OECD in the 1970s and have since been more fully developed, as described in *Measuring Wellbeing: Frameworks for Australian Social Statistics* (ABS 2001a). The *Australian Social Trends* series, published annually since 1994, contains a rich array of data drawn from ABS collections and other official sources, describing social conditions in Australia and how they are changing over time (see ABS 2001b and earlier editions). The publication is also organised into chapters relating to areas of concern (namely, population, family, health, education and training, work, income and expenditure, and housing, and some editions have also included chapters relating to crime and justice and to recreation and leisure). Each chapter comprises analysis and data on key topics in the subject area and also presents summary data over the last decade for each State and Territory (ABS 2001b).

The ABS is now also working on a publication, *Measuring Australia's Progress*, which aims to present a set of headline indicators (about 15) that will help to describe whether or not progress in key areas of concern is being realised. The publication, due for release in 2002, will comprise indicators referring to economic, social and environmental conditions in Australia. The desirability of broadening national measures beyond economic ones such as GDP has been discussed for decades by a range of authorities in the field (see, for instance, the recent collection of papers in Eckersley 1998).

Welfare and wellbeing

There is some interchangeability of the concepts of wellbeing and welfare and this is acknowledged and maintained in this chapter. Both words can indicate a very broad scope. The field of welfare economics, for instance, potentially embraces any aspect of wellbeing (e.g. Sen 1982), as does the idea of progress in the ABS work described above. Generally, however, this chapter will use the term welfare to signify a relatively narrower scope, related to the welfare system.

Terminology

Some terminology used in the chapter is explained in Box 9.1.

9.2 Frameworks for measuring welfare and service performance

This section outlines a framework for the measurement of welfare and related service performance, drawing on the frameworks outlined in the introduction to the chapter. This framework will shape the presentation of further material in the chapter, in particular clarifying the process for suggesting indicator topics in Section 9.3.

The suggested organising framework for the chapter (Figure 9.2):

- is based on previous AIHW frameworks and also benefits from recent OECD, European and other Australian work; and
- is designed to give structure to indicators that are relevant to welfare and service performance.

Welfare is placed at the top of the diagram and may be considered as a goal, as a vision or, in the terminology of the chapter, as a concept, which may be hard to define in general and universally agreed terms. Nevertheless, the term welfare reflects highly valued human ideals and for which, in certain contexts, it may be quite feasible to agree definitions and operational goals. The definition of health endorsed by the World Health Organization is an example of a broad conceptual statement of values: a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (WHO, quoted in AIHW 2000b:2). Many applications proceed to locate themselves in specific, limited territory within this broad field, while retaining the ethos of the statement. Similarly, various approaches to defining welfare have been outlined in the Institute's previous biennial reports on welfare (AIHW 1993, 1997), which then reported on the specific examples of welfare services listed in the AIHW legislation. Figure 9.2 recognises both these qualities of the term welfare on the one hand, the value but elusiveness of the concept; on the other, the importance of being prepared to translate it into concrete terms in specific contexts.

Figure 9.2 is, like a number of the frameworks described in Section 9.1, derived from a pressure-state-response framework, where the influential factors replace the pressure, the welfare components are the state and the interventions are the response. It can also be regarded as a simplified version of Figure 9.1, where the social conditions are similar to the factors (the pressure), the outcomes and needs are encapsulated as the welfare components (the state) and the formal and informal systems are the interventions or response.

Each of the three boxes in Figure 9.2 components, interventions and factors is now discussed in turn. In particular, the expansion of welfare components (in Figure 9.3) leads on to providing a framework for welfare indicators, to be discussed in Section 9.3.

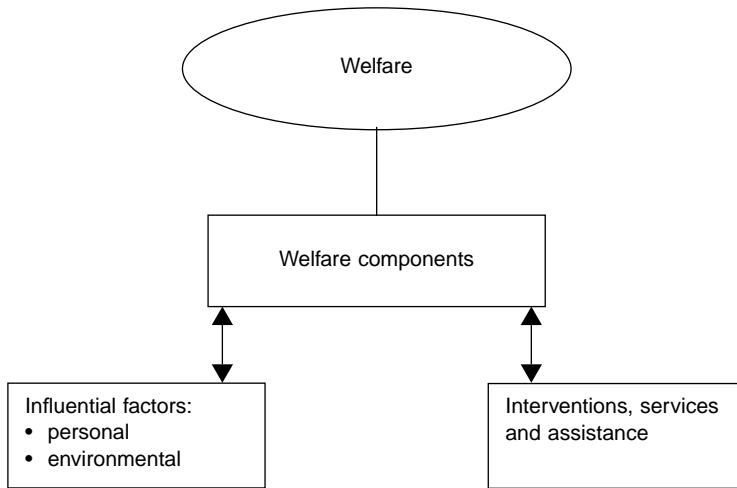


Figure 9.2: Conceptual framework for welfare information

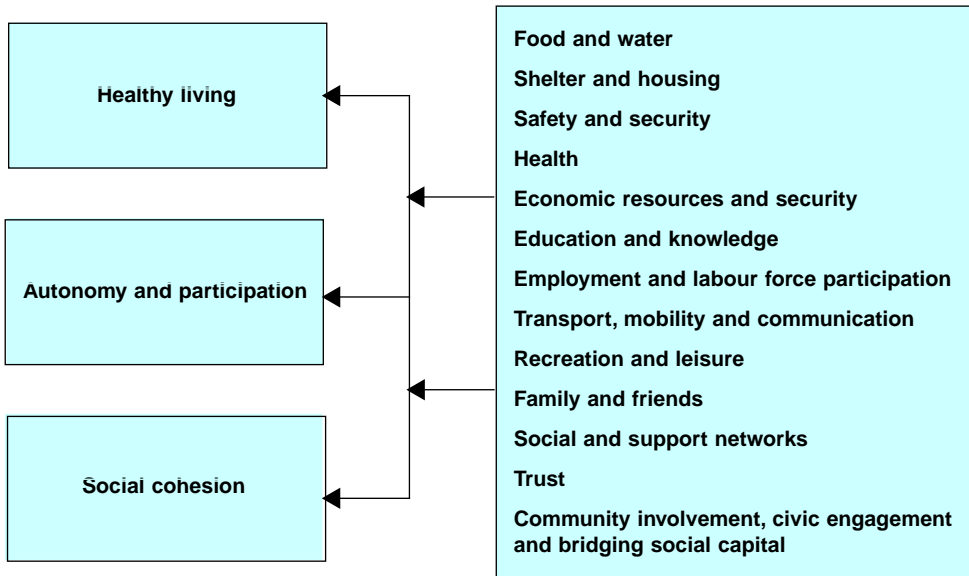


Figure 9.3: Components and related sub-components of welfare

Welfare components

The welfare components represented in Figure 9.2 are the embodiments of the welfare concept and reflect what is considered purposeful and possible to attempt to measure (see also Box 9.1). Welfare components are specified on the basis that they are generally accepted to be crucial to human welfare and also hold out the prospect of being the subject of feasible data definition and collection. Indicators of welfare can be constructed in relation to these components and may be used for the purposes of codifying or measuring welfare status, the need for services or assistance and/or outcomes from interventions. For instance, the need for assistance with self-care is sometimes used as a status measure (for instance, of the severity of disability), sometimes as an indicator of need for assistance or formal services, and sometimes as an outcome measure (for instance, when need diminishes with the provision of suitable equipment).

Figure 9.3 suggests three broad components of welfare: healthy living, autonomy and participation, and social cohesion. These components (and the related sub-components listed beside them) draw on and are broadly consistent with four major sources:

- The four OECD component headings are autonomy, equity, healthy living and social cohesion. Social cohesion is considered a valuable part of the OECD framework, particularly in light of current national social policies (on building stronger families and communities). Equity can be included via measures of the *distribution* of the status measures (see Section 9.3).
- Literature on human needs and the essentials for human wellbeing has also informed Figure 9.3. A recent framework relevant to current health and welfare policy thinking in Australia is that of Doyal and Gough (1991). Health and autonomy are argued to be the key prerequisites to participation, the highest level human goal. This framework thus links the OECD ideas to current policy goals in Australia (in particular, social and economic participation). The sub-components in Figure 9.3 include Doyal and Gough's intermediate needs which, they argue, are universal (i.e. of cross-cultural importance). These sub-components in turn draw on much preceding literature on human needs. For instance, Maslow (1943, 1968) suggested a hierarchy of needs, from basic physiological needs through to the highest (self-actualisation). Allardt (e.g. 1975) classified basic needs into three categories: having (needs related to material resources); loving (needs related to love, companionship and solidarity); and being (needs denoting self-actualisation and the obverse of alienation). The related components, used in Scandinavian surveys, have been also used as a checklist for Figure 9.3. Allardt firmly relates the notion of welfare to the notion of needs and distinguishes it from happiness and the subjective components of quality of life.
- The framework of the new WHO Classification of Functioning, Disability and Health (ICF) has a well-developed conceptualisation of human functioning, including a list of life domains for the description of human activities and participation: learning and applying knowledge; general tasks and demands; communication; mobility; self-care; domestic life; interpersonal interactions and relationships; major life areas (e.g. education, work and employment, and economic life); and community, social and civic life (WHO 2001; see also Box 7.1). This framework is useful in specifying the

sub-components of participation on the right of Figure 9.3 and the environmental factors.

