

AEDC 2021 Data Story

National Trends in Child Development



How is child development changing in Australia?

Since 2009, Australia has conducted the Australian Early Development Census (AEDC) every three years. The AEDC tracks how well children's development is supported in the first five years of life across five areas, or domains, encompassing their physical, social, emotional, linguistic, and cognitive development. Trends in AEDC data over time demonstrate where progress has been made and potential gaps. Exploring trends in AEDC data alongside policy, social and environmental changes points to where future efforts should be focused to achieve better outcomes for all children in Australia.

What we know

Investing in children and families early in life reduces expenditure and demand on education, health, and justice systems.

Children who have a strong foundation come to school with skills and dispositions that enable them to engage in and benefit from our world class education system. Learning begets learning, and without intervention, children who start behind do not catch up in our school system.

Key messages

- Child development has improved in Australia since the first collection of the AEDC in 2009. Equity gaps in child development remain between children living in the most and least socio-economically disadvantaged communities and for Aboriginal and Torres Strait Islander children.
- Overall, Australia has a relatively stable early childhood system that has seen refinement rather than reform over time. This consistency is reflected in national data, with AEDC trends remaining relatively stable since 2012. The most notable reforms, UANP, NQS, and EYLF, are likely to have contributed to shifts in the AEDC in 2012.
- The language and cognitive skills (school-based) domain has seen the largest improvements, with little change in the social and emotional development of children over time. The growth of ECEC provision and quality in Australia is likely reflected in the observed improvements in children's early literacy and numeracy and oral and receptive language skills at school entry.

A snapshot of the Australian Early Development Census



Over **95%** of all children in their first year of full-time school have been included in each census



That is a total of **305,015** children in 2021, and **1,467,091** children over five collections



17,571 teachers and **7,470** schools participated in the 2021 collection



Children are on average **5 years 7 months** old at the time of the census



Around **51%** are boys and **49%** are girls

Early development is strongly related to school and wellbeing outcomes

Internationally, research has demonstrated the importance of a child's early environments, the way these shape development, and the foundational nature of early development for later health, wellbeing, and economic outcomes (Baulos & Heckman, 2022). Recognising the importance of the first five years, the Australian Government established the AEDC, a triennial census of children's development captured in the first year of full-time school. Five collections have now been conducted following the first national census in 2009, providing population trend data spanning 12 years. AEDC data has been used to build an evidence base about the early years of life for children in Australia.

Research using the AEDC has demonstrated the strength of the relationships between early development, environmental exposures, and the impact on children's outcomes later in life in Australia. The extent to which early adversities are mitigated by our universal service system and early targeted supports has also been demonstrated (Brinkman, 2014). Key findings include the link between early development and children's NAPLAN trajectories (Green et al., 2019), mental health (Brinkman et al., 2013) and wellbeing in schools (Gregory et al., 2021).

Inequalities in child development persist and gains made have not been universal

The AEDC reports on three summary indicators. Developmentally vulnerable on one or more domain(s) (DV1, Vuln 1), developmentally vulnerable on two or more domains (DV2, Vuln 2), and on track on all five domains (OT5). Over time, Australia has seen improvement across these three summary indicators. This data story focuses on the OT5 indicator, a strengths-based indicator which was introduced as a summary indicator for the 2021 collection.

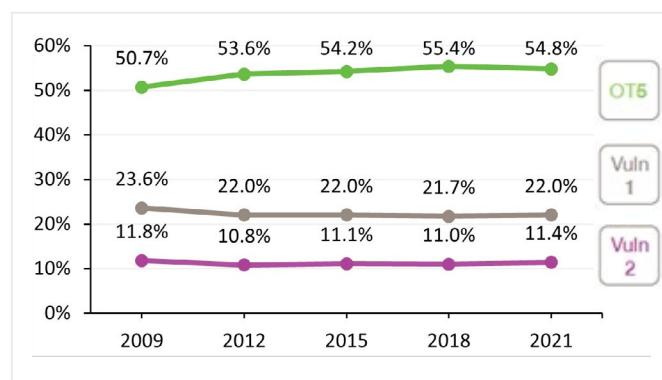


Figure 1: AEDC summary indicator trends 2009-2021

The AEDC highlights that in Australia not all children arrive at school with a sound developmental foundation. In 2021, around 55 per cent of children were on track on all five domains when they commenced school, however, this figure was lower for children living with adversities in their early years. Neighbourhoods contribute to child development with local resources, access to support and services, and community networks making a difference for children and families.

