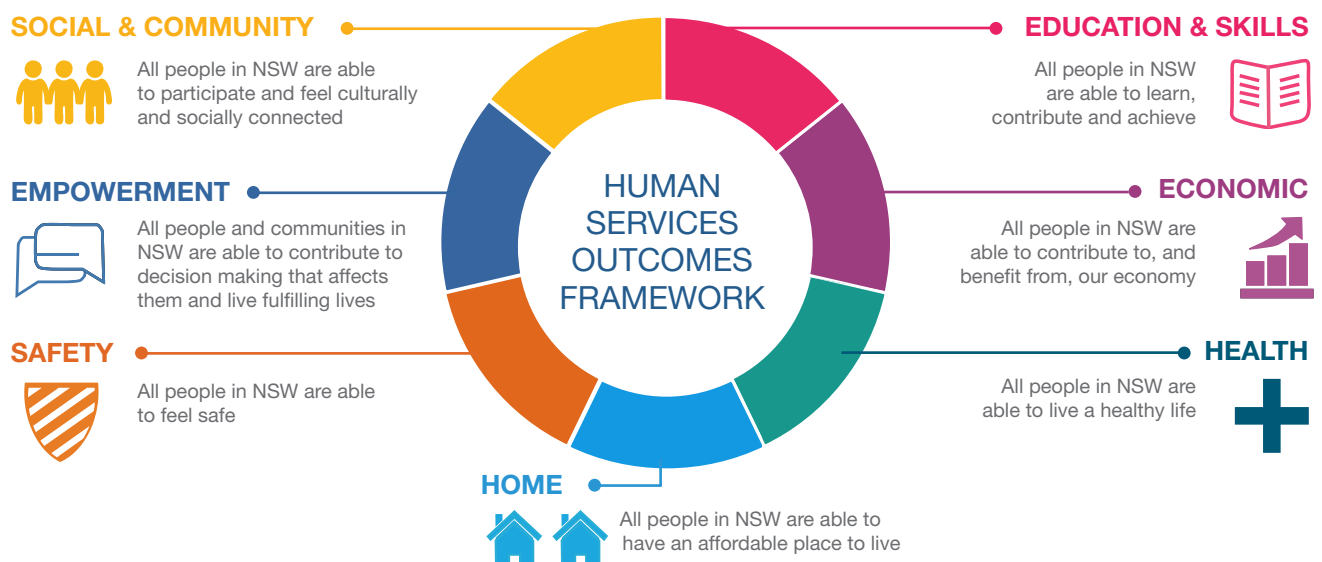


Measuring wellbeing across the life cycle

Key messages

- Governments increasingly want to know whether the programs and services they fund improve the way that people feel and function in their lives, that is, their wellbeing.
- Wellbeing captures all aspects of life, including physical and mental health, educational opportunity, social stability, economic prosperity and liveability.¹
- While the focus on wellbeing has increased around the world over the past decade, it remains a young and contested field, with different views about how best to define and measure it.²
- The NSW Department of Family and Community Services (FACS) is committed to measuring the impact of its services on the wellbeing of its clients. To do this, it led the development of the NSW Human Services Outcomes Framework, which has seven domains of wellbeing and identifies key stages in an individual's life cycle.³
- FACS needs robust and evidence-based indicators to measure progress in the seven domains of the Framework. The evidence for many widely used indicators has not been assessed. There is a body of research about the characteristics of good indicators, but there is not a 'gold-standard'.^{4,5}
- Faced with this challenge, the review authors developed an innovative method to select appropriate evidence-based indicators for the Framework.
- The review rated the useability of indicators of wellbeing using three criteria: frequency of use by existing reputable frameworks; consistency or reliability of the link to wellbeing in the published academic literature; and availability of data to measure the indicator.
- The authors identified and rated 96 indicators of wellbeing that have been used consistently in the wellbeing literature. Sixteen out of the 96 indicators were assessed as having high useability for FACS.