- The framework suggested for use in Europe (Berger-Schmitt & Noll 2000; see also Section 9.1) has also been drawn on, as a check for completeness of the sub-components and, later, measurement methods. It is valuable for this purpose because of its review of relevant literature, particularly in the area of social cohesion.

In one sense, the component headings in Figure 9.3 are of secondary importance, as it is the sub-components (on the right in the diagram) that will shape indicator construction. Many of the sources mentioned in this chapter start from different standpoints and develop different component headings, but finish with a very similar set of sub-components to those listed in Figure 9.3.⁴ The specification of components is sometimes based on some form of social theory, on widely held social values, or on the particular purpose of the framework. While it is possible to attempt to relate specific components to specific sub-components, this generally proves to be a distraction in a broad conceptualisation such as this one. The components can be regarded as an explanatory prism, through which the diffused beams of high-level concepts are focused onto the page to become a set of measurable indicators. The overall purpose in defining such components is to structure and contextualise otherwise long lists of indicators. The resulting lists often bear a strong resemblance to each other, despite apparent differences in the intervening prism. The value of the prism (the welfare components) often lies in the provision of organisation and structure, rather than in providing or justifying any particular explanatory social theory. The purpose of the prism is, suitably, transparency of purpose, context and values.

The framework in Figure 9.3 is a diagram of the interconnected, valued components of human welfare and needs that are to be measured descriptively. The framework does not rest on theoretical models of cause and effect, as will be further illustrated in the following discussion of social cohesion. The components are not theoretical outcomes of all other processes in Figure 9.2 and do not reflect a large causal hypothesis of social or welfare system functioning. Rather, they are part of the landscape recognised as relevant to human wellbeing and the measurement of needs. While particular studies may seek to explore statistical relations among various elements (and name some as cause and some as effect), Figure 9.3 is simply illustrating the nature and scope of a field of measurement.

Social cohesion

Healthy living and participation are relatively familiar concepts, with fairly well-developed descriptions of individual welfare (AIHW 2000b; WHO 2001).

4 This is true of other relevant sources, for example, Salvaris et al. (2000) in their work on developing social 'benchmarks and indicators' for Victoria. These authors also advocate the involvement of the community in establishing such benchmarks.

However, the third component in Figure 9.3 social cohesion is currently the subject of discussion and conceptual development both nationally and internationally. For instance, a new detailed proposal for indicators for social inclusion in the European Union is now being finalised for publication in December 2001 — January 2002 (Atkinson et al. forthcoming).

Some brief discussion here may provide useful background to the selection of the sub-components in Figure 9.3 and (subsequently) the suggestion of indicators in Table 9.1. A thoughtful review of approaches to the concept of social cohesion identified two main themes or societal goal dimensions (Berger-Schmitt 2000:4):

1. The first dimension concerns the reduction of disparities, inequalities and social exclusion.
2. The second dimension concerns the strengthening of social relations, interactions and ties. This dimension embraces all aspects which are generally also considered as the social capital of society.

Both dimensions are important. Strong social capital on its own may result in the exclusion of or discrimination against people not belonging to a particular community or group. Narayan (1999) accordingly distinguishes bonding social capital (within a group) and bridging social capital (strong cross-cutting ties among groups), both of which are important. Such elements of social cohesion are clearly crucial in a multicultural society such as Australia. Moreover, says Narayan, it is bridging social capital that enables social and economic mobility and prevents the entrenchment of privilege. Social cohesion, then, is a critical element in social stability and economic welfare over any extended period (Narayan 1999:1).

The two dimensions suggested have measurement implications, with both social capital and social exclusion being potentially measured across a broad range of life domains (Berger-Schmitt & Noll 2000). In this chapter, measurement is discussed in Section 9.3, where social exclusion is indeed measured across all domains (down the fourth column of Table 9.1), but the positive aspects of social capital are included as topics, separately, in rows of Table 9.1. Topics such as social and support networks, family and friends, trust, community involvement and civic engagement, volunteering and philanthropy reflect the common ideas in the social capital literature (for instance, Putnam 2000).

While some Australian literature has begun to make suggestions about measurable concepts for social capital (e.g. Cox 1998), and the development of the ABS General Social Survey (ABS 2001c) should provide relevant data, much remains to be done to develop national indicators. The Australian Institute of Family Studies is undertaking a major research project on Families, social capital and citizenship (e.g. Stone 2001; Stone & Hughes 2000). Winter (2000:29) proposes a working definition of social capital as: social relations of mutual benefit characterised by norms of trust and reciprocity .

Different notions regarding what constitutes a source, and what an outcome, of social cohesion can compound issues of definition and measurement. Trust, for instance, is seen by some as a constituent of shared values and norms constituting social cohesion (OECD 2001), while for others it is simply an outcome of these values and norms (Woolcock 2001). The separation of cause and effect is, however, primarily an issue when explanation is being sought and a causal model being tested. For instance,

Zubrick et al. (2000) regard family functioning (an element of social cohesion) as an indicator of, and on a causal pathway to, child health and welfare. Such authors are setting out to test the relationships between elements defined as outcomes and elements defined as potential causes, and are searching for explanatory factors. This is useful in a particular context; but the context will then shape the form of the hypothesis, which will in turn dictate what is put on which side of the cause and effect diagram. In other models, the same variables can be examined from other perspectives and causes and effects sometimes inverted. For example; family cohesion can be considered an indicator of child health, as described above, but childhood disability is also recognised as a source of family stress.

Figure 9.3 recognises social cohesion as a good in its own right, valued in national and state goal statements about stronger communities and families. It is therefore given status as a desired outcome (welfare component) rather than being relegated to being a factor in, or cause of, other desirable outcomes.

Interventions, services and assistance—and performance indicators

The second main box in Figure 9.2 relates to the whole system of formal services, financial assistance and informal (unpaid) assistance that contributes to human welfare. There is increasing interest across governments in measuring the performance of health and welfare service programs, against goals set by governments. Other chapters in this biennial report describe many of these systems and reflect the broad array of information available about welfare-related systems in Australia. Services and assistance could include, for instance, early intervention in childhood disability, rental assistance to people with low incomes, or informal assistance to an older person in their own home.

While performance indicators generally concentrate on this area of Figure 9.2, they relate to the other two boxes, as follows. Interventions are designed with the purpose of affecting wellbeing that is, indicators of needs and outcomes should relate to the welfare components. The existence of major service programs represents a formal social recognition of the importance of particular welfare components, confirming but not defining the significance of these components. Indeed, the measurement of these broader welfare components can be used to identify gaps in welfare services provision. Equally, interventions are usually designed with an awareness of factors, or to influence factors (for instance, public health campaigns to reduce risk factors such as smoking).

The trend towards performance measurement

The trend towards performance measurement for community services can be understood in the context of changes in the way governments approach the administration and management of service programs. Over the past two decades, factors such as population growth, advances in knowledge and technology, and changing expectations concerning appropriate service levels have placed pressure on governments to find more effective and efficient ways to provide services. In response, governments have adopted a range of management practices, including the use of

strategic plans that identify goals and objectives, the outsourcing of non-core functions, increased focus on client needs, and greater accountability for outcomes (AIHW 2000a:10).

In Australia, as in other countries, the introduction of competition and the creation of quasi-markets in the delivery of community services have been seen as a way of increasing efficiency and improving consumer choice (Hoyes et al. 1992). Output- and outcome-based funding is being introduced in many Australian jurisdictions, often within formal frameworks laid down by treasuries and coordinating departments. Under output-based funding, government funding of service provider agencies is linked, at least in part, to the number of units of service output purchased. Under outcome-based funding, funding is provided on the basis of outcomes achieved (AIHW 2000a). Under these funding models, agencies compete for funding on the basis of cost-efficiency and cost-effectiveness of their service provision.

What are performance indicators?

Performance has been defined as how well a service meets its objectives, recognising the influence of external factors (SCRCSSP 2001:2).

In that the ultimate goal of community services is to improve levels of wellbeing, a coherent relationship needs to exist between service performance indicators and indicators of wellbeing. Therefore, an indicator of wellbeing may also be an appropriate indicator of service performance. Service performance indicators may be developed for use at different levels of the service system, as follows.

Service system level

International organisations such as the OECD and WHO play a role in monitoring and comparing the performance of the health service systems of nations. The OECD has developed a set of social indicators, which is envisaged as a valuable tool to assist in any comparison of the results of social programmes across countries (OECD 1999:2). (See also Section 9.2.)

