

7 February 2023

Treasury  
Langton Cres  
Parkes ACT 2600

Level 11, 257 Collins Street  
Melbourne VIC 3000  
PO Box 38  
Flinders Lane VIC 8009  
T: (03) 8662 3300

By email: [measuringwhatmatters@treasury.gov.au](mailto:measuringwhatmatters@treasury.gov.au)

Dear Measuring What Matters team

## **Australian Psychological Society Submission into the Consultation on Measuring What Matters**

The Australian Psychological Society (APS) welcomes the opportunity to provide a submission to Treasury's consultation on Measuring What Matters. The APS is the peak body for psychology in Australia, representing more than 28,000 members. We are dedicated to advancing the scientific discipline and ethical practice of psychology in the communities we serve and to promote good psychological health and wellbeing for the benefit of all Australians.

The APS therefore is pleased to see the Government's attention to wellbeing and its measurement as part of the public policy process. Our submission, which is informed by the psychology profession's experience and expertise in relation to both measurement and wellbeing, addresses the need for a planned and responsive approach to 'measuring what matters'. As with all our work in the APS, we are guided in this submission by the Sustainable Development Goals (SDGs) particularly Goal 3 (Good health and well-being) and Goal 10 (Reduce inequality).<sup>1</sup>

### **1. The measurement of wellbeing is an important, but not a sufficient policy objective**

Wellbeing is an aspirational goal of policy.<sup>2,3</sup> Policy should aim to promote the wellbeing of Australians, and, where possible, the global community. The measurement of wellbeing is one important part of this process, but it should not be mistaken for a policy outcome itself. Measurement must be followed by concerted action towards the policy goal, rather than actions which only improve wellbeing indicators.

To be successful in this endeavour, we must work collaboratively towards a considered and inclusive approach to the measurement of wellbeing. We strongly suggest that the development of an Australian wellbeing measurement framework should occur before the identification and selection of specific wellbeing indicators or measures. There are several key reasons for this:

- There is no consensus as to what 'wellbeing' means. Many different and sometimes incompatible definitions of wellbeing exist, reflecting the range of purposes for which the concept of 'wellbeing' can be applied.<sup>4,5</sup> Before wellbeing can be measured, we must arrive at a working understanding of what it means which is not only appropriate to the Australian context but is also capable of being measured effectively. We recognise Treasury's previous efforts in developing and applying a wellbeing framework to Australian public policy,<sup>6</sup> but we recommend the consultative development of a new framework in line with contemporary theory, research and practice which extends beyond individual-focused economically-dominant notions of wellbeing.

As the psychological and multidisciplinary research has pointed out, wellbeing can be defined in relation to an individual, entire communities, and any set of relationships in between these two levels.<sup>7-9</sup> Both the personal (subjective) experience of wellbeing and objective indicators of wellbeing are important to consider,<sup>10-12</sup> and the relative weight assigned to each of these aspects of wellbeing must be carefully balanced within the context of a particular policy setting. Wellbeing is not static; it changes over time because it is constantly affected by many variables, not all of which can be observed.<sup>13,14</sup>

We must be careful not to privilege certain culturally-linked expressions or indicators of wellbeing,<sup>15-17</sup> especially if these mask actual discrepancies in wellbeing or operate to invalidate the experience of already marginalised groups, including First Nations Australians.<sup>18,19</sup>

Acknowledging the complexity of wellbeing through a measurement framework is an important step to prevent the concept — and subsequently chosen indicators — being inadvertently skewed towards one set of factors to the exclusion of others. It also helps set achievable criteria for success, rather than allowing a wide-ranging concept to be misinterpreted or misappropriated within public policy decisions.

- Having a clear and transparent understanding about the *process* of measuring wellbeing in Australia is essential for wellbeing data and indicators to contribute meaningfully to public policy. Beyond this consultation process, we believe that there should be appropriate mechanisms and governance for the consideration, selection and evaluation of wellbeing indicators and how measurement takes place.

A number of factors need to be considered in order to arrive at an approach to the measurement of wellbeing that is best placed to inform policy development. These include:

- The selection of appropriate indicators based on their properties, including their validity and reliability;
- Developing and evaluating consistent methods for the collection and analysis of data;
- Having consistent and transparent approaches to the interpretation of indicator data; and
- Ensuring that indicators are evaluated and that there is open sharing of information about the measurement process, including gaps in knowledge, limitations of indicators or measurement, and any known or foreseeable harms caused by the use of wellbeing indicators in public policy.