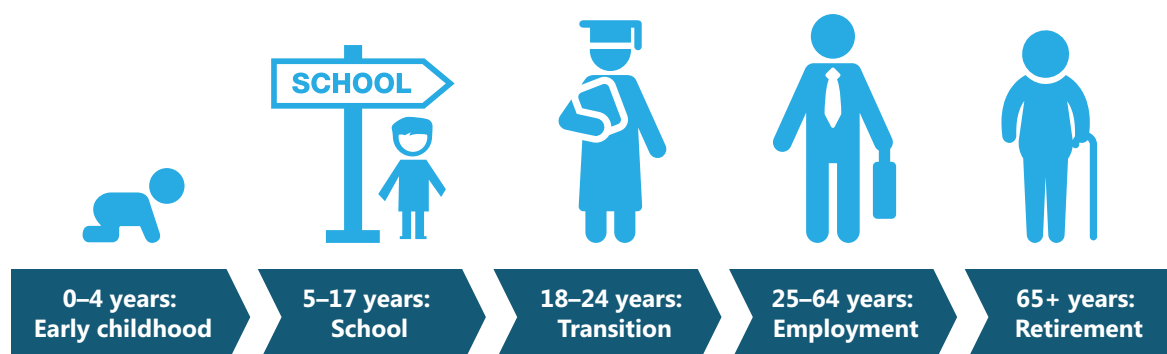
What is the issue?

- Wellbeing means how people feel and function in their lives. It refers to quality of life, and the extent to which a person can achieve desired goals and contribute to society.¹
- Over the past decade, there has been an increasing focus on the concept of wellbeing, due in part to a rejection of economic indicators, such as income or gross domestic product, as the only meaningful measures of societal progress.⁶
- Wellbeing is multidimensional – capturing all important aspects of life including physical and mental health, educational opportunity, social stability, economic prosperity and liveability.
- Discussions about self-fulfilment and wellness dominate popular culture, while international efforts to measure a country's progress now also include a focus on the wellbeing of citizens. This increased interest in wellbeing is reflected in studies and debates in the academic literature and, more recently, in public policy.⁷
- The meaning of wellbeing – and how best to measure it – is a complex and contested field with varied approaches and definitions. There are two main ways to measure wellbeing:^{5,8,9,10}
 - Objective indicators can be measured by an external observer. Examples include income, education, employment and life span
 - Subjective indicators are determined by asking a person to rate their own experiences and feelings. These measure whether objective conditions, such as higher income, result in people experiencing a higher quality of life.
- Many frameworks measure wellbeing and use a variety of indicators, both objective and subjective. Researchers have developed lists of characteristics of good indicators, but there is no general agreement about what constitutes a 'gold standard' indicator, as this depends on the field of study.

Why is the issue important?

- The NSW Department of Family and Community Services (FACS) is committed to measuring the impact of its services on the wellbeing of its clients. To do this, FACS led the development of the NSW Human Services Outcomes Framework. The Framework has seven domains of wellbeing and identifies key stages in an individual's life cycle.
- To measure the impact of their programs on their clients, FACS requires meaningful indicators of wellbeing. The indicators must have been validated either through repeated use or supported by research studies in the academic literature.
- FACS commissioned an Evidence Check to answer three questions:
 - What indicators and their measures of wellbeing have been successfully validated and applied in population settings?
 - Which measures have specific application at different points across the life cycle?
 - Which measures have application to specific population groups in NSW?

Phases of the life cycle



What did the researchers do?

The authors, from the National Centre for Social and Economic Modelling (NATSEM) at the University of Canberra, developed an innovative methodology to identify and assess evidence-based indicators of wellbeing so that FACS can select indicators to measure progress against the NSW Human Services Outcomes Framework.

The method involved an extensive review of grey and academic literature to assess wellbeing indicators against three criteria: the frequency of use in existing frameworks; consistency or repetition of findings in the academic literature; and public availability of data to measure the indicator.

1 Sourcing potential indicators

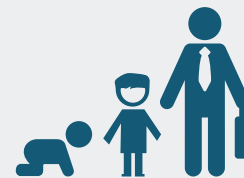
The authors selected 17 wellbeing frameworks that are internationally recognised, widely used and have been applied in the Australian context. (The list of frameworks is on page 7.)

From these frameworks, the authors identified 235 indicators of wellbeing. A further 19 indicators were found from other sources including journal articles.