Service program level

In most Australian jurisdictions, governments require regular reporting of performance indicators at service program level. For example, in Victoria, performance measures and costs for each human services output group are published in the annual budget papers (Victorian Department of Treasury and Finance 2000). Nationally, performance indicators of efficiency and effectiveness are reported annually in the *Report on Government Services* for a range of human service areas covering education and training, health, justice, emergency services, community services and housing (SCRCSSP 2001). These are high-level indicators, developed to broadly reflect the performance of service programs at jurisdiction level and to allow comparison among all Australian jurisdictions.

Service provider level

Agencies that receive government funding to provide services are often required to report regularly to funding departments against performance indicators, which are specified in funding contracts. Indicators at the service provider level are often different

in nature from those at service program level, in that they tend to be more detailed and may be a mix of quantitative and qualitative indicators. Indicators at the service provider level may feed up into program level indicators.

Purposes of performance indicators

Three reasons put forward for measuring performance are: to improve accountability; to encourage ongoing performance improvements; and to encourage efficient service provision. Comparative performance reporting can also enable jurisdictions to learn from the experience of other jurisdictions, particularly in terms of new policy approaches (SCRCSSP 2001:7—9).

Performance indicators can be used by government funding departments to assist in making decisions about the allocation of resources between service types (e.g. where one type is more effective in achieving desired outcomes) or between providers (e.g. where one operates more efficiently than another does).

The New South Wales Council of Social Service (1990) identified a number of purposes for which non-profit organisations could use performance indicators. These included: evaluating performance; gaining feedback from consumers; reassessing investment policies; demonstrating value for money for funds provided; improving policies, programs and procedures; assisting in budget preparation and justification; and motivating employees.

A range of potential problems with the development and use of performance indicators has been identified in the literature (AIHW 2000a):

- Choice of indicators may be overly influenced by what data are readily available, or what is easily measured, rather than by the information that is needed (Mussared 1999).
- Measurement of selected aspects of program performance may divert attention from important but unmeasured activities; in the context of human services this can mean that managers may focus on short-term, quantifiable results and ignore longer-term, qualitative outcomes.
- Creaming describes the practice of service providers giving preference to clients who are likely to achieve better outcomes and/or consume fewer resources, thus maximising the quantity of service outputs produced for a given cost. Misuse or misinterpretation of performance information may impact negatively on service provider organisations, who may become less willing to provide performance information, thus potentially leading to lower data quality.

Also, in developing performance indicators, it is important to be aware that much of the theory comes from the private, for-profit sector. Principles underlying their use are not necessarily directly transferable to the public sector (La Trobe University & Flinders University 1999).

Key performance concepts

Box 9.2 presents definitions of key performance-related terms. However, the usage and understanding of performance-related terminology vary. Differences in the use of terms and concepts can reflect the level at which frameworks and indicators are intended to

operate high-level frameworks tend to be built around high-level concepts that can be difficult to operationalise, while lower-level frameworks are often built around more concrete and measurable entities.

Box 9.2: Definitions used in the *Report on Government Services*

<i>Effectiveness</i>	<i>A reflection of how well the outputs of a service achieve the stated objectives of that service.</i>
<i>Efficiency</i>	<i>A reflection of how well organisations use their resources to produce services. Unit cost is an indicator of efficiency used throughout the Report.</i>
<i>Inputs</i>	<i>The resources (including land, labour and capital) used by a service area in providing the service.</i>
<i>Process</i>	<i>The way in which a service is produced or delivered.</i>
<i>Output</i>	<i>The service provided by a service area—for example, a treated case is an output of a public acute care hospital.</i>
<i>Outcome</i>	<i>The impact of the service on the status of individuals or a group. A service provider can influence an outcome but external factors can also apply.</i>

Source: SCRCSSP 2001:xv.

Objectives might be broad program objectives or more specific objectives for a service type or individual provider. High-level objectives often relate to outcomes, but lower-level output objectives are also often articulated (e.g. the number of service outputs expected to be delivered). Resources include both financial and non-financial resources (often called inputs) that, through service processes, are used to produce outputs (goods or services).

Service outputs contribute to outcomes, although, in assessing the achievement of outcomes, it is widely acknowledged that it is often difficult to isolate the impact of a service from the impact of other factors. Outcomes can be defined and measured at consumer and/or community level. Key performance concepts are efficiency (rate of translation of resources into outputs) and effectiveness (rate of translation of outputs into outcomes). While the term efficiency strictly means the translation of inputs (non-financial resources) into outputs, it is often used more loosely to mean cost per output (cost-efficiency).

Quality is also an important performance concept. Measures of service quality generally relate either to the quality of service outputs or to the quality of service processes. Information on quality is particularly important when there is a strong focus on increasing efficiency, as efficiency gains may be made by compromising service quality (SCRCSSP 2001).

Performance indicator activities in the welfare services field in Australia

Report on Government Services

The Review of Commonwealth/State Service Provision was established by heads of government in 1993 to develop objective and consistent data on the performance of services that are central to the wellbeing of Australians. Government agencies and statistical bodies such as the AIHW and the ABS have worked together to develop performance indicators for a range of national programs and to assemble relevant data. These performance data are published annually in the *Report on Government Services* (SCRCSSP 2001).

A general performance indicator framework is used throughout the report (SCRCSSP 2001:10). The framework identifies effectiveness and efficiency as the two dimensions of performance against which indicators are presented. Effectiveness indicators cover outcomes, access and equity, appropriateness and quality. Some service areas use different or additional components of effectiveness (e.g. affordability, targeting). Efficiency is indicated by the level of government inputs per unit of output, reflecting the report's focus on achieving better value for the broader community from the use of government resources. However, the point is made that such an indicator should not be interpreted as reflecting a service's full cost to society.

Comparability is one of the main guiding principles of the review. Reporting comparable data across jurisdictions has a higher priority than using a better indicator that does not allow comparison (SCRCSSP 2001:18).

Program-specific developments

In many community service areas in Australia, performance indicators are currently in use or under development. Often the development of indicators is supported by extensive conceptual developmental work, with the identification of explicit links between performance indicators and program goals, and with statements of desired outcomes for each indicator. Some examples are outlined in Box 9.3.

Performance indicator development has been an added stimulus to the implementation and development of nationally consistent data. Work on common data definitions and classifications, and national data dictionaries for the community services, housing and health sectors, as well as sub-sectors such as disability, public housing and child protection has been sharpened in focus because of this relationship.

Performance indicators are being vigorously developed in a number of fields in Australia. This chapter does not attempt to further synthesise this work. More detail and some available data are presented in SCRCSSP (2001) and in Chapters 3, 5, 6, 7 and 8 of this report.

Box 9.3: Examples of program-specific developments in performance indicators

Housing assistance

The 1999–2003 Commonwealth–State Housing Agreement (CSHA) is a multilateral agreement between the Commonwealth, States and Territories, and is accompanied by bilateral agreements between the Commonwealth and each State and Territory. The stated aim of the CSHA is ‘to provide access to appropriate, affordable and secure housing assistance for those who most need it, for the duration of their need’.

Under the 1999–2003 CSHA, a new national performance indicator framework has been developed. The framework has attempted to overcome a number of problems that had been identified with the 1996 CSHA public rental housing indicators, including a lack of clear links between performance indicators and strategic objectives. The new framework is adapted for use with the Report on Government Services framework for housing services.

Seven effectiveness and four efficiency indicators are specified. Effectiveness indicators are divided into three groups: appropriateness, access and quality. Appropriateness is measured using indicators of affordability, satisfaction with amenity/location of dwelling and match of dwelling to household size. The three indicators representing access are intended to measure targeting to people on very low incomes, targeting to people with special needs, and allocation processes that ensure priority access for those in greatest need. Quality is indicated by customer satisfaction measures. Currently there is no benchmarking against these indicators, although this is planned for the future.

Disability services

The 1998 Commonwealth/State Disability Agreement (CSDA) states that ‘the Commonwealth and the States strive to enhance the quality of life experienced by people with a disability through assisting them to live as valued and participating members of the community’. The CSDA also emphasises that parties have continuing responsibilities for ‘transparency and accountability to Parliaments, funders and citizens concerning the equitable, efficient and effective provision of specialist disability services’. It states that governments with responsibilities for administering services will ‘report against agreed nationally consistent performance indicators of efficiency and effectiveness’.

In 1999 the AIHW undertook a project for the National Disability Administrators aimed at identifying opportunities for integrating practical and theoretical practices to performance indicators, to contribute to improved data collection and service planning, delivery, funding, monitoring and management in the disability services field. In the course of the project, three frameworks were developed and used to identify three priority areas for indicator development: outcomes, outputs and cost. These areas were identified as priorities because they were policy relevant, administratively meaningful and feasible, currently information-poor and in need of improvement on a national basis. This work has now fed into a major project to redevelop the Commonwealth/State Disability Agreement Minimum Data Set (CSDA MDS)—Australia’s national disability services data collection. (See also Chapter 7, in particular Figures 7.6 and 7.7.)