Despite our best efforts, the measurement of wellbeing will always be ‘flawed or incomplete’.<sup>20</sup> Wellbeing is multidimensional and cannot be reduced to a single objective construct.<sup>21</sup> The measurement of wellbeing through individual indicators or even a suite of indicators is therefore necessarily incomplete and relies heavily on proxy measures. Having a measurement framework in place before the selection of specific indicators would therefore help to identify and manage the inherent error and uncertainty in wellbeing measurement. It would help to promote a stance of humility, curiosity and flexibility in the measurement and interpretation process.

- A measurement framework should also encompass the development of a whole-of-government approach for measuring wellbeing change as a result of a specific policy intervention. This involves designing, implementing, reviewing and scaling behaviour change initiatives that will bring about evidence-based improvements to the wellbeing of the Australian people. We acknowledge the evaluation and behavioural insights work already taking place across Commonwealth agencies,<sup>22,23</sup> but we emphasise the need to align these initiatives with a wellbeing measurement framework. Such efforts would benefit from the specialist input of psychologists and psychological scientists.

## 2. Measures of wellbeing must be responsive, targeted and systems-oriented

Wellbeing, as we noted above, is dynamic. Wellbeing varies across time, and it both shapes and is shaped by personal, social and systems-level factors. The measurement of wellbeing must therefore be sufficiently responsive to time and environment. We note that most of the Australian data for the OECD indicators date from between 2018 to 2022. As we all know, the significant COVID-related changes and disruptions have significantly affected all parts of Australian life and society.<sup>24</sup> Not only are wellbeing measurement data from 2018 likely to be meaningfully different than data from 2020 or 2022, but Australian research has shown, for instance, that there were significant changes in wellbeing-related indicators even within a four-month period during the Victorian lockdowns.<sup>25</sup>

We recognise that there are significant practical challenges and costs in collecting data on a more frequent basis. Nonetheless, we would insist that outdated data may be worse than no data at all. A smaller set of regularly updated and locally-relevant indicators would be preferable to indicators which are inaccurately or inappropriately applied as a source of evidence to make policy decisions. This will still require significant, but necessary, investment by the Government.

Wellbeing indicators need to be sufficiently granular to allow policy-makers and stakeholders to consider the effects of initiatives on particular communities, regions and demographic groups within Australia. Any public repository of wellbeing indicators must allow for segmentation by key geographical and demographic factors, including through interactive dashboards and data tables similar to those provided by the AIHW and ABS.

We caution against focusing on a single national average for any indicator of wellbeing. Psychologists have always emphasised the need to look at variability and difference,<sup>26-28</sup> without which there is a risk of drawing incorrect conclusions. As mentioned above, this is particularly the case when a single national average masks underlying structural discrepancies, including those experienced by marginalised groups and communities. Numbers, especially those presented absolutely without an indication of distribution or error, have persuasive authority.<sup>29</sup> We must take care to avoid wellbeing indicators creating or furthering epistemic injustice,<sup>30,31</sup> where a concrete numerical representation of the 'average' erases or invalidates the lived experience of Australians who already struggle to be heard and understood.

When single indicators are reported, they should contain at least a basic representation of the variability and distribution of the underlying data (e.g., using confidence intervals, standard deviations or errors, or ranges). The development of guidelines for the reporting of wellbeing indicators, as part of the wellbeing measurement framework, would assist greatly in the accurate and consistent dissemination and use of wellbeing indicators.

Specific indicators which are focused on this *variability in wellbeing* are likely to be as important in their own right to highlight potential geographical, demographic or socioeconomic inequalities and disparities. One indicator of wellbeing and progress, for example, may be the reduction of the variability across Australia in timely access to healthcare. This would complement an indicator which might show a reduction in the national average wait time for treatment, but is likely to be biased towards Australians living in major cities or those with more socioeconomic advantage.