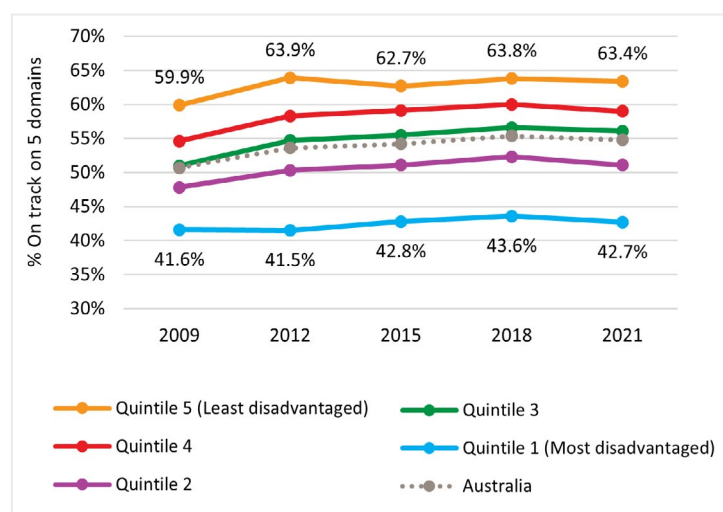


Figure 2: Trends in OT5 by socio-economic status 2009-2021

While gains have been made at a national level in the rate of children starting school on track on all five domains of development, the gap between the development of children living with socio-economic disadvantage and children from more advantaged backgrounds has remained constant.

The Australian Bureau of Statistics divides communities into five geographical classes: major cities, inner regional, outer regional, remote or very remote. These groupings reflect communities' relative access to support and services. Exploring how child development differs across these areas provides insight into the services available for children and families in the first five years of life, along with how local environments contribute to the wellbeing of children and families. Nationally, improvements in children starting school on track on all five domains are evident across all regions of Australia, however a gap remains for children living in regional and remote areas of Australia. This gap widened in 2021. Research linking the AEDC to children's later mental health has found this early elevated risk is related to a higher prevalence of mental health risk in regional communities (Harris et al., 2022).

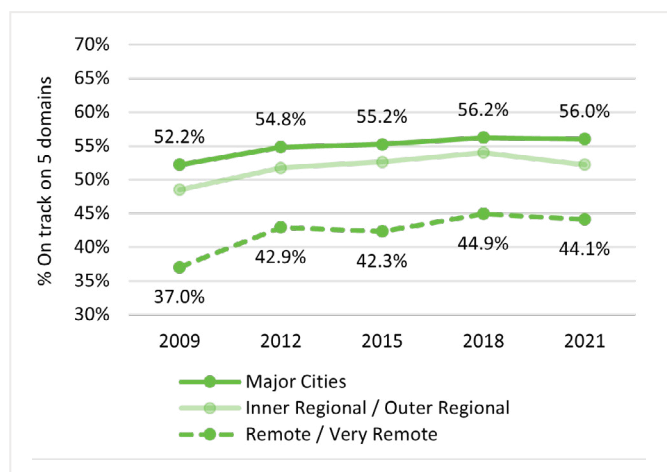


Figure 3: Trends in OT5 by remoteness 2009 - 2021

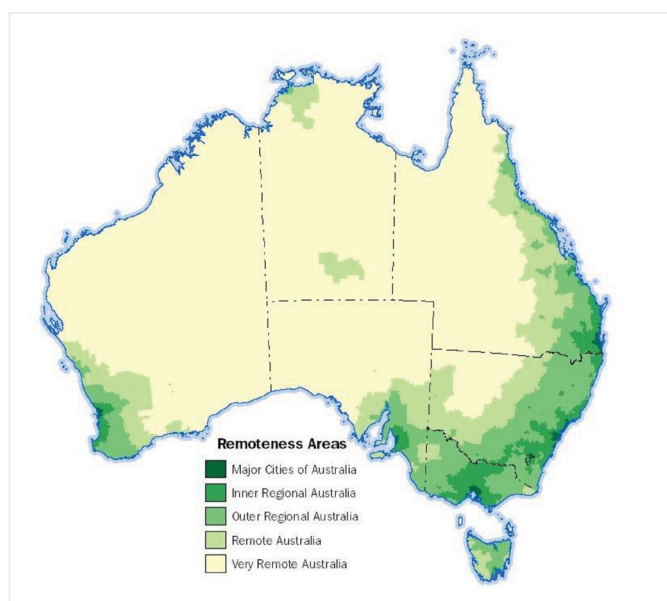


Figure 4: Remoteness classifications in Australia

In 2021, children with a language background other than English (LBOTE) had the largest improvements in child development. The gap in development for children with an English only background and children with a LBOTE was seen in language and cognitive skills; likely reflecting proficiency in English.