(continued)

Box 9.3 (continued): Examples of program-specific developments in performance indicators

Child protection services

Child protection services are provided to protect children and young people who are at risk of harm within their families, or whose families do not have the capacity to protect them. The only child protection performance indicators currently reported at the national level are those published in the Report on Government Services (SCRCSSP 2001). Further work on these performance indicators is progressing currently and national guidelines for interpretation of the indicators are being developed.

Two outcome indicators and one targeting indicator are reported. An example is the outcome indicator 'substantiation rate after decision not to substantiate', where 'substantiation' is the term used when there is reasonable cause to believe that a child has been, is being or is likely to be abused or neglected or otherwise harmed (AIHW 2001c). This indicator measures the proportion of children who were the subject of an investigation which did not lead to a substantiation, but who were subsequently the subject of a substantiation within three and/or twelve months. Nationally comparable data are not currently available for all three indicators, but data are comparable within each jurisdiction over time.

Aged care services

During 1999–2000, the AIHW undertook a project for the Aged Care Assessment Program (ACAP) officials to identify information needed to support performance measurement. The overall objective of ACAP is to 'comprehensively assess the needs of frail older people and facilitate access to available care services appropriate to their care needs'.

During the project, nine lower-level objectives for the program were identified and used as a basis for developing performance indicators. These objectives were arranged into four broad 'outcome' groupings: equity, effectiveness, quality and efficiency. For some of the nine objectives, several high-level national performance indicators were developed for reporting on ACAP as a whole. For each indicator, the desired outcome is stated (e.g. 'maintain or increase % "at risk" clients recommended a Community Aged Care Package'). However, it is recognised that the achievement of desired outcomes might depend on factors outside the control of assessment teams.

Influential factors

Figure 9.2 recognises the existence of important factors that may influence welfare and the welfare system. These factors will be discussed only briefly in this chapter.

Influential factors encapsulate features of the physical and social environment, or characteristics of individual people, that are considered to have important and potentially explanatory relationships to both the other boxes. The factors box recognises that there are important factors that are generally considered to be separate from, but which affect, the welfare components and/or the welfare system. Personal factors may include age and sex, or genetic factors; environmental factors may include air, water and the quality of the built environment, as well as components

reflecting the national or local economy or aspects of the social or legal systems. These factors are often included in measurement frameworks when they are considered critical to welfare and health (where they are often referred to as determinants or even causes), or when their influence and explanatory power is such that they indicate useful social policies (e.g. the reduction of smoking in promoting health). In some cases, this explanatory power is such that these factors virtually become health and welfare indicators in their own right; in general, however, it appears more useful to preserve the distinction.

It is not suggested that the dividing line between factors and the other two boxes is immutable, for all purposes. First, the relationship between welfare components and factors depends on the focus of interest in any analysis. Once a focus is chosen (or variable of analysis, in the case of multivariate analysis), then other related variables are candidates for causes or factors generally (or covariates, in the case of multivariate analysis). Second, the dividing line between interventions and factors depends on the scope of services under scrutiny in any analysis. As the scope of the service box broadens, the more services shift out of the factors box. For instance, the education system is listed above as a factor or perhaps a welfare-related service; it is not a welfare service, even though knowledge and education are taken as indicators of human welfare in Figure 9.3.

One of the potential frameworks to help specify such influential factors systematically is the new International Classification of Functioning, Disability and Health (the ICF WHO 2001). This classification recognises the importance of what it calls contextual factors, comprising both personal and environmental factors. Personal factors include demographic characteristics such as age, sex, and country of birth, and also more behavioural qualities such as lifestyle, habits, coping styles, and past and current experience. Environmental factors in the ICF comprise:

- products and technology (ranging over food and drugs, products for use in daily living, education, communication, mobility, recreation, as well as products for design, building and construction);
- natural environment and human-made changes to the environment (including physical geography, population factors including population density, flora and fauna, climate, light, sound and air quality);
- support and relationships (family, friends and acquaintances, paid care providers, and so on);
- attitudes (individual and societal); and
- services, systems and policies (ranging over architecture, open-space planning, housing, communication, transport, law, economics, social security, health, education, labour and employment, politics).

These influential factors reflect the cultural and political climate in which policies are derived, for instance the social philosophy of the community that decides to take a particular stance on unemployment, youth suicide or homelessness. In turn, the

interventions feed back into the environment, thereby reshaping it. For instance, public education campaigns may lower community tolerance for drink driving, and building regulations may affect the accessibility of the human-made environment.

9.3 Developing indicators of welfare

This section illustrates the ideas of the preceding section in operation, in shaping working tables of welfare indicator topics and indicators. The previous section proposed a broad framework for welfare information (Figure 9.2) and discussed its three main areas: components of welfare, factors influencing welfare, and the system of interventions (services and financial and other assistance) designed to promote human welfare or wellbeing. Components of welfare were presented in Figure 9.3, to define the subject areas on which the indicators of welfare could focus: healthy living, autonomy and participation, and social cohesion.

This section first discusses measurement, suggesting that indicators of welfare should include three broad types of measures:

- measures of average or level;
- measures of distribution or inequality; and
- measures of deprivation, disadvantage or social exclusion.

Combining these measurement proposals with the components of Figure 9.3 synthesises the key ideas from the national and international literature, to propose the content and the form of welfare indicators.⁵ This section takes these ideas and illustrates what a working table of Australian indicators of welfare might look like (Table 9.1).

Constructing measures of the welfare components

The components of Figure 9.3 provide the basis for detailed indicator topics, by defining the broad *subject areas* on which the indicators will focus. Indicator topics are suggested under each sub-component, based on a brief review of the field, outlined in the following text. In general, indicator topics have been framed in a positive way to clarify their relationship to the idea of welfare. While welfare indicators may be negatively constructed (e.g. crime), they are, where possible, constructed within a broader, positive, welfare-related concept.

It is essential also to consider the *form* the indicators might take, as well as some issues relating to measurement.

5 As previously stated, indicators for 'factors' and 'interventions' (e.g. service performance) are not included in this chapter, although their importance is recognised in Figure 9.3 and they are discussed in Section 9.2.

Inequality and social cohesion: measures of distribution

As with most statistical measures, not only is the level or average of interest but also the spread, or distribution, of the entities being estimated for instance, the distribution across:

- the population; for instance, if income is included as a measure of welfare, we may wish to calculate measures of spread across population deciles or population groups, or more complex indicators of inequality such as Gini coefficients;
- other components of welfare; for instance, the distribution of income across different education groups or the distribution of health across income groups;
- the personal factors in the framework; for instance, the distribution of life expectancy between males and females, or between Indigenous and non-Indigenous Australians, or the distribution of employment rates across different age groups;
- the environmental factors in the framework; for instance, the distribution of employment across geographic regions.⁶

Thus, four possible types of inequality may be of interest for any component or sub-component of welfare. This type of analysis may be driven by an interest in equity as a social goal (as in the OECD framework described previously),⁷ or by a more general search for explanation (for instance, in investigating the relationship between education and subsequent socioeconomic status). A connection between income inequality and average life expectancy of the population has been found, and between the scale of health inequalities and the scale of income differences (Wilkinson 1996:108). This illustrates the importance of being able to disaggregate data into groups of interest (see Box 9.4) and of being able to monitor trends in various components of welfare, simultaneously, over similar time periods.

An interest in the distribution of welfare components across various community groups is also relevant to the view of social cohesion that suggests that social capital can be measured across a range of life domains (see discussion of social cohesion in Section 9.2). This view suggests that one indication of bridging social capital is the degree to which, for instance, participation in employment is spread across various community groups, for example people of differing cultural backgrounds. Table 9.1 is not rigid in its approach to defining the groups of interest, between which bridging is being indicated, but allows some flexibility of analysis according to which groups are considered of most concern for which welfare components. Thus, the middle column in Table 9.1 provides an indication of social capital in various domains, as well as the unequal spread of valued welfare outcomes.

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- 6 A recent Australian study focused entirely on the geographic distribution of indicators relating to housing, labour force and income, to support regional needs analysis (Bray 2001).
- 7 For those who start with an overriding interest in equality, the question is 'equality of what' (Sen 1992:1). The approach here reflects that of Berger-Schmitt & Noll (2000) and effectively states that the uneven distribution of any component of welfare may be of interest.

Deprivation and social exclusion

As well as the average level and distribution of welfare components, there is often an interest in finding out more about groups at the extremes of the distribution, in particular those most disadvantaged. The UN Development Programme takes this approach and recommends the examination of average measures, measures of distribution and measures of deprivation (UNDP 2000:108). For instance, in examining the sub-component economic resources in Figure 9.3, we could be interested in average household incomes, in the distribution of these incomes (perhaps via a comparison of average income in different income deciles), and also in estimating the numbers of households of a particular composition living below a defined income (a poverty line). Sen (1981:157) makes the point thus: the problem of poverty assessment is quite distinct from the issue of assessment of inequality and requires paying particular attention to the category of the poor .