Wellbeing indicators should also be considered together rather than in isolation. There will often be an interaction effect between different wellbeing indicators; that is, where movement on one indicator depends on movement on another indicator. Policy-makers must be equipped to identify and interpret these interaction effects correctly to avoid focusing on the wrong underlying factors in subsequent policy interventions. Adopting a systems thinking approach to the measurement of wellbeing, rather than looking at individual indicators or even a combination of indicators, may be one way to ensure that the drivers and consequences of wellbeing are understood within the context of interacting relationships, feedback loops and reciprocities.<sup>32-35</sup>

### 3. Recommendations for specific wellbeing indications

Notwithstanding these conceptual and methodological caveats, the APS believes that the OECD framework indicators are a good starting point for the development of a set of Australian wellbeing indicators. The OECD framework is currently the most accessible globally comparative measure and provides useful international benchmarks.

We offer some initial suggestions on additional indicators for the Australian context, subject to our earlier comment that any proposed indicator should be thoroughly assessed by independent experts based on the strength of the research evidence, measurement properties and utility for policy.

- We recommend the inclusion of a holistic measure of personal wellbeing beyond the measures of subjective wellbeing (based on affective states) and life satisfaction in the OECD framework. In addition to measures based on how someone feels in a specific point in time (subjective wellbeing), personal wellbeing can also be understood as a person's sense of longer term meaning and purpose in life. This is also known as *eudaimonic wellbeing*.<sup>36–38</sup>

The psychological research has established that meaning and purpose is a reliable predictor of positive wellbeing (flourishing end of the wellbeing spectrum) and is often what enables people to overcome the impacts of day-to-day setbacks and challenges. Subjective wellbeing, on the other hand, can be more predictive of the negative end of the wellbeing spectrum, helping to identify those who might be struggling with their mental health or be at risk of falling into that category.<sup>39</sup> As such, there is value in measuring both subjective and eudaimonic wellbeing to capture the full spectrum of personal wellbeing and to help to identify both risk factors and protective factors.

- There are insufficient objective wellbeing indicators in the OECD framework relating to health and mental health, both at the level of individual experience and in terms of health systems. We recommend the addition of additional measures, including:
  - The proportion of the population with a mental disorder within the past 12 months (see ABS National Study of Mental Health and Wellbeing);<sup>40</sup>
  - Rates of death by suicide, noting that the Government has committed to a zero suicide target and that there is concerted multi-sector work directed towards suicide prevention across Australia (see AIHW Suicide Monitoring Data);<sup>41–43</sup>
  - Experiences of healthcare and mental healthcare across the population (see ABS Patient Experience Survey and Your Experience of Service Surveys);<sup>44,45</sup>
  - Timely and affordable access to health and mental health care, derived from data on service utilisation and waitlists, out of pocket expenses, barriers to health service use and delayed treatment, together with healthcare workforce data and projections (see the Productivity Commission's Services for Mental Health indicators and ABS and AIHW datasets);<sup>44,46–48</sup>
  - Burden of disease, that is, the impact on Australians of living with illness and injury or dying prematurely (as measured by disability-adjusted life years, DALYs, or similar metrics) across all diseases, selected chronic health conditions, and mental health conditions (see AIHW Burden of Disease data).<sup>49</sup>
- We recommend the inclusion of Psychological Capital (PsyCap) as a measure of capturing future positive wellbeing. PsyCap measures hope, efficacy, resilience and optimism (often shortened to 'HERO') and is described as a core construct in which the whole is greater than the sum of its parts.<sup>50,51</sup> Recent research suggests PsyCap is a valuable measure in understanding and influencing citizenship behaviour change. We therefore consider PsyCap to be a useful indicator of positive wellbeing and capacity across communities. It could, for example, be used to identify

the likelihood of communities or groups' capacity for coping and recovery from disasters or setbacks such as COVID, and can be used to inform other targeted social policy interventions.<sup>52-55</sup>

- Given the significant impact of natural disasters on wellbeing,<sup>56</sup> and that climate-driven natural hazards are expected to become more frequent and intense, we recommend the inclusion of measures relating to disaster response capacity and resilience. One such indicator may be the Australian Disaster Resilience Index,<sup>57,58</sup> which assesses capacity for disaster resilience through a combination of social, economic, natural environment, built environment, governance and geographical factors, and how these relate to coping and adaptive capacities in the face of future events.
- Finally, we recommend the identification of relevant wellbeing indicators for specific populations, including children and young people and First Nations Australians. The wellbeing of these and other identified priority groups should not be merely aggregated into national indicators.

#### 4. Conclusions

The choice of what is measured reflects what is valued and prioritised in policy-making. Public discussion and deliberation on wellbeing and progress in Australia should be informed by the best available research, methods and insights.

