

# Our Children Our Communities Our Future

AEDC DATA STORY

How can we improve equity in early childhood?

# What we know

Equity is about fairness. It is about ensuring that all children – regardless of where they live or who they are – have an opportunity to fulfil their potential. Currently this is not the case in Australia; children's outcomes are strongly influenced by the wealth and resources available to their families and communities. These inequities are avoidable and preventable.

# Key messages

- Inequities are the different outcomes children experience which are determined by the environments in which they are born, live and grow. Inequities are influenced by social, geographic and economic factors.
- Addressing inequities in the early years helps to prevent the often enduring impacts of early disadvantage or developmental vulnerability.
- For all children to achieve optimal health, development and wellbeing, the factors that contribute to preventable differences need to be addressed.
- The gap between the most and least socioeconomically disadvantaged communities has not decreased during the past 10 years. For children developmentally vulnerable on one or more AEDC domains, the gap grew from 15.8 per cent in 2009 to 18.3 per cent in 2021.

This AEDC Data Story draws on data collected as part of the 2021 AEDC to explore inequities in children's development related to social, economic and geographic factors.

#### Key messages continued

- Children living in the most socio-economically disadvantaged communities are almost three times as likely to be developmentally vulnerable on two or more domains when compared to children living in the least socio-economically disadvantaged communities.
- When compared to the most disadvantaged communities, around 20 per cent more children in the least disadvantaged communities were on track on five domains in 2021.
- Addressing inequities requires understanding of the complex social determinates of health and working in partnership with communities to promote health and developmental equity.

# Groups at greatest risk

Some groups of children are at higher risk of disadvantage and developmental vulnerability. Children affected by structural and systemic barriers, such as racism, often (although not always) require more health and welfare services and support than other children. This may include children experiencing socio-economic disadvantage, children living in rural and remote communities and children from Aboriginal and Torres Strait Islander backgrounds.<sup>5, 6</sup>

Addressing inequities during early childhood is important because disadvantage during this period can have a lifelong impact.<sup>7</sup> Poor outcomes in the early years can be more difficult to address later in life.<sup>8</sup>

**Inequities** are differences that are avoidable or preventable by reasonable means. Inequities are fundamentally unfair, socially produced and systematic across a population.

(Source: VicHealth 2015; Venkatapuram, Bell & Marmot, 2010)

# What have we learned?

# Inequities based on community socio-economic status

There is a clear association between community socioeconomic status (where families live) and developmental vulnerability among young children in Australia. The more disadvantaged the community, the greater the proportion of children with developmental vulnerabilities; these inequities are evident in every domain of development (see Figure 1).

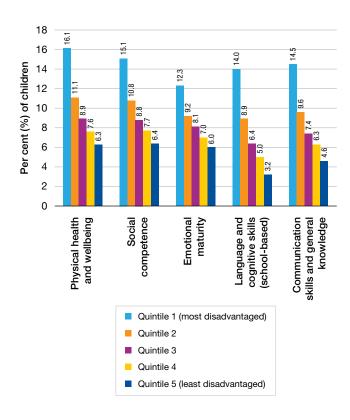


Figure 1: Developmental vulnerability by community socioeconomic status in 2021

This distribution across socio-economic groups is called the social gradient. Almost every outcome for Australian children is distributed in this way. AEDC data indicates that children living in the most disadvantaged communities (Quintile 1) experience greater developmental vulnerability than all other quintiles in every domain.

As Figure 1 demonstrates, children with developmental vulnerabilities exist in every socio-economic group. However, children in the most disadvantaged communities are more than twice as likely to be vulnerable on the domains of physical health and wellbeing, social competence and emotional maturity than children in the least disadvantaged communities. They are also more than three times as likely to be vulnerable on the domain of communication skills and general knowledge and more

than four times as likely to be vulnerable on the domain of language and cognitive skills (school-based) as illustrated in Figure 2.