A related conceptualisation is that of social exclusion , reflecting the absence or impairment of social cohesion. Social exclusion has been described as an impact on individuals caused by failure in the way in which institutions regulate and thereby constrain access to goods, services, activities and resources which are generally associated with citizenship rights (Berger-Schmitt 2000:5). The literature on social exclusion has, in turn, evolved from a recognition of the multidimensional nature of poverty and disadvantage.

Table 9.1 reflects these ideas, in the fourth column. Some suggestions are made to illustrate the ideas, but the column is neither complete nor definitive.

Measurement and purpose

Measurement, like indicator construction, varies with purpose and context. Whole volumes have been written on statistical measurement. While no overview can be sensibly attempted, several points are worth making in the present context.

Checklists of the desirable qualities of indicators, and caveats on their use, are common adjuncts to sets of statistical indicators. Box 9.4 presents a useful example. Validity, relevance and fitness for use are critical. Indicators must provide information relevant to the key concept or key policy question being asked.

A further consideration, not mentioned in Box 9.4, is the feasibility and cost of data collection. As with all data collections, the costs of compiling indicators must be justifiable in terms of the benefits to be gained. Related to this criterion is the desirability of identifying a parsimonious set of indicators which maximises the amount, quality and relevance of information, without relying on an overwhelming number of indicators. This criterion can lead back to consideration of summary measures, which should ideally be located at the apex of a hierarchy of related measures and data, forming a coherent and integrated statistical framework (Wolfson 1998). Data lower in the hierarchy should be capable of being analysed so as to explain shifts and trends in the higher-level indicators, and the whole structure should link back to factors amenable to policy .

Box 9.4: ‘Handle with care’—UNDP advice on the use of statistical indicators

Statistics come with strings attached. They provide great power for clarity, but also for distortion. When based on careful research and method, indicators help establish strong evidence, open dialogue and increase accountability. But they need to be:

<i>Policy relevant</i>	<i>Giving messages on issues that can be influenced, directly or indirectly, by policy action.</i>
<i>Reliable</i>	<i>Enabling different people to use them and get consistent results.</i>
<i>Valid</i>	<i>Based on identifiable criteria that measure what they are intended to measure.</i>
<i>Consistently measurable over time</i>	<i>Necessary if the indicator is to show whether progress is being made and targets are being achieved.</i>
<i>Possible to disaggregate</i>	<i>For focusing on social groups, minorities and individuals.</i>
<i>Designed to separate the monitor and the monitored where possible</i>	<i>Minimising the conflicts of interest that arise when an actor monitors its own performance.</i>

Getting the facts straight is serious when rights are at risk. The powerful impact of statistics creates four caveats in their use:

<i>Overuse</i>	<i>Statistics alone cannot capture the full picture of rights and should not be the only focus of assessment. All statistical analysis needs to be embedded in an interpretation on broader political, social and contextual analysis.</i>
<i>Underuse</i>	<i>Data are rarely voluntarily collected on issues that are incriminating, embarrassing or simply ignored... Even when data are collected, they may not be made public for many years – and then there may be political pressure on the media not to publicise the findings.</i>
<i>Misuse</i>	<i>Data collection is often biased towards institutions and formalised reporting, towards events that occur, not events prevented or suppressed. But lack of data does not always mean fewer occurrences. Structural repression is invisible when fear prevents people from protesting, registering complaints or speaking out.</i>
<i>Political abuse</i>	<i>Indicators can be manipulated for political purposes to discredit certain countries or actors. And using them as criteria for trade or aid relationships would create new incentives to manipulate reporting.</i>

Source: UNDP 2000, Box 5.1.

Criteria for the selection of performance indicators for the health system in Australia (AIHW 2001a) state that they should:

- be worth measuring;
- be measurable for diverse populations;
- be understood by people who need to act;
- galvanise action;
- be relevant to policy and practice;
- reflect the results of actions if measured over time;
- be feasible to collect and report; and
- comply with national processes for data definitions.

Indicators may be reported in absolute terms, measured against defined standards. The approach proposed for this chapter (above, and in Table 9.1), implicitly lends itself to a more relative approach with the statistics compared against each other, over time or among different population groups.

An indicator may be based on a variety of measurement methods: self-reported conditions gathered in social surveys, professional assessments using a variety of methods, and a wide range of means of recording information in administrative systems. Understanding the method of measurement and collection is usually crucial to accurate interpretation of the resulting statistics.

Indicators may be simple or composite. Simple or disaggregated indicators relate to one sub-component of Figure 9.3 and are generally based on one method of collection. Composite (or summary) indicators attempt to capture higher-level concepts in a single figure, often by weighting and combining several indicators (Doyal & Gough 1991:166—7). The dangers of composite indicators include the inadvisability of trading off one basic need against another and possible challenges to the validity of the weights used. Composite indicators such as quality of life are often informed by measures from different perspectives (by combining so-called objective and subjective data) and bring in yet another contentious measurement issue, namely the perspective of the measurer. Travers and Richardson (1993:49) identify three contentious points in the construction of composite indices: the selection of which factors to take into account; how to aggregate these; and the assumed relation between the *level* of each factor and the contribution made by an *increment* in it. This chapter tends to focus on disaggregated indicators, although the distinction between these and composite indicators is not always sharp.

While the basic individual needs for physical health and autonomy are universal, many goods and services required to satisfy those needs are culturally variable (Doyal & Gough 1991:155). The choice of a small number of indicators from a wide range of possibilities may be influenced by local practice, local values and policies, and by the availability or otherwise of relevant data.

A working table for the development of welfare indicators

Indicator tables can now be shaped, using these ideas about measurement combined with the components of welfare suggested in Figure 9.3. The rows of Table 9.1 are defined by the sub-components of Figure 9.3 (and are further split into more precise topic areas). The columns are defined by the ideas about measurement: average level, distribution and deprivation. The final column indicates possible relevant data sources, thereby also highlighting areas where the necessary data may not be available.

Table 9.1 was assembled after the following process:

- Major international indicator sets (chiefly those relating to literature outlined in the chapter, with an emphasis in the search on indicators of state) were reviewed and indicators, or indicator topics, mapped into the table. This part of the process was designed not only to take advantage of the international work but also to promote international comparability.
- Major Australian reports relating to the areas of the sub-components were sought, particularly where goal statements were made or indicators sets developed.
- Some explanatory literature has been referred to, to help define and refine suitable indicators relating to key ideas in the fields of the components and sub-components.
- Statistical syntheses (in particular, the ABS *Australian Social Trends* series and the AIHW biennial health and welfare reports) were searched, to fill what appeared to be gaps in the international sets and, particularly, to balance an apparent tendency for the international indicators to be focused on negative aspects of the state of wellbeing.
- Relevant Australian data sources were then identified for the suggested indicators. Major national data sets, including ABS social data collections, were reviewed and included in the table under the relevant component and measure. Emphasis has been placed on sources that would provide national time-series data. This process was designed to promote national comparability, quality and availability (including availability over time). The process has identified not only significant data sources that could be used to shed light on the components and sub-components suggested, but also possible data gaps.
- The criteria for inclusion (Box 9.4 and surrounding text) were adhered to as far as possible.

Table 9.1 as a working table

The indicator topics in Table 9.1 are *not* a final recommended set. They illustrate how the content and form suggested in this chapter *might* translate to specific indicators. In some areas, there is considerable emerging literature that will influence ongoing development (for instance, on topics relating to social cohesion and social capital). Indicator definition and development can also be expected to be the subject of debate. Indeed, many indicators can be considered ambiguous or open to different interpretations; to some extent this is inevitable and reflects the need to understand the context of data collection. This is perhaps particularly true of data produced as an

administrative by-product; numbers of crimes reported to the police, for instance, are related to the numbers of police, community propensity to report crimes to the police, as well as the underlying crime rates and a range of other factors.

Most areas of the table are evolving and under development, reflecting the high level of interest in the field and the dedication of resources to work in the area by governments and academic institutions. Some of this work is briefly referred to in the following discussion of the indicator topics, and it is recognised that most areas of the table need also to evolve in line with this work.

Table 9.1 is thus a working table. It is based on the framework of Figure 9.3 and on the measurement proposals outlined earlier in this section. As with other recent frameworks (described in Section 9.1), the purpose is to shape and scope the field. The working table thus illustrates areas for ongoing and evolving work to select, define and measure the most appropriate indicators and topic areas for monitoring trends over time.

The sub-component areas of Table 9.1

Each heading in the first column of Table 9.1 corresponds to a sub-component in Figure 9.3. This sub-section provides a brief justification of the related indicator topics suggested in the second column of the table.

Food and water

The importance of basic nutrition is recognised in Australia with work in the public health sphere on an agenda for action in public health nutrition (SIGNAL 2000a). An integral part of this work is the recognition of the need to develop a better system for monitoring the food and nutrition situation: Data collections are not adequate to meet the needs of the Strategy and are not linked or always compatible (SIGNAL 2000a:81). The indicator topics suggested in Table 9.1 broadly reflect the thinking in this strategy and in other documents such as the National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan, 2000—2010 (SIGNAL 2000b) and previous related research (AIHW: Coles-Rutishauser & Lester 1995).