As such, the APS calls on the Government to establish an independent advisory committee to inform the development, operation and evaluation of an Australian wellbeing measurement framework. This committee should be established before the selection of Australian wellbeing indicators and should provide advice to Government on suitable indicators.

We believe that this committee should have adequate representation by psychologists and psychological scientists, as leaders on wellbeing research, interventions and policy. The psychology profession has the expertise to work together with policy-makers to identify, develop and apply balanced, valid, reliable indicators of wellbeing for the benefit of all Australians.

Thank you again for the opportunity to provide a submission to the Measuring What Matters consultation. If any further information is required from the APS, I would be happy to be contacted through our National Office on (03) 8662 3300 or by email at: [z.burgess@psychology.org.au](mailto:z.burgess@psychology.org.au)

Yours sincerely



**Dr Zena Burgess, FAPS FAICD**  
Chief Executive Officer

*The APS would like to acknowledge and sincerely thank the members who so kindly contributed their time, knowledge, experience, and evidence-based research to this submission, particularly the APS College of Organisational Psychologists.*

## References

1. United Nations Department of Economic and Social Affairs. (2022). *Sustainable Development*.  
<https://sdgs.un.org/>
2. Layard, R. (2022). Wellbeing as the Goal of Policy. In T. Besley & I. Bucelli (Eds.), *Wellbeing: Alternative Policy Perspectives* (pp. 7–26). LSE Press. <https://doi.org/10.31389/lsepress.well>
3. Frijters, P., Clark, A. E., Krekel, C., & Layard, R. (2020). A happy choice: Wellbeing as the goal of government. *Behavioural Public Policy*, 4(2), 126–165. <https://doi.org/10.1017/bpp.2019.39>
4. Besley, T., & Bucelli, I. (2022). Wellbeing: Alternative Policy Perspectives. In *LSE Press*. LSE Press.  
<https://doi.org/10.31389/lsepress.well>
5. Adler, A., & Seligman, M. E. P. (2016). Using wellbeing for public policy: Theory, measurement, and recommendations. *International Journal of Wellbeing*, 6(1), Article 1. <https://doi.org/10.5502/ijw.v6i1.429>
6. Gorecki, S., & Kelly, J. (2012). *Treasury's Wellbeing Framework*. Treasury.  
<https://treasury.gov.au/publication/economic-roundup-issue-3-2012-2/economic-roundup-issue-3-2012/treasurys-wellbeing-framework>
7. Atkinson, S., Bagnall, A.-M., Corcoran, R., South, J., & Curtis, S. (2020). Being Well Together: Individual Subjective and Community Wellbeing. *Journal of Happiness Studies*, 21(5), 1903–1921.  
<https://doi.org/10.1007/s10902-019-00146-2>
8. Prilleltensky, I., & Prilleltensky, O. (2007). Webs of Well-Being: The Interdependence of Personal, Relational, Organizational and Communal Well-Being. In J. Haworth & G. Hart (Eds.), *Well-Being: Individual, Community and Social Perspectives* (pp. 57–74). Palgrave Macmillan UK.  
[https://doi.org/10.1057/9780230287624\\_4](https://doi.org/10.1057/9780230287624_4)
9. White, S. C. (2017). Relational wellbeing: Re-centring the politics of happiness, policy and the self. *Policy & Politics*, 45(2), 121–136. <https://doi.org/10.1332/030557317X14866576265970>
10. Voukelatou, V., Gabrielli, L., Miliou, I., Cresci, S., Sharma, R., Tesconi, M., & Pappalardo, L. (2021). Measuring objective and subjective well-being: Dimensions and data sources. *International Journal of Data Science and Analytics*, 11(4), 279–309. <https://doi.org/10.1007/s41060-020-00224-2>
11. Western, M., & Tomaszewski, W. (2016). Subjective Wellbeing, Objective Wellbeing and Inequality in Australia. *PLOS ONE*, 11(10), e0163345. <https://doi.org/10.1371/journal.pone.0163345>
12. Tan, J. J. X., Kraus, M. W., Carpenter, N. C., & Adler, N. E. (2020). The association between objective and subjective socioeconomic status and subjective well-being: A meta-analytic review. *Psychological Bulletin*, 146(11), 970–1020. <https://doi.org/10.1037/bul0000258>
13. Houben, M., Van Den Noortgate, W., & Kuppens, P. (2015). The relation between short-term emotion dynamics and psychological well-being: A meta-analysis. *Psychological Bulletin*, 141(4), 901–930.  
<https://doi.org/10.1037/a0038822>
14. Kirchner, T. R., & Shiffman, S. (2016). Spatio-temporal determinants of mental health and well-being: Advances in geographically-explicit ecological momentary assessment (GEMA). *Social Psychiatry and Psychiatric Epidemiology*, 51(9), 1211–1223. <https://doi.org/10.1007/s00127-016-1277-5>
15. Ford, B. Q., Dmitrieva, J. O., Heller, D., Chentsova-Dutton, Y., Grossmann, I., Tamir, M., Uchida, Y., Koopmann-Holm, B., Floerke, V. A., Uhrig, M., Bokhan, T., & Mauss, I. B. (2015). Culture shapes whether the pursuit of happiness predicts higher or lower well-being. *Journal of Experimental Psychology: General*, 144(6), 1053–1062. <https://doi.org/10.1037/xge0000108>

16. Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour*, 2(4), Article 4. <https://doi.org/10.1038/s41562-018-0307-6>
17. Joshanloo, M., Van de Vliert, E., & Jose, P. E. (2021). Four Fundamental Distinctions in Conceptions of Wellbeing Across Cultures. In M. L. Kern & M. L. Wehmeyer (Eds.), *The Palgrave Handbook of Positive Education* (pp. 675–703). Springer International Publishing. [https://doi.org/10.1007/978-3-030-64537-3\\_26](https://doi.org/10.1007/978-3-030-64537-3_26)
18. Miller, H. M., Young, C., Nixon, J., Talbot-McDonnell, M., Cutmore, M., Tong, A., Craig, J. C., & Woolfenden, S. (2020). Parents' and carers' views on factors contributing to the health and wellbeing of urban Aboriginal children. *Australian and New Zealand Journal of Public Health*, 44(4), 265–270. <https://doi.org/10.1111/1753-6405.12992>
19. Cairney, S., Abbott, T., Quinn, S., Yamaguchi, J., Wilson, B., & Wakerman, J. (2017). Interplay wellbeing framework: A collaborative methodology 'bringing together stories and numbers' to quantify Aboriginal cultural values in remote Australia. *International Journal for Equity in Health*, 16(1), 68. <https://doi.org/10.1186/s12939-017-0563-5>
20. Chalmers, J. (2023, February 1). *Capitalism after the crises*. The Monthly. <https://www.themonthly.com.au/issue/2023/february/jim-chalmers/capitalism-after-crises>
21. Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: A multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*, 18(1), 192. <https://doi.org/10.1186/s12955-020-01423-y>
22. Department of Prime Minister and Cabinet. (n.d.). *Behavioural Economics Team of the Australian Government*. Retrieved February 5, 2023, from <https://behaviouraleconomics.pmc.gov.au/>
23. Department of Finance. (n.d.). *Commonwealth Evaluation Policy*. Retrieved February 5, 2023, from <https://www.finance.gov.au/government/managing-commonwealth-resources/planning-and-reporting/commonwealth-performance-framework/commonwealth-evaluation-policy>
24. Dawel, A., Shou, Y., Smithson, M., Cherbuin, N., Banfield, M., Calear, A. L., Farrer, L. M., Gray, D., Gulliver, A., Housen, T., McCallum, S. M., Morse, A. R., Murray, K., Newman, E., Rodney Harris, R. M., & Batterham, P. J. (2020). The Effect of COVID-19 on Mental Health and Wellbeing in a Representative Sample of Australian Adults. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.579985>
25. Wright, A., De Livera, A., Lee, K. H., Higgs, C., Nicholson, M., Gibbs, L., & Jorm, A. (2022). A repeated cross-sectional and longitudinal study of mental health and wellbeing during COVID-19 lockdowns in Victoria, Australia. *BMC Public Health*, 22(1), 2434. <https://doi.org/10.1186/s12889-022-14836-9>
26. Speelman, C., & McGann, M. (2013). How Mean is the Mean? *Frontiers in Psychology*, 4. <https://doi.org/10.3389/fpsyg.2013.00451>
27. Doherty, M. E., Shemberg, K. M., Anderson, R. B., & Tweney, R. D. (2013). Exploring unexplained variation. *Theory & Psychology*, 23(1), 81–97. <https://doi.org/10.1177/0959354312445653>
28. De Boeck, P., DeKay, M. L., Gore, L. R., & Jeon, M. (2021). The trees and the forest: Investigating variability surrounding an aggregate result. *Theory & Psychology*, 31(3), 399–404. <https://doi.org/10.1177/09593543211016084>
29. Zebregs, S., van den Putte, B., Neijens, P., & de Graaf, A. (2015). The Differential Impact of Statistical and Narrative Evidence on Beliefs, Attitude, and Intention: A Meta-Analysis. *Health Communication*, 30(3), 282–289. <https://doi.org/10.1080/10410236.2013.842528>
30. Osborne, R. H., Cheng, C. C., Nolte, S., Elmer, S., Besancon, S., Budhathoki, S. S., Debussche, X., Dias, S., Kolarčík, P., Loureiro, M. I., Maindal, H., Nascimento do O, D., Smith, J. A., Wahl, A., Elsworth, G. R., &