Figure 2: Comparison of developmental vulnerability between the most and least disadvantaged communities for 2021

Between 2018 and 2021, inequities in child development from the most and least disadvantaged communities increased in all but one domain (communication skills and general knowledge). These inequities are being driven by increased rates of developmental vulnerability among children from the most disadvantaged communities, rather than decreased rates of vulnerability among children from the least disadvantaged communities.

#### How communities compare

In 2021, 22 per cent of Australian children were vulnerable on one or more domains and 11.4 per cent were vulnerable on two or more domains. Developmental vulnerability on one or more, or two or more domains exists in every socio-economic group. However, children living in the most disadvantaged communities were more than twice as likely to be vulnerable on one or more domains of development when compared to children in the least disadvantaged communities. They were also nearly three times as likely to be vulnerable on two or more domains of development than children living in the least disadvantaged communities (see Figure 3).

When compared to the most disadvantaged communities, around 20 per cent more children were developmentally on track on five domains in the least disadvantaged communities in 2021. When it comes to the proportion of children developmentally on track on five domains, the difference between the most and least disadvantaged communities has largely remained steady – around 20 per cent – for the past decade. These inequities have not diminished over time and increased in 2021. Figure 4 demonstrates this enduring inequity between the most and least disadvantaged communities for children developmentally vulnerable on one or more domains of development, and the increased inequity in 2021.

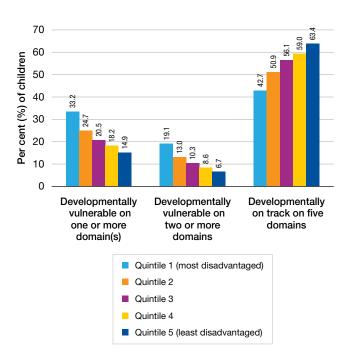


Figure 3: Summary indicators by community socio-economic position in 2021

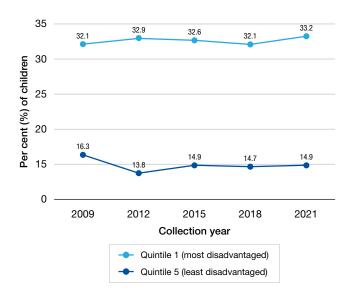


Figure 4: National trends in developmental vulnerability on one or more domains by community socio-economic position 2009-2021

#### REFLECTION

What strategies could potentially reduce the widening gap in developmental vulnerabilities among children between the most and least disadvantaged communities? What strategies should be universal (i.e., for all children) and which should be targeted?

#### Inequities and preschool

Participating in quality preschool supports children's early development. Between 2018 and 2021, there was a very slight decrease in the proportion of Australian children attending preschool (from 92.4 per cent to 92.3 per cent). Decreases in preschool attendance occurred in all communities, regardless of the levels of disadvantage. The largest decreases in preschool attendance occurred among children living in the least disadvantaged communities. There was a slight decrease in the gap between the proportion of children attending preschool in the most disadvantaged communities and the proportion attending preschool in the least disadvantaged communities (from 8.8 per cent to 8.4 per cent).

#### Inequities based on parent education levels

There is a clear association between the highest level of education within a child's household and children's developmental vulnerability.

Inequities in development based on household education level are evident in every domain. The highest rates of developmental vulnerability are among children who live in households where no one has a post-secondary education, the second highest rates are among children who live in a household where someone has a Certificate or Diploma, and the lowest rates are among children who live in a household where someone has a university degree (Bachelor's degree or above) (see Figure 5). This association is evident for the outcomes shown in Figure 5 for Australian children included in the 2021 Census.

Of these three education level groups, the largest decrease in preschool attendance between 2018 and 2021 was among children living in households where no one had a post-secondary education (from 85.9 per cent in 2018 to 83.2 per cent in 2021).

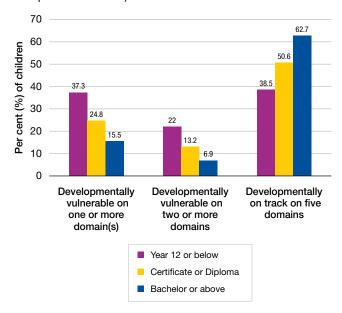


Figure 5: Summary indicators by household highest education in 2021

#### REFLECTION

What does the AEDC reveal about education levels in your community? What strategies are available to support preschool engagement and attendance?

