



Stronger Starts, Brighter Futures II:

Exploring trends to promote the early
development of children from culturally and
linguistically
diverse backgrounds in Australia

Occasional Paper • Number 5
February 2024

Acknowledgement of Country

SSI acknowledges the Aboriginal and Torres Strait Islander peoples as the First Australians and Traditional Custodians of the lands where we live, learn and work.

We pay respect to Elders past and present and recognise their continuous connection to Country.

Stronger Starts, Brighter Futures II:

Exploring trends to promote the early development of children from culturally and linguistically diverse backgrounds in Australia

Benjamin Lam
Tadgh McMahon
Toni Beauchamp
Eric Badu
Sally Brinkman

Suggested citation:

Lam, B., McMahon, T., Beauchamp, T., Badu, E. & Brinkman, S. (2024). *Stronger Starts, Brighter Futures II: Exploring trends to promote the early development of children from culturally and linguistically diverse backgrounds in Australia*. Occasional Paper – Number 5. © SSI/ Education Futures University of South Australia 2024

DOI: <https://doi.org/10.25954/r0n2-se65>
Photo Credits: Cover and p. 91, Simon Scott
Photo

Contents

Key messages	4
Recommendations	7
Key Findings – At a glance	8
Executive Summary	13
Background	16
Research methods	26
– Data sources: About the AEDC	26
Research questions	29
Part 1: Findings at a national level	33
– Trends in the early development of children from CALD backgrounds across Australia	33
– Trends in ECEC attendance among children from CALD backgrounds across Australia	38
– The relationship between ECEC attendance and early development outcomes among children from CALD backgrounds across Australia	45
– Estimates of young children from CALD backgrounds with developmental vulnerabilities across Australia	54
Part 2: Equity based analysis	57
– The underlying characteristics of children from CALD and non-CALD backgrounds	57
– Impact of English proficiency on developmental outcomes	63
– Demographic differences for ECEC attendance amongst children of CALD and non-CALD backgrounds	66
Part 3: Findings at a state level: NSW, QLD and VIC	71
– Trends in the early development of children from CALD backgrounds in NSW, QLD, VIC	71
– Trends in ECEC attendance among children from CALD backgrounds in NSW, QLD, VIC	77
Conclusion	87
Link to Appendices	87
References	88

Key messages

Early childhood education in the pre-school years is critical to a strong start in life and Australian children starting school are becoming more culturally diverse

- There is compelling evidence of the benefits of early childhood education and care (ECEC) (e.g. preschool, day-care and playgroups) to reduce children's developmental vulnerabilities, facilitate successful transition to school, and promote positive outcomes throughout the life course.
- Evidence shows that participation in quality ECEC in the two-years before starting school is especially beneficial for disadvantaged children.
- The demographic reality of increasing cultural diversity in Australia is reflected in early childhood with almost 26 per cent of children enrolled in their first year of full-time schooling in 2021 being from a culturally and linguistically diverse (CALD) background (up from 17 per cent in 2009).
- Children from CALD backgrounds are over-represented in more disadvantaged socio-economic areas, though this trend is decreasing over time.
- Over 90% of children from CALD backgrounds reside in major cities in Australia.
- This research uses data from the Australian Early Development Census (AEDC) to present analyses of data from this nationwide census of children starting their first year of full-time schooling over five time points 2009, 2012, 2015, 2018 and 2021. We examine national data and data for the three most culturally diverse jurisdictions: New South Wales, Queensland and Victoria.

Children from culturally diverse backgrounds in Australia are much less likely to participate in early childhood education and early intervention programs before school

- Overall, 82 per cent of children from CALD backgrounds attended some form of ECEC in 2021, compared to 90 per cent of non-CALD children – a gap that is seen across all national cohorts of the AEDC from 2009 to 2021.
- The gaps in ECEC attendance between children from CALD and non-CALD backgrounds vary by type of ECEC:
 - while attendance at preschool (the most common type of ECEC in Australia) among children from CALD backgrounds has increased slightly from 2018 to 2021, there remains a significant gap in preschool attendance between children from CALD and non-CALD backgrounds, though the gap has narrowed;
 - a similar result is seen in attendance at playgroups which has seen a drop in attendance for all children in recent years;
 - however, attendance by children from CALD backgrounds in early intervention programs (i.e., professional support such as speech therapy, occupational therapy, or disability support) is particularly low (almost half compared to that of non-CALD children), a significant gap that has persisted across all five waves of the AEDC since 2009.
- Children from the most disadvantaged socio-economic backgrounds are less likely to participate in early childhood education irrespective of their cultural backgrounds.

- There was little variation in the patterns of ECEC attendance among children from CALD backgrounds between the national level and the three jurisdictions – New South Wales, Queensland and Victoria – examined in this analysis of the AEDC.

Children from culturally diverse backgrounds in Australia more likely to be developmentally vulnerable when they start school

- Children from CALD backgrounds are more likely to be developmentally vulnerable at school entry than non-CALD children, as measured by the AEDC. This was consistent across all five AEDC cohorts of children from 2009 to 2021, though the gap has been closing over time.
- However, the absolute number of children from CALD backgrounds who are developmentally vulnerable at school entry has remained stable in recent years, reflecting an increase in the proportion of children from CALD background in the general population.
- Overall, children from CALD backgrounds in Australia in 2021 who do not attend any type of ECEC are almost 1.8 times more likely to be developmentally vulnerable, compared to those who attend.
- The largest gap in developmental vulnerability between CALD children and other children is on the Communication skills and general knowledge domain of the AEDC, a domain associated with English language proficiency.

- An equity-based analysis of the 2015, 2018 and 2021 AEDC found that:

- socio-economic disadvantage is the largest driver of developmental vulnerability for all children. Almost a third of children from CALD backgrounds living in the most disadvantaged socio-economic areas were developmentally vulnerable compared to 1 in 6 of their peers living in the most advantaged areas.
- English language proficiency also plays a large role in the risk of developmental vulnerabilities at school entry for CALD and non-CALD children.
- large differences exist in English proficiency between children from CALD and non-CALD backgrounds. For example, just over half of CALD children have good/very good English, compared to three quarters of non-CALD children: roughly 1 in 10 children from CALD backgrounds have poor/very poor English compared to 1 in 20 of non-CALD children.

“ this research estimates using the 2021 Census that there are more than 390,000 children from CALD backgrounds aged 0–4 in the Australian population.

Lifting attendance among children from CALD backgrounds in early childhood education and early intervention is vital to reduce developmental vulnerabilities and address equity issues

- The analysis of the AEDC in this report quantifies the link between lack of access to ECEC and poorer developmental outcomes for increasing numbers of children from CALD backgrounds at school entry, jeopardising their transition to school and outcomes throughout the life course.
 - Preschool attendance continues to have the strongest positive relationship with developmental outcomes among children from CALD backgrounds. Specifically, CALD children who did not attend preschool had 2.08 times greater odds of being developmentally vulnerable on one or more of the AEDC domains in 2021, compared to CALD children who did attend.
 - Playgroup and day-care attendance has smaller yet positive relationships with developmental outcomes for CALD children.
 - CALD children tend to have poorer English proficiency. Model based predictions show that by having an average level of English proficiency, the probability of having a developmental vulnerability drops by half. Conversely, poor/very poor English almost guarantees a developmental vulnerability on one or more domains regardless of cultural background.
 - For bilingual children, attending high quality ECEC settings such as preschool is an effective way to support the development of their English language skills prior to school entry.
 - The evidence is clear. Participation in ECEC and early intervention has significant educational and social benefits over the life course.
 - In addition, modelling indicates that the positive social outcomes of participation in early childhood education and early intervention generate a measurable and significant economic benefit to Australia.
 - Taken together these findings align with the literature which highlights the multiple barriers that CALD families face in accessing quality early childhood education and early intervention.
 - This research indicates that there are many CALD children who, together with their families, require a suite of universal, targeted and place-based responses to increase their participation in learning and development in the pre-school years.
 - We know that strong early beginnings predict positive long-term trajectories of children. Conversely, children who start school behind generally stay behind. Addressing the service gaps evident in this analysis of trends in AEDC data will help to reduce developmental disparities between children from CALD and non-CALD backgrounds, and secure Australia's social, cultural and economic future.
 - Improving access to ECEC among CALD children requires a focused commitment at national and state and territory government levels to address the gaps and equity issues highlighted by this research.
-

Recommendations

Governments and policy makers should ensure that planning and funding for early childhood education reflects the significant numbers of CALD families needing access to child and family support in the early years. This should be reflected in the forthcoming National Early Years Strategy and subsequent Action Plans.

Governments at all levels should improve access and participation by children from CALD backgrounds in early childhood education and address financial and non-financial barriers to participation by children from CALD backgrounds.

Early childhood education providers and child and family services should work to reduce the barriers to early childhood education faced by families from CALD backgrounds through targeted initiatives that meet their needs and preferences. This could include enhancing the cultural responsiveness of providers, using early childhood education as a springboard to support families from CALD backgrounds and expand their social connections, and raising awareness about the benefits of play-based early learning among CALD communities.

All governments should scale up place-based initiatives in disadvantaged areas to improve child development and wellbeing and address entrenched disadvantage.

Governments should work with ECEC providers to co-design service models that include 'soft entry' points (e.g., supported playgroups) which are non-stigmatising and integrated approaches such as the National Community Hubs program. Growing evidence indicates that 'stacking' approaches and sustaining them over time is more impactful than single approaches to improve the early development of disadvantaged children including children from CALD backgrounds.

State and Territory governments should expand outreach initiatives to help disadvantaged families navigate the barriers they face in engaging in ECEC as canvassed by the Productivity Commission Inquiry into ECEC which is currently underway.

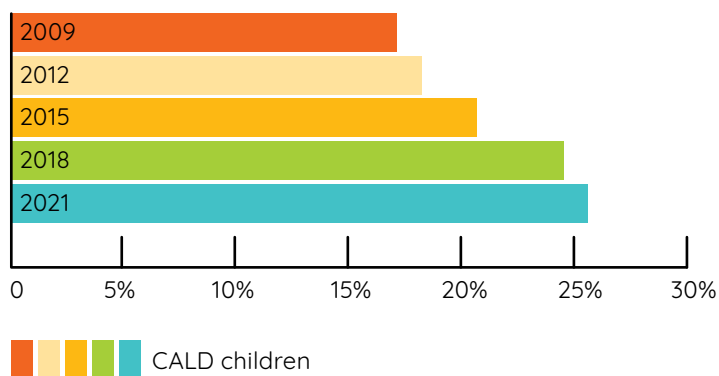
The Australian Government should review the reach of the Inclusion Support Program, managed by the Department of Education, to address persistent disparities in access to early childhood education and early intervention support for children from CALD backgrounds.

Settlement services working with newly-arrived migrants and refugees should actively raise awareness of the benefits and promote access to early childhood education, including 'soft-entry' points that matches the preferences and needs of newly-arrived migrant and refugee families.

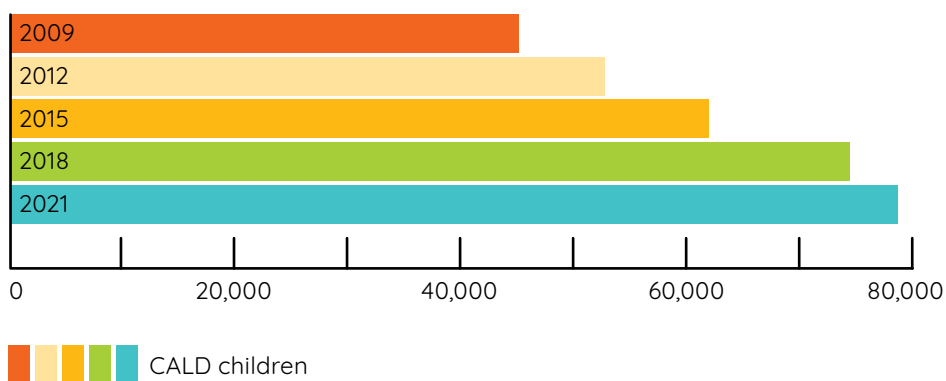
Key Findings - At a glance

Demographic trends in early childhood across Australia

The proportion of children from CALD backgrounds

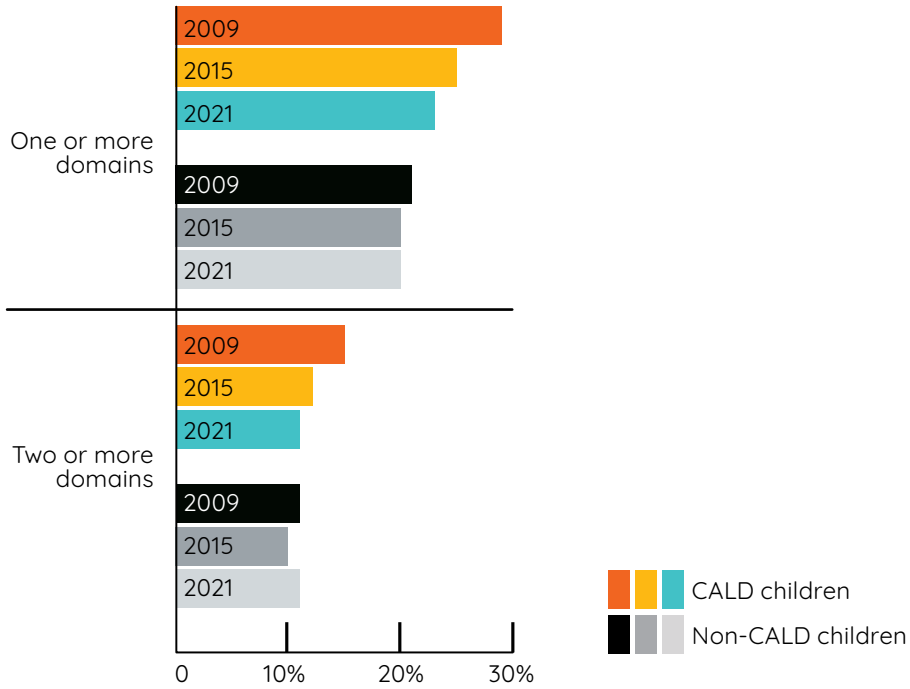


The number of children from CALD backgrounds

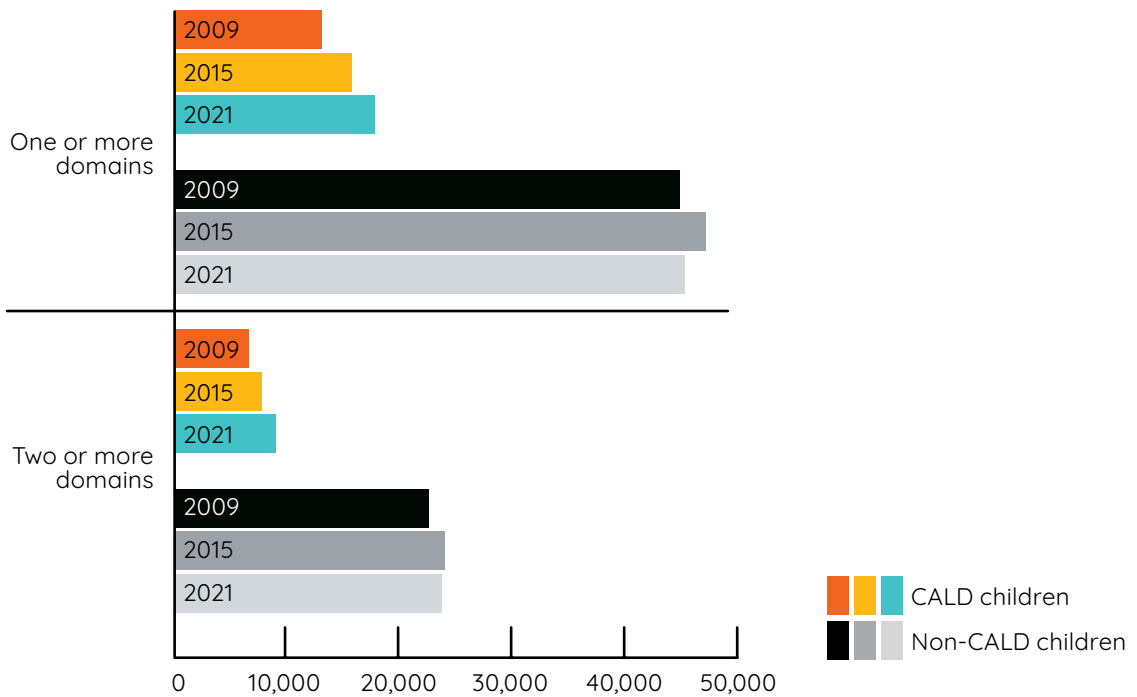


Trends in developmental vulnerability of children from CALD and non-CALD backgrounds across Australia

The proportion of children who are developmentally vulnerable on

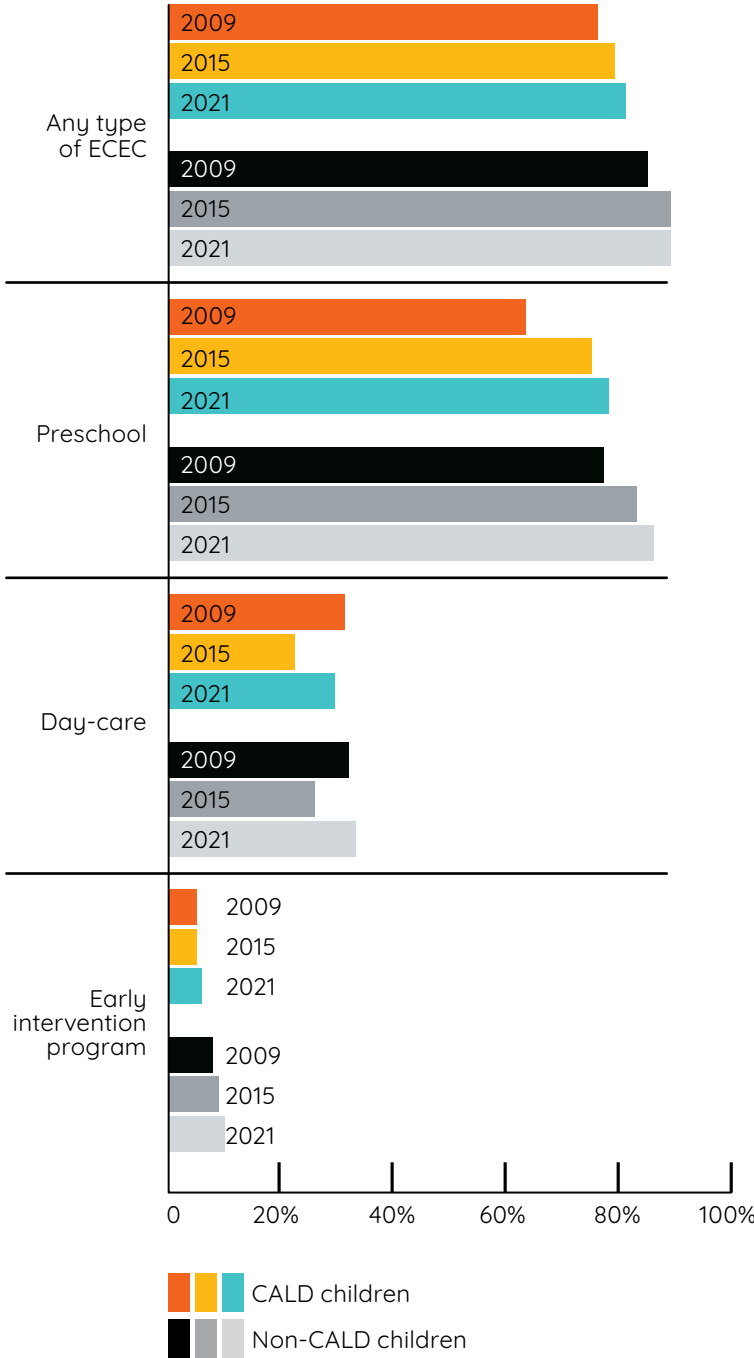


The number of children who are developmentally vulnerable on



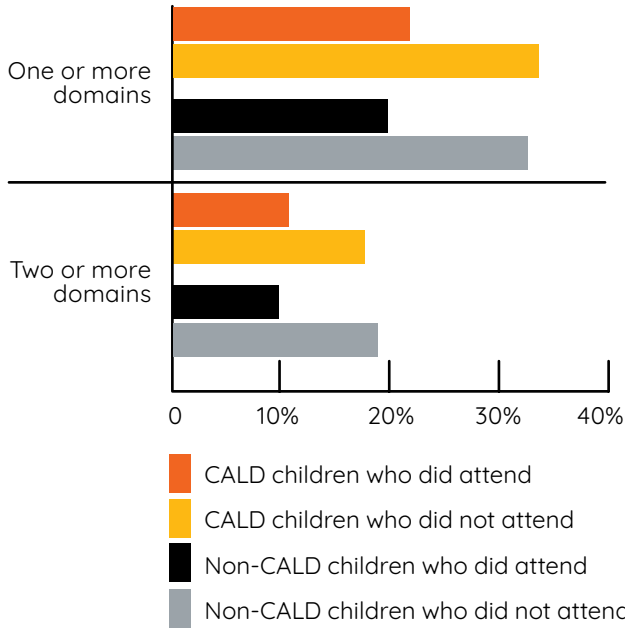
Trends in ECEC attendance among CALD and non-CALD children across Australia

Proportion of children who attended ECEC



Relationship between ECEC attendance and developmental vulnerability among children from CALD and non-CALD backgrounds across Australia (2021 AEDC)

The proportion of developmental vulnerability among children who attended ECEC in 2021





Executive Summary

Stronger Starts Brighter Futures II examines trends in early child development of children from culturally and linguistically diverse (CALD) backgrounds in Australia and their participation in Early Childhood Education and Care (ECEC), drawing on a national census of children. Families, neighbourhoods, and communities are the cornerstone of safety and support for children's development. Experiences in early childhood have lasting impacts throughout the life course and there is compelling evidence of the benefits of ECEC (e.g., preschool¹, day-care and playgroups) to reduce children's developmental vulnerabilities, facilitate successful transition to school, and promote positive outcomes throughout the life course. Evidence shows that participation in quality ECEC in the two-years before starting school is especially beneficial for disadvantaged children.