- Hawkins, M. (2022). Health literacy measurement: Embracing diversity in a strengths-based approach to promote health and equity, and avoid epistemic injustice. *BMJ Global Health*, 7(9), e009623. <https://doi.org/10.1136/bmjgh-2022-009623>
31. Symons, J., & Alvarado, R. (2022). Epistemic injustice and data science technologies. *Synthese*, 200(2), 87. <https://doi.org/10.1007/s11229-022-03631-z>
  32. Forgie, V. E., van den Belt, M., & McDonald, G. W. (2021). Extending the Boundaries of Economics to Well-Being: An Interlinked Thinking Approach. In R. Y. Cavana, B. C. Dangerfield, O. V. Pavlov, M. J. Radzicki, & I. D. Wheat (Eds.), *Feedback Economics: Economic Modeling with System Dynamics* (pp. 521–544). Springer International Publishing. [https://doi.org/10.1007/978-3-030-67190-7\\_19](https://doi.org/10.1007/978-3-030-67190-7_19)
  33. Doran, E. M. B., Barbieri, L., Kubiszewski, I., Pickett, K., Dietz, T., Abrams, M., Wilkinson, R., Costanza, R., Farber, S. C., & Valcour, J. (2020). Frameworks and systems thinking for measuring and achieving sustainable wellbeing. *Sustainable Wellbeing Futures*, 103–126.
  34. Berry, H. L., Waite, T. D., Dear, K. B. G., Capon, A. G., & Murray, V. (2018). The case for systems thinking about climate change and mental health. *Nature Climate Change*, 8(4), 282–290. <https://doi.org/10.1038/s41558-018-0102-4>
  35. Behaviourworks Australia, Kaufman, S., Goodwin, D., Slattery, P., & Macklin, J. (2021). Chapter 2: Systems Thinking and Behaviour. In *The Method*. Monash University. [https://bridges.monash.edu/articles/chapter/Chapter\\_2\\_Systems\\_Thinking\\_and\\_Behaviour/13661561/2](https://bridges.monash.edu/articles/chapter/Chapter_2_Systems_Thinking_and_Behaviour/13661561/2)
  36. Ruini, C., & Ryff, C. D. (2016). Using Eudaimonic Well-being to Improve Lives. In *The Wiley Handbook of Positive Clinical Psychology* (pp. 153–166). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118468197.ch11>
  37. Ryff, C. D., & Singer, B. H. (2008). Know Thyself and Become What You Are: A Eudaimonic Approach to Psychological Well-Being. *Journal of Happiness Studies*, 9(1), 13–39. <https://doi.org/10.1007/s10902-006-9019-0>
  38. Proctor, C., & Tweed, R. (2016). Measuring Eudaimonic Well-Being. In J. Vittersø (Ed.), *Handbook of Eudaimonic Well-Being* (pp. 277–294). Springer International Publishing. [https://doi.org/10.1007/978-3-319-42445-3\\_18](https://doi.org/10.1007/978-3-319-42445-3_18)
  39. Magyar, J. L., & Keyes, C. L. M. (2019). Defining, measuring, and applying subjective well-being. In M. W. Gallagher & S. J. Lopez (Eds.), *Positive psychological assessment: A handbook of models and measures (2nd ed.)*. (pp. 389–415). American Psychological Association. <https://doi.org/10.1037/0000138-025>
  40. Australian Bureau of Statistics. (2022). *National Study of Mental Health and Wellbeing, 2020-21*. <https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release>
  41. Australian Government Department of Health and Aged Care. (2020, November 10). *Towards Zero Suicide Prevention Forum: Summary of outcomes* [Text]. Australian Government Department of Health and Aged Care; Australian Government Department of Health and Aged Care. <https://www.health.gov.au/resources/publications/towards-zero-suicide-prevention-forum-summary-of-outcomes?language=en>
  42. National Mental Health Commission. (2020, October 23). *Committed to working toward zero suicide deaths*. <https://www.mentalhealthcommission.gov.au/news-and-media/media-releases/2020/october/committed-to-working-toward-zero-suicide-deaths>