# Inequities based on language background and country of birth

More than half (50.3 per cent) of children who come from a Language Background Other Than English (LBOTE) were developmentally on track on five domains in 2021 (see Figure 6).9 This proportion has been gradually increasing since 2009. By comparison, 56.4 per cent of children who only speak English were on track on five domains in 2021. This is slightly less than in 2018 (57.2 per cent).



Figure 6: LBOTE children developmentally on track on five domains

When it comes to developmental vulnerability, as expected, the greatest inequity between LBOTE children and children who only speak English relates to communication skills and general knowledge; twice as many children who speak a language other than English are vulnerable on this domain when compared to children who only speak English (see Figure 7).

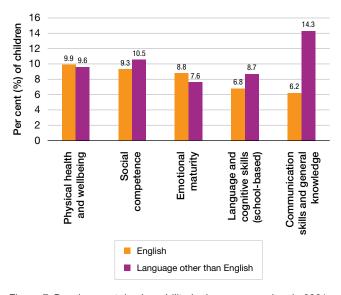


Figure 7: Developmental vulnerability by language spoken in 2021

Children born in non-English speaking countries are also more likely to be vulnerable than Australian-born children on communication skills and general knowledge (see Figure 8).

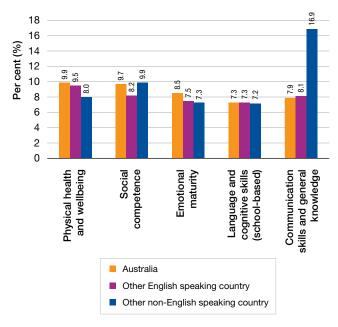


Figure 8: Developmental vulnerability by country of birth in 2021

Children with a LBOTE are more likely than children who only speak English to be developmentally vulnerable when it comes to language and cognitive skills (school-based) (see Figure 7). However, when it comes to country of birth, developmental vulnerability on this domain is the same for children born in Australia and children born in non-English speaking countries (see Figure 8).

Regarding LBOTE children, it is important to distinguish between those who are proficient in English and those who are not. On all five domains in 2021, the proportion of LBOTE children who speak English proficiently and were developmentally vulnerable was less than the proportion of children who only speak English. LBOTE children who do not speak English proficiently were more developmentally vulnerable than both groups (see Figure 9).

The AEDC results reflect research findings which indicate that being bilingual and proficient in English can in fact be advantageous for children when they start school. Children who are bilingual and not proficient in English are at increased risk of being in the 'developmentally vulnerable' range of the AEDC,<sup>10</sup> however research also indicates that even when bilingual children lag behind their monolingual peers upon school entry, they typically catch up to them during the first few years of school.<sup>11, 12</sup>

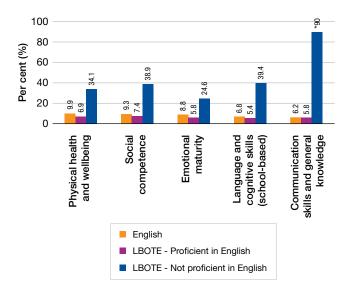


Figure 9: Developmental vulnerability by language spoken and proficiency in English in 2021.

\* More than 90% of LBOTE children who were not proficient in English were developmentally vulnerable on the domain of communication skills and general knowledge

When compared to children born in Australia, children born in non-English speaking countries are more likely to be developmentally vulnerable in communication skills and general knowledge (16.9 per cent compared to 7.9 per cent). Higher rates of vulnerability among this group may be because some of these children are from refugee backgrounds, however, it is not possible to analyse AEDC data to better understand these associations.

#### REFLECTION

What community, early years and school supports are needed to reduce developmental vulnerabilities among children from non-English-speaking backgrounds who are not proficient in English?