This report extends the findings of prior research conducted by SSI (and the Telethon Kids Institute) in 2021, offering a comprehensive update on the analysis of the Australian Early Development Census (AEDC). The AEDC is a nationwide census conducted every three years by educators, who assess children in their first year of full-time schooling based on their professional observations and insights. The AEDC measures child development across five domains with two summary indicators, evaluating whether children are developmentally vulnerable, at risk, or on track. Furthermore, it sheds light on children's engagement in five types of ECEC: preschool, day-care, playgroups, early intervention support, and other non-parental care options, providing valuable insights into the state

of early childhood development and ECEC participation in Australia.

This report examines how children from CALD backgrounds are faring in comparison to other children in Australia in terms of their development, their participation in ECEC and the relationship between participation in ECEC and developmental vulnerabilities. We also present the impact of children's socio-economic status, gender, where they live and whether they had special needs or not to provide deeper insights on developmental outcomes. Further we investigate these same predictors and their impact on ECEC participation among children from CALD backgrounds.

In this report, analyses of AEDC data was carried out at a national level and separately for the three most culturally diverse jurisdictions: New South Wales, Queensland, and Victoria. Data for just under 1.5 million children was available across five timepoints: 2009, 2012, 2015, 2018 and 2021 cohorts of children. The 2021 data indicates that New South Wales had the highest proportion of children from CALD backgrounds in their first year of full-time schooling (33 per cent) followed by Victoria (29 per cent) and Queensland (16 per cent).

The findings show that increasing cultural diversity in the Australian population is reflected in early childhood with almost 26 per cent of children enrolled in their first year of full-time school in 2021 being from a CALD background (up from 17 per cent in 2009). Children from CALD backgrounds are over-represented in more disadvantaged socio-economic areas of Australia, though this trend is decreasing over time. Unsurprisingly, over 90 per cent of children from CALD backgrounds reside in major cities.

¹ The terminology for different types of early childhood education varies across States and Territories. For an explanation of differences see: <https://raisingchildren.net.au/preschoolers/play-learning/preschool/preschool-in-your-state>

Children from CALD backgrounds in Australia are more likely to be developmentally vulnerable when they start school. This finding was consistent across all five AEDC cohorts of children from 2009 to 2021, though the gap has been closing over time. Socio-economic disadvantage is the largest driver of developmental vulnerability for all children. Almost a third of children from CALD backgrounds living in the most disadvantaged socio-economic areas were developmentally vulnerable compared to 1 in 6 of their peers living in the most advantaged socio-economic areas.

The largest gap in developmental vulnerability between children from CALD backgrounds and other children is on the Communication skills and general knowledge domain of the AEDC, a domain associated with English language proficiency. In this research we explored English language proficiency in more depth and found that it plays a large role in the risk of developmental vulnerabilities for all children. Large differences exist in English proficiency between children from CALD and non-CALD backgrounds with just over half of CALD children in the AEDC having good/very good English, compared to three quarters of non-CALD children. Relatedly, roughly 1 in 10 children from CALD backgrounds have poor/very poor English compared to 1 in 20 of non-CALD children.

Children from CALD backgrounds in Australia are much less likely to participate in early childhood education and early intervention support before school. Overall, 82 per cent of children from CALD backgrounds attended some form of ECEC in 2021, compared to 90 per cent of non-CALD children – a gap seen across national cohorts of the AEDC from 2009 to 2021. The proportion of children from CALD

backgrounds who do not attend any form of ECEC is almost double that of children from non-CALD backgrounds (in 2021, 12 per cent compared to 7 per cent).

Preschool remains the most common form of ECEC attended by all children in Australia. While attendance at preschool among children from CALD backgrounds has increased slightly from 2018 to 2021, there remains a significant gap in preschool attendance between children from CALD and non-CALD backgrounds, though the gap has narrowed. Early intervention support (i.e., speech therapy, occupational therapy, or disability support) continues to be significantly under-utilised by children from CALD backgrounds (about half the rate compared to non-CALD children), a trend that has been consistent across all five waves of the AEDC. Children from the most disadvantaged socio-economic backgrounds are less likely to participate in early childhood education irrespective of their cultural backgrounds. There was little variation in the patterns of ECEC attendance among children from CALD backgrounds between the national level and the three jurisdictions – New South Wales, Queensland and Victoria – examined in this analysis of the AEDC.

This research corroborates the existing evidence base of the strong relationship between ECEC attendance and positive developmental outcomes among children. Overall, children from CALD backgrounds in Australia who do not attend any type of ECEC are almost 1.8 times more likely to be developmentally vulnerable, compared to those who attend. Preschool attendance continues to have the strongest positive relationship with developmental outcomes: children from CALD backgrounds who did not attend preschool had more than two

times greater odds of being developmentally vulnerable on one or more domains, compared to children who attend. This report quantifies the link between poorer access to ECEC and poorer developmental outcomes for significant numbers of children from CALD backgrounds at school entry, jeopardising their transition to school and outcomes throughout the life course.

Australia is moving towards policies and programs in early childhood that work to enhance the holistic development of all children and address equity gaps. The economic impact of early childhood education in Australia shows a significant return on investment: for every dollar invested, Australia receives \$2 back over a child's life. Notably, the return on investment for the most disadvantaged children is in the order of \$10 to \$17 for every dollar invested. While there are shared challenges in terms of access to ECEC for disadvantaged children – and specific challenges for children from CALD backgrounds – international and Australian research shows that access and participation in ECEC can disrupt the cycle of disadvantage among children.

This research shows that children from CALD backgrounds tend to have poorer English proficiency. Model-based predictions conducted as part of this research show that by having an average level of English proficiency, the probability of having a developmental vulnerability drops by half. Conversely, poor/very poor English almost guarantees a developmental vulnerability on one or more of the AEDC domains regardless of cultural background. For bilingual children from CALD backgrounds, attending high quality ECEC such as preschool is an effective way to support the development of their English language skills prior to school entry.

The findings reported here align with research highlighting the multiple financial and non-financial barriers that CALD families face in accessing quality early childhood education and early intervention support in Australia. From the existing evidence base, common themes around 'what works?' to promote the early development of children from CALD backgrounds indicate that a mix of targeted and place-based interventions are needed to complement universal approaches to increase their participation in learning and development in the pre-school years. We know that strong early beginnings predict positive long-term trajectories of children. Conversely, children who start school behind generally stay behind. The gaps evident in this research of trends in AEDC data point to a set of recommendations for governments at all levels, early education providers and settlement providers to help to reduce developmental disparities between children from CALD backgrounds and other children in Australia, and secure Australia's social, cultural and economic future.

Background

The response to improving early childhood development in Australia is moving towards policies and programs that are universal, act early and work to enhance the holistic development of all children

Families, neighbourhoods and communities are the cornerstone of safety and support for children's development. While a child's development is shaped through these interactions, the wider socio-economic, political and cultural context also have a key influence on early life trajectories (Brinkman et al., 2013). Given the sensitivity of children to such a broad range of environmental factors, governments, researchers and practitioners are increasingly adopting whole-of-population or universal approaches to improve the development and quality of life of children (Brinkman & Stanley, 2014; Higgins, 2015)

Child development exists on a continuum (Higgins, 2015). The key to maximising the development of a child is to ensure that the right behaviours and environments are in place to promote development towards the positive end of the continuum (Higgins, 2015). Sensitive and responsive parent-child relationships as well as opportunities for stimulation play an important role in children's early development (Britto et al., 2017; Marmot, 2010). A stable environment that supports a child's health, nutritional, emotional, social and developmental needs is crucial to promote healthy development (Britto et al., 2017; Goldfeld et al., 2016).

Critical evidence-based interventions include antenatal care, home nurse visiting, early childhood education and care (ECEC), parenting programs and interventions in the early years of school (Centre for Community Child Health, 2023). Further, there is growing

evidence that "combining or 'stacking' evidence-based strategies across the early years, is more impactful than a single strategy ... (and) it's important (to) ...apply strategies at the same time and sustain them" (Centre for Community Child Health, 2023; Royal Commission into Early Childhood Education and Care, 2023).

Experiences in early childhood have lasting impacts throughout the life course. Children with developmental vulnerabilities when starting school are more likely to demonstrate poor literacy and numeracy skills in later school years (Brinkman et al., 2013). Children who have endured childhood abuse and neglect are more likely to demonstrate a range of difficulties later in life including mental health issues (Brinkman et al., 2013; Haslam et al., 2023).

Participation in ECEC is crucial to ensure that children start school with the skills and capacities needed to maximise their learning years (Brinkman et al., 2013). In Australia, ECEC is used to refer to formal and informal services that support children in the pre-school years. Access to high quality early learning in the two years before school prepare children to succeed in school and later life (O'Connell, Fox, Hinz, & et al., 2016).

The economic impact of early childhood education in Australia shows a significant return on investment: for every dollar invested, Australia receives \$2 back over a child's life (The Front Project, 2019). Similarly, early intervention that addresses child neglect and abuse is also crucial to prevent long-term vulnerabilities in later life (Britto et al., 2017). Further, investment in evidence-based early interventions with children at risk of harm or neglect is estimated to generate significant savings in the longer term (Social Ventures Australia, 2019).

A landmark report by the Mitchell Institute on early childhood education

reported that Australia does “not have a coherent or equitable policy framework and service delivery system for children and families” (O’Connell et al., 2016). By international standards public investment in ECEC remains low in Australia, compared to other OECD countries, with Australian families contributing 35 per cent to ECEC expenditure, whereas families in more than half of the OECD countries contribute only 10 per cent (OECD, 2017). Australia also has a higher proportion of non-government ECEC services, with more than three-quarters of Australian children attending private, not-for-profit or community-run services, compared to the OECD average of a third (OECD, 2017). That said, in recent years there has been a surge of policy and system-level changes at national and jurisdictional levels in Australia to strengthen support for children and families in the early years. At a national level there are several policy processes currently being progressed including the development of an Early Years Strategy and a Productivity Commission Inquiry on ECEC. In addition, the Australian Competition and Consumer Commission (ACCC) has recently completed a review of ECEC with a focus on costs, market forces and current regulatory responses (ACCC, 2024).

Comparisons with other countries on the early developmental trajectories of children from ethnic and minority backgrounds provides a useful backdrop to the Australian context but has limitations

It is unsurprising that poverty and the multiple financial and other constraints that flow from living in poverty (including access to health, nutrition, social and other supports) are the main driver of increased vulnerabilities for early child development (Brinkman & Stanley, 2014). Poverty can affect a child’s development from pregnancy when maternal health is crucial, to the time when caregivers seek access to early childhood education, and throughout schooling and adolescence.

A comparison carried out across eight OECD countries found that, after accounting for differences in income support and safety nets, there were higher poverty rates among children in migrant families in Australia than among children born to Australian-born parents (Hernandez, 2014). The challenges faced by newly arrived families may be exacerbated by a poor settlement and integration process. Integration and settlement in a new country is a complex process with multiple dimensions and involves mutual adaptation between migrants and the host society in a two-way exchange (Ndofor-Tah et al., 2023). Similarly, children from migrant backgrounds experience a range of intersectional challenges and opportunities stemming from cultural and socio-economic factors that occur in the context of: “how they are treated by others in the broader (host) society” (Hernandez, 2014)

While a brief exploration of how Australia compares with other countries is a useful backdrop, given the complexity of the drivers

of healthy child development and the vastly different contexts, an exploration of the evidence from Australia on children from culturally and linguistically diverse (CALD) backgrounds is required.

There is a demographic shift towards increasing cultural diversity in Australia, and this is reflected in increasing cultural and linguistic diversity among children in the early years

According to the Australia 2021 census, more than one in four people in Australia (28 per cent) were born overseas (up from 26 per cent in 2016) (Australian Bureau of Statistics, 2022). In 2021, 5.8 million people (23 per cent) reported speaking a language other than English at home (up from 22 per cent in 2016). This demographic shift is reflected in early childhood with more than 24 per cent of children enrolled in their first year of full-time school in 2018 being from a culturally and linguistically diverse (CALD) background (up from 17 per cent in 2009) (Rajwani, Culos, & McMahan, 2021).

Australia's culturally and linguistically diverse families include a range of education levels, English proficiencies, visa types and home environments – factors which impact early child development and later outcomes across the life course. In addition, broader inequalities stemming from the socio-economic, cultural and political environment all impact these families and early child development. Some analyses of ABS data have reported rates of poverty among migrants born in non-English speaking countries are almost double those born in a major English-speaking country and those born in Australia (Davidson, Bradbury, Wong, & et al., 2023). Lower employment rates among migrants from non-English

speaking countries are attributed to a range of factors including access to labour market information and networks, discrimination in employment, and barriers to skills and qualifications recognition (Davidson et al., 2023).

The AEDC data reveals that children living in socio-economically disadvantaged communities and children from non-English speaking backgrounds are two of the equity groups with lower participation rates in ECEC (CFEFCW, 2023; Productivity Commission, 2022) and are more likely to be developmentally vulnerable (The Front Project, 2022). A previous analysis of AEDC data from 2009-2018 commissioned by SSI found that children from culturally diverse backgrounds in Australia were less likely to participate in ECEC and were more likely to be developmentally vulnerable when they start school (Rajwani et al., 2021), and this is, in part, associated with children's English proficiency.

Niklas, Wirth, Guffler, Drescher, and Ehmig (2020) study explored this in more depth and noted several findings regarding the relationship between developmental outcomes and ECEC attendance for bilingual children in Australia. Bilingual children tend to exhibit weaker English language verbal abilities prior to starting school compared to children who primarily speak English at home.

Further, analysis by the Centre for Community Child Health explored the relationship between English proficiency of bilingual children when starting school and later academic outcomes (Dennaoui et al., 2016) using the Longitudinal Study of Australian children. Even when taking into account the influence of gender and socio-economic status in the analyses, stronger English proficiency at school entry is associated with higher academic language outcomes later in primary school. The study

found that Australian bilingual children who begin school with limited English proficiency are at risk of difficulties with language-based academic skills, even after six years of exposure to English in the classroom.

Attendance at high quality ECEC settings such as preschool is an effective way to support the development of English language skills prior to school entry (Niklas et al., 2020; O'Connor, Arnott, McIntosh, & Dodd, 2009). Previous analysis of AEDC 2009 data found that bilingual children who attended preschool had significantly higher odds of being proficient in English at school entry than those who had not attended preschool. In contrast, bilingual children who attended day care without preschool, informal nonparental care, or parental care only, had decreased odds of English proficiency at school entry (O'Connor et al., 2009).

Despite the demographic shift towards greater cultural diversity in Australia, Katz and Redmond (2010) reported that there is limited research on the developmental trajectories of children from CALD backgrounds with much of the existing research fragmentary and sporadic. From our current review of relevant literature, it appears that this assessment largely holds true today.

The benefits of quality early years education on childhood development are undisputed

Access to quality early childhood education centres and preschool positively influences the transition to school and helps develop social and cognitive skills, and self-regulation of behaviour. Children (three-year-olds from disadvantaged backgrounds), benefit significantly from earlier participation in ECEC particularly in building foundation for future learning. Earlier participation also provides greater opportunities for earlier

intervention to address health, learning and wellbeing issues (O'Connell et al., 2016). Conversely, many children who enter school developmentally vulnerable fail to catch up, with around 10 per cent remaining behind throughout the middle years and in their attempts to transition into further education or work (O'Connell et al., 2016).

The Lifting our Game Report, which was commissioned by senior officials from all states and territories, concluded that progressively implementing universal access to ECEC for three-year-olds, with access prioritised to disadvantaged families *“is the single most impactful reform Australia could undertake with international comparisons highlighting it as the biggest gap in the current system.”* (Pascoe & Brennan, 2017). This aligns with the international efforts over the past two decades, by organisations including the OECD, which has consistently encouraged universal access to early childhood education from age three (Bennett & Tayler, 2006).

Participation in early childhood education also generates an economic dividend with benefits accruing from higher earnings and workforce participation, increased tax revenue and considerable savings in health, education and justice (The Front Project, 2019, 2022). Notably, the return on investment for the most disadvantaged children is in the order of \$10 to \$17 for every dollar invested (The Front Project, 2022).

While there are a variety of types of ECEC, access to, and participation in, quality ECEC is still unevenly spread

ECEC settings vary based on the nature of the programs and the qualifications of the educators. Formal ECEC programs include preschool, with play-based educational programs delivered by qualified early childhood teachers, and long day care. Family day care programs, run from educators' homes, also cater to children aged three to five years old. On the other hand, "informal" education and care is typically offered by extended family or friends at their homes.

Service delivery and practice in the ECEC sector in Australia is guided by the National Quality Framework and the Early Years Learning Framework (Australian Government Department of Education, 2022). These frameworks emphasise the importance of children's existing knowledge, culture, ideas, abilities, and interests, while upholding their dignity and rights and involving families in decision-making processes. They also emphasise the importance of children's use of language to express their thoughts and explicitly acknowledge that competence is not tied to any particular language, dialect, or culture (Australian Government Department of Education, 2022).

While the overall trend points to greater use of various form of early childhood learning by Australian families (Australian Competition & Consumer Commission, 2023) when it comes to access, where you live matters. A recent analysis found that childcare in Australia is characterised by "deserts and oases"; while these exist right across Australia in metropolitan, regional and rural areas, deserts are strongly linked to areas with low socio-economic status and regional areas (Hurley, Matthews, &

Pennicuik, 2022). The type of early childhood learning also varies across geographic areas with indications of a higher share of family day care in less advantaged areas and a higher share of other types of ECEC in more advantaged areas (Australian Competition & Consumer Commission, 2023).

The evidence indicates that preschool which is jointly funded by the federal, and state and territory governments is the most effective form of early childhood education with a strong return on investment (The Front Project, 2019, 2022). Preschool includes kindergarten, preschool and pre-primary (different states and territories use different terminology) and is delivered by a range of providers (schools, long day-care, and standalone preschools). A previous analysis of AEDC data from 2009-2018 commissioned by SSI found that preschool attendance by children from culturally diverse backgrounds had the strongest positive relationship with development: those who did not attend preschool had more than twice the odds of being developmentally vulnerable compared to their peers who did attend preschool (Rajwani et al., 2021).

Access to ECEC has significant impacts on the current and future lives of Australians. Yet current policy settings are falling short with about 1 in 5 children developmentally vulnerable when they start school. About half of these children never catch up in primary or high school contributing to a higher likelihood of unemployment and ill-health throughout their lives (The Front Project, 2022). In recent years there is evidence that the gap in developmental vulnerability between the poorest and the wealthiest communities has increased (Molloy, Guo, & Goldfeld, 2023).

While there are shared challenges for disadvantaged children - and specific challenges for children from CALD backgrounds - to access early childhood learning, reducing these barriers can disrupt disadvantage

While ECEC benefits all children, it is particularly important for disadvantaged children (Goldfeld et al., 2016; Melhuish, 2004). International research shows that disadvantaged children benefit most from quality programs and initiatives because, in their absence, they are likely to spend less time in stimulating and supportive environments (Elango, García, Heckman, & Hojman, 2015). For disadvantaged children in Australia, participation in quality ECEC can help to break the cycle of disadvantage (Pascoe & Brennan, 2017). Yet research shows that disadvantaged children also face the greatest barriers to access (Melhuish et al., 2015) and are still the least likely to be attending. The groups consistently found to be most at risk of developmental vulnerability include children from low socio-economic backgrounds, Aboriginal and Torres Strait Islander children and children from CALD backgrounds (The Front Project, 2022). Common barriers include costs, complexity of access in terms of location and enrolment, parents not being aware of benefits, limited service hours and services not being responsive to parental values and concerns (Molloy et al., 2023).

There are a range of additional challenges that families from CALD backgrounds, especially newcomers, face in accessing or engaging with ECEC. Stressors associated with settling in a new country or adjusting to 'new' ways of life can impact uptake of early childhood education. Other migration-related stressors that can influence engagement with early

childhood services include: time and work demands; lack of transportation, limited English language skills, the reality of adapting to different cultural experiences and expectations, parents having multiple insecure jobs or working non-standard hours (Karoly & Gonzalez, 2011; Warr, Mann, & Forbes, 2013). They also face challenges relating to language, literacy and digital literacy in navigating enrolment processes and Centrelink requirements for the Commonwealth Child Care Subsidy.

Further, there is often a lack of understanding about early childhood education services and the benefits of play-based learning. In the Australian context, research has highlighted what has been characterised as a "cycle of misunderstanding" between early educators and parents from CALD backgrounds hampering pathways to early childhood education (De Gioia, 2013). In one study, parents felt their children were labelled and excluded and the presence of an "us-them" culture in ECEC settings (Agbenyega & Peers, 2010). According to other studies, while parents endorsed the pedagogy of learning through play, they felt that children did not receive sufficient 'academic' training ahead of starting school (Patel & Agbenyega, 2013). Some parents also feel that their children became more distanced from their culture and language through the learning process (Patel & Agbenyega, 2013). Addressing these issues requires deeper engagement with parents from CALD backgrounds around the early childhood education curriculum, greater inclusion of different cultural elements and improved cultural responsiveness in ECEC (Patel & Agbenyega, 2013). Studies focusing on refugee families have found similar challenges and similar systemic barriers resulting in limited participation in ECEC (Lamb, 2020; Warr et al., 2013).

From the evidence base we can draw on some common themes around ‘what works?’ to promote the early development of children from CALD backgrounds with a mix of targeted and place-based interventions that complement universal approaches

A mix of universal, targeted and place-based approaches is most effective to address non-financial barriers to participation in early learning. Universal approaches emphasise the need for cultural inclusivity and building trust as core components to improve participation in ECEC (Molloy et al., 2023). Targeted approaches help to meet the needs of diverse families who may require different access points and/or more intensive supports coupled with culturally responsive strategies. Targeted initiatives such as supported playgroups and language support are often cited as ways to support the development of children from CALD backgrounds. For example, supported playgroups complement other initiatives and have been found to be beneficial among a range of disadvantaged groups (Williams, 2018). In essence, they can provide a ‘soft-entry’ for parents and children from CALD backgrounds to build trust in human services (Warr et al., 2013) and are a source of social and emotional support for parents, particularly newly arrived mothers (New, Guilfoyle, & Harman, 2015). Studies have found that playgroups or early learning providers that assist parents to acquire new skills, such as English language, have a positive impact on the child’s overall wellbeing and readiness to learn (Targowska, Teather, & Guilfoyle, 2015). Supported playgroups have been effective in providing social support, enhancing parenting skills and awareness, and linking

families to formal supports available in the community (Commerford & Robinson, 2017). For children, attendance at supported playgroups leads to better outcomes across a range of domains (Sincovich, Gregory, Harman-Smith, & Brinkman, 2019). Greater engagement and playgroup attendance can provide a pathway to improved English language acquisition and social networks. Despite the benefits, disadvantaged children, including those from non-English speaking backgrounds, are less likely to attend playgroups (Sincovich et al., 2019).