Nationally we can learn from where the greatest shifts have taken place

The AEDC measures children's development in five areas, or 'domains'. Exploring development across the AEDC domains sheds light on what is improving for children in Australia. Since 2009, increases in the children developmentally on track have been most evident in the language and cognitive skills (school-based) and communication skills and general knowledge domains (measuring early literacy and numeracy and oral and receptive language, respectively). Little progress has been made in supporting the social and emotional development of children in Australia. These trends in the language and cognitive skills (school-based) domain are further explored in the AEDC 2021 Data Story: Issue 6 Language and cognitive skills.

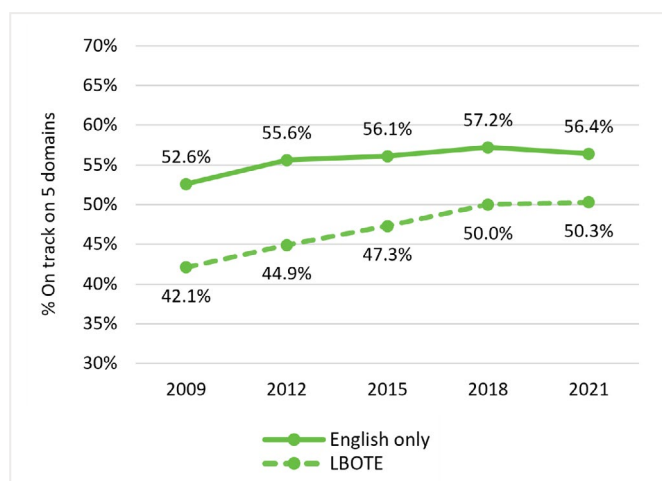


Figure 5: Trends in OT5 by LBOTE status 2009 - 2021

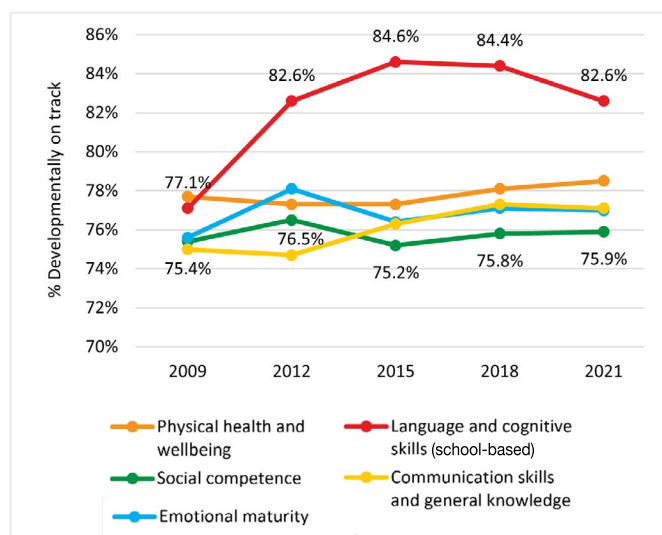


Figure 6: National trends in children on track on each AEDC domain 2009 - 2021

While most states and territories have seen improvements in the percentage of children developmentally on track on all five domains, there has been variation across jurisdictions over time. Jurisdictional differences over time are likely to reflect contextual differences and variations in support for children and families in the early years.

While Queensland and Western Australia have seen improvements in the percentage of children on track on all five domains, in the Australian Capital Territory there has been a persistent decline. A similar decline was evident in Tasmania in 2018 and 2021. Factors driving these trends are not yet well understood, with more research needed to determine how variations in policies and contexts across states and territories are differentially supporting children's development.

Demographic changes for children living in Australia

With over 12 years of data collection, there have been changes to the makeup of families in Australia. Shifts in populations have occurred alongside changes in development within population groups.

Since 2009 there has been an increase in the percentage of children with an Aboriginal and Torres Strait Islander background and children with diverse language backgrounds.