#### Inequities based on where children live

A higher proportion of children living in rural areas are developmentally vulnerable when compared to children living in metropolitan areas.<sup>13</sup> This inequity exists in all domains of development and for vulnerability on one or more and two or more domains. Factors that drive higher rates of developmental vulnerability among children in rural Australia include higher rates of socio-economic disadvantage and limited access to services in those areas. <sup>14, 15</sup>

A higher proportion of children living in metropolitan areas are developmentally on track on all five domains compared to children living in rural areas (see Figure 10).

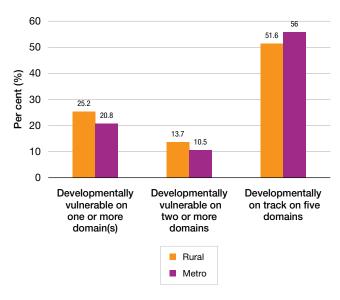


Figure 10: Summary indicators by rural or metropolitan residence in 2021

#### Differences between states and territories

Previous research has shown differences in developmental vulnerability between and within states and territories. Numerous reasons have been put forward for these variations including differences in demographics between different states and territories as well as differences in the prevalence of socio-economic disadvantage, the mix of services available and differing policies. <sup>16, 17</sup>

As shown in Figure 11, the highest rates of developmental vulnerability are in the Northern Territory (NT). It had the highest proportion of children vulnerable on one or more domains, and the highest proportion of children vulnerable on two or more domains. The Australian Capital Territory (ACT) had the second highest proportion of developmentally vulnerable children on at least one domain.

The state/territory with the lowest proportion of children vulnerable on one or more domains is Victoria. Victoria (VIC) and Western Australia (WA) had the equal lowest proportions of children vulnerable on two or more domains.

Less than 50 per cent of children are developmentally on track on five domains for ACT (47.3 per cent) and NT (38.6 per cent). The proportion is higher for the other six states and territories, between 51.4 per cent and 57.5 per cent. (see Figure 11).

#### REFLECTION

Where children live can affect their developmental vulnerability. What factors in your community are helping to prevent or reduce developmental vulnerability? What barriers could be addressed to enable children to better fulfil their potential?

## **Implications**

Unequal opportunities based on social and economic factors prevent children from fulfilling their potential, leading to inequities that will endure beyond childhood. Effectively reducing these inequities would have far-reaching social and economic benefits for children, families, communities, and our nation.

Addressing inequities to improve children's health, development and wellbeing requires intensive, timely support with a focus on prevention. This includes strengthening our universal platforms, addressing social determinants and combining interventions in the early years.

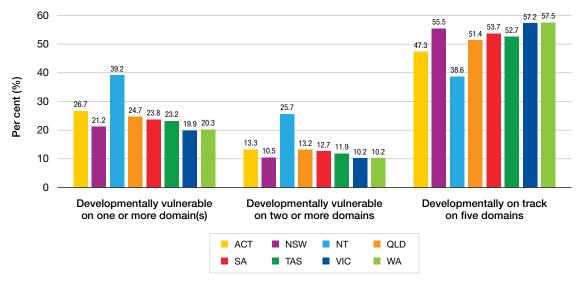


Figure 11: Summary indicators by state/territory in 2021

A range of policies and services in education, health and social care can help to support children and families, however no single intervention can reduce inequity. Applying multiple, complementary interventions across the early years ('stacking' interventions) will have a greater impact than single interventions, especially for those children who are most in need.<sup>18</sup> There is strong evidence that combinations of interventions in early childhood – such as supporting parenting, quality early education and care, and income support – can reduce inequities.<sup>19</sup>

Strong universal platforms are needed to address inequities. This includes services such as antenatal care, maternal and child health, early childhood education and care, and preschool, that are delivered proportionally – i.e., delivered with the intensity and reach necessary to make a difference for those who need them most.<sup>20</sup> This may, for example, include sustained nurse home visiting as part of maternal and child health.

Greater effort is also required to address the social and economic factors that underpin inequities among Australian children – this is considered an 'upstream' intervention. This is particularly important in regions experiencing the greatest disadvantage and vulnerability.