Similarly, for refugee families, targeted enablers to involve refugee children in ECEC include culturally responsive practices that build a relationship of trust with parents, creating culturally responsive spaces, engaging in community-based outreach, and recruiting bilingual/bicultural staff – including community support workers to facilitate communication and support adjustment to the ECEC environment (Lamb, 2020). There is also emerging evidence on the benefits of community-based linkers or navigators in helping disadvantaged families, including those from CALD backgrounds, to navigate and engage in ECEC (dandolopartners, 2021; Uniting Research and Social Policy, 2023). Indeed, the interim report of the Productivity Commission’s Inquiry into ECEC (currently underway) has canvassed a role for more systematic outreach and navigation support as part of the solution to improve access and participation by disadvantaged cohorts including families from CALD backgrounds (Productivity Commission, 2023). In addition, educators need skills to understand the impacts of trauma on developmental and neural pathways, and be trained and supported to address behavioural issues. Further, Bove and Sharmahd (2020) emphasise raising awareness in

the ECEC sector of the strengths, agency and resilience of refugee children and families rather than solely viewing them as vulnerable.

Research shows that integrated models that combine a range of child and family support and referrals have the greatest impact and are best positioned to engage disadvantaged families (Sylva, Siraj-Blatchford, & Taggart, 2003). In addition, integrated services can link families with health and social support and promote access to early intervention services for children who need specialist supports. An example of an integrated and targeted initiative to reach migrant and refugee families is the National Community Hubs program funded by the Scanlon Foundation. Hubs are co-located with primary schools and connect families from diverse backgrounds with each other, with their school and with local services and support, including ECEC. SSI delivers the National Community Hubs program in NSW and Queensland, using a relationship-based approach to understand the needs of families, build trust and provide 'warm referrals' to other services such as parenting support or child health nurses.

The knowledge that neighbourhoods and communities play a vital role in child development has spawned numerous place-based initiatives to complement universal policies and programs that are centrally designed at national, state or territory levels (Geatches, Preston, & Putnis, 2023). Place-based initiatives typically address intersecting disadvantage concentrated in suburbs, towns and communities. These are often places of low socio-economic status, which in the Australian context can often include high proportions of newly arrived migrant and refugee families. Place-based initiatives, at their core, are

collaborative, long-term approaches to build thriving communities in a particular location (Geatches et al., 2023). Place-based approaches that explicitly address early childhood are reasonably mature and there is emerging evidence of success. For example, the Communities for Children initiative was an early, place-based initiative implemented in 45 locations across Australia. Its aim was to develop a range of localised solutions to address child disadvantage and a formal evaluation showed a positive impact in terms of improved parenting practices and reducing jobless households (Muir et al., 2010).

A more recent large-scale place-based initiative is Stronger Places, Strong Peoples which is being implemented in 10 communities across Australia using a collective impact model including in Logan, Queensland. SSI is a partner in Logan Together which was established in 2015. As a long-standing, place-based initiative there is evidence of a 3.4 per cent reduction between 2015 and 2021 in developmental vulnerability in one or more domains among children in Logan as measured using the AEDC data (Geatches et al., 2023).

Lower rates of participation in early childhood education of children from CALD backgrounds can result in developmental vulnerabilities being missed and it is cultural competence to respond to cultural diversity

Limited engagement with or access to early childhood education by children from CALD backgrounds means that developmental vulnerabilities are less likely to be identified and addressed in the critical formative years. As with investment in ECEC, investing in early intervention with vulnerable children

also generates significant savings. Evidence-based early intervention, deployed when needs and vulnerabilities arise and as early as possible in a child's development, offer cost-effective social and economic outcomes for children, families and the wider community (Social Ventures Australia, 2019) and reduce the involvement of child protection and statutory care services. A previous analysis of AEDC data from 2009-2018 commissioned by SSI found that early intervention rates among children from culturally diverse backgrounds were roughly half of the rates compared to other children in Australia (Rajwani et al., 2021).

The Commonwealth funds the Inclusion Support Program to assist childcare providers to promote inclusion in ECEC of children with additional needs and vulnerabilities including those with a disability or developmental delay, a health condition, behavioural issues, trauma, or are from Aboriginal and Torres Strait Islander backgrounds or from non-English speaking backgrounds (Bray, Carroll, Baxter, & et al., 2022). However, in practice, the Inclusion Support Program is largely limited to supporting children with disability (Productivity Commission, 2023)

A comprehensive evaluation of the Inclusion Support Program indicates that professionals and early childhood providers rate themselves as being reasonably competent in meeting the needs of children from migrant and refugee backgrounds (Bray et al., 2022). This may be true at the interpersonal level and individual level but lifting participation rates in ECEC among children from CALD backgrounds requires an early childhood education sector that is more culturally responsive and adaptable (Molloy et al., 2023) to the strengths and vulnerabilities of children and families from CALD backgrounds. Relatedly, a more

culturally responsive approach would seek to be responsive to families' attitudes, social isolation and English language proficiency (Woolfenden et al., 2015).

Cultural competency or culturally responsive practice in the early childhood education sector is a potential framework that could deliver benefits for culturally diverse children (National Health and Medical Research Council, 2006) and allow for more proactive, joined-up strategies to promote participation in early childhood education. However, to be effective, it should occur at four levels:

- the systems level (e.g., prioritised in government overarching strategies);
- the professional level (e.g., embedded in the curriculum of early childhood educators);
- the level of the provider (e.g., providers being more proactive to ethnic communities in their catchment area);
- and at the level of the individual worker (e.g., training in how to work alongside with bilingual staff) (National Health and Medical Research Council, 2006)

While capacity building is often operationalised in terms of additional training at the individual worker level, staff are often limited in their ability to effect change at the provider where they work or in the broader ECEC service system in which they are based. As such, a cultural competency framework should inform both policy and practice. This should be supplemented by a bilingual and a culturally diverse workforce to bridge cultural differences.

The Australian Early Development Census (AEDC) enables investigation of trends in child development across the entire population, and assessment of the trajectories of children from CALD backgrounds

The AEDC is a nationwide census of early child development conducted once every three years for all children in their first year of full-time schooling using a teacher-completed tool that draws on their knowledge and observations of children. AEDC data are publicly available, providing information on the proportion of children who are developmentally vulnerable, developmentally at risk, and developmentally on track at the national, jurisdictional, and community level.

The AEDC enables population-level measurement, capturing development across multiple domains and levels of ability, placing children on a continuum of development including both areas of strength and where further support is needed, rather than a focus on delay or deficit only (Brinkman & Stanley, 2014; Mustard & Young, 2007).

Taken together, the AEDC enables a deep investigation of the early development of children from CALD backgrounds at a population level, including identifying participation levels in ECEC and areas of children's early development that might require additional supports. The AEDC was first conducted in 2009 and then again in 2012, 2015, 2018, and 2021, with five waves of AEDC data enabling exploration of these trends in Australia throughout the last decade. SSI and the University of South Australia have conducted this analysis to strengthen the evidence base and ensure children from CALD backgrounds are supported to reach their developmental potential and thrive.

Research methods

Key points

- The Australian Early Development Census (AEDC) is completed by teachers for all children and measures a child's development in their first year of full-time schooling across five domains: Physical health and wellbeing, Social competence, Emotional maturity, Language and cognitive Skills, and Communication skills and general knowledge.
- On each domain, children are classified into one of three categories: developmentally vulnerable, developmentally at risk, and developmentally on track. Additionally, two key summary indicators are used: whether children are developmentally vulnerable on one or more domains, and whether children are developmentally vulnerable on two or more domains.
- The AEDC also collects data on children's access to ECEC including preschool, day-care, playgroups, early intervention support and other non-parental care.
- This study compared AEDC data for CALD and non-CALD children across all five AEDC cohorts: 2009, 2012, 2015, 2018, and 2021.

Different analyses were conducted to answer the six key research questions that are the focus of this report. Data sources utilised, as well as analyses conducted, are described below.

Data sources: About the AEDC

The Australian Early Development Census (AEDC) is the key data source used throughout this report. The AEDC is a nationwide census of early childhood development conducted once every three years for all children in their first year of full-time school. AEDC data are publicly available, providing information on the proportion of children who are developmentally vulnerable, developmentally at risk, and developmentally on track at the national, jurisdictional, and community level.

The child development instrument used within the AEDC is an Australian adaptation of the Early Development Instrument (EDI) (Janus, 2007). The EDI is a teacher-completed instrument including approximately 100 items that measure development across five domains: Physical health and wellbeing, Social competence, Emotional maturity, Language and cognitive skills (school-based), and Communication skills and general knowledge (Brinkman, Gregory, Goldfeld, Lynch, & Hardy, 2014). Figure 1 provides a description of the skills and abilities each domain captures. Children receive a score between 0 and 10 on each domain, with higher scores indicative of better development. Children are then classified into one of three categories: developmentally vulnerable, developmentally at risk and developmentally on track. Additionally, there are two key summary indicators used within the AEDC which indicate whether children are developmentally vulnerable on one or more domains, and whether children are developmentally vulnerable on two or more domains.

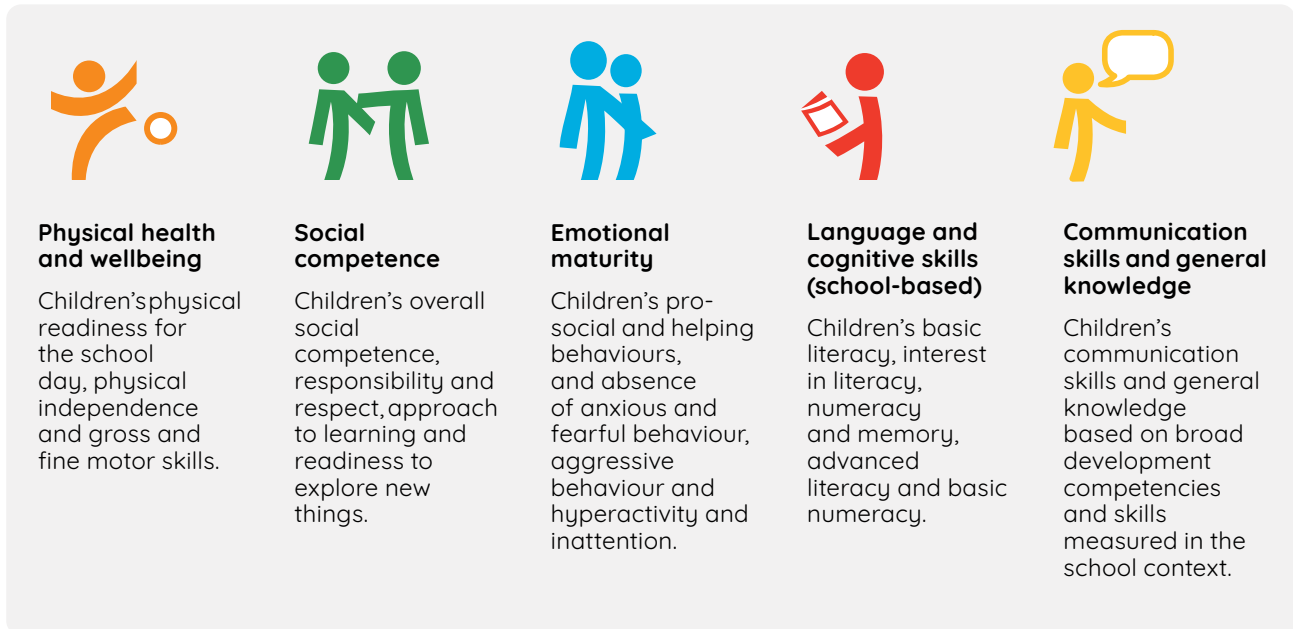


Figure 1: Developmental domains measured in the AEDC

In addition to responding to items regarding children's development, during the AEDC collection teachers are asked to provide contextual information about the children in their class, including children's education and care experiences before school. Specifically, teachers were asked if children:

- Attended a preschool/kindergarten program in the year before entering full time school.
- Had been in day-care on a regular basis (full or part time centre-based or family day-care)
- Attended playgroup in the years before entering full time school.
- Attended an early intervention program (including programs for speech/language; special school; disability services; occupational therapy; physiotherapy; hearing services; vision services; behaviour, anxiety, counselling, psychology services; or an early intervention program in any other capacity).

- Had been in any of the following forms of other non-parental care on a regular basis, including a grandparent, other relative, nanny, friend, or neighbour.

Teachers could respond "yes", "no", or "don't know" to these questions and this information is used to measure ECEC attendance throughout this report. Further, children's demographic information, including their language background, is obtained from school administrative records and included into the AEDC dataset. This information was used to define children from a CALD background. Specifically, children were classified to be from a CALD background if they:

- Had a language background other than English (defined as speaking a language other than English at home, or speaking English at home but English is not their first language); and
- If the child's language other than English was not an Aboriginal Australian language.

In 2009, AEDC data were collected for 261,147 children, in 2012 data were collected for 289,973 children, in 2015 data were collected for 302,003 children, in 2018 data were collected for 308,953 children, and in 2021 data were collected for 305,015 children. The full sample now has just under 1.5 million observations providing a rich population-wide data source over time. This information is used to explore trends in the early development of children from CALD backgrounds, and the role of ECEC in supporting children in the early years for the transition to school.

The AEDC is also linked to the ABS Relative Socio-economic Indexes for Areas (SEIFA) which estimates location based relative socio-economic disadvantage, and the ABS Australian Statistical Geography Standard (ASGS) which is used to estimate the child's remoteness within Australian contexts.

In addition to AEDC data, publicly available population estimates from the most recent Australian Bureau of Statistics (ABS) Census, collected in 2021, were used to provide population estimates of children from CALD backgrounds, younger than those captured in the AEDC.

Research questions

Analyses sought to investigate and update six research questions that were reported in the previous Stronger Starts Brighter Futures report detailed below. Research questions 1 to 6 were explored first for children across Australia overall and then separately for children from New South Wales (NSW), Queensland (QLD), and Victoria (VIC). Questions 7 to 10 were assessed at a national level only.

Part 1

1

What are the trends in the percentage of children from CALD backgrounds?

We explored the number and percentage of children from CALD backgrounds in their first year of full-time schooling across 2009, 2012, 2015, 2018, and 2021 AEDC cohorts. To provide an understanding of the most common cultural backgrounds of young children, we also identified the most frequent languages spoken by children from CALD backgrounds, as reported among the 2018 and 2021 AEDC cohorts.

2

What are the trends in the percentage of children from CALD backgrounds who are developmentally vulnerable?

To investigate the early developmental outcomes of children from CALD backgrounds, we calculated the number and percentage of children from CALD backgrounds who were classified to be developmentally vulnerable according to the two key AEDC summary indicators (i.e., developmentally vulnerable on one or more domains, and developmentally vulnerable on two or more domains). We compared these figures across the 2009, 2012, 2015, 2018, and 2021 AEDC cohorts to understand trends in development over time, separately for children from CALD and non-CALD backgrounds.

3

What are the key developmental vulnerabilities for children from CALD backgrounds?

We explored early developmental outcomes in more detail, by calculating the number and percentage of children from CALD backgrounds who were classified as developmentally vulnerable on each of the five AEDC domains (Physical health and wellbeing, Social competence, Emotional maturity, Language and cognitive skills, and Communication skills and general knowledge). Figures were compared across the 2009, 2012, 2015, 2018, and 2021 AEDC cohorts of children to explore trends in development over time, separately for children from CALD and non-CALD backgrounds.

4

What are the trends in the participation of children from CALD backgrounds in early childhood education and care (ECEC), compared to children from non-CALD backgrounds?

To investigate ECEC attendance, we explored the number and percentage of children who attended preschool, day-care, playgroup, an early intervention program, and other non-parental care as reported by their teachers. We explored results separately for children from CALD and non-CALD backgrounds across the 2009, 2012, 2015, 2018, and 2021 AEDC cohorts to determine any disparities in ECEC participation over time.

5

Are there differences in developmental vulnerabilities between children from CALD backgrounds who did and did not attend ECEC, and how do these differences compare to that of children from non-CALD backgrounds?

We compared the prevalence of developmental vulnerability (on each of the five AEDC domains as well as two key summary indicators) among children who did and did not attend different forms of ECEC prior to full time school, separately for children from CALD and non-CALD

backgrounds. To explore the relationship between ECEC and children's early development, we investigated the association between attendance at different forms of ECEC prior to full time school and children's development at school entry as measured by the AEDC. Specifically, we calculated the likelihood of a child being developmentally vulnerable on one or more domains based on if they did or did not attend ECEC. We explored results separately for children from CALD and non-CALD backgrounds to determine if there were any differences in the relationship between ECEC and early child development across groups. These analyses were conducted using data from the 2018 and 2021 AEDC cohort.

6

Based on findings presented above, what is an estimate of the number of children aged 0-4 years from a CALD background who are likely to have developmental vulnerabilities?

Using population estimates from the 2022 ABS and the percentage of CALD children with developmental vulnerabilities as reported by the 2021 AEDC data, we estimated the number and percentage of children aged 0-4 years who are likely to have developmental vulnerabilities across each of the five AEDC domains as well as the two key summary indicators.

Part 2

Additionally, for *Stronger Starts Brighter Futures II* to strengthen our understanding of developmental vulnerability and access to ECEC amongst children from CALD backgrounds we further explore the following questions.

7

What are the trends and differences of children from CALD backgrounds and developmentally vulnerable when disaggregated into four equity groups, socio-economic status, gender, geolocation, and children with special needs?

To explore how different equity groups had different underlying distributions based on CALD backgrounds we created demographic tables showing differences in demographics based on the child's CALD background and developmental vulnerability on one or more and two or more domains. We explored this across 2015-2021 cohorts to assess if any change in the demographic make-up of children from CALD backgrounds had changed over time.

8

What is the likelihood of developmental vulnerability for children in these different equity groups?

We explored the likelihood of developmental vulnerability on one or more domains by modelling the increased odds of a child having developmental vulnerabilities on one or more domains for children from CALD

and non-CALD backgrounds separately while adjusting for all four equity confounders. This allows us to compare the relative importance of each equity confounder, and see where most differential impact is made.

9

How does English proficiency impact children from CALD backgrounds' developmental vulnerability?

We first investigated how English proficiency differed for children from CALD and non-CALD backgrounds through descriptive tables. We then calculated the relative difference in odds a child from a CALD background with varying levels of English proficiency would have developmental vulnerabilities on one or more domains.

10

How does attendance at different types of ECEC change depending on equity group and CALD background?

As a continuation from question 4, we explored the number and percentage of children who attended preschool, day-care, playgroup, an early intervention program, and other non-parental care by further breaking it down by the four equity groups, and the child's CALD background. We then calculated how the four equity groups and CALD background impacted access to ECEC by modelling the odds of ECEC attendance by each category.



Part 1:

Findings at a national level

Trends in the early development of children from CALD backgrounds across Australia

Key points - General

- The number and percentage of children from CALD backgrounds in Australia has continued to increase over time. In 2009, 45,120 (17.3%) of children in the AEDC and entering school were from a CALD background. In 2021, 78,662 (25.8%) children in the AEDC were from CALD backgrounds compared to 74,990 (24.3%) in 2018.
- The most prevalent languages spoken among children from CALD backgrounds in 2021 were Mandarin (11.4%), Arabic (10.3%), Punjabi (6.0%) and Hindi (5.5 %).
- Children from CALD backgrounds are more likely to be developmentally vulnerable than non-CALD children, however the gap has been closing over time.
 - In 2009, 29 per cent of children from CALD backgrounds were developmentally vulnerable on one or more domains compared to 20.8 per cent for children from non-CALD backgrounds (a difference of 8.2%).
 - In 2021, this number was 23.0 per cent for CALD children compared to 20.0 per cent for non-CALD children (a difference of 3.0%). In 2018 the difference was 3.6 per cent.
- The absolute number of CALD children has increased in the 2021 AEDC by nearly 4,000 children, while prevalence of developmental vulnerability has reduced from 23.3 per cent in 2018 to 23.0 per cent in 2021, meaning the number of developmentally vulnerable CALD children has increased by 400.
- Governments and policymakers should continue to consider the implications for policy and service delivery of the increasing number of developmentally vulnerable children from CALD backgrounds.

Key points - AEDC domains

- The largest gap in developmental vulnerability between children from CALD and non-CALD backgrounds continues to be on the Communication skills and general knowledge domain, however the gap seems to be closing in each AEDC wave.
- The Communication skills and general knowledge domain focuses on a child's ability to listen to and use the English language effectively and this is explored in more depth in Part 2 of this report.

The number of children from CALD backgrounds has increased year on year and is now at its highest proportion since collection began. Nearly 80,000 children out of 305,000 are from CALD backgrounds, in other words more than 1 in 4 children. This is despite the number of overall responses in the AEDC falling for the first time since the collection began. (see Table 1). These results are aligned with other data sources, such as the ABS census, and reflect Australia’s growing cultural diversity. Table 2 highlights the 10 most frequent languages spoken at home among children from a CALD background in 2021 and 2018, Mandarin (11.4%) and Arabic (10.3%) remain the two most common, Vietnamese is now less common than Punjabi and Hindi, and Tagalog has fallen out of the top ten, replaced with Malayalam.