The topics for which indicators are suggested in Table 9.1 focus on areas of recognised importance, including the food supply (its adequacy, safety and accessibility to all sectors of the population), food intake (e.g. actual food intake and its nutritional value may be broadly indicated by expenditure on food groups) as well as the nutritional status of the population. These indicators will be refined in the light of developments in this important area of public health. This is an area where there is a need for disaggregated data; Sen (1981) notes that aggregate food availability does not reveal what significant sub-groups actually receive and that there are many factors at work, not all of which are related to food production processes.⁸

8 Sen (1981:162) attributes famines to 'failures of entitlement' and views them as 'economic disasters not just as food crises'.

Access to potable and palatable water is listed as one of the Nutrition Goals and Targets devised by the National Health and Medical Research Council, public health nutritionists and the food industry (AIHW: Lester 1994). Information on access to potable water is not currently available. This may be because in the densely populated areas of Australia accessibility has, to date, been assumed. In rural and remote areas, accessibility has been and remains an important public health issue.

Shelter and housing

Housing is widely recognised as a fundamental human need and a key component of quality of life. The availability of housing is a key element in the avoidance of poverty and disadvantage (see Chapter 3). Australian governments have identified three key areas for monitoring: affordability, appropriateness (for instance, the need for maintenance and the degree of overcrowding) and accessibility. These areas are reflected in the table.

On any population census night, not all of the Australian population will be located in housing. Trends in institutional living and their relationship to social policy in other areas of the biennial report are discussed in Chapter 4. The fact that people may be homeless or housed in institutions is, accordingly, reflected in Table 9.1.

Safety and security

The experience and feeling of physical and personal safety is generally indicated by a range of data on accidents and injury, crimes of various kinds and environmental risks. These largely negative indicators (or indicators of system failure) are included in Table 9.1 in the level or average column, although ideally more positive or neutral indicators would also be available.

Ideally, also, there would be national data on all significant accidents and injuries, whatever the cause. The most significant data sources are by-products of systems for compensating work and transport injuries. Statistics on causes of death and hospital in-patients give useful information in other areas.

It is generally considered that the best indicators of crimes actually occurring are those reported in victimisation surveys, as not all crimes are reported to the police and reporting rates may be influenced by a range of social and administrative factors. Nevertheless, police data are accepted as indicative of major crimes, especially murder and manslaughter, and provide the major and more regular time series.

Environmental safety is represented by the key area of air quality, where the four pollutants chosen have been selected by national authorities for monitoring on a routine basis.

Health

Health is a prerequisite to participation and many other aspects of human wellbeing. A very wide range of indicators of the health status of Australians is included in the Institute's biennial health reports; a selection of key indicators is included here. Life expectancy at birth, infant mortality rates and causes of death are accepted as key indicators in international and national comparative analyses (AIHW 2000b, 2001a; WHO 2000). Indicators of disability are also a key component of national health status

measures, but internationally comparable or even nationally stable data are still under development (see Chapters 6 and 7 for discussion of trends, the complexities of measurement and the relative stability in Australia of rates of severe core activity restriction). Some health sources use composite indicators to combine mortality and morbidity data, but separate information on disability in its own right is considered more useful for this table, and more in line with this chapter's concentration on disaggregated rather than composite indicators (see foregoing discussion on measurement).

Economic resources and security

Economic resources and security are recognised as important, and the area has generated a great deal of literature, but there is not national agreement on measurement. The definition and measurement of income vary with the components included, for instance cash income, benefits in cash or kind, the imputed value of housing and unpaid time of household members (Travers & Richardson 1993). The effects on income inequality of the income-tax and cash-transfer systems can be significant (e.g. ABS 2001d; Harding 1998). The notion of final or social income takes account of services as well as cash income and benefits (see also discussion of the social wage and the impact of health, education and social security policies in AIHW 1993:9). Household income is best understood in relation to household composition, and income-based measures are generally adjusted for family size and composition using equivalence scales. Income inequality is of interest in its own right, not only as an indicator of equity in an important and basic area but also because of its relationship to other measures of wellbeing, for instance life expectancy and health inequality (see Wilkinson 1996). There are indications of growing income inequality in Australia since the late 1980s, driven by a decline in the income share of the bottom 10% of Australians and an increase in the income share of the top 10% (Harding & Greenwell 2001).

Measures of deprivation reflect all the same complexities of measurement, as well as different emphases on relative or absolute concepts of poverty and living standards (see, for instance, Brownlee 1990). Sen (1981:37) points to the limitations of various single measures of poverty (based on headcounts or average income gap of those below a poverty line) the assessment of overall poverty has to take note of a variety of considerations capturing different features of absolute and relative deprivation. Fincher and Saunders (2001:6) discuss the complexity of understanding poverty, inequality and disadvantage and the full range of components and processes involved, although they also urge researchers not to allow the complexities disguise the overall themes their work reveals.

Ever since the Henderson poverty line was established and related numbers of people and families in poverty were estimated in the 1970s (Henderson et al. 1970; Commission of Inquiry into Poverty 1975), there has been debate about the definition of poverty in Australia and appropriate estimation methods. The ABS in 1998 published estimates derived from a line set at 50% of median equivalised income (MEI) for all income units, adjusted by OECD equivalence scales (ABS 1998).

Education and knowledge

Knowledge and education are vital inputs to and indicators of individual autonomy and collective capability (OECD 1999; UNDP 1990). Nationally, the relationship between early school leaving and reduced employment prospects is recognised (MCEETYA 1999). Ongoing education is valued in a time of structural change in the workplace and rapid technological development. Participation and attainment in various forms and levels of education is therefore often used as an indication of education outcomes and knowledge (e.g. OECD 1999).

In Australia, concern about possibly declining literacy and numeracy levels, and their relation to early school leaving and low employment prospects, has led to the implementation of the National Literacy and Numeracy Plan. The plan includes development of national benchmarks in literacy and numeracy for selected age groups Years 3, 5 and 7 and national reporting on achievement in numeracy, reading, writing and spelling. The aim is to monitor specific knowledge acquisition, not just participation in educational programs. Each jurisdiction retains its own literacy and numeracy monitoring programs, which are assessed against national benchmarks and reported annually. The 1999 Year 3 reading results have already been published and Years 3 and 5 literacy achievement results for 2000 are to be available in 2001.

Employment and labour force participation

Nationally accepted indicators in this area have been published over a period of years by the ABS in its regular series of labour force surveys. Key indicators relate to participation in the labour force and to employment and unemployment rates. The ABS also publishes useful associated data, for instance on underemployment (i.e. people who, while employed, would prefer to work longer hours or make more use of their training and skills). Information on job vacancies allows the problem of unemployment to be placed in perspective, by comparing the numbers of people looking for work with the numbers of jobs available.

Transport, mobility and communication

The ability to move around the community is considered an important aspect of human functioning (e.g. WHO 2001). Transport and communications technology are vital in facilitating community participation, particularly for people whose mobility is otherwise at risk (e.g. those with disabilities; see also Chapter 7). Two broad indicators of mobility are access to private motor vehicles and access to public transport (such as trains, buses and aeroplanes). Telecommunication (via telephone and Internet) is also a facilitator of communication and social capital in a geographically large country like Australia.

Recreation and leisure

Recreation and leisure activities can be major contributors to physical and mental health, as well as offering important opportunities for social interaction and participation. This contribution is recognised by the inclusion of these topics in many indicator sets. Suggested indicator areas relate to time use, vacations and household expenditure.

Family and friends

The importance of family is well accepted in Australia. Strengthening families is an explicit policy goal of the national government, and State and Territory Governments also provide a range of services towards this end (see, for example, Chapters 1 and 5; AIHW 2001d). However, the concept of family is fluid, and its definition complex and evolving in the context of current social trends (AIHW 1997:55—94; MacDonald 1998). Data on family formation and dissolution, as well as basic descriptions of living arrangements, can provide a historical picture of family definition and characteristics in Australia.

In the context of measuring social cohesion in the family realm, family functioning is considered of key relevance. Silburn et al. (1996:37) defined family functioning as achieving some degree of acceptance of each individual, reaching consensus on decisions, communicating feelings and solving day to day problems. Zubrick et al. (2000:xi) suggest five key resource domains for social and family functioning: income, time, human capital, psychological capital, and social capital.⁹

Social and support networks

The ability to find or provide assistance during times of need is often used to measure the strength of social supports and networks (e.g. Baum et al. 2000; Hofferth 1995 cited in Stone 2001). One concept, employed by Hofferth, is that of stocks and investments in time and money and how readily these are available in emergencies, for example the lending of money to a friend or relative in need. This concept also introduces the notion of reciprocity, another core element of social cohesion.