43. Australian Institute of Health and Welfare. (2022). *Deaths by suicide in Australia*.  
<https://www.aihw.gov.au/suicide-self-harm-monitoring/data/deaths-by-suicide-in-australia/suicide-deaths-over-time>
44. Australian Bureau of Statistics. (2022). *Patient Experiences, 2021-22*.  
<https://www.abs.gov.au/statistics/health/health-services/patient-experiences/latest-release>
45. Australian Mental Health Outcomes and Classification Network. (n.d.). *Your Experience of Service Surveys*. Retrieved February 4, 2023, from <https://www.amhocn.org/your-experience-service-surveys#>
46. Productivity Commission. (2023). *Report on Government Services 2023: Services for Mental Health*.  
<https://www.pc.gov.au/ongoing/report-on-government-services/2023/health/services-for-mental-health>
47. Australian Institute of Health and Welfare. (2023). *Mental Health: Workforce*.  
<https://www.aihw.gov.au/mental-health/topic-areas/workforce>
48. Australian Institute of Health and Welfare. (2022). *Mental Health: Medicare-subsidised services*.  
<https://www.aihw.gov.au/mental-health/topic-areas/medicare-subsidised-services>
49. Australian Institute of Health and Welfare. (2022, December 13). *Australian Burden of Disease Study 2022*. Australian Institute of Health and Welfare. <https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2022/contents/about>
50. Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological Capital: An Evidence-Based Positive Approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 339–366.  
<https://doi.org/10.1146/annurev-orgpsych-032516-113324>
51. Youssef-Morgan, C. M., & Luthans, F. (2015). Psychological Capital and Well-being: Psychological Capital and Well-being. *Stress and Health*, 31(3), 180–188. <https://doi.org/10.1002/smi.2623>
52. Turluc, M. N., & Candel, O. S. (2022). The relationship between psychological capital and mental health during the Covid-19 pandemic: A longitudinal mediation model. *Journal of Health Psychology*, 27(8), 1913–1925. <https://doi.org/10.1177/13591053211012771>
53. Tanner, S., Prayag, D. G., & Coelho Kuntz, D. J. (2022). Psychological capital, social capital and organizational resilience: A Herringbone Model perspective. *International Journal of Disaster Risk Reduction*, 78, 103149. <https://doi.org/10.1016/j.ijdrr.2022.103149>
54. Chipfupa, U., Tagwi, A., & Wale, E. (2021). Psychological capital and climate change adaptation: Empirical evidence from smallholder farmers in South Africa. *Jambá: Journal of Disaster Risk Studies*, 13(1), 1–12. <https://doi.org/10.4102/jamba.v13i1.1061>
55. Finch, J., Farrell, L. J., & Waters, A. M. (2020). Searching for the HERO in Youth: Does Psychological Capital (PsyCap) Predict Mental Health Symptoms and Subjective Wellbeing in Australian School-Aged Children and Adolescents? *Child Psychiatry & Human Development*, 51(6), 1025–1036.  
<https://doi.org/10.1007/s10578-020-01023-3>
56. Lawrance, E. L., Thompson, R., Newberry Le Vay, J., Page, L., & Jennings, N. (2022). The Impact of Climate Change on Mental Health and Emotional Wellbeing: A Narrative Review of Current Evidence, and its Implications. *International Review of Psychiatry*, 34(5), 443–498.  
<https://doi.org/10.1080/09540261.2022.2128725>
57. Natural Hazards Research Australia. (2020). *Australian Disaster Resilience Index*. <https://adri.bnhcrc.com.au/>
58. Royal Commission into National Natural Disaster Arrangements. (2020). *Chapter 2: Natural disaster risk*. <https://naturaldisaster.royalcommission.gov.au/publications/html-report/chapter-02>