Table 1. CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)	Total n (%)
2009	45,120 (17.3)	216,027 (82.7)	261,147 (100.0)
2012	52,923 (18.3)	237,050 (81.7)	289,973 (100.0)
2015	62,206 (20.6)	239,797 (79.4)	302,003 (100.0)
2018	74,990 (24.3)	233,963 (75.7)	308,953 (100.0)
2021	78,662 (25.8)	226,353 (74.2)	305,015 (100.0)

Table 2: Most prevalent languages among CALD children at a national level in 2018 and 2021

2018	n (%)	2021	n (%)
Mandarin	8,903 (11.9)	Mandarin	8,582 (11.4)
Arabic	7,979 (10.6)	Arabic	7,713 (10.3)
Vietnamese	4,524 (6.0)	Punjabi	4,481 (6.0)
Hindi	4,189 (5.6)	Hindi	4,131 (5.5)
Punjabi	3,345 (4.5)	Vietnamese	4,020 (5.4)
Cantonese	2,600 (3.5)	Cantonese	2,275 (3.0)
Urdu	1,927 (2.6)	Urdu	2,263 (3.0)
Korean	1,813 (2.4)	Spanish	1,957 (2.6)
Spanish	1,711 (2.3)	Korean	1,775 (2.4)
Tagalog	1,552 (2.1)	Malayalam	1,641 (2.2)

We compared developmental outcomes, as measured by the AEDC, for children from CALD backgrounds and other children across Australia. Table 3 presents the number and percentage of children who were developmentally vulnerable according to the two AEDC summary indicators (i.e., developmentally vulnerable on one or more domains, and developmentally vulnerable on two or more domains) separately for children from CALD and non-CALD backgrounds across 2009–2021 cohorts. There are continuing disparities in the prevalence of developmental vulnerability among children from CALD and non-CALD backgrounds. While the gap has been closing over time it remains largely unchanged between 2018 to 2021: 23 per cent of children from a CALD background were developmentally vulnerable on one or more domains as

opposed to 20 per cent for children in non-CALD backgrounds. For developmental vulnerability on two or more domains the gap is slightly smaller with 11.4 per cent vulnerable from CALD backgrounds and 10.5 per cent from non-CALD backgrounds. The trend over time seems to suggest the gap in developmental vulnerabilities between CALD and non-CALD children is narrowing over time. In 2009 the difference was more than 8 per cent on developmental vulnerability on one or more domains, and 4 per cent on developmental vulnerability on two or more domains. In 2021, these differences were at 3 per cent and <1 per cent respectively. It is important to consider while the prevalence has decreased, the overall number of children from CALD background with developmental vulnerabilities has increased. In 2021, for children from CALD backgrounds compared to 2018, there are 400 more children with developmental vulnerabilities on one or more domains, and 400 more children with two or more developmental vulnerabilities.

Table 3. Developmental vulnerability among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
Developmentally vulnerable on one or more domains		
2009	13,086 (30.9)	44,950 (22.0)
2012	14,010 (28.1)	45,923 (20.7)
2015	15,717 (26.4)	47,243 (20.9)
2018	17,446 (24.3)	46,002 (20.8)
2021	17,938 (24.0)	45,326 (21.3)
Developmentally vulnerable on two or more domains		
2009	6,600 (15.6)	22,627 (11.1)
2012	6,729 (13.4)	22,814 (10.2)
2015	7,768 (13.0)	23,986 (10.6)
2018	8,576 (11.9)	23,858 (10.8)
2021	8,997 (12.0)	23,721 (11.1)

Figure 2: Developmental vulnerability among CALD and non-CALD children over time at a national level

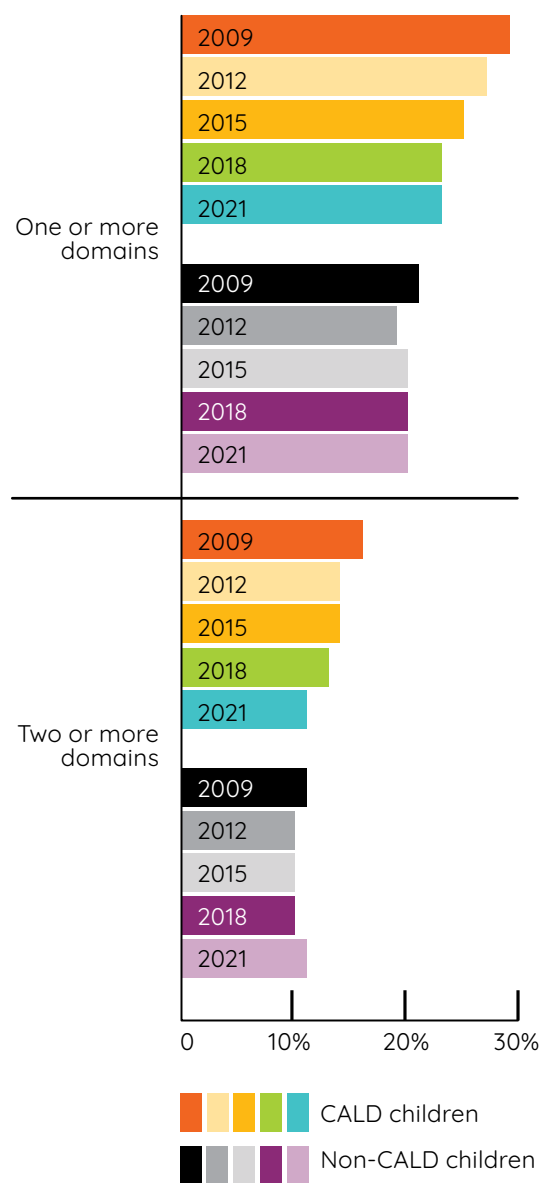


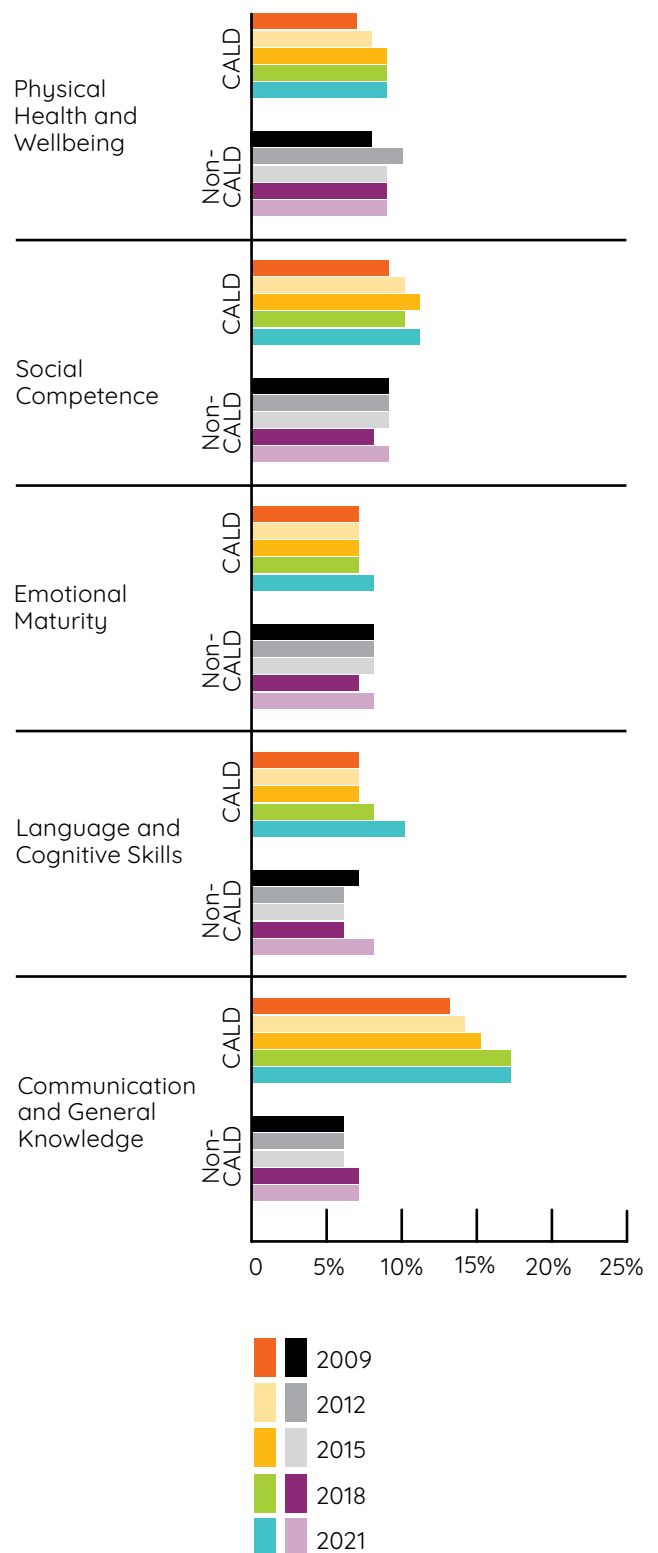
Table 4: Developmental vulnerability on each AEDC domain among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
Physical Health and Wellbeing		
2009	4,051 (9.5)	18,993 (9.3)
2012	4,544 (9.0)	2,0935 (9.4)
2015	5,341 (8.9)	22,370 (9.8)
2018	6,134 (8.5)	22,113 (10.0)
2021	6,570 (8.8)	21,771 (10.2)
Social Competence		
2009	4,734 (11.2)	18,691 (9.1)
2012	5,349 (10.7)	20,018 (9.0)
2015	6,535 (11.0)	21,816 (9.6)
2018	7,256 (10.1)	21,417 (9.7)
2021	7,394 (9.9)	20,394 (9.6)
Emotional Maturity		
2009	3,729 (8.8)	18,098 (8.9)
2012	3,616 (7.3)	17,229 (7.7)
2015	4,612 (7.8)	19,254 (8.5)
2018	5,062 (7.1)	19,615 (8.9)
2021	5,269 (7.1)	19,002 (8.9)
Language and Cognitive Skills		
2009	4,698 (11.1)	17,235 (8.4)
2012	4,124 (8.2)	14,440 (6.5)
2015	4,510 (7.6)	14,023 (6.2)
2018	5,115 (7.1)	14,302 (6.5)
2021	5,557 (7.4)	15,550 (7.3)
Communication Skills and General Knowledge		
2009	8,259 (19.5)	14,442 (7.1)
2012	8,863 (17.6)	15,657 (7.0)
2015	9,290 (15.6)	15,185 (6.7)
2018	10,094 (14.0)	14,138 (6.4)
2021	10,270 (13.7)	13,794 (6.5)

Table 4 explores children’s developmental outcomes on each of the five AEDC domains, separately for children from CALD and non-CALD backgrounds across the five AEDC cohorts. Following from the decrease in developmental vulnerability in the summary indicators, the percentage of children from a CALD background found to be developmentally vulnerable within AEDC domains remains stable. Compared to 2018, in 2021 developmental vulnerability on Physical health and wellbeing, and Language and cognitive skills has increased slightly. For children from non-CALD backgrounds, developmental vulnerability remains stable from 2018 to 2021. Among children from CALD backgrounds, developmental vulnerability in the Communication skills and general knowledge domain continues to decrease year on year (14.0% in 2018 to 13.7% in 2021). However, the number of developmentally vulnerable children across all domains has increased along with the increased number of children from CALD backgrounds in the AEDC. In particular, there are 200 more instances of developmental vulnerability in the Communication skills and general knowledge domain in 2021 than in 2018 even though the prevalence has seen the largest decrease of all domains.

In some domains, there is a trend of children from CALD backgrounds being less likely to be developmentally vulnerable than children from non-CALD backgrounds, namely Physical health and wellbeing (8.8% vs 10.2% in 2021), and Emotional maturity (7.1% vs 8.9% in 2021). However, this trend is reversed as shown in Figure 3, in the Communication skills and general knowledge domain which has the largest gap. The percentage of children from CALD backgrounds who were developmentally vulnerable on this domain is over double that of children from non-CALD backgrounds (13.7% vs 6.5% in 2021). In previous analyses, this difference was interpreted as being due to the skills and abilities this domain captures, such as the inclusion of items focused on a child’s ability to listen and use language effectively in English contributing to marked disparities in results between children from CALD backgrounds and other children (English language proficiency is explored in more depth in Part 2 of this report). Taken overall, these findings highlight strengths and developmental vulnerabilities among children from CALD backgrounds over time.

Figure 3. Developmental vulnerability on each AEDC domain for CALD and non-CALD children over time at a national level



Trends in ECEC attendance among children from CALD backgrounds across Australia

Key points

- While previous analyses of the AEDC showed consistent increases in ECEC attendance over time, this growth has stagnated in the 2018 to 2021 period for all children. For example, in 2021, 82.4 per cent of CALD children attended ECEC, compared to 82.2 per cent attending in 2018.
 - However, children from CALD backgrounds continue to be much less likely to attend ECEC than non-CALD children (82.4% vs 90.4% in 2021).
 - Preschool remains the most common form of ECEC attended by all children. However, while attendance at preschool among children from CALD backgrounds has increased slightly from 2018 to 2021, there remains a significant gap in preschool attendance between children from CALD and non-CALD backgrounds.
 - For example, 9.5 per cent of CALD children and 6.3 per cent of non-CALD children did not attend preschool though the gap between CALD and non-CALD preschool attendance is at its closest point since data collection began in the AEDC.
 - Early intervention support continues to be significantly under-utilised by CALD children, a trend that has been consistent across all waves of the AEDC. These services include professional support such as speech and language support, occupational therapy and behavioural support.
-

We explored ECEC attendance as reported by teachers², separately for children from CALD and non-CALD backgrounds across each of the five AEDC cycles. Tables 5-9 present the number and percentage of children who attended and did not attend preschool, day-care, playgroup, an early intervention program, and other non-parental care³, as well as the children for whom their teachers responded “don’t know” to these questions. In some instances, the proportion of children for whom their teachers did not know about their ECEC attendance before school is large and so it is critical to present these responses when exploring trends in attendance.

As Figure 4 highlights, preschool continues to be the most commonly attended form of ECEC among children irrespective of their cultural background. In 2021, 79 per cent of children from CALD background were reported to have attended preschool in the lead up to full time schooling. As described in the review of the literature presented earlier, preschool enables children to develop skills that are essential for a successful transition into the school environment, which has lasting effects throughout childhood and adolescence.

The proportion of children from a CALD background who did not attend preschool has continued to decrease over time. However, in 2021, 1 in 10 children from CALD backgrounds did not attend preschool (9.5%) compared to about 1 in 20 children from non-CALD backgrounds (6.3%). Working to better understand and then address the barriers associated with preschool attendance among CALD families will play an important role in reducing developmental disparities between children from CALD backgrounds and other children in Australia.

Table 5: Preschool attendance among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2009		
Attended	28,915 (64.9)	164,076 (76.5)
Did not attend	7,412 (16.6)	22,516 (10.5)
Don't know	8,217 (18.4)	27,962 (13.0)
2012		
Attended	33,820 (64.3)	178,866 (75.8)
Did not attend	5,695 (10.8)	16,531 (7.0)
Don't know	13,068 (24.9)	40,607 (17.2)
2015		
Attended	45,581 (73.6)	201,517 (84.3)
Did not attend	7,705 (12.4)	17,971 (7.5)
Don't know	8,649 (14.0)	19,569 (8.2)
2018		
Attended	58,207 (77.9)	203,648 (87.3)
Did not attend	7,561 (10.1)	14,001 (6.0)
Don't know	8,910 (11.9)	15,619 (6.7)
2021		
Attended	61,508 (78.5)	196,304 (87.0)
Did not attend	7,483 (9.5)	14,156 (6.3)
Don't know	9,380 (12.0)	15,101 (6.7)

² Across Australia, ECEC attendance information was missing for 1,473 (0.7%) non-CALD and 576 (1.3%) CALD children in 2009; 1,046 (0.4%) non-CALD and 340 (0.6%) CALD children in 2012; 740 (0.3%) non-CALD and 271 (0.4%) CALD children in 2015; and 695 (0.3%) non-CALD and 312 (0.4%) CALD children in 2018; 792 (0.4%) non-CALD and 291 (0.4%) CALD children in 2021.

³ See the methods section of this report for a description of each of these forms of ECEC.

Attendance at day-care decreased between 2009 and 2015 and has increased since 2018. In 2021, 30 per cent of children from CALD backgrounds and 33 per cent of children from non-CALD backgrounds attended. Of note, there are very high rates of “Don’t know” responses (in 2021, ranging between 39-44%) for both children of CALD and non-CALD backgrounds.

Table 6. Day-care attendance among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2009		
Attended	13,668 (30.7)	69,661 (32.5)
Did not attend	26,531 (59.6)	130,077 (60.6)
Don't know	4,345 (9.8)	14,816 (6.9)
2012		
Attended	14,004 (26.6)	70,808 (30.0)
Did not attend	21,171 (40.3)	93,362 (39.6)
Don't know	17,408 (33.1)	71,834 (30.4)
2015		
Attended	14,226 (23.0)	63,147 (26.4)
Did not attend	21,045 (34.0)	86,130 (36.0)
Don't know	26,664 (43.1)	89,780 (37.6)
2018		
Attended	21,819 (29.2)	75,866 (32.5)
Did not attend	21,005 (28.1)	69,930 (30.0)
Don't know	31,854 (42.7)	87,472 (37.5)
2021		
Attended	23,411 (29.9)	76,311 (33.8)
Did not attend	20,211 (25.8)	60,912 (27.0)
Don't know	34,749 (44.3)	88,338 (39.2)

Table 7. Playgroup attendance⁴ among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2012		
Attended	4,343 (8.3)	38,609 (16.4)
Did not attend	16,463 (31.3)	59,830 (25.4)
Don't know	31,777 (60.4)	137,565 (58.3)
2015		
Attended	5,086 (8.2)	35,657 (14.9)
Did not attend	17,528 (28.3)	56,471 (23.6)
Don't know	39,321 (63.5)	146,929 (61.5)
2018		
Attended	6,724 (9.0)	34,586 (14.8)
Did not attend	18,693 (25.0)	53,440 (22.9)
Don't know	49,261 (66.0)	145,242 (62.3)
2021		
Attended	5,859 (7.5)	28,636 (12.7)
Did not attend	19,415 (24.8)	53,111 (23.5)
Don't know	53,097 (67.8%)	143,814 (63.8)

Playgroup attendance has seen year on year decreases for both children from CALD and non-CALD backgrounds as shown in Table 7. As of 2021, only 7.5 per cent of CALD children are reported to have attended a playgroup, and 25 per cent did not attend. For non-CALD children, playgroup attendance has fallen from 16 per cent in 2012 (when playgroup information was first collected in the AEDC) to 13 per cent in 2021. As with previous cohorts, a very high proportion of teachers do not know whether the child has attended playgroups or not.

⁴ Information regarding playgroup attendance was not collected in the 2009 AEDC cycle.

We also explored children’s participation in an early intervention program before school, which includes speech and language support, occupational therapy, behavioural support including a psychologist or counsellor, or a disability support service. Results in Table 8 indicate that a smaller percentage of children from CALD backgrounds received such early intervention support, relative to children from non-CALD backgrounds. Within the 2021 cohort, 5.6 per cent of children from a CALD background were reported to have attended an early intervention program, nearly half compared to children from non-CALD backgrounds (10.2%). Similar results have been found in previous AEDC cohorts where CALD children have half of the reported access to early intervention programs compared to non-CALD children which indicates a gap for CALD children who may benefit from specialised support prior to starting school.

Table 8. Early intervention program attendance among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2009		
Attended	2,048 (4.6)	16,054 (7.5)
Did not attend	37,789 (84.8)	182,438 (85.0)
Don't know	4,707 (10.6)	16,062 (7.5)
2012		
Attended	2,049 (3.9)	18,059 (7.7)
Did not attend	41,284 (78.5)	188,490 (79.9)
Don't know	9,250 (17.6)	29,455 (12.5)
2015		
Attended	2,923 (4.7)	21,114 (8.8)
Did not attend	48,989 (79.1)	194,140 (81.2)
Don't know	10,023 (16.2)	23,803 (10.0)
2018		
Attended	3,834 (5.1)	23,827 (10.2)
Did not attend	54,278 (72.7)	175,615 (75.3)
Don't know	16,566 (22.2)	33,826 (14.5)
2021		
Attended	4,382 (5.6)	23,024 (10.2)
Did not attend	55,076 (70.3)	169,044 (74.9)
Don't know	18,913 (24.1)	33,490 (14.8)

Table 9 presents the number and percentage of children who attended other non-parental care before school, including with a child’s grandparent, other relative, nanny, friend, or neighbour. Non-parental care has been less prominent than in previous years, falling by 2 percentage points for both CALD and non-CALD children. A large proportion of teachers did not know whether the child had any non-parental care previously, with the rate of “Don’t know” gradually increasing from 2009 (5%) to 2021 (50%) for children from CALD backgrounds and similar trends for children from non-CALD backgrounds.

When looking at the distribution across each type of ECEC measured in the AEDC (Figure 4), children from CALD backgrounds were less likely to participate in each type of ECEC relative to children from non-CALD backgrounds. Furthermore, as Tables 5 to 9 have shown the rate of “Don’t know” responses for children from CALD backgrounds is higher compared to children from non-CALD backgrounds, which could reflect barriers in school transition processes that should be explored further.

All ECEC variables were combined into a summary variable indicating any form of ECEC attendance (i.e., whether a child attended either preschool, day-care, playgroup, an early intervention program, or other non-parental care) before commencing school. Figures from 2021 mirror that of 2018, where a large majority of children both CALD and non-CALD attend some form of ECEC as shown in Table 10. However, the gradual increase in attendance seen in Figure 5 is starting to flatten out. This could potentially be attributed to COVID-19 policies and changing societal norms, however this should be confirmed in the next data wave when a few more years of post-COVID stabilisation will be reflected in the AEDC.