The planned General Social Survey (ABS 2001c) has a range of proposed data items related to social capital, including connections with family and friends, availability of support in time of crisis, voluntary work, level of trust, fear of crime. The content of the survey appears to emphasise what survey respondents *receive* from family, friends and social contacts rather than what they *offer in reciprocation*. The giving side is confined to voluntary work and involvement in group and community activities.

The absence of social attachments and support is an indication of social isolation, extreme indicators of which could include suicide, illicit drug use and imprisonment.

9 Elements of these resource domains, in particular those relating to time, and psychological and human capital, are recognised in the range of indicators selected for 'family functioning'. Other elements, such as income, are included elsewhere. Time use is relevant to other areas of the table and appears in more than one place, while social capital is interpreted in this chapter as a broader notion that includes family functioning as well as other components (see previous discussion).

Trust

Trust is seen as one of the key ingredients of social capital (Cox & Caldwell 2000; OECD 2001). Trust is the expectation that arises within a community of regular, honest and cooperative behaviour, based on commonly shared norms, on the part of other members of the community (Fukuyama 1995).

Trust is often discussed in conjunction with social networks and, in particular, participation in voluntary and other community-based activities. Three levels of trust are generally defined: trust of familiars (particularised, interpersonal), trust of strangers (generalised, social) and trust in institutions (civic trust). Cox and Caldwell (2000) believe that social trust may be a more important value than interpersonal trust when assessing social capital, since trust of the familiar may be based on distrust of the other. A general trust of strangers indicates an accumulation of bridging social capital. The suggested indicator topic in Table 9.1 Acceptance of diversity is an important variant on this theme in a multicultural society such as Australia.

Community involvement

The most commonly used indicator of community involvement is participation in community groups or projects (e.g. Baum et al. 1998; Onyx & Bullen 2000; Stolle & Rochon 1998). Onyx & Bullen (2000) regard such participation as one of the four contexts in which networks occur.¹⁰

Participation is thought to create or enhance social cohesion through the formation of trust between members and through the generation of mutually beneficial cooperative behaviour. Stolle and Rochon (1998:48) define this as private civiness, where membership builds trust and capacity for collective action within the group. Private civiness in turn can lead to public civiness in which the trust developed through group membership is extended outside the group. The groups suggested for indicators of community involvement in Table 9.1 are those of importance or popularity in Australia (caring for children outside the household, sporting associations) and those regularly mentioned in international literature and indicator sets (political and professional organisations).

Community level indicators are not suggested in the table, but are under development. For instance, the collective measures of community strength being developed by FaCS include many of the ideas in the literature on social cohesion, and also include indicators only measurable at community level, such as communities developing their own solutions and resolving conflict (Black & Hughes 2001).

Volunteering and philanthropy

According to Putnam (1993), social capital originates in membership of voluntary organisations and in dense networks of such organisations in any community. These are settings where people learn to trust, reciprocate and act in concert. Criticisms have been

¹⁰ The other contexts include neighbourhood connections, family and friend connections, and work connections.

levelled at participation in voluntary organisations as an indicator of social capital, largely because it is considered too indirect. Specifically: its use assumes that trust and reciprocity flow from such participation (Harriss & de Renzio 1997; Putzel 1997); it becomes an end in itself rather than a means to an end (Newton 1997); there may be no correlation between membership of voluntary organisations and other indicators of social capital such as trust (Knack & Keefer 1997).

This is an area likely to develop significantly with the work being carried out by the ABS and the Centre for Australian Community Organisations and Management (CACOM 2001) on the Australian Non-Profit Data Project, an important potential source of data for social cohesion indicators. General themes employed by previous studies on social cohesion community involvement, social and support networks, volunteering, and trust are repeated in these projects.

Further issues

Units of enumeration—and overall population data

In its present form, Table 9.1 is not specific as to the unit of focus or enumeration. Data could relate to individuals, families or households, events or communities. At times this may be inferred from the description of the indicator. Further development of the table and its purposes would result in more specificity, or the acceptance of ongoing variability according to purpose.

Population

Information describing the overall Australian population its age and sex profile, its growth and other trends, its fertility and migration patterns are considered indicative of the overall health and wellbeing of the nation (Berger-Schmitt & Noll 2000). Such data are not easily reflected in the current framework, except as factors (Figure 9.2), since the components of welfare (Figure 9.3) can all be interpreted at the individual level, as well as at aggregate levels.

Further development within the framework

Table 9.1 is essentially an illustration of what a set of welfare indicators might look like for Australia, designed to be in general conformity with international developments, and in a format lending itself to measurement with Australian data. The contents of the table require further development. Like other recent national and international frameworks, it suggests a structure in which work can proceed, and a set of indicator topics to be developed and refined over time. The discussion in this chapter has suggested such a structure and has illustrated how some first steps could be taken.

9.4 Future directions

The Institute's biennial welfare reports to the minister and the Australian Parliament are mandated to provide statistics and related information concerning the provision of welfare services to the Australian people and an outline of the development of welfare-related information and statistics (AIHW Act, Clause 31). This chapter was prepared with the purpose of enhancing the perspective of these biennial reports by placing welfare service provision in the broader context of the welfare of the

population the context in which the welfare system operates and which it may seek to ameliorate. The chapter begins the process of focusing available statistical information more sharply on components of welfare that are considered nationally and internationally to be important, and to suggest suitable forms of measurement.

The frameworks proposed in Figures 9.2 (the broad framework), Figure 9.3 (the component list) and Table 9.1 (the indicator topics) give shape to these suggestions. They are built on the foundations laid by previous AIHW biennial reports in both the welfare and health areas, as well as on relevant international frameworks, important national data sources and a range of related literature. Work is actively progressing in all three areas of the main framework welfare components, interventions and factors. Discussion in Section 9.3 illustrates that, within most areas of the working table for indicator development (Table 9.1), there is room for discussion, refinement and further statistical development. The Institute proposes to continue working with other experts in the field on these developments, so as to be able to publish relevant data in the next and subsequent biennial reports.

Future editions will then be able to present data that reflect the social conditions in which the Australian welfare system operates. As these data are built up, trends may emerge, and the interconnections between the various welfare components become more apparent. The chapter should then assist the reader of these biennial reports to assess the efficacy of welfare services in meeting the welfare needs of Australians, and the outcomes associated with the provision of services and assistance.

Table 9.1: A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure</i> average or level	Population subgroups among whom to <i>measure</i> distribution	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Food and water	Food supply: <ul style="list-style-type: none"> • adequacy • safety • accessibility/ security 	Age Income group Family type Indigenous status	Lack of access, e.g. people seeking assistance with meals or other emergency assistance data	The Total Diet Survey ¹ Apparent Consumption of Foodstuffs ² SAAP National Data ³
	Food and nutrient intake	Age Sex Income group Family type Indigenous status		National Nutrition Survey ^{4,5} Household Expenditure Survey ^{6,7} Apparent Consumption of Foodstuffs (ABS) ²
	Nutrition and health status	Age Sex Income group Family type Indigenous status	Underweight Overweight Obesity	National Health Survey ⁸
	Access to potable and palatable water	Income group Family type Indigenous status Geographic area		ATSIC Community Housing and Infrastructure Needs Survey ⁹
Shelter and housing	Housing affordability	Income group Family type Indigenous status Geographic area Tenure	‘Very high’ % of income spent on housing (in lowest income quintiles)	Australian Housing Survey ¹⁰ AIHW Commonwealth–State Housing Agreement Data ¹¹ FaCS CRA data ¹²
	Condition of housing stock (appropriateness)	Income group Family type Indigenous status Geographic area Tenure Country of birth	example: % living above specified ratio of persons per room See, e.g., Canadian Occupancy Standard	Australian Housing Survey ¹⁰ ATSIC Community Housing and Infrastructure Needs Survey ⁹

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Shelter and housing <i>continued</i>	Accessibility: % in tenure types	Income group Family type Indigenous status Geographic area Country of birth	Homelessness Access to crisis accommodation: turnaway and unmet demand/ need Access to housing assistance	Australian Housing Survey ¹⁰ SAAP National Data ³ AIHW Commonwealth–State Housing Agreement Data ¹¹
	Institutional living	Age Sex Indigenous status Disability Income group		See Chapter 4 for data sources
Safety and security	Feelings of safety	Age Sex Income group Family type Indigenous status Geographic area		
	Work injuries and deaths (rates)	Age Sex Occupation Industry		National Worker's Compensation Statistics Database ¹³ Work Related Injuries, Australia ¹⁴
	Traffic injuries and deaths (rates)	Age Sex		Australian Transport Safety Bureau ¹⁵
	Other injuries and deaths (rates)	Age Sex		
	Selected serious crime rates (as reported in victim surveys): • selected assaults • driving offences causing death • other selected crimes	Age Sex Income group Indigenous status Geographic area		International Crime Victim Survey ¹⁶ Crime and Safety Survey ¹⁷