# For further information

#### **About AEDC Data Stories**

What can the AEDC tell us about children's health and development, and how can we use this information to improve their wellbeing? The AEDC Data Story series explores the 2021 AEDC data to reveal how children are faring at school entry and where efforts could be focused to help ensure all children thrive. Each Data Story considers trends and how AEDC data can inform priorities, policies and practice to improve outcomes for children. Publication disclaimer - This report uses data from the Australian Early Development Census (AEDC). The AEDC is funded by the Australian Government Department of Education. The findings and views reported here are those of the authors and should not be attributed to the Department or the Australian Government.

#### The AEDC

In 2021, the fifth Australian Early Development Census (AEDC) was undertaken with 305,015 children in their first year of full-time school. The Australian Early Development Census (AEDC) is a nationwide measure of early childhood development that shines a light on what is working well and where we have more work to do to

ensure all children are afforded the benefits of a strong start in life. For further information consult the AEDC website: www.aedc.gov.au

#### The Centre for Community Child Health

The Centre for Community Child Health is a department of The Royal Children's Hospital Melbourne, and a research group of the Murdoch Children's Research Institute. We strive to improve the lives of children and families, www.rch.org.au/ccch

#### Suggested citation

Gray, S., McDonald, M., Guo, S., Leone, V. & Goldfeld, S. How can we improve equity in early childhood? (AEDC 2021 Data Story). Australian Government Canberra. www.aedc.gov.au

#### Socio-economic status and the AEDC

The AEDC classifies socio-economic status according to the Socio-Economic Indexes for Areas (SEIFA), developed by the Australian Bureau of Statistics (ABS). Every geographical area in Australia is given a SEIFA score that ranks the disadvantage of an area, compared with other areas in Australia.

### References

- Brinkman, S., Harman-Smith, Y., Collier, L., & Gregory, T. (2020). Hidden vulnerabilities in our communities. Australian Government, Canberra. https://www.aedc.gov.au/resources/detail/hidden-vulnerabilities-in-communities
- Goldfeld, S., O'Connor, M., Chong, S., Gray, S., O'Connor, E., Woolfenden, S., Redmond, G., Williams, K., Mensah, F., Kvalsig, A., Badland, H. (2018). The impact of multidimensional disadvantage over childhood on developmental outcomes in Australia. International Journal of Epidemiology, 47(5), 1485-1496. https://doi.org/10.1093/ije/ dyy087
- Lamb, S., Huo, S., Walstab, A., Wade, A., Maire, Q., Doecke, E., Jackson, J. & Endekov, Z. (2020). Educational opportunity in Australia 2020: Who succeeds and who misses out. Centre for International Research on Education Systems, Victoria University. https:// www.vu.edu.au/sites/default/files/educational-opportunity-inaustralia-2020.pdf
- Venkatapuram, S., Bell, R., & Marmot, M. (2010). The right to sutures: social epidemiology, human rights, and social justice. Health and human rights, 12(2), 3–16. https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC3694312/
- Australian Institute of Health and Welfare (AIHW). (2020). Australia's Children (Cat. no. CWS 69). Canberra. https://doi. org/10.25816/5ebca4d0fa7dd
- Royal Australasian College of Physicians (RACP). (2018). Inequities in Child Health: Position Statement. https://www.racp.edu.au/advocacy/ policy-and-advocacy-priorities/inequities-in-child-health
- Braveman, P., & Barclay, C. (2009). Health disparities beginning in childhood: A life-course perspective. Pediatrics, 124 Suppl 3, S163-75. https://doi.org/10.1542/peds.2009-1100D
- Moore, T. G., McDonald, M., Carlon, L., & O'Rourke, K. (2015). Early childhood development and the social determinants of health inequities. Health Promotion International, 30(2), ii102-ii115. https:// doi.org/10.1093/heapro/dav031
- 9. For the purposes of the AEDC, children who come from a Language Background Other Than English (LBOTE) are children who speak a language other than English at home or speak English at home but are still considered to have English as a Second Language (ESL) status. Children have ESL status if English is not their first language and they need additional instruction in English; or English is not their first language and they have conversational English but are not yet proficient in English.
- Goldfeld, S., O'Connor, M., Mithen, J., Sayers, M., & Brinkman, M. (2014). Early development of emerging and English-proficient bilingual children at school entry in an Australian population cohort. International Journal of Behavioral Development, 38(1), 42-51. https://doi.org/10.1177/0165025413505945
- Lesaux, N. K., & Siegel, L. S. (2003). The Development of Reading in Children Who Speak English as a Second Language. Developmental Psychology, 39(6), 1005-1019. https://doi.org/10.1037/0012-1649.39.6.1005
- Lesaux, N. K., Rupp, A. A., Siegel, L. S. (2007). Growth in reading skills of children from diverse linguistic backgrounds: Findings from a 5-year longitudinal study. Journal of Educational Psychology, 99(4), 821–834. https://doi.org/10.1037/0022-0663.99.4.821