Most children in Australia live in metropolitan areas surrounding capital cities. There has been a steady decrease in children living in regional and remote areas of Australia, with more children in the AEDC living in major cities in each collection.

In 2021, a smaller percentage of children lived in the most disadvantaged communities, with growth in the percentage of children living in mid to high socio-economic communities.

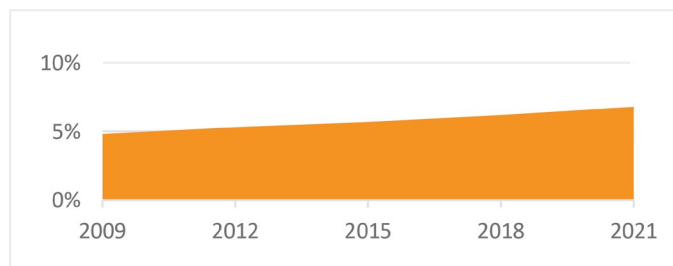


Figure 7: Percentage of Aboriginal and Torres Strait Islander children included in the AEDC data collections 2009 - 2021

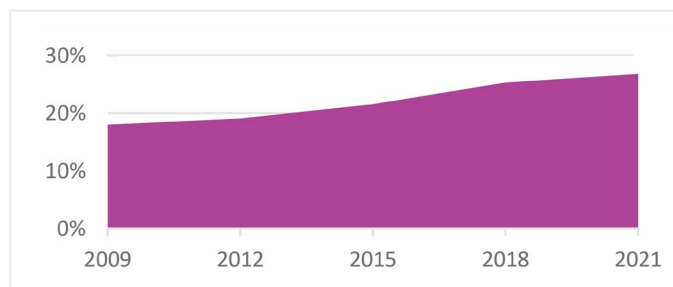


Figure 8: Percentage of children with a language background other than English in the AEDC from 2009 - 2021

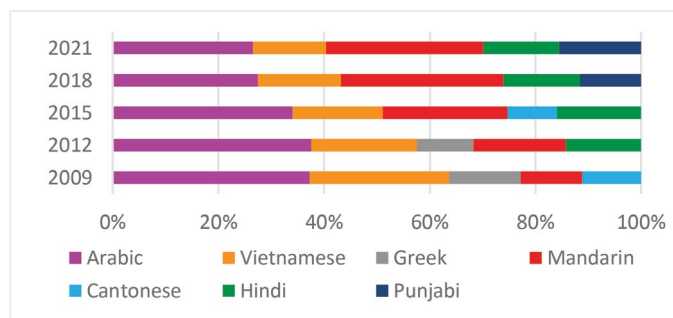


Figure 9: Top 5 non-English speaking language backgrounds in the AEDC from 2009 - 2021