2 Classifying indicators by domain

The indicators were then classified into the domains of the NSW Human Services Outcomes Framework. Where an indicator could apply to more than one domain, the authors selected the most relevant domain.



3 Gathering the evidence

The authors did a literature search to identify published literature underpinning the link between each indicator and wellbeing. A total of 1434 articles were identified which examined at least one of the wellbeing outcomes for the whole population, for a particular stage of the life cycle or for a particular population group of interest to FACS.

Material that did not report on studies that had collected evidence was excluded, leaving 566 articles.



4 Assessing each indicator

Each indicator was assessed as high, medium or low for each of the following criteria:

- Frequency – The frequency used in existing frameworks
- Reliability – Consistency and repetition of findings in the published literature about the link between the indicator and wellbeing
- Data availability – Publicly available data to inform the use of this indicator by FACS.



5 Overall assessment of useability for FACS

Duplicates were removed and the indicators were screened for relevance to FACS, leaving 96 indicators of wellbeing. An overall assessment of useability for FACS was made for each of these indicators.



Assessment of a wellbeing indicator

Example of how a wellbeing indicator was assessed

Domain: Economic

Indicator: Financial hardship

Overall assessment of useability: **High**

1. Frequency used in existing frameworks **Medium**

- All population: Medium
- Children: Not applicable
- Youth: Medium
- Older adults: Low

2. Reliability or consistency of findings from published literature about the link between this indicator and wellbeing **High**

- Strong evidence of positive association between socioeconomic deprivation and psychological distress^{4,11,12,13}
- Statistical association between financial stress and health¹⁵
- Financial stress has a negative influence on the psychological health and well-being of the elderly^{16,17,18,19}
- Long-term financial hardship is reflected in a range of health outcomes in later life, even after controlling for the effects of current financial circumstances²⁰

3. Data availability in NSW **High**

- The Household, Income and Labour Dynamics in Australia (HILDA) data waves, 1–15 (annual)
- HILDA data, waves 2, 6 and 10 (2002, 2006 and 2010) for the information about debt UC Regional Wellbeing Survey (only covers regional NSW)
- ABS General Social Survey (every four years)

What did the review find?

- Despite growing consensus that wellbeing is a critical concept, there remains a high level of debate about how best to define and measure it.
- The authors identified 96 indicators that FACS can use to measure progress in the seven domains of the NSW Human Services Outcomes Framework:
 - 41 apply across the whole life cycle
 - 19 apply to children
 - 23 apply to youth
 - 13 apply to older people.
- Each of the 96 indicators was assessed and given a rating of useability in the NSW context. Sixteen of the indicators that apply across the life cycle have a high useability rating and a further 21 indicators have a medium useability rating (see table, next page).
- In the Empowerment domain, ‘voter turnout’ was the only useable indicator of empowerment. It has a medium useability rating for the NSW context.
- Most indicators are also relevant for the specific population groups of particular interest to FACS,* although some have yet to be validated for use in those populations and their applicability needs to be considered within each population’s specific context.

* Population groups of interest to FACS include: Australian Aboriginal and Torres Strait Islander populations; children living in out-of-home care; children and young people who are vulnerable or at-risk of significant harm; people from culturally and linguistically diverse communities; people living with disabilities; people experiencing or at-risk of experiencing domestic and family violence; people living in social housing or receiving social housing assistance; people who are homeless or at-risk of homelessness.

Rating the wellbeing indicators

Each indicator was assessed as high, medium or low for each of the following criteria:

- Frequency: The frequency used in existing frameworks
- Reliability: Consistency and repetition of findings in the published literature about the link between the indicator and wellbeing
- Data availability: Publicly available data to inform the use of this indicator by FACS.