- The rural category includes remote and regional Australia. The metropolitan category includes the major cities of Australia.
- 14. Arefadib, N. and Moore, T.G. (2017). Reporting the Health and Development of Children in Rural and Remote Australia. The Centre for Community Child Health at the Royal Children's Hospital and the Murdoch Children's Research Institute, Parkville, Victoria. https:// www.rch.org.au/ccch/research-projects/Reporting\_the\_Health\_and\_ Development\_of\_Children\_in\_Rural\_and\_Remote\_Australia/
- Brinkman, S. A., Gialamas, A., Rahman, A., Mittinty, M. N., Gregory, T. A., Silburn, S., Goldfeld, S., Zubrick, S. R., Carr, V., Janus, M., Hertzman, C., & Lynch, J. W. (2012). Jurisdictional, socioeconomic and gender inequalities in child health and development: analysis of a national census of 5-year-olds in Australia. BMJ Open, 2(e001075). http://dx.doi.org/10.1136/bmjopen-2012-001075
- Collier, L. R., Gregory, T., Harman-Smith, Y., Gialamas, A., & Brinkman, S. A. (2020). Inequalities in child development at school entry: A repeated cross-sectional analysis of the Australian Early Development Census 2009–2018. The Lancet Regional Health - Western Pacific, 4(100057). https://doi.org/10.1016/j.lanwpc.2020.100057
- Edwards, B., & Baxter, J. (2013). The tyrannies of distance and disadvantage: Factors related to children's development in regional and disadvantaged areas of Australia (AIFS Research Report No. 25). Australian Institute of Family Studies, Melbourne https://aifs.gov.au/ research/research-reports/tyrannies-distance-and-disadvantage; RACP. 2018
- Molloy, C., O'Connor, M., Guo, S., Lin, C., Harrop, C., Perini, N., & Goldfeld, S. (2019). Potential of 'stacking' early childhood interventions to reduce inequities in learning outcomes. The Journal of Epidemiology and Community Health, 73(12), 1078-1086. https://doi. org/10.1136/jech-2019-212282
- Goldfeld, S., Gray, S., Azpitarte, F., Cloney, D., Mensah, F., Redmond, G., Williams, K., Woolfenden, S., & O'Connor, M. (2019). Driving precision policy responses to child health and developmental inequities. Health Equity, 3(1), 489-494. https://doi.org/10.1089/ heq.2019.0045
- Marmot, M. (2013). Fair society, healthy lives. https://www. instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review

Venkatapuram, S., Bell, R., & Marmot, M. (2010). The right to sutures: social epidemiology, human rights, and social justice. *Health and human rights*, 12(2). 3.

VicHealth 2015, Addressing determinants in healthy settings approaches, Victorian Health Promotion Foundation.

#### © 2023 Commonwealth of Australia

Since 2002, the Australian Government has worked in partnership with eminent child health research institutes, The Centre for Community Child Health at The Royal Children's Hospital, Melbourne, and the Murdoch Children's Research Institute, Melbourne, and the Telethon Kids Institute, Perth to deliver the Australian Early Development Census program to communities nationwide. The Australian Government continues to work with its partners, and with state and territory governments to implement the AEDC.