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Safety and security <i>continued</i>	Selected serious crime rates (as reported to police): <ul style="list-style-type: none"> • murder • driving offences causing death • selected assaults • other selected crimes 	Age Sex Income group Indigenous status Geographic area		Recorded Crime, Australia ¹⁸
	Level of pollutants above specified levels: <ul style="list-style-type: none"> • carbon monoxide • ozone • lead • particles as PM10 	Geographic area		State Environment Protection Authorities ^{19–24}
Health	Life expectancy	Age Sex Income group Indigenous status Geographic area		Deaths, Australia ²⁵
	Years of life lived with severe activity limitation	Age Sex Income group Indigenous status Geographic area		Survey of Disability, Ageing and Carers ²⁶
	Causes of death	Age Sex Income group Indigenous status Geographic area	Key conditions, e.g.: <ul style="list-style-type: none"> • lung cancer • breast cancer 	Causes of Death, Australia ²⁷
	Infant mortality	Age Sex Income group Indigenous status Geographic area		Deaths, Australia ²⁵ AIHW National Mortality Database ²⁸

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Economic resources and security	Earnings/income level: • main source	Age Sex Family type Indigenous status Geographic area Education group Employment group Occupation and industry Comparison of deciles (e.g. income and expenditure groups)	People below 'poverty line' levels Time spent with low income	Survey of Employee Earnings and Hours ²⁹ Survey of Income and Housing Costs ³⁰ Poverty Lines, Australia ³¹ Household, Income and Labour Dynamics Survey–FaCS ^(a)
	Household disposable income	Household income unit Household expenditure groups (e.g. deciles)	Households (rates) below: • 50% of MEI (Median Equivalised Income)	Survey of Income and Housing Costs ^(a) Household Expenditure Survey ³² Poverty Lines, Australia ³¹
	Financial stress, hardship	Age Sex Family type Indigenous status		General Social Survey ³³ Household Expenditure Survey ^(a)
	Accumulated savings, assets, liabilities, retirement income	Age Sex Family type Education group Employment group		General Social Survey ³³ Survey of Retirement and Retirement Intentions ^{34,35} Household Expenditure Survey ^(a)
	People primarily dependent on government income support: • Age Pension • Unemployment (Newstart) benefits • Disability Support Pension	Age Sex Family type Indigenous status Country of birth		Centrelink data ^(a) Survey of Income and Housing Costs ^(a)

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Education and knowledge	Participation in primary, secondary, post-school and adult education: <ul style="list-style-type: none"> • retention to Year 12 	Age Sex Income group Family type Indigenous status Geographic area Country of birth		Schools, Australia ³⁶ Education and Training Experience ³⁷ Labour Force Status and Other Characteristics of Migrants ³⁸ Education and Training in Australia ³⁹ Transition from Education to Work ⁴⁰
	Educational attainment: <ul style="list-style-type: none"> • literacy and numeracy • highest qualification 	Age Sex Income group Family type Indigenous status Geographic area Country of birth Disability		National Report on Schooling in Australia ⁴¹ ABS Census of Population and Housing ⁴² Transition from Education to Work ⁴⁰
Employment and labour force participation	Participation in the labour force: <ul style="list-style-type: none"> • occupation type • hours worked • employment basis and conditions 	Age Sex Income group Family type Indigenous status Geographic area Education group Disability		Labour Force Survey ⁴³ Survey of Disabilities, Ageing and Carers ²⁶ Survey of Employment Arrangements and Superannuation ^{29,35}
	Employment, unemployment and underemployment	Age Sex Income group Family type Indigenous status Geographic area Education group Disability	Long-term unemployment Households with no employed person	Labour Force Survey ⁴³

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Employment and labour force participation <i>continued</i>	Employment vacancies			Job Vacancies ⁴⁴
	Shift to retirement	Age Sex Income group Family type Employment group		Survey of Retirement and Retirement Intentions ³⁴
Transport, mobility and communication	Car ownership	Age Sex Income group Family type Indigenous status Geographic area		Household Expenditure Survey ⁷ Time Use Survey ^(a) Survey of Motor Vehicle Use ⁴⁵
	Access to and use of transport	Age Sex Income group Family type Indigenous status Geographic area Disability		Environmental Issues ⁴⁶ General Social Survey ³³
	Time and distance to: <ul style="list-style-type: none"> • work • services 			Time Use Survey ^(a)
	Communication (e.g. access to telephone, Internet)			
Recreation and leisure	Amount and nature of leisure time	Age Sex Income group Family type Indigenous status Disability		Time Use Survey ⁴⁷ Involvement in Sport ⁴⁸

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references ^(a)
Recreation and leisure <i>continued</i>	Recreation and vacations: <ul style="list-style-type: none"> • household expenditure and time • vacation trips 	Age Sex Income group Family type Indigenous status Disability		Time Use Survey ⁴⁷ Household Expenditure Survey ⁷ Travel by Australians ⁴⁹
Family and friends	Family formation: <ul style="list-style-type: none"> • marriage • fertility • living arrangements 	Family structure and characteristics of members	Family dissolution, e.g. divorce	Family Characteristics Survey ⁵⁰ Census of Population and Housing ⁴² Marriages and Divorces ⁵¹ Births, Australia ⁵² Labour Force Status and Other Characteristics of Families ⁵³
	Family functioning Quality of relations between family members, e.g. trust <ul style="list-style-type: none"> • time use including 'unpaid work' • family participation in the wider community, e.g. employment • resilience and adaptability 	Family structure and characteristics of members?	Domestic violence Child protection (abuse and neglect) Children in out-of-home care Children living in a family where no parent works	SAAP National Data ³ Longitudinal Survey of Australia's Children—FaCS ^(a) Crime and Safety Survey ¹⁷ Family Characteristics Survey ⁵⁰ Survey of Disability, Ageing and Carers ²⁶ Household, Income and Labour Dynamics Survey—FaCS ^(a) Time Use Survey ⁴⁷ Labour Force Status and Other Characteristics of Families ⁵³ Labour Force, Australia ⁴³ Reconnect data—FaCS ^(a)

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Family and friends <i>continued</i>	Involvement as carer			Survey of Disability, Ageing and Carers ²⁶
	Availability and quality of friendship relations			Mental Health Survey ⁵⁴
Social and support networks	Access to help/support/information when needed (involving time and/or money)	Age		General Social Survey ³³
		Sex		Disability, Ageing and Carers Survey ²⁶
		Family type		Mental Health Survey ⁵⁴
		Disability		
		Country of birth		
	Provision of help/support/information when needed (involving time and/or money)	Age		Time Use Survey
		Sex		
		Family type		
		Disability		
		Country of birth		
	Contact with family and friends outside the home	Age		General Social Survey ³³
		Sex		Time Use Survey ⁴⁷
		Family type		
		Disability		
		Country of birth		
	Social attachment	Age	Suicide	Causes of Death, Australia ²⁷
		Sex	Drug use	
		Income group	Prisoners and deaths in custody (rates)	Statistics on Drug Use in Australia ⁵⁵
		Family type		Prisoners in Australia ⁵⁶
		Indigenous status		Australian Deaths in Custody ^{57,58}
	Country of birth			
Trust	Trust in institutions: <ul style="list-style-type: none"> • government • political system • trade unions • legal system • police 	Age		World Values Survey ⁵⁹
		Sex		
Income group				
Family type				
Indigenous status				
	Trust in community/people generally/strangers	Age		
		Income group		
		Family type		
	Acceptance of diversity	Indigenous status		
		Country of birth		

(continued)

Table 9.1 (continued): A working table for the development of welfare indicators

Welfare sub-component	Indicator topics on which to <i>measure average or level</i>	Population subgroups among whom to <i>measure distribution</i>	Approach to measuring <i>deprivation, disadvantage or exclusion</i>	Source data or references^(a)
Community involvement, civic engagement, bridging social capital	Participation in community/sporting groups and projects (Types of communities may be geographically defined, COB, Indigenous etc.)	Age		Time Use Survey ⁴⁷
		Sex		General Social Survey ³³
		Income group		Involvement in Sport ⁴⁸
		Family type		
		Disability		
		Country of birth		
	Participation in:	Age		
	• political organisations (parties and unions)	Sex		
	• professional organisations	Income group		
		Education group		
	Support for children outside household	Sex		General Social Survey ³³
		Income group		
		Family type		
Volunteering and philanthropy	Participation in volunteering	Age		Voluntary Work Survey ⁶⁰
		Sex		Time Use Survey ⁴⁷
		Income group		ANDP Data ⁶¹
	% of income given to charities	Age		ANDP Data ⁶¹
		Sex		Voluntary Work Survey ⁶⁰
		Income group		

(a) Sources listed contain relevant data. In some cases, especially those referring to this footnote, the source may not contain or publish all data required for the suggested indicators (e.g. distributional indicators). The numbered reference list following this table identifies the references and data sources separately.

Data sources list

References in Table 9.1 to surveys are generally to related publications. In some cases, however, relevant data are unpublished.

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