Economic

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Household income	High	Medium to high*	High	High
Employment	High	Medium	High	High
Unemployment	High	High	High	High
Financial hardship	Medium	High	High	High
Household wealth	Medium	Medium	High	Medium
Personal income	Low	Medium	High	Medium
Working hours	Low	Medium	High	Medium
Job satisfaction	Low	Medium	High	Medium
Inflation rate	Low	Medium	High	Medium

*Depending on specification and context



Home

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Overcrowding	High	High	High	High
Housing affordability	High	Medium	High	High
Homelessness	Medium	Medium to high	High	High



Health

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Life expectancy	Medium	High	High	High
Self-reported health status	High	Medium	High	High
Disability	High	High	High	High
Smoking behaviours	Low	High	High	High
Mental health	Medium	High	High	High
Overall life satisfaction/ Self-rated happiness	Medium	Medium	High	Medium
Exposure to air pollution	Low	High	Medium	Medium
Climatic variability and climatic change	Low	High	Medium	Medium
Time devoted to leisure and personal care	Low	Medium	High	Medium
Leisure activities (sports participation)	Medium	Medium	High	Medium

Rating the wellbeing indicators



Education and skills

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Educational attainment	High	Medium	High	High
Students' cognitive skills	High	Medium	High	High
Those not in education, employment or training	Low	Medium	High	Medium



Social and community

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Perceived social network support	High	Medium	High	High
Volunteering (more than once in the past 12 months)	Medium	High	High	High
Trust in government	Low	Medium	High	Medium
Feelings of loneliness	Low	Medium	High	Medium
Relationship with partner	Low	Medium	High	Medium
Feeling of sense of belonging to their neighbourhood	Low	Medium	Medium	Medium
Accessing natural environment	Low	Medium	Medium	Medium
Engagement with/participation in arts or cultural activities	Low	Medium	High	Medium



Empowerment

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Voter turn-out	Medium	Medium	High	Medium



Safety

Indicator	Frequency	Reliability	Data availability	Overall assessment of useability
Feeling fairly/very safe	Low	Medium	High	Medium
Self-reported victimisation	Low	Medium	High	Medium
Crimes against people	Low	Medium	Medium	Medium

Limitations

- This review assessed the state of current evidence. Wellbeing is a relatively young field, and research is evolving rapidly and released regularly:
 - Where there is little or no evidence of an association between a specific indicator and wellbeing outcomes, this does not mean there is no relationship between the indicator and wellbeing, but may be a result of lack of research into the relationship between the indicator and wellbeing
 - Currently available research may have identified only a weak relationship, but new research may identify a stronger relationship
 - The relationship between an indicator and wellbeing may be low due to the way the indicator is specified. For some indicators, the evidence was mixed – some studies found a high correlation between the indicator and wellbeing, and some did not. In many of these cases, the differences may be a result of the use of different approaches to measuring and calculating the indicator, rather than a lack of actual association.
- Context matters. For example, when thinking about the use of income as an indicator of wellbeing, the country in which the analysis was conducted is important (high-income versus low-income country).
- One of the criteria used to assess each indicator was the availability of publicly accessible data. FACS may have access to other data that will increase the useability rating of some indicators.
- The Australian National Development Index (ANDI)²¹ was not included in this review as it is still under development. However, ANDI will use many of the indicators assessed in this review.

Frameworks from which indicators were selected

All population

- Compendium of OECD Well-being Indicators, OECD (2011)
- Measuring National Wellbeing, Office for National Statistics UK (2016)
- Measures of Australia's Progress, ABS (2013)
- Human Development Index, UNDP (2015)
- Australia's Welfare 2015, AIHW (2015)

Children

- Positive indicators of child well-being: A conceptual framework, measures and methodological issues, UNICEF (2009)
- Review of available sources and measures for children and young people's well-being, Office for National Statistics UK (2013)
- National outcome measures for early childhood development: development of indicator based reporting framework, AIHW (2011)
- Early childhood indicators, Victoria State Government Education and Training (not published)
- Child Social Exclusion Index, NATSEM (2015)

Youth

- Young Australians: their health and wellbeing, AIHW (2011)
- Youth Social Exclusion Index, NATSEM (2016)

Older adults

- Small area indicators of wellbeing for older Australians, Tanton et al (2016)
- Older Adults Social Exclusion, NATSEM (2015)
- The Brotherhood's social barometer: Living the second fifty years, The Brotherhood of St Laurence (2009)
- Older Australia at a glance, AIHW (2007)
- Older Americans 2016: Key indicators of well-being (2016)

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