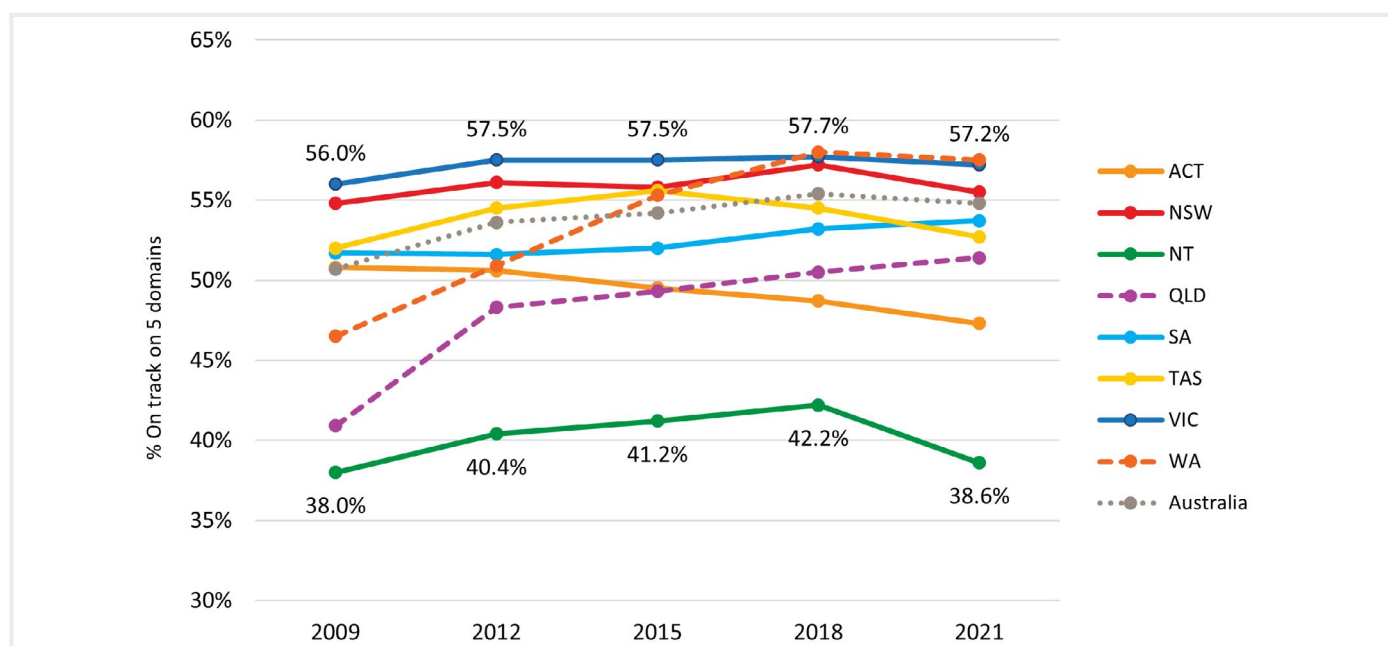


Figure 10: Trends in the percentage of children on track on five domains (OT5) across states and territories from 2009 - 2021

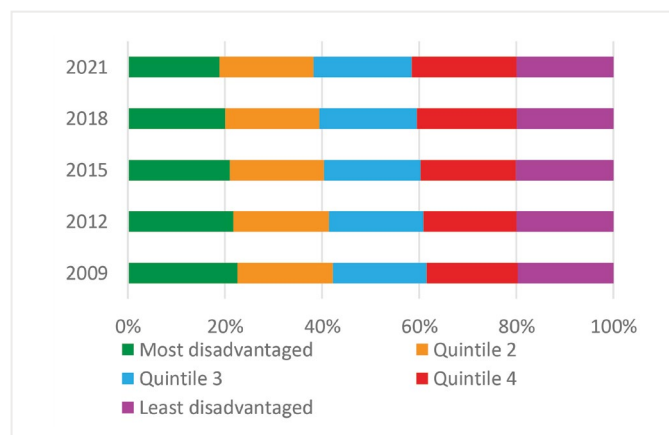


Figure 11: Distribution of children across SEIFA quintiles in AEDC collections from 2009 - 2021

Australia has a largely stable policy landscape

Australia has a comprehensive early childhood system with universal services and targeted support programs available to families from pregnancy through to school age. A minimum level of antenatal service provision is provided to all families, free of charge, with community maternal and child health services available once a child is born. Services differ across jurisdictions, but they all offer a minimum level of care with little or no cost for families (Cahill, Harman-Smith, Harvey & Ansell, 2022).

Additionally, early education and care (ECEC) programs are universally available across Australia. Increasing the quality of these services has been a priority of Commonwealth and State and Territory governments over the past decade. Notably, the early years service provision landscape in Australia has grown since the first AEDC collection in 2009. The largest changes came about following the introduction of the Universal Access National Partnership (UNAP) and the Early Years Learning Framework (EYLF) in 2010 (Parliamentary Library, 2014). The UNAP ensured all children were provided access to 15 hours of a four-year-old preschool program, and the EYLF specified the curriculum approach for early years services. With the simultaneous introduction of the National Quality Standard (NQS), the quality of ECEC services has also improved since program quality measurement commenced universally in Australia in 2012.

Since Australia started measuring early childhood development in 2009, there have been a number of policy changes that are likely to have contributed to the way children and families access services, the quality of those services, and the cultural backgrounds of families in Australia.

Notably, since 2012 the ECEC sector has had a strong focus on increasing children's enrollment and attendance and improving the quality of services. In 2022, 12 per cent of services nationally were not meeting the NQS (ACECQA,

2022). Recently several jurisdictions have introduced policies to provide three-year-old preschool, the impacts of this may be seen in the development of children in the 2024 collection and beyond.

Since 2009, Australia has also seen the introduction of the NDIS, shifts in immigration policy and changes to funding for mental health services. More research is needed to understand how these have impacted children's development in Australia.