Table 9. Other non-parental care among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2009		
Attended	2,527 (5.6)	14,195 (6.6)
Did not attend	40,284 (89.3)	190,568 (88.2)
Don't know	2,309 (5.1)	11,264 (5.2)
2012		
Attended	5,866 (11.1)	31,011 (13.1)
Did not attend	25,695 (48.6)	120,928 (51.0)
Don't know	21,362 (40.4)	85,111 (35.9)
2015		
Attended	7,435 (12.0)	33,553 (14.0)
Did not attend	28,170 (45.3)	115,004 (48.0)
Don't know	26,601 (42.8)	91,240 (38.0)
2018		
Attended	7,901 (10.5)	32,704 (14.0)
Did not attend	31,457 (41.9)	102,830 (44.0)
Don't know	35,632 (47.5)	98,429 (42.1)
2021		
Attended	6,613 (8.4)	27,715 (12.2)
Did not attend	30,972 (39.4)	94,461 (41.7)
Don't know	41,077 (52.2)	104,177 (46.0)

Figure 4: ECEC attendance among CALD and non-CALD children over time at a national level

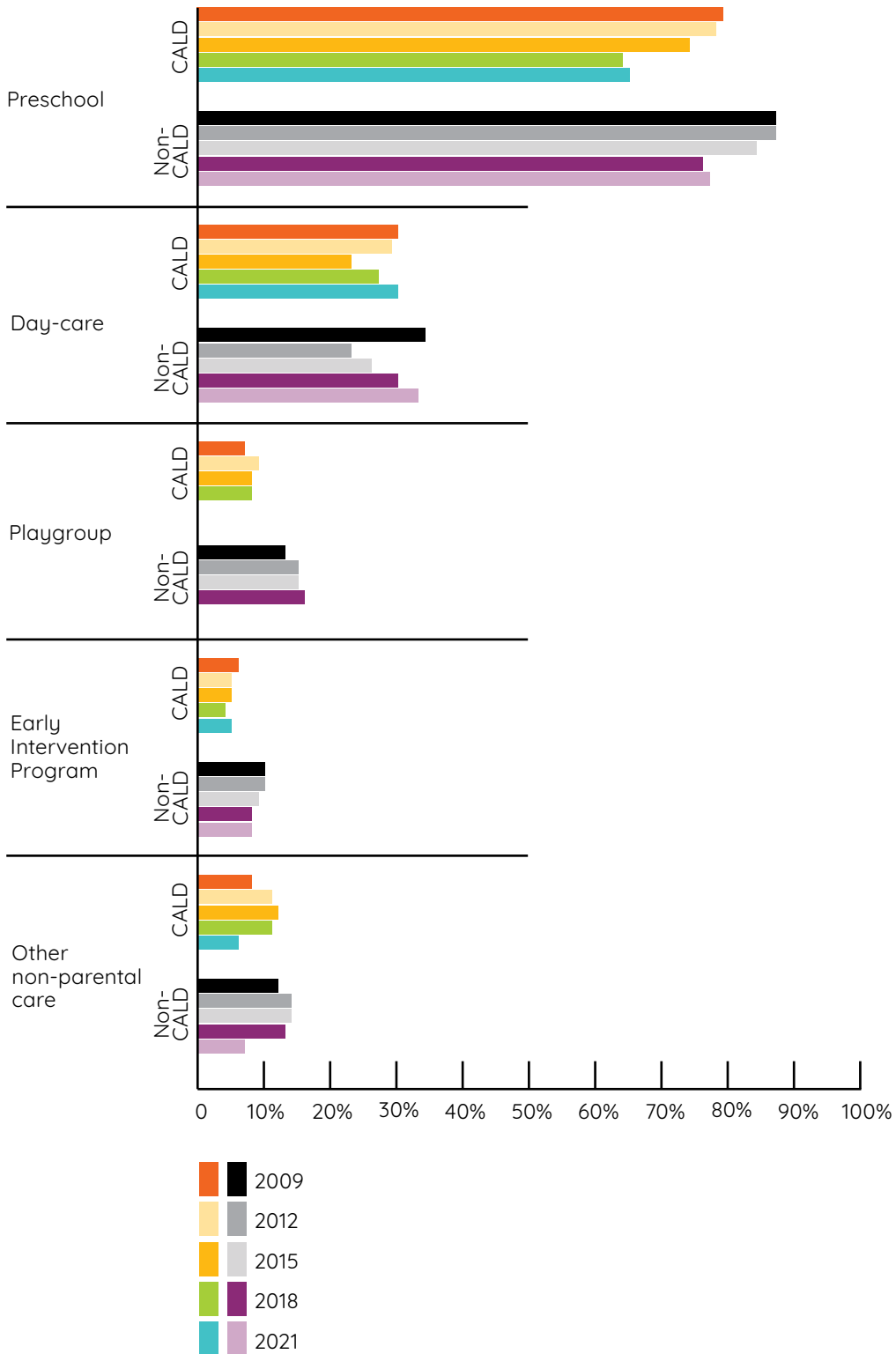
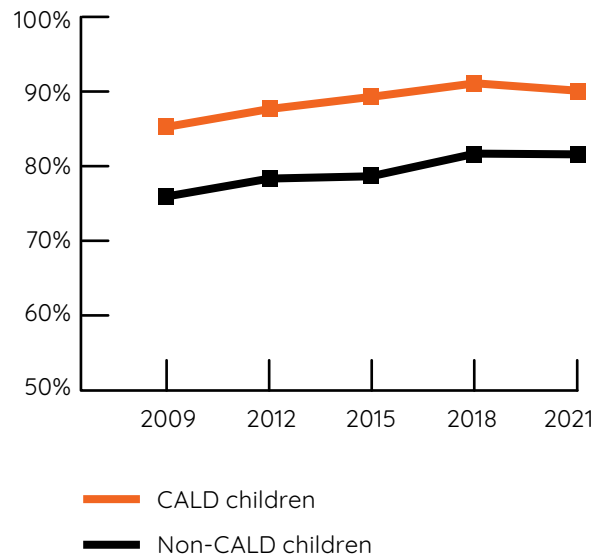


Table 10: Any ECEC attendance among CALD and non-CALD children over time at a national level

	CALD n (%)	Non-CALD n (%)
2009		
Attended	34,739 (77.0)	184,878 (85.6)
Did not attend	10,381 (23.0)	31,149 (14.4)
Don't know	0 (0.0)	0 (0.0)
2012		
Attended	41,955 (79.3)	208,375 (87.9)
Did not attend	8,263 (15.6)	21,779 (9.2)
Don't know	2,705 (5.1)	6,896 (2.9)
2015		
Attended	49,623 (79.8)	213,942 (89.2)
Did not attend	9,614 (15.5)	20,044 (8.4)
Don't know	2,969 (4.8)	5,811 (2.4)
2018		
Attended	61,658 (82.2)	21,2423 (90.8)
Did not attend	9,630 (12.8)	16,013 (6.8)
Don't know	3,702 (4.9)	5,527 (2.4)
2021		
Attended	64,834 (82.4)	204,722 (90.4)
Did not attend	9,644 (12.3)	15,995 (7.1)
Don't know	4,184 (5.3)	5,636 (2.5)

Figure 5: Any ECEC attendance among CALD and non-CALD children over time at a national level



The relationship between ECEC attendance and early development outcomes among children from CALD backgrounds across Australia

Key points

- There remains to be a greater prevalence of developmental vulnerability among children who did not attend any ECEC when compared to those who did for all children.
- For children from CALD backgrounds, gaps in developmental vulnerability between those who did and did not attend ECEC were largest on Language and cognitive skills and Communication skills and general knowledge domains.
- However, CALD children are slightly less likely to be vulnerable on Physical health and wellbeing and Emotional maturity.
- Preschool attendance continues to have the strongest positive relationship with development among children from CALD backgrounds. Specifically, CALD children who did not attend preschool in 2021 had 2.08 times greater odds of being developmentally vulnerable on one or more AEDC domain, compared to children who did attend. Playgroup and day-care attendance had smaller yet positive relationships with development for CALD children.
- Overall, this study found a strong relationship between ECEC attendance and positive developmental outcomes among children from CALD and non-CALD backgrounds.

In this section we compare results of the 2018 and 2021 AEDC data, to investigate the relationship between ECEC attendance and child development outcomes over time. Table 11 presents the number and percentage of developmentally vulnerable children on AEDC summary indicators for those who did and did not attend any ECEC, separately for children from a CALD background and non-CALD background in 2018 and 2021. Table 12 presents this information for each of the five AEDC domains. Results show that across all

domains as well as summary indicators, the prevalence of developmental vulnerability was greater among children who did not attend ECEC before school. In fact, across 2018 and 2021, prevalence rates are stable and have rarely changed more than 1 percentage point. The largest changes observed are seen within the Language and cognitive skills domain, where non-CALD children who did not attend an ECEC had slightly higher prevalence of a developmental vulnerability (14.4% 2018 vs 17.1% 2021).

Table 11: Developmental vulnerability by any ECEC attendance among CALD and non-CALD children at a national level

	2018		2021	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Developmentally vulnerable on one or more domains				
Attended	13,172 (22.3)	39,562 (19.7)	13,659 (22.2)	38,856 (20.2)
Did not attend	3,110 (34.2)	4,779 (32.1)	3,078 (33.7)	4,875 (33.3)
Don't know	1,164 (32.6)	1,661 (31.8)	1,201 (30.2)	1,595 (30.4)
Developmentally vulnerable on two or more domains				
Attended	6,372 (10.8)	20,239 (10.0)	6,757 (10.9)	20,035 (10.4)
Did not attend	1,642 (18.0)	2,681 (18.0)	1,657 (18.1)	2,844 (19.4)
Don't know	562 (15.7)	938 (17.9)	583 (14.6)	842 (16.0)

Table 12. Developmental vulnerability across each AEDC domain by any ECEC attendance among CALD and non-CALD children at a national level

	2018		2021	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Physical Health and Wellbeing				
Attended	4,716 (8.0)	18,754 (9.3)	5,018 (8.1)	18,404 (9.5)
Did not attend	1,088 (11.9)	2,570 (17.2)	1,165 (12.7)	2,627 (17.9)
Don't know	330 (9.2)	789 (15.0)	387 (9.6)	740 (14.0)
Social Competence				
Attended	5,536 (9.3)	18,434 (9.1)	5,662 (9.2)	17,553 (9.1)
Did not attend	1,236 (13.5)	2,124 (14.2)	1,205 (13.2)	2,092 (14.2)
Don't know	484 (13.4)	859 (16.3)	527 (13.1)	749 (14.2)
Emotional Maturity				
Attended	4,055 (6.9)	17,419 (8.7)	4,319 (7.0)	16,872 (8.8)
Did not attend	737 (8.1)	1,616 (10.9)	689 (7.6)	1,610 (11.0)
Don't know	270 (7.6)	580 (11.1)	261 (6.6)	520 (10.0)
Language and Cognitive Skills				
Attended	3,581 (6.0)	11,522 (5.7)	3,901 (6.3)	12,377 (6.4)
Did not attend	1,161 (12.7)	2,150 (14.4)	1,254 (13.7)	2,514 (17.1)
Don't know	373 (10.4)	630 (12.0)	402 (10.1)	659 (12.5)
Communication Skills and General Knowledge				
Attended	7,309 (12.3)	11,577 (5.7)	7,552 (12.2)	11,362 (5.9)
Did not attend	2,070 (22.7)	1,945 (13.0)	2,007 (21.9)	1,929 (13.1)
Don't know	715 (19.8)	616 (11.7)	711 (17.7)	503 (9.5)

As seen in Figure 6 we can see that attendance at any form of ECEC has significant protective effects regardless of whether the child is from a CALD or non-CALD background. For example, in the domain of Language and cognitive skills, children who attend any form of ECEC have less than half the prevalence of developmental vulnerability if from non-CALD background, and around half if from a CALD background. ECEC attendance is similarly protective in the Communication skills and general knowledge and Physical health and wellbeing domains.

Figure 6. Developmental vulnerability across each AEDC domain by any ECEC attendance among CALD and non-CALD children at a national level

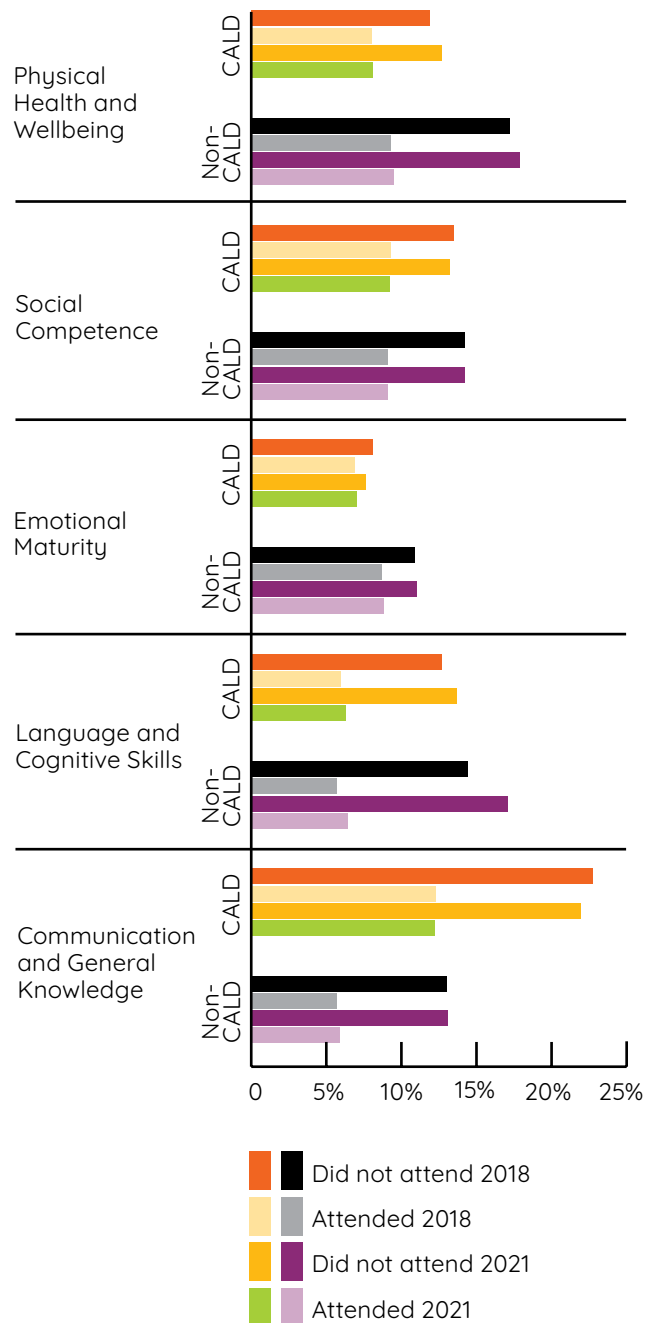


Table 13. Developmental vulnerability by different types of ECEC attendance among CALD and non-CALD children at a national level

	2018		2021	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Preschool				
Developmentally vulnerable on one or more domains				
Attended	12,039 (21.5)	36,859 (19.1)	12,686 (21.6)	36,435 (19.7)
Did not attend	2,720 (37.4)	4,702 (35.5)	2,619 (36.5)	4,762 (36.0)
Don't know	2,687 (31.2)	4,441 (29.9)	2,633 (29.4)	4,129 (29.3)
Developmentally vulnerable on two or more domains				
Attended	5,736 (10.2)	18,615 (9.6)	6,215 (10.6)	18,602 (10.0)
Did not attend	1,531 (21.0)	2,811 (21.2)	1,492 (20.8)	2,964 (22.3)
Don't know	1,309 (15.2)	2,432 (16.3)	1,290 (14.4)	2,155 (15.2)
Day-care				
Developmentally vulnerable on one or more domains				
Attended	4,390 (20.9)	14,865 (20.5)	4,632 (20.7)	15,407 (21.4)
Did not attend	5,325 (26.4)	13,860 (21.0)	5,065 (26.4)	12,857 (22.5)
Don't know	7,731 (25.3)	17,277 (20.9)	8,241 (24.9)	17,062 (20.5)
Developmentally vulnerable on two or more domains				
Attended	2,082 (9.9)	7,653 (10.6)	2,244 (10.0)	8,099 (11.2)
Did not attend	2,742 (13.6)	7,343 (11.1)	2,600 (13.5)	6,971 (12.2)
Don't know	3,752 (12.2)	8,862 (10.7)	4,153 (12.5)	8,651 (10.4)
Playgroup				
Developmentally vulnerable on one or more domains				
Attended	1,304 (20.2)	5,320 (16.2)	1,071 (19.3)	4,596 (16.9)
Did not attend	5,265 (29.3)	13,596 (26.9)	5,400 (29.2)	13,805 (27.8)
Don't know	10,877 (23.0)	27,086 (19.6)	11,467 (22.6)	26,925 (19.9)
Developmentally vulnerable on two or more domains				
Attended	641 (9.9)	2,550 (7.7)	465 (8.3)	2,174 (8.0)
Did not attend	2,763 (15.4)	7,688 (15.2)	2,897 (15.7)	8,046 (16.2)
Don't know	5,172 (10.9)	13,620 (9.9)	5,635 (11.1)	13,501 (9.9)

Table continues on next page

Table 13 (continued).
Developmental vulnerability by different types of ECEC attendance
among CALD and non-CALD children at a national level

	2018		2021	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Early Intervention Program				
Developmentally vulnerable on one or more domains				
Attended	1,160 (45.2)	6,358 (37.0)	1,212 (45.3)	5,927 (45.2)
Did not attend	12,025 (22.5)	31,633 (18.4)	11,981 (22.2)	31,543 (19.1)
Don't know	4,261 (26.9)	8,011 (25.2)	4,745 (26.4)	7,856 (25.2)
Developmentally vulnerable on two or more domains				
Attended	718 (28.0)	3,702 (21.5)	752 (28.1)	3,443 (21.4)
Did not attend	5,815 (10.9)	15,926 (9.2)	5,838 (10.8)	16,140 (9.8)
Don't know	2,043 (12.8)	4,230 (13.3)	2,407 (13.3)	4,138 (13.2)
Other non-parental care				
Developmentally vulnerable on one or more domains				
Attended	2,047 (27.2)	7,236 (23.6)	1,727 (27.7)	6,541 (25.5)
Did not attend	7,200 (24.1)	19,842 (20.5)	6,841 (23.4)	19,046 (21.6)
Don't know	8,199 (23.9)	18,924 (20.2)	9,370 (23.8)	19,739 (20.0)
Developmentally vulnerable on two or more domains				
Attended	1,087 (14.4)	3,951 (12.9)	927 (14.9)	3,668 (14.2)
Did not attend	3,579 (11.9)	10,243 (10.6)	3,386 (11.6)	10,126 (11.5)
Don't know	3,910 (11.3)	9,664 (10.3)	4,685 (11.9)	9,927 (10.0)

To further investigate the impact of ECEC on developmental vulnerability on one or more or two or more domains, we examine the prevalence of developmental vulnerability on AEDC summary indicators, separately for children who did and did not attend each of the different forms of ECEC (i.e., preschool, day-care, playgroup, an early intervention program, or other non-parental care), and separately for children from CALD and non-CALD backgrounds. These results are presented in Table 13 and Figure 7. Among children from a CALD background, the largest difference in developmental vulnerability was observed between children who did and did not attend an early intervention program. Attendance at some types of ECEC has the effect of essentially halving developmental vulnerabilities. For example, 1 in 5 children from a CALD background who attended preschool were developmentally vulnerable, whereas this increased to 1 in 3 among CALD children who did not attend. The exception to this is attendance at early intervention programs where children attending are more likely to be developmentally vulnerable. Between 2018 and 2021 there is very little difference in the effects of ECEC attendance, where attendance was protective in the 2018 cohort, it remains protective in the 2021 cohort. Differences between children from CALD and non-CALD backgrounds are relatively minor.

Figure 7. Developmentally vulnerable on one or more domains by different types of ECEC attendance among CALD and non-CALD children at a national level

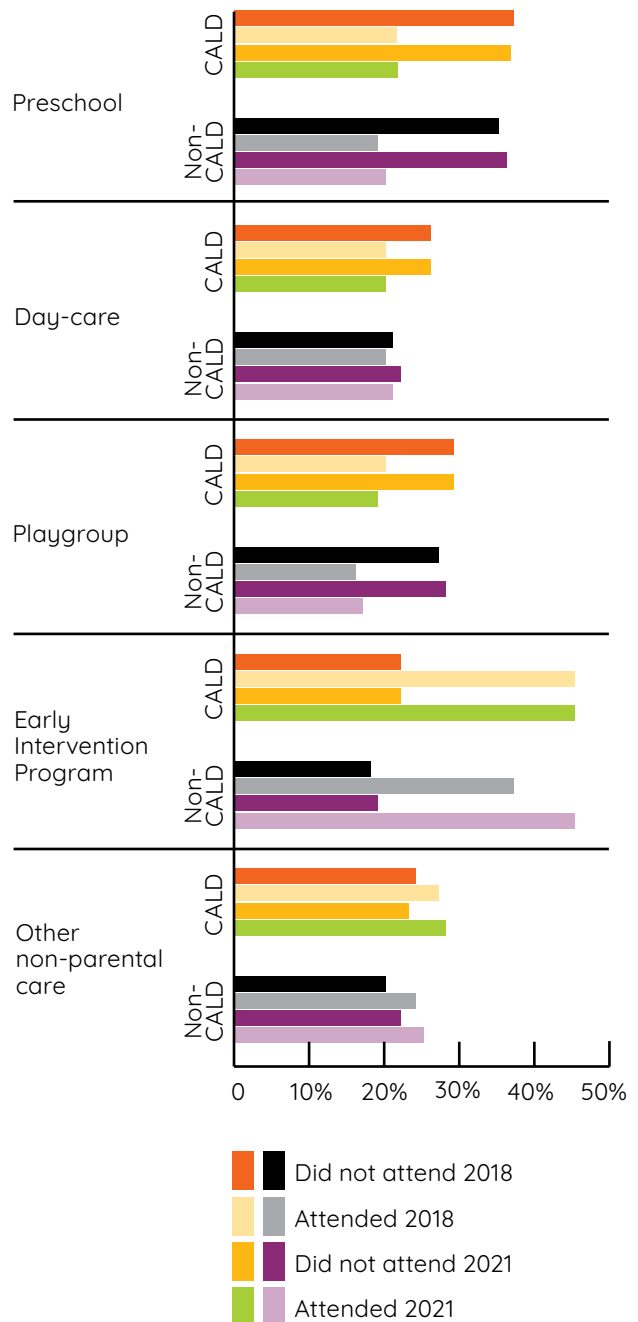


Table 14 presents results from regression analyses exploring the relationship between ECEC attendance and child development outcomes, separately for children from CALD and non-CALD backgrounds for 2018 and 2021 respectively. Odds ratios (ORs) represent the increased (or decreased) odds that children who did not attend ECEC were developmentally vulnerable on one or more domains compared to those who did attend. An odds ratio larger than 1 indicates increased odds relative to the reference group, while a ratio less than one indicates decreased odds. Results are considered meaningful if the 95% confidence intervals do not overlap the critical value of 1. Results from 2021 indicate that children from CALD backgrounds have 1.79 times greater odds of having a developmental vulnerability on one or more domains by not attending any form of ECEC. The ratio increases to 1.97 times for children from non-CALD backgrounds. These results are in line with what has been presented previously, suggesting for both CALD and non-CALD children there are significant benefits to ECEC programs. Preschool, day-care, and playgroups were all found to be largely beneficial by decreasing risk of developmental vulnerability on one or more domains for CALD children. Early intervention programs and non-parental care had a negative relationship with developmental vulnerability. The negative relationship between early intervention programs is not surprising as they are generally targeted towards children

requiring additional support. The relationship between other non-parental care and developmental vulnerability is likely to be largely reflective of socio-economic related factors such as lack of access to services, and lack of alternative quality learning environments.

While the AEDC provides us with a valuable insight into the protective effects of various ECEC programs, it lacks the granularity to tell us what aspects of the programs are most important, such as quality, and exposure. Regardless, there are significant insights consistent with the evidence base that provision and availability of quality ECEC services are highly protective, particularly for those at risk, and in our findings it is clear this remains true for children irrespective of their cultural and linguistic backgrounds.

Table 14: Relationship between ECEC attendance and developmental vulnerability at a national level

	2018		2021	
	CALD OR (95% CI)	Non-CALD OR (95% CI)	CALD OR (95% CI)	Non-CALD OR (95% CI)
Any ECEC attendance				
Attended	ref	ref	ref	ref
Did not attend	1.81 (1.72-1.90)	1.93 (1.86-2.00)	1.79 (1.71-1.87)	1.97 (1.90-2.05)
Preschool				
Attended	ref	ref	ref	ref
Did not attend	2.17 (2.06-2.29)	2.33 (2.24-2.42)	2.08 (1.98-2.19)	2.30 (2.21-2.38)
Day-care				
Attended	ref	ref	ref	ref
Did not attend	1.36 (1.30-1.43)	1.03 (1.00-1.06)	1.38 (1.32-1.44)	1.07 (1.04-1.10)
Playgroup				
Attended	ref	ref	ref	ref
Did not attend	1.64 (1.53-1.76)	1.91 (1.85-1.98)	1.73 (1.61-1.87)	1.88 (1.81-1.96)
Early intervention				
Attended	ref	ref	ref	ref
Did not attend	0.35 (0.33-0.38)	0.38 (0.37-0.40)	0.34 (0.32-0.37)	0.40 (0.39-0.42)
Other non-parental care				
Attended	ref	ref	ref	ref
Did not attend	0.85 (0.80-0.90)	0.83 (0.81-0.86)	0.80 (0.75-0.85)	0.81 (0.78-0.83)



Estimates of young children from CALD backgrounds with developmental vulnerabilities across Australia

Key points

- Based on 2021 AEDC data combined with 2021 Australian Census data, this study projects an estimate of 389,714 children aged 0-4 years from a CALD background in Australia.
- Of these, 89,635 or 23 per cent are estimated to be developmentally vulnerable on one or more domains.
- This demonstrates the need for a series of actions and policy responses to increase participation and access to quality ECEC for CALD families in early childhood.

Using ABS census population estimates as well as proportions of CALD children who were developmentally vulnerable as reported by the 2021 AEDC, we estimated the number and percentage of CALD children aged 0-4 years who are likely to have developmental vulnerabilities nationally. Table 15 indicates that, of the estimated 389,714 children aged 0-4 years from a CALD background, 89,635 or 23 per cent of these children are estimated to be developmentally vulnerable on one or more domains. Further, 44,428 or 11.4 per cent of these children are estimated to experience vulnerabilities across two or more domains. These figures intend to provide an understanding of the number of children from CALD backgrounds who will, together with their families, require services and supports to help strengthen their learning and development in order to enable a successful transition to school.

Table 15. Estimate of CALD children with developmental vulnerabilities at a national level

	2021
Number of children aged 0-4 years in 2021 ABS Census	1,510,519
Percentage of CALD children in AEDC	25.8
Estimate of CALD children aged 0-4 years	389,714
Extrapolated developmental vulnerability	n (%)
Developmental vulnerability on one or more domains	89,635 (23.0)
Developmental vulnerability on two or more domains	44,428 (11.4)
Physical Health and Wellbeing	32,736 (8.4)
Social Competence	36,634 (9.4)
Emotional Maturity	26,111 (6.7)
Language and Cognitive Skills	27,670 (7.1)
Communication Skills and General Knowledge	51,053 (13.1)





Part 2: Equity based analysis, how do results differ for children from CALD backgrounds based on socio-economic status, gender, location, and for children with special needs?

The underlying characteristics of children from CALD and non-CALD backgrounds

Key points

- Demographics of children from CALD backgrounds differ slightly from children from non-CALD backgrounds, with higher proportions of children from disadvantaged socio-economic areas. However, over time it is starting to level out.
- Over 90 per cent of children from CALD backgrounds reside in major cities of Australia.
- Developmental vulnerability is largely concentrated in children in disadvantaged areas, especially for children from CALD backgrounds: 30 per cent of CALD children with developmental vulnerability on one or more domains are categorised in the most disadvantaged socio-economic areas of Australia.
- Models show that Females, and children in the highest socio-economic group are half as likely to have developmental vulnerabilities on one or more domains than Males and children from the lowest socio-economic group respectively, however these effects are stronger for non-CALD children suggesting demographics play less of a role in developmental vulnerability for CALD children.

A previous analysis of AEDC data from 2009 to 2018 commissioned by SSI largely focussed on CALD and non-CALD children and differences in outcomes between those subgroups (Rajwani et al, 2021) but did not examine the underlying characteristics and demographic differences between CALD and non-CALD children. We select the three most recent AEDC waves to show how this relationship have changed through four key equity groups, socio-economic status, gender, location, and children with special needs.

Socio-economic status is presented through the ABS Socio-Economic Indexes for Areas (SEIFA), and specifically the Index of Relative Socio-Economic Disadvantage (IRSD). SEIFA is an index created by the ABS based on areas, and within the AEDC is provided at the Statistical Area 2 level (SA2). This area size approximately aligns with postcodes within Australia. Each area is given a derived score dependent on census variables including access to services, average income levels, education and similar measures collected through the Australian Census, this score is then categorised into five equal categories (or quintiles) from 1 (Most disadvantaged) to 5 (Least disadvantaged). The latest SEIFA release contained in the AEDC is from 2016. Likewise, the measure of remoteness is collected based on the child's home address and linked to the Australian Statistical Geography Standard (ASGS), dividing locations into five categories of Major Cities of Australia, Inner Regional, Outer Regional, Remote, and Very remote. Again, these are largely driven by access to services, population, and other location-based information. The child's location, gender, and Special Needs Status is based on standardised data collected at the time of enrolment.

As shown in Table 16, from 2015 to 2021, children from CALD backgrounds have been over-represented in more disadvantaged SEIFA categories, this was most prominent in 2015 where 28.4 per cent of CALD children were in the most disadvantaged category. However, from 2018 to 2021 this has evened out with a more even distribution over all five SEIFA categories. Generally, children from non-CALD backgrounds are more prominent in the medium to least disadvantaged socio-economic groups. There is little difference between gender both over time and between CALD and non-CALD children, likewise for special needs status. However, for geographical remoteness, a vast majority (>90%) of children from CALD backgrounds reside in Major Cities, compared to around 65 per cent of non-CALD children.

Table 16. Characteristics of children from CALD and non-CALD backgrounds from 2015 to 2021

	2015 CALD		2018 CALD		2021 CALD	
	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)
SEIFA						
1 – Most disadvantaged	45,526 (19.0)	17,636 (28.4)	43,163 (18.5)	18,833 (25.2)	39,737 (17.6)	17,742 (22.7)
2	45,747 (19.1)	12,648 (20.4)	44,814 (19.2)	14,550 (19.5)	43,361 (19.2)	15,164 (19.4)
3	48,385 (20.2)	11,652 (18.8)	47,775 (20.5)	14,270 (19.1)	46,639 (20.7)	15,158 (19.4)
4	48,854 (20.4)	10,335 (16.7)	49,204 (21.1)	14,230 (19.0)	49,332 (21.9)	15,968 (20.4)
5 – Least disadvantaged	50,841 (21.2)	9,738 (15.7)	48,588 (20.8)	12,887 (17.2)	46,679 (20.7)	14,060 (18.0)
Gender						
Male	122,948 (51.3)	31,898 (51.3)	120,532 (51.5)	38,362 (51.2)	116,427 (51.4)	40,310 (51.2)
Female	116,849 (48.7)	30,308 (48.7)	113,431 (48.5)	36,628 (48.8)	109,926 (48.6)	38,352 (48.8)
Remoteness						
Major Cities of Australia	154,806 (64.6)	56,835 (91.4)	152,657 (65.2)	68,866 (91.8)	147,766 (65.3)	71,642 (91.1)
Inner Regional Australia	52,336 (21.8)	2,926 (4.7)	51,061 (21.8)	3,470 (4.6)	49,785 (22.0)	4,214 (5.4)
Outer Regional Australia	25,455 (10.6)	1,937 (3.1)	23,543 (10.1)	2,103 (2.8)	22,436 (9.9)	2,313 (2.9)
Remote Australia	4,126 (1.7)	324 (0.5)	3,973 (1.7)	362 (0.5)	3,808 (1.7)	327 (0.4)
Very Remote Australia	3,074 (1.3)	184 (0.3)	2,729 (1.2)	189 (0.3)	2,558 (1.1)	166 (0.2)
Special Needs Status						
No	227,973 (95.1)	59,965 (96.4)	222,528 (95.1)	72,366 (96.5)	213,824 (94.5)	75,296 (95.7)
Yes	11,824 (4.9)	2,241 (3.6)	11,435 (4.9)	2,624 (3.5)	12,529 (5.5)	3,366 (4.3)

Table 17. Characteristics of children from CALD backgrounds with developmental vulnerabilities on one or more domains

	2015 DV1		2018 DV1		2021 DV1	
	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)
SEIFA						
1 – Most disadvantaged	11,314 (25.9)	5,410 (34.6)	12,282 (22.7)	5,578 (32.1)	11,386 (20.2)	5,272 (29.7)
2	8,686 (19.9)	3,385 (21.6)	10,296 (19.0)	3,601 (20.7)	10,697 (19.0)	3,681 (20.7)
3	8,404 (19.3)	2,756 (17.6)	10,575 (19.5)	3,116 (17.9)	11,103 (19.7)	3,331 (18.7)
4	7,700 (17.7)	2,231 (14.3)	10,829 (20.0)	2,866 (16.5)	12,092 (21.4)	3,139 (17.7)
5 – Least disadvantaged	7,520 (17.2)	1,865 (11.9)	10,175 (18.8)	2,236 (12.9)	11,131 (19.7)	2,353 (13.2)
Gender						
Male	20,199 (46.2)	9,882 (62.9)	25,141 (46.3)	10,998 (63.0)	26,248 (46.2)	11,343 (63.2)
Female	23,543 (53.8)	5,835 (37.1)	29,177 (53.7)	6,448 (37.0)	30,542 (53.8)	6,595 (36.8)
Remoteness						
Major Cities of Australia	≥39,368 (≥90.0)	≥14,146 (≥90.0)	≥48,887 (≥90.0)	≥15,702 (≥90.0)	≥51,111 (≥90.0)	16,054 (89.5)
Inner Regional Australia	2,015 (4.6)	755 (4.8)	2,403 (4.4)	915 (5.2)	2,924 (5.1)	1,097 (6.1)
Outer Regional Australia	1,317 (3.0)	537 (3.4)	1,487 (2.7)	539 (3.1)	1,528 (2.7)	660 (3.7)
Remote Australia	207 (0.5)	89 (0.6)	262 (0.5)	83 (0.5)	221 (0.4)	86 (0.5)
Very Remote Australia	102 (0.2)	61 (0.4)	108 (0.2)	70 (0.4)	113 (0.2)	41 (0.2)
Special Needs Status						
No	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Yes	43,742 (100.0)	15,717 (100.0)	54,318 (100.0)	17,446 (100.0)	56,790 (100.0)	17,938 (100.0)

We further explore how these demographics influence developmental vulnerability for children from CALD backgrounds. Table 17 shows the characteristics of CALD children with developmental vulnerabilities on one or more domains compared to no developmental vulnerabilities. Within socioeconomic status it is immediately apparent that children from the most disadvantaged areas are more likely to have developmental vulnerability on one or more domains, for example, in 2021 29.7 per cent of CALD children with a developmental vulnerability on one or more domains were in the most disadvantaged group, as opposed to only 13.2 per cent who were in the least disadvantaged group. Developmental vulnerability on one or more domains is also more likely for males than females (63.2% vs 36.8% in 2021). As families from CALD backgrounds generally reside in major cities, there is little difference in this regard for developmental vulnerability.

To further investigate the relationship between developmental vulnerability and these equity factors, we model the outcome of developmental vulnerability on one or more domains and include all four equity factors for children of CALD and non-CALD backgrounds separately. This allows us to see the relative importance each equity group has in determining the increased odds of developing a developmental vulnerability. Shown in Table 18, each estimate reflects the Odds Ratio of a developmental vulnerability on one or more domains for that category

compared against the reference. For example, CALD children in the fifth category (least disadvantaged) of SEIFA have 0.47 or half the odds of having a developmental vulnerability than those in the first category (most disadvantaged). By including all covariates in the same model, we adjust for these covariates, in other words we isolate the effects of the target variable, removing any confounding influence from the other variables. An example of this would be the interpretation of the gender effect, where Females have an odds ratio of 0.52, or are half as likely to have a developmental vulnerability than Males. As we have adjusted for SEIFA and Remoteness, it does not matter which category the child is within on these variables.

Table 18. Models of developmental vulnerability on one or more domain by equity factor stratified by CALD and non-CALD backgrounds

	Non-CALD OR [95% CI]	CALD OR [95% CI]
SEIFA		
1 [Most disadvantaged]	ref	ref
2	0.68 [0.666 0.685]	0.76 [0.741 0.776]
3	0.54 [0.531 0.547]	0.64 [0.625 0.656]
4	0.45 [0.443 0.456]	0.56 [0.550 0.578]
5 [Least disadvantaged]	0.35 [0.349 0.360]	0.47 [0.458 0.483]
Gender		
Male	ref	ref
Female	0.44 [0.436 0.444]	0.52 [0.508 0.525]
Remoteness		
Major cities of Australia	ref	ref
Inner Regional Australia	1.01 [0.994 1.018]	1.11 [1.066 1.149]
Outer Regional Australia	1.07 [1.058 1.092]	1.42 [1.368 1.484]
Remote Australia	1.09 [1.048 1.129]	2.54 [2.370 2.729]
Very Remote Australia	1.19 [1.124 1.256]	4.15 [3.941 4.381]
Intercept	0.64 [0.635 0.650]	0.68 [0.664 0.687]
Number of observations	1072071	308620

Impact of English proficiency on developmental outcomes

Key points

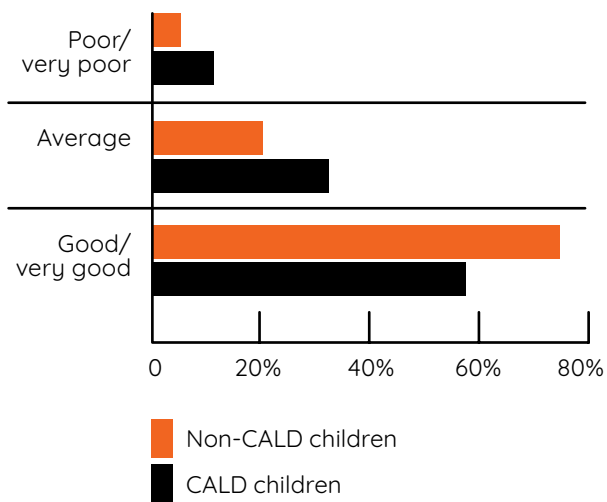
- Large differences exist in English proficiency levels between children from CALD and non-CALD backgrounds. For example, 3 in 4 non-CALD children are likely to be in the good or very good English proficiency category, compared to just over half for CALD children.
- Relatedly, roughly 1 in 10 children from CALD backgrounds have poor/very poor English proficiency compared to 1 in 20 for non-CALD children.
- English proficiency plays a large role in the risk of developmental vulnerabilities for both CALD and non-CALD children.
- Model based predictions show that by at least having an average level of English proficiency, the probability of having a developmental vulnerability drops by half. Conversely, poor/very poor English almost guarantees a developmental vulnerability on one or more domains regardless of cultural background.

Data presented in Part 1 of this report highlighted large gaps between CALD and non-CALD children in the Communication skills and general knowledge domain, likely largely driven by the domain's focus on the English language. We further explore this through the impact of English proficiency on child development for CALD and non-CALD children. Table 19 shows the distribution of English proficiency within 2015 to 2021 AEDC cohorts. Within the AEDC, the teacher categorises the child into one of three proficiency categories, poor/very poor, average, good/very good. A majority of children from both CALD and non-CALD backgrounds have good/very good levels of English proficiency: however, for non-CALD children it is approximately 3 in 4, for children of CALD backgrounds it is roughly half. The number of children with poor/very poor English proficiency is double that for children from CALD backgrounds compared to non-CALD children (5.0% vs 11.1% in 2021), where roughly 1 in 10 children from CALD backgrounds have poor/very poor English proficiency compared to 1 in 20 for non-CALD children. The proportions have not changed significantly over time. The visualisation of this table is available in Figure 8.

Table 19. English proficiency among children from CALD and Non-CALD backgrounds 2015-2021

	2015 CALD				2018 CALD				2021 CALD			
	No n (%)		Yes n (%)		No n (%)		Yes n (%)		No n (%)		Yes n (%)	
English Proficiency												
Poor/very poor	11,563	(4.8)	7,609	(12.3)	9,901	(4.2)	8,010	(10.7)	11,192	(5.0)	8,736	(11.1)
Average	50,950	(21.3)	20,352	(32.9)	44,726	(19.2)	23,060	(30.9)	46,515	(20.6)	25,212	(32.2)
Good/very good	176,463	(73.8)	33,924	(54.8)	178,505	(76.5)	43,456	(58.2)	167,750	(74.4)	44,357	(56.6)

Figure 8. English proficiency in 2021 among children from CALD and Non-CALD backgrounds



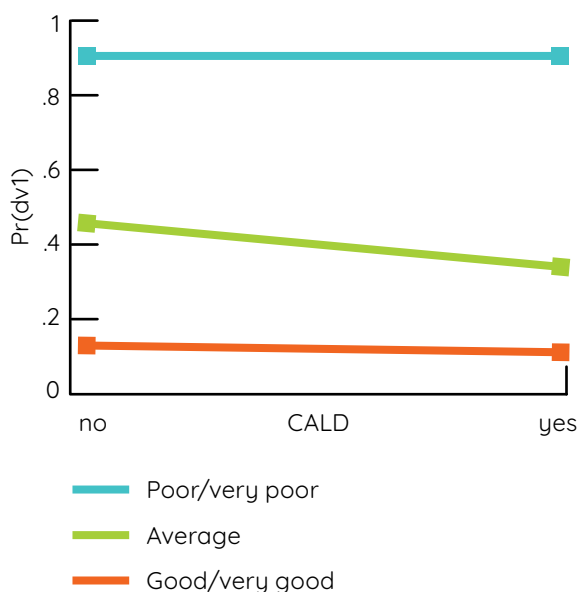
We created a model of developmental vulnerability on one or more domains by children from CALD and non-CALD backgrounds and English Proficiency adjusted for all equity groups. This allows us to ascertain the effect of all levels of English proficiency for children from CALD and non-CALD backgrounds on developmental vulnerability on one or more domains. Table 20 estimates the relative increase or decrease in odds of having a developmental vulnerability depending on the interaction of CALD background and English proficiency with reference to non-CALD children who have poor/very poor English proficiency. We can see that the odds of developmental vulnerability on one or more domains decrease significantly with higher English proficiency. This is irrespective of CALD background. However, odds for CALD children tend to indicate slightly worse outcomes.

Table 20. Model of CALD background and English proficiency on developmental vulnerability on one or more domain, 2015-2021

	OR [95% CI]
CALD x English proficiency	
no * Poor/very poor	ref
no * Average	0.06 [0.06 0.06]
no * Good/very good	0.01 [0.01 0.01]
yes * Poor/very poor	1.11 [1.02 1.20]
yes * Average	0.03 [0.03 0.04]
yes * Good/very good	0.01 [0.01 0.01]
SEIFA	
1 [Most disadvantaged]	ref
2	0.75 [0.73 0.76]
3	0.62 [0.61 0.64]
4	0.56 [0.55 0.57]
5 [Least disadvantaged]	0.48 [0.47 0.49]
Gender	
Male	ref
Female	0.48 [0.47 0.48]
Remoteness	
Major Cities of Australia	ref
Inner Regional Australia	0.99 [0.97 1.01]
Outer Regional Australia	1.06 [1.03 1.08]
Remote Australia	1.19 [1.14 1.25]
Very Remote Australia	1.67 [1.57 1.76]
Intercept	29.23 [27.56 31.00]
Number of observations	863548

As interaction effects can be difficult to interpret, Figure 9 visualises this relationship by showing the predicted probability of having developmental vulnerabilities on one or more domains by CALD background and English proficiency levels. Differences between CALD background are represented by the slopes of the lines, as they are consistently flat between children of CALD and non-CALD backgrounds, there is only a small increase in odds of developmental vulnerability on one or more domains for CALD children, particularly those with average levels of English proficiency. As the probability of developmental vulnerability on one more domains is near 1 for children with poor/very poor English, and near 0 for children with good/very good English, we can conclude that English proficiency is a much larger driver of developmental vulnerability than CALD background.

Figure 9. Predicted probability of developmental vulnerability on one or more domain by English proficiency and CALD background



Demographic differences for ECEC attendance amongst children of CALD and non-CALD backgrounds

Key points

- Attendance to any ECEC was shown to be largely protective of developmental vulnerabilities, however access and attendance to ECEC programs depends heavily on demographics and socioeconomic status.
- Children who did not attend were more likely to live in the most-disadvantaged socio-economic areas. More Males attended than Females, however attendance did not differ by remoteness categories.
- No significant demographic differences were found in attendance for CALD and non-CALD children, however risk of developmental vulnerabilities by not attending was disproportionately higher for CALD children than non-CALD children.

Part 1 established that a significant reduction in developmental risks could be gained through attendance at an ECEC program such as Preschool or Playgroups. However, access to these services is often associated with socio-economic status, gender, and remoteness. To establish whether demographics play a role in accessing these services we investigate attendance to any ECEC by CALD background and the four equity groups. Results are shown in Table 21. Most strikingly, children who did not attend any form of ECEC were much more likely to be in the most disadvantaged SEIFA groups (Did not attend 29.6% CALD, 32.6% non-CALD vs Attended 20.9% CALD, 16.5% non-CALD).

However, it was not necessarily the case that children from least disadvantaged areas were more likely to attend, rather attendance was evenly spread across all levels of socioeconomic categories. Only minor differences were found in rates of attendance between children from CALD and non-CALD backgrounds. Males were more likely to attend than females, however the difference was relatively small (<1%). Very little difference was found in attendance at any ECEC by different remoteness categories of Australia, suggesting that the availability of ECEC is adequate. Children with Special Needs were slightly more likely to attend.

Table 21. Any ECEC attendance by CALD background against equity factors

	Any ECEC							
	Did not attend CALD				Attended CALD			
	no		yes		no		yes	
SEIFA								
1 – Most disadvantaged	4,716	(29.6)	3,116	(32.6)	33,750	(16.5)	13,442	(20.9)
2	3,498	(22.0)	2,178	(22.8)	38,631	(18.9)	12,118	(18.8)
3	3,049	(19.1)	1,662	(17.4)	42,497	(20.8)	12,669	(19.7)
4	2,683	(16.8)	1,528	(16.0)	45,491	(22.3)	13,661	(21.2)
5 – Least disadvantaged	1,981	(12.4)	1,073	(11.2)	43,845	(21.5)	12,492	(19.4)
Gender								
Male	7,909	(49.4)	4,743	(49.2)	105,650	(51.6)	33,443	(51.6)
Female	8,086	(50.6)	4,901	(50.8)	99,072	(48.4)	31,391	(48.4)
Remoteness								
Major Cities of Australia	10,047	(62.8)	≥8,680	(≥90.0)	133,591	(65.3)	≥58,351	(≥90.0)
Inner Regional Australia	3,545	(22.2)	565	(5.9)	45,348	(22.2)	3,483	(5.4)
Outer Regional Australia	1,767	(11.0)	313	(3.2)	20,152	(9.8)	1,907	(2.9)
Remote Australia	315	(2.0)	42	(0.4)	3,435	(1.7)	281	(0.4)
Very Remote Australia	321	(2.0)	19	(0.2)	2,196	(1.1)	141	(0.2)
Special Needs Status								
No	15,461	(96.7)	9,430	(97.8)	193,052	(94.3)	61,845	(95.4)
Yes	534	(3.3)	214	(2.2)	11,670	(5.7)	2,989	(4.6)

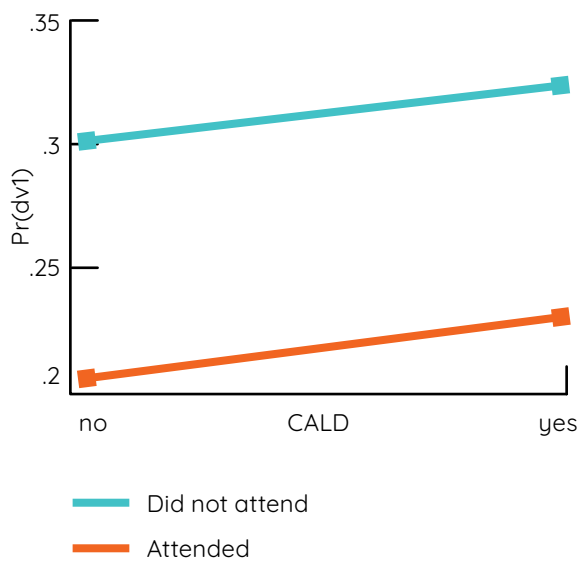
We model this relationship (Table 22) to estimate the probability of attendance based on equity factors and CALD background. The interpretation of the interaction effect of CALD background and ECEC shows that children who were from CALD backgrounds that attended ECEC had 0.57 times the odds of a developmental vulnerability on one or more domains than non-CALD children who did not attend. Children from CALD backgrounds who did attend were similarly 0.67 times less likely to have a developmental vulnerability on one or more domains than non-CALD children who did not attend. However children from CALD backgrounds who did not attend had increased odds of 1.12 times of a developmental vulnerability than non-CALD children who did not attend. In summary, regardless of CALD backgrounds attending ECEC reduced odds of developmental vulnerability by half, however children from CALD backgrounds were in general more likely to have developmental vulnerabilities on one or more domains.

Table 22. Model of CALD background and attendance to any ECEC on developmental vulnerability on one or more domain, 2015-2021

	OR [95% CI]
CALD background * Any ECEC	
No * Did not attend	ref
no * Attended	0.57 [0.56 0.58]
yes * Did not attend	1.12 [1.09 1.16]
yes * Attended	0.67 [0.65 0.68]
SEIFA	
1 (Most disadvantaged)	ref
2	0.69 [0.68 0.70]
3	0.56 [0.55 0.56]
4	0.48 [0.47 0.48]
5 (Least disadvantaged)	0.39 [0.39 0.40]
Gender	
Male	ref
Female	0.45 [0.45 0.46]
Remoteness	
Major Cities of Australia	ref
Inner Regional Australia	1.03 [1.02 1.05]
Outer Regional Australia	1.12 [1.10 1.15]
Remote Australia	1.32 [1.27 1.38]
Very Remote Australia	2.63 [2.51 2.76]
Intercept	1.00 [0.98 1.02]
Number of observations	837664

For ease of interpretation, we illustrate this relationship through Figure 10. We can see that there are some increases in probability of developmental vulnerability for CALD children, however the probability is greatly reduced by attendance in any ECEC program. A similar reduction is seen for children from non-CALD backgrounds, ECEC attendance reduces the probability of having a developmental vulnerability by 10 per cent.

Figure 10. Probability of developmental vulnerability on one or more domain by ECEC attendance





Part 3:

Findings at a state level: NSW, QLD and VIC

Trends in the early development of children from CALD backgrounds in NSW, QLD, VIC

As with trends observed across Australia, the number and percentage of children from CALD backgrounds continues to increase over time in New South Wales (NSW), Queensland (QLD), and Victoria (VIC) (Table 23). When looking across jurisdictions, in 2021 NSW had the highest proportion of children from CALD backgrounds in their first year of school (32.9%), with VIC coming in close behind with (28.9%). QLD has the lowest of the three jurisdictions (16.0%). Table 24 highlights the 10 most frequent languages spoken at home among children from a CALD background in 2021, with Mandarin, Arabic, and Punjabi being reported most often.

Table 23. CALD and non-CALD children over time across NSW, QLD, VIC

	CALD n (%)	Non-CALD n (%)	Total n (%)
NSW			
2009	20,893 (24.0)	66,277 (76.0)	87,170 (100.0)
2012	23,834 (25.2)	70,738 (74.8)	94,572 (100.0)
2015	26,689 (27.8)	69,467 (72.2)	96,156 (100.0)
2018	30,634 (31.3)	67,386 (68.7)	98,020 (100.0)
2021	31,500 (32.9)	64,244 (67.1)	95,744 (100.0)
QLD			
2009	5,141 (9.3)	50,307 (90.7)	55,448 (100.0)
2012	5,808 (9.4)	55,785 (90.6)	61,593 (100.0)
2015	7,299 (11.2)	57,901 (88.8)	65,200 (100.0)
2018	9,481 (14.7)	55,219 (85.3)	64,700 (100.0)
2021	10,377 (16.0)	54,606 (84.0)	64,983 (100.0)
VIC			
2009	11,979 (19.6)	49,207 (80.4)	61,186 (100.0)
2012	14,281 (21.0)	53,650 (79.0)	67,931 (100.0)
2015	16,736 (23.3)	55,001 (76.7)	71,737 (100.0)
2018	20,653 (27.1)	55,592 (72.9)	76,245 (100.0)
2021	21,218 (28.9)	52,274 (71.1)	73,492 (100.0)

Figure 11. CALD and non-CALD children over time across NSW, QLD, VIC

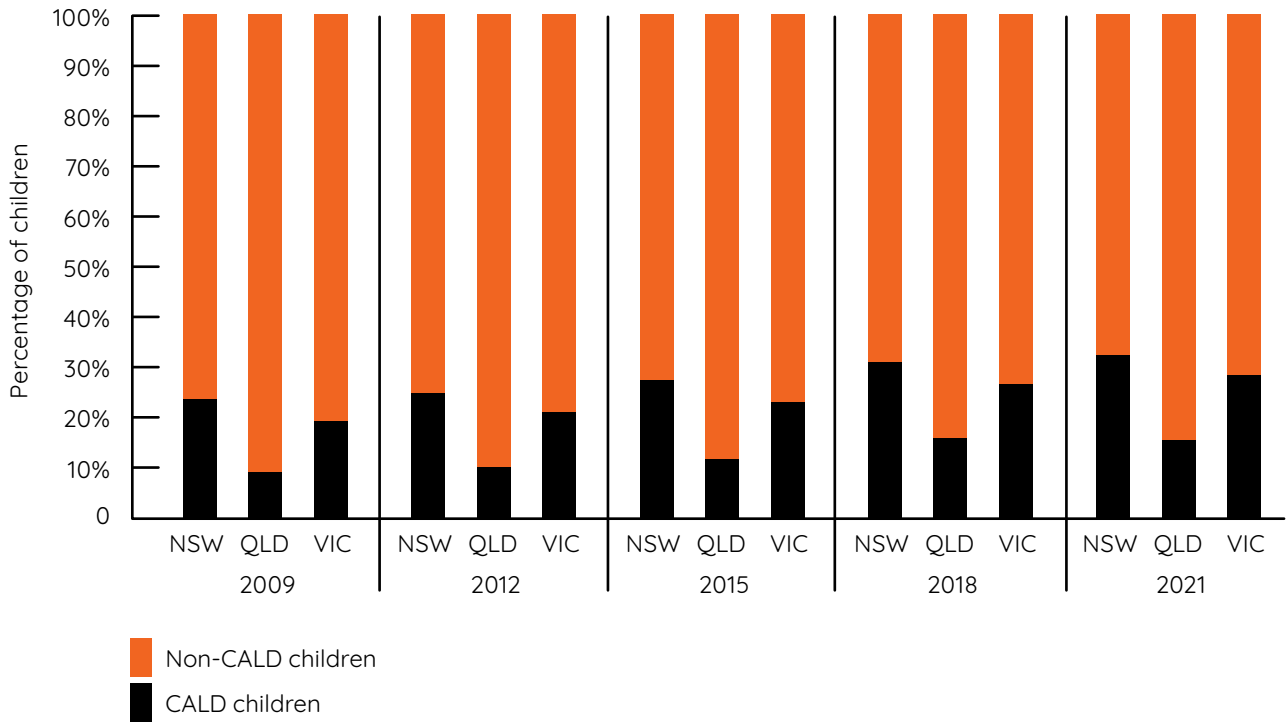


Table 24: Most prevalent languages among CALD children across NSW, QLD, VIC in 2021

NSW n (%)		QLD n (%)		VIC n (%)	
Arabic	4,726 (15.7)	Mandarin	1,146 (11.7)	Mandarin	2,473 (12.0)
Mandarin	3,505 (11.7)	Punjabi	657 (6.7)	Punjabi	1,981 (9.7)
Hindi	1,536 (5.1)	Korean	420 (4.3)	Arabic	1,789 (8.7)
Vietnamese	1,467 (4.9)	Hindi	402 (4.1)	Hindi	1,463 (7.1)
Cantonese	1,160 (3.9)	Vietnamese	401 (4.1)	Vietnamese	1,437 (7.0)
Urdu	1,033 (3.4)	Spanish	396 (4.1)	Urdu	624 (3.0)
Bengali	931 (3.1)	Arabic	368 (3.8)	Cantonese	571 (2.8)
Punjabi	887 (2.9)	Japanese	352 (3.6)	Tamil	461 (2.2)
Korean	855 (2.8)	Samoaan	316 (3.2)	Sinhalese	455 (2.2)
Spanish	825 (2.7)	Malayalam	277 (2.8)	Malayalam	450 (2.2)

We explored developmental vulnerability on one or more and two or more domains, according to AEDC summary indicators for children from CALD and non-CALD backgrounds in each jurisdiction over time (Table 25). As with national results, the percentage of developmentally vulnerable children at school entry was higher among children from CALD backgrounds, however the overall number of developmentally vulnerable children has also decreased over time. For non-CALD children we see slight increases in NSW and VIC but by less than a percentage point. The trend over years in each region for both CALD and Non-CALD children is not uniform. For example, in NSW, the percentage of CALD children developmentally vulnerable on one or more domains decreases from 27.9 per cent in 2009 to 23.2 per cent in 2021, while in VIC, it decreases from 30.5 per cent to 24.1 per cent in the same period. The difference between

children developmentally vulnerable on one or more domains, and two or more domains from CALD and non-CALD backgrounds is less pronounced in QLD, where only a single percentage point separates the two.

It is important to consider these results together with the increasing number and percentage of children from CALD backgrounds. Thus, despite decreasing proportions over time, the number of children developmentally vulnerable on one or more or two or more domains from CALD backgrounds has increased, posing important implications for services providing early childhood support to families from CALD backgrounds.

Table 25. Developmental vulnerability among CALD and non-CALD children over time across NSW, QLD, VIC

	NSW		QLD		VIC	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Developmental vulnerability on one or more domains						
2009	5,502 (27.9)	12,150 (19.3)	1,965 (40.6)	13,628 (28.5)	3,372 (30.5)	8,269 (17.9)
2012	5,920 (26.3)	11,802 (17.8)	1,817 (33.1)	13,400 (25.5)	3,731 (27.9)	8,676 (17.3)
2015	6,370 (24.9)	12,008 (18.4)	2,167 (30.9)	14,053 (25.5)	4,266 (26.8)	9,199 (17.8)
2018	6,931 (23.6)	11,652 (18.3)	2,553 (27.9)	13,401 (25.5)	4,850 (24.7)	9,382 (18.0)
2021	6,935 (23.2)	12,132 (20.1)	2,581 (25.9)	12,562 (24.5)	4,841 (24.1)	8,936 (18.2)
Developmental vulnerability on two or more domains						
2009	2,561 (13.0)	5,965 (9.5)	1,133 (23.4)	7,174 (15.0)	1,710 (15.4)	4,026 (8.7)
2012	2,667 (11.8)	5,552 (8.3)	943 (17.2)	7,058 (13.4)	1,890 (14.1)	4,163 (8.3)
2015	3,009 (11.8)	5,724 (8.7)	1,123 (16.0)	7,590 (13.8)	2,184 (13.7)	4,523 (8.7)
2018	3,291 (11.2)	5,710 (8.9)	1,248 (13.6)	7,328 (13.9)	2,480 (12.6)	4,751 (9.1)
2021	3,398 (11.3)	6,112 (10.1)	1,250 (12.5)	6,838 (13.3)	2,550 (12.7)	4,535 (9.2)

We explored children’s developmental outcomes on each of the five AEDC domains, separately for children from CALD and non-CALD backgrounds across the three jurisdictions over time (Table 26). Results over jurisdictions are generally in line with national findings. Developmental vulnerability in Physical health and wellbeing increased for CALD and non-CALD children from 2018 to 2021 in NSW and QLD, however in VIC the percentage decreased for CALD children and increased for non-CALD children. Social competence saw slight increases for non-CALD children in QLD and CALD children in VIC, and decreases elsewhere. Emotional maturity saw increases for both CALD and non-CALD children in NSW and QLD, however the percentage decreased for CALD children

in VIC. Language and cognitive skills saw developmental vulnerability increase in all jurisdictions for both CALD and non-CALD children. In Communication skills and general knowledge the percentage decreased for both groups in NSW and VIC, however increased for both groups in QLD.

The largest differences in developmental vulnerability on one or more domains for CALD and non-CALD children is consistent with national findings, driven largely by the difference in Communication skills and general knowledge domain. As discussed within the main findings, this domain is largely driven by items focussing on the child’s English proficiency, which is more likely to be poor/very poor for CALD children.

Figure 12: Developmental vulnerability (on one or more domains) among CALD and non-CALD children over time in NSW, QLD, VIC

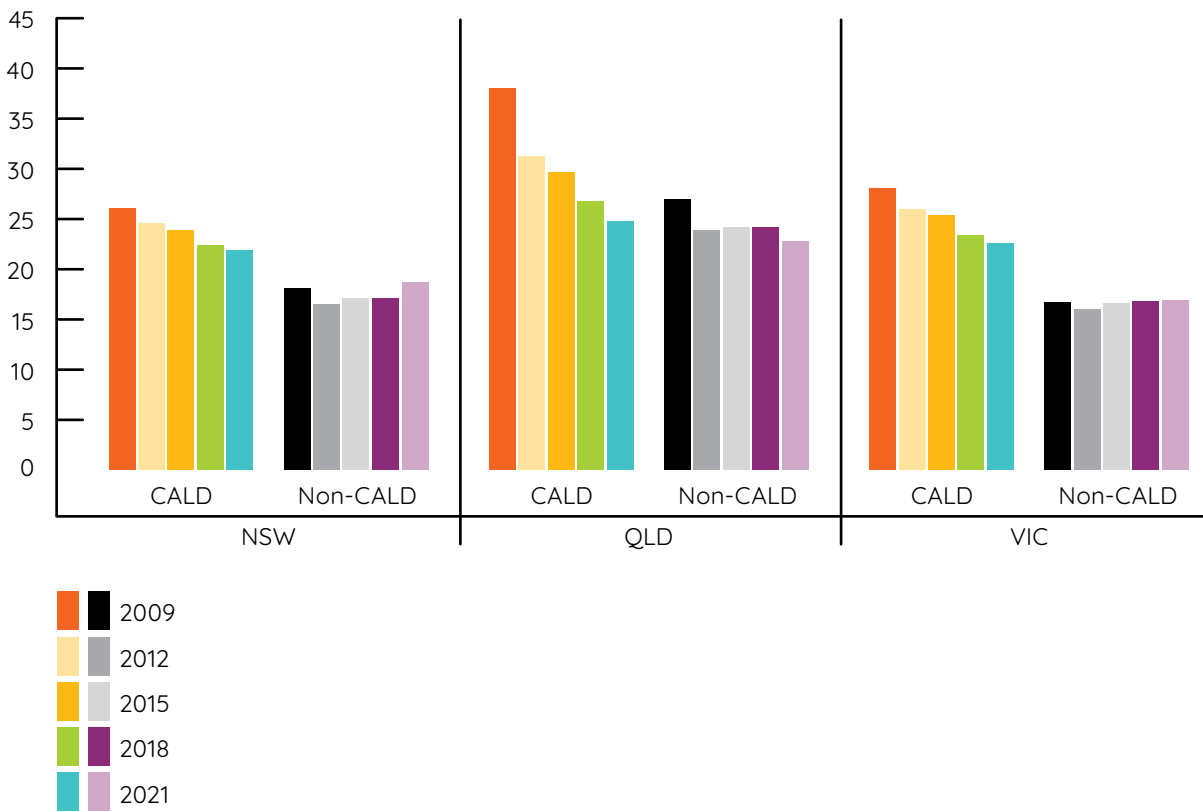


Table 26. Developmental vulnerability on each AEDC domain among CALD and non-CALD children over time in NSW, QLD, VIC

	NSW		QLD		VIC	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
Physical Health and Wellbeing						
2009	1,762 (8.9)	5,414 (8.6)	573 (11.8)	5,236 (10.9)	1,024 (9.2)	3,379 (7.3)
2012	1,988 (8.8)	5,405 (8.1)	586 (10.6)	6,173 (11.7)	1,201 (8.9)	3,764 (7.4)
2015	2,226 (8.7)	5,546 (8.5)	765 (10.9)	6,940 (12.6)	1,404 (8.8)	3,931 (7.6)
2018	2,473 (8.4)	5,505 (8.6)	928 (10.1)	6,653 (12.6)	1,663 (8.4)	4,241 (8.1)
2021	2,640 (8.8)	5,873 (9.7)	930 (9.3)	6,218 (12.1)	1,647 (8.2)	3,957 (8.1)
Social Competence						
2009	2,033 (10.3)	5,247 (8.3)	692 (14.3)	5,706 (11.9)	1,278 (11.5)	3,547 (7.6)
2012	2,341 (10.3)	5,237 (7.9)	673 (12.2)	6,044 (11.5)	1,435 (10.7)	3,716 (7.4)
2015	2,788 (10.9)	5,571 (8.5)	889 (12.6)	6,830 (12.4)	1,768 (11.1)	4,166 (8.0)
2018	3,043 (10.3)	5,525 (8.6)	990 (10.8)	6,398 (12.2)	1,990 (10.1)	4,341 (8.3)
2021	2,967 (9.9)	5,491 (9.1)	917 (9.2)	5,619 (10.9)	2,115 (10.5)	4,138 (8.4)
Emotional Maturity						
2009	1,438 (7.3)	4,706 (7.5)	539 (11.2)	5,263 (11.0)	1,042 (9.5)	3,692 (8.0)
2012	1,338 (6.0)	4,149 (6.2)	485 (8.8)	4,883 (9.3)	1,082 (8.1)	3,484 (6.9)
2015	1,692 (6.6)	4,484 (6.9)	618 (8.8)	5,648 (10.3)	1,361 (8.6)	4,047 (7.8)
2018	1,765 (6.0)	4,541 (7.1)	761 (8.3)	5,687 (10.8)	1,520 (7.8)	4,271 (8.2)
2021	1,852 (6.2)	4,698 (7.8)	778 (7.8)	5,332 (10.4)	1,468 (7.3)	3,874 (7.9)
Language and Cognitive Skills						
2009	1,470 (7.4)	3,385 (5.4)	1,096 (22.7)	7,088 (14.8)	1,083 (9.8)	2,429 (5.2)
2012	1,367 (6.0)	2,884 (4.3)	659 (12.0)	4,645 (8.8)	1,223 (9.1)	2,692 (5.3)
2015	1,470 (5.7)	2,890 (4.4)	695 (9.9)	4,305 (7.8)	1,446 (9.1)	2,846 (5.5)
2018	1,784 (6.0)	3,100 (4.8)	688 (7.5)	4,259 (8.1)	1,661 (8.4)	2,947 (5.6)
2021	1,878 (6.3)	3,698 (6.1)	786 (7.9)	4,341 (8.4)	1,790 (8.9)	3,203 (6.5)
Communication Skills and General Knowledge						
2009	3,476 (17.6)	4,123 (6.5)	1,204 (24.8)	4,319 (9.0)	2,217 (20.0)	2,556 (5.5)
2012	3,651 (16.1)	3,939 (5.9)	1,217 (22.1)	5,022 (9.5)	2,402 (17.8)	2,708 (5.4)
2015	3,627 (14.2)	3,733 (5.7)	1,385 (19.7)	5,148 (9.3)	2,519 (15.8)	2,612 (5.0)
2018	3,928 (13.3)	3,520 (5.5)	1,572 (17.1)	4,676 (8.9)	2,817 (14.3)	2,495 (4.8)
2021	3,880 (12.9)	3,738 (6.2)	1,535 (15.4)	4,061 (7.9)	2,785 (13.8)	2,349 (4.8)

Trends in ECEC attendance among children from CALD backgrounds in NSW, QLD, VIC

We explored trends in ECEC attendance as reported by teachers, separately for children from CALD and non-CALD backgrounds across jurisdictions. Appendices 1-3 present the percentage of children who attended preschool, day-care, playgroup, an early intervention program, and other non-parental care⁵ separately for each NSW, QLD, and VIC, and results are summarised below.

Consistent with national results, preschool remains to be the most commonly attended form of ECEC among all children. In 2021, preschool attendance among children from a CALD background had increased in all three jurisdictions to 74 per cent in NSW, 71 per cent in QLD and 81 per cent in VIC. However, there remains gaps in preschool attendance between children from a CALD background, in favour of non-CALD children. The difference in prevalence ranges from 8-9 per cent in each jurisdiction. This echoes findings at the national level and highlights the need to address the barriers associated with preschool attendance among CALD families. Overall, preschool attendance is increasing both nationally and within jurisdictions regardless of cultural background CALD background.

Previously, day-care attendance saw sharp increases in 2018 for QLD and NSW, and a slight decrease overall in VIC. In 2021 the trends remain largely the same with the increase seen in QLD and NSW sustained in the latest AEDC. The large number of don't

know responses to this question remains problematic.

As reflected in the national data, playgroup attendance remains low among children from a CALD background, ranging from 5 per cent in NSW and VIC to 13 per cent in QLD, a slight decrease since 2018. The general trend of playgroup attendance has been declining nationally, however as found in the primary results playgroup attendance maintains a strong protective relationship with developmental vulnerability, likely largely driven by quality system wide rollouts in other jurisdictions such as in Tasmania.

Children from CALD backgrounds are under-represented in early intervention programs across jurisdictions. All jurisdictions assessed follow the national trend where CALD children attend at half the rate of non-CALD children. Furthermore, this has remained relatively stable over the previous three data collections. As these programs are targeted towards children who require additional support, CALD children are missing out on these specialised supports.

ECEC variables were combined into a summary variable indicating any form of ECEC attendance before school. Results reflect that of the national analysis where a majority of children within NSW, QLD, and VIC attended some form of ECEC before their first year of schooling. Figure 13 shows how attendance has been slowly trending upwards in NSW and QLD for both CALD and non-CALD children. However, in VIC we can see a stabilisation in attendance. It is also worth noting that VIC has always maintained the highest rates of ECEC attendance.

⁵ See the methods section of this report for a description of each of these forms of ECEC.

Figure 13: Any ECEC attendance among CALD and non-CALD children over time in NSW, QLD, VIC

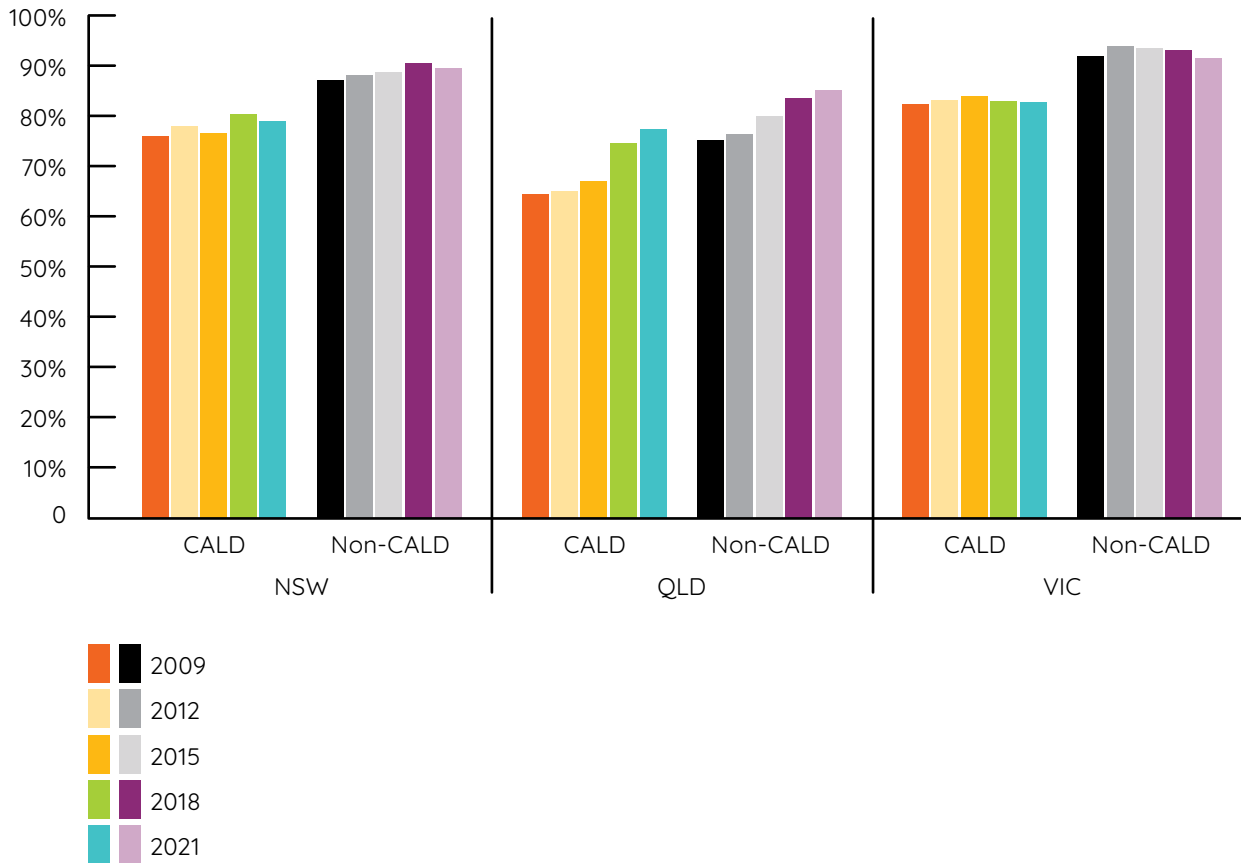


Table 27: Any ECEC attendance among CALD and non-CALD children over time in NSW, QLD, VIC

	NSW		QLD		VIC	
	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)	CALD n (%)	Non-CALD n (%)
2009						
Attended	16,008 (76.6)	58,055 (87.6)	3,307 (64.3)	37,923 (75.4)	9,884 (82.5)	45,415 (92.3)
Did not attend	4,885 (23.4)	8,222 (12.4)	1,834 (35.7)	12,384 (24.6)	2,095 (17.5)	3,792 (7.7)
Don't know	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
2012						
Attended	18,599 (78.0)	62,569 (88.5)	3,787 (65.2)	42,620 (76.4)	11,938 (83.6)	50,489 (94.1)
Did not attend	4,037 (16.9)	6,384 (9.0)	1,589 (27.4)	10,184 (18.3)	1,668 (11.7)	2,299 (4.3)
Don't know	1,198 (5.0)	1,785 (2.5)	432 (7.4)	2,981 (5.3)	675 (4.7)	862 (1.6)
2015						
Attended	20,467 (76.7)	61,818 (89.0)	4,900 (67.1)	46,383 (80.1)	14,111 (84.3)	51,569 (93.8)
Did not attend	4,833 (18.1)	6,142 (8.8)	1,773 (24.3)	8,758 (15.1)	1,974 (11.8)	2,590 (4.7)
Don't know	1,389 (5.2)	1,507 (2.2)	626 (8.6)	2,760 (4.8)	651 (3.9)	842 (1.5)
2018						
Attended	24,633 (80.4)	61,263 (90.9)	7,103 (74.9)	46,340 (83.9)	17,160 (83.1)	51,940 (93.4)
Did not attend	4,518 (14.7)	4,829 (7.2)	1,778 (18.8)	6,606 (12.0)	2,261 (10.9)	2,374 (4.3)
Don't know	1,483 (4.8)	1,294 (1.9)	600 (6.3)	2,273 (4.1)	1,232 (6.0)	1,278 (2.3)
2021						
Attended	24,954 (79.2)	57,700 (89.8)	8,040 (77.5)	46,734 (85.6)	17,626 (83.1)	48,031 (91.9)
Did not attend	4,618 (14.7)	4,903 (7.6)	1,751 (16.9)	6,002 (11.0)	2,276 (10.7)	2,826 (5.4)
Don't know	1,928 (6.1)	1,641 (2.6)	586 (5.6)	1,870 (3.4)	1,316 (6.2)	1,417 (2.7)

The relationship between ECEC attendance and early development outcomes among children from CALD backgrounds in NSW, QLD, VIC

We used the most recent data from the 2021 AEDC cohort to demonstrate the relationship between ECEC attendance and child development outcomes. Table 28 presents the number and percentage of developmentally vulnerable children on AEDC summary indicators (vulnerable on one or more domains, and vulnerable on two or more domains) for those who did and did not attend any form of ECEC, separately for children from CALD and non-CALD backgrounds. Appendices 1-3 present this information in greater detail, including developmental vulnerability on each of the five AEDC domains, as well as developmental vulnerability on AEDC summary indicators for children who did and did not attend each of the different forms of ECEC, separately for each NSW, QLD, and VIC. Overall, results reflect that of national analyses. In NSW, for children vulnerable in one or more domains, the attendance rates for CALD and non-CALD children are relatively close (21.1% and 18.9%, respectively). However, for children with vulnerabilities in two or more domains, the attendance rates slightly decrease, being 10.1% for CALD and 9.3% for non-CALD children. In QLD, the attendance rates among CALD children vulnerable in one or more domains are higher (23.2%) compared to NSW and VIC, with non-CALD children showing a similar pattern (22.7%).

The difference becomes more pronounced in the two or more domains category, where CALD children have a higher attendance rate (10.8%) compared to non-CALD children (12.0%). VIC shows a distinct pattern, with the highest attendance rates among CALD children in one or more domains (22.3%) and a significant difference in the two or more domains category, where surprisingly, CALD children's attendance (11.7%) is notably higher than non-CALD children (8.6%). This suggests that VIC might be more effective in engaging vulnerable CALD children compared to NSW and QLD. Figure 14 visualises these figures and accurately depicts the relative benefit of ECEC attendance across the three jurisdictions.

Table 28: Developmental vulnerability by any ECEC attendance among CALD and non-CALD children in NSW, QLD, VIC

	CALD n (%)	Non-CALD n (%)
NSW		
Developmental vulnerability on one or more domains		
Attended	4,977 (21.1)	10,225 (18.9)
Did not attend	1,436 (32.5)	1,489 (32.3)
Don't know	522 (28.4)	418 (26.9)
Developmental vulnerability on two or more domains		
Attended	2,389 (10.1)	5,059 (9.3)
Did not attend	766 (17.3)	843 (18.3)
Don't know	243 (13.2)	210 (13.4)
QLD		
Developmental vulnerability on one or more domains		
Attended	1,794 (23.2)	9,969 (22.7)
Did not attend	592 (35.5)	2,005 (35.8)
Don't know	195 (35.1)	588 (34.2)
Developmental vulnerability on two or more domains		
Attended	837 (10.8)	5,299 (12.0)
Did not attend	321 (19.2)	1,221 (21.8)
Don't know	92 (16.3)	318 (18.4)
VIC		
Developmental vulnerability on one or more domains		
Attended	3,737 (22.3)	7,811 (17.3)
Did not attend	728 (34.4)	741 (28.6)
Don't know	376 (30.2)	384 (29.7)
Developmental vulnerability on two or more domains		
Attended	1,967 (11.7)	3,908 (8.6)
Did not attend	383 (18.1)	409 (15.7)
Don't know	200 (16.1)	218 (16.9)

Figure 14: Developmental vulnerability (one or more domains) by any ECEC attendance among CALD and non-CALD children in NSW, QLD, VIC

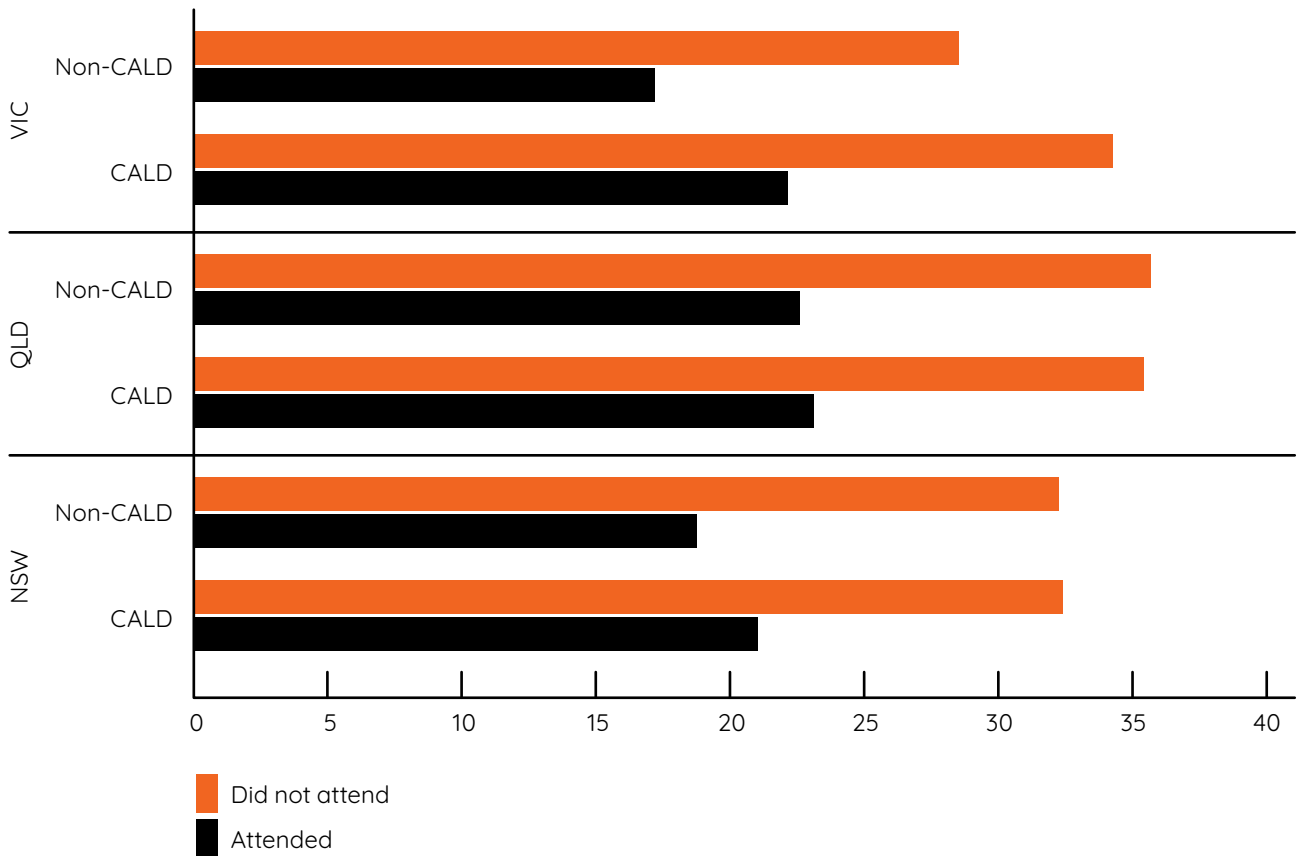


Table 29 shows regression estimates of attending different forms of ECEC on having developmental vulnerabilities on one or more domains by CALD and non-CALD children across NSW, QLD and VIC. Children who did not attend any ECEC program showed increased odds of developmental vulnerability compared to those who attended. This pattern is consistent across all states and for both CALD and non-CALD children. For instance, in NSW, the ORs are 1.80 for CALD and 2.04 for non-CALD children, suggesting a stronger association between non-attendance and developmental vulnerability for non-CALD children. Not attending preschool was associated with a higher risk of developmental vulnerability across all groups. This effect is more pronounced than for general ECEC attendance, with ORs ranging from 1.99 to 2.60. Notably, the effect is strongest in VIC for both CALD (OR = 2.60) and non-CALD (OR = 2.47) children. The association between not attending day-care and developmental vulnerability is varied. In NSW and QLD, not attending day-care is associated with increased odds of developmental vulnerability on one or more domains (OR = 1.55 for CALD in NSW), while in VIC, the association is weaker, especially for non-CALD children

(OR = 0.82). Non-attendance at playgroups is associated with increased odds of developmental vulnerability on one or more domains, especially in VIC (ORs = 1.90 for CALD and 2.10 for non-CALD). This suggests that playgroups may play a significant role in early development, particularly in VIC. Early intervention programs have OR less than 1 indicating worse results for attending. This is likely due to the targeted nature of these programs, where children who are enrolled are predisposed to be likely to have developmental vulnerabilities already. Not attending other forms of non-parental care is associated with slightly lower odds of developmental vulnerability on one or more domains (ORs range from 0.71 to 0.85), indicating a relatively smaller impact of these forms of care on developmental outcomes compared to structured programs like preschool or day-care.

Table 29: Relationship between ECEC attendance and developmental vulnerability in NSW, QLD, VIC

	NSW		QLD		VIC	
	CALD OR (95% CI)	Non-CALD OR (95% CI)	CALD OR (95% CI)	Non-CALD OR (95% CI)	CALD OR (95% CI)	Non-CALD OR (95% CI)
Any ECEC attendance						
Attended	ref	ref	ref	ref	ref	ref
Did not attend	1.80 (1.68 1.93)	2.04 (1.91 2.18)	1.83 (1.63 2.05)	1.91 (1.80 2.02)	1.82 (1.65 2.01)	1.91 (1.75 2.09)
Preschool						
Attended	ref	ref	ref	ref	ref	ref
Did not attend	1.99 (1.85 2.13)	2.11 (1.98 2.25)	2.15 (1.91 2.42)	2.31 (2.17 2.45)	2.60 (2.27 2.97)	2.47 (2.21 2.76)
Day-care						
Attended	ref	ref	ref	ref	Ref	ref
Did not attend	1.55 (1.45 1.66)	1.22 (1.17 1.29)	1.27 (1.14 1.42)	1.01 (0.97 1.07)	1.31 (1.17 1.46)	0.82 (0.77 0.88)
Playgroup						
Attended	ref	ref	ref	ref	ref	ref
Did not attend	1.87 (1.64 2.15)	1.66 (1.52 1.80)	1.43 (1.23 1.67)	1.97 (1.84 2.10)	1.90 (1.59 2.27)	2.10 (1.90 2.31)
Early intervention						
Attended	ref	ref	ref	ref	ref	ref
Did not attend	0.37 (0.33 0.43)	0.43 (0.40 0.46)	0.39 (0.31 0.49)	0.46 (0.43 0.49)	0.28 (0.24 0.33)	0.34 (0.31 0.37)
Other non-parental care						
Attended	ref	ref	ref	ref	ref	ref
Did not attend	0.83 (0.75 0.92)	0.85 (0.80 0.91)	0.75 (0.64 0.88)	0.84 (0.79 0.89)	0.71 (0.63 0.81)	0.71 (0.65 0.76)

Table 30: Estimate of CALD children with developmental vulnerabilities in NSW, QLD, VIC

	NSW	QLD	VIC
Number of children aged 0-4 years in 2021 ABS Census	479,866	307,191	382,727
Percentage of CALD children in 2021 AEDC	32.9	16.0	28.9
Estimate of CALD children aged 0-4 years	157,876	49,151	110,608
Extrapolated developmental vulnerability	n (%)	n (%)	n (%)
Developmental vulnerability on one or more domains	34,953 (22.0)	12,239 (24.9)	25,219 (22.8)
Developmental vulnerability on two or more domains	17,159 (10.8)	5,947 (12.1)	13,273 (12.0)
Physical Health and Wellbeing	13,346 (8.4)	4,424 (9.0)	8,627 (7.8)
Social Competence	14,934 (9.4)	4,325 (8.8)	8,738 (7.9)
Emotional Maturity	9,374 (5.9)	3,686 (7.5)	8,185 (7.4)
Language and Cognitive Skills	9,533 (6.0)	3,735 (7.6)	6,747 (6.1)
Communication Skills and General Knowledge	19,542 (12.3)	7,274 (14.8)	4,977 (4.5)

Estimates of young children from CALD backgrounds with developmental vulnerabilities in NSW, QLD, VIC.

Using ABS 2021 census population estimates and proportions of CALD children who were developmentally vulnerable as reported by the 2021 AEDC, we estimated the number and percentage of CALD children aged 0-4 years who are likely to have developmental vulnerabilities in each jurisdiction. The number of children from CALD backgrounds aged 0-4 years likely to be developmentally vulnerable on one or more domains ranges from 34,953 in NSW, 23,641 in VIC, and 11,723 in QLD. Again