Implications for policy and practice

AEDC data has consistently highlighted inequities in children's development related to where they live and how well the system of services and supports is oriented to their cultures and contexts. Reducing inequalities in children's development will require coordinated efforts, informed by the contexts, beliefs and values of communities. Partnerships between policy makers, service providers, researchers and communities are needed to develop a stronger evidence base about what will work to create and sustain an early years system that reduces the impact of socio-economic disadvantage on children's life chances.

Highlights

- Nationally more children are starting school on track on all five domains of development measured by the AEDC
- An equity gap persists for children living in the most and least socio-economically disadvantaged communities
- The largest improvements in child development over time have occurred in QLD and WA

References

ACEQA (2022). The first decade of the NQF: The first 10 years of Australia's National Quality Framework for children's education and care. Occasional Paper 8. Australian Children's Education and Care Quality Authority. Available at: https://www.acecqa.gov.au/sites/default/files/2022-07/occasional_paper_8_-_desktop_published_version_6_1.pdf

Baulos, A., & Heckman, J. (2022). The Importance of Investing in Early Childhood Development and the Role of Families. In A. Betts, & K. Thai (Ed.), *Handbook of Research on Innovative Approaches to Early Childhood Development and School Readiness* (pp. 38-54). IGI Global.

Brinkman, S. (2014). Perinatal predictors of child development: Research snapshot. Australian Government, Canberra. Available at <https://www.aedc.gov.au/resources/detail/perinatal-predictors-of-child-development>

Brinkman, S., Gregory, T., Harris, J., Hart, B., Blackmore, S., & Janus, M. (2013). Associations Between the Early Development Instrument at Age 5, and Reading and Numeracy Skills at Ages 8, 10 and 12: a Prospective Linked Data Study. *Child Indicators Research*, 6, 695-708. doi: [10.1007/s12187-013-9189-3](https://doi.org/10.1007/s12187-013-9189-3)

Cahill, R., Harman-Smith, Y., Harvey, E., & Ansell, D. (2022). An Overview of Early Childhood Health and Education Service Provision in Australia, Life Course Centre Working Paper Series, 2022-17. Institute for Social Science Research, The University of Queensland. Available at <https://lifecoursecentre.org.au/working-papers/an-overview-of-early-childhood-health-and-education-service-provision-in-australia/>

Green, M.J., Tzoumakis, S., Laurens K.R., Dean, K., Kariuki, M., Harris, F., Brinkman, S.A., & Carr, V. (2019). Early developmental risk for subsequent childhood mental disorders in an Australian population cohort. *Australian & New Zealand Journal of Psychiatry*, 53(4), 304-315. doi: [10.1177/0004867418814943](https://doi.org/10.1177/0004867418814943)

Gregory, T., Dal Grande, E., Brushe, M., Engelhardt, D., Luddy, S., Guhn, M., Gadermann, A., Schonert-Reichl, K., & Brinkman, S. (2021). Associations between School Readiness and Student Wellbeing: A Six-Year Follow Up Study. *Child Indicators Research*, 14, 369-390. doi: [10.1007/s12187-020-09760-6](https://doi.org/10.1007/s12187-020-09760-6)

Harris, F., Dean, K., Laurens, K.R., Tzoumakis, S., Carr, V.J., & Green, M.J. (2022). Regional mapping of early childhood risk for mental disorders in an Australian population sample. *Early Intervention in Psychiatry*, 1-9. doi: [10.1111/eip.13281](https://doi.org/10.1111/eip.13281)

For further information

About AEDC 2021 Data Stories

AEDC 2021 Data Stories provide an in-depth exploration of some of the key findings from the **2021 AEDC National Report**. This is the second issue in a series of seven AEDC data stories. The AEDC program is funded by the Australian Government. For further up-to-date information consult the AEDC website and its many resources: www.aedc.gov.au.

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.

Suggested citation

Harman-Smith, Y., Gregory, T., Sechague Monroy, N., & Perfect., D. (2023). Trends in Child Development (AEDC 2021 Data Story). Australian Government, Canberra. Available at www.aedc.gov.au

About the Telethon Kids Institute

The Telethon Kids Institute is one of the largest, and most successful medical research institutes in Australia, comprising a dedicated and diverse team of more than 1,000 staff and students. Our vision is simple – happy healthy kids. We bring together community, researchers, practitioners, policy makers and funders, who share our mission to improve the health, development and lives of children and young people through excellence in research. Importantly, we want knowledge applied so it makes a difference. Our goal is to build on our success and create a research institute that makes a real difference in our community, which will benefit children and families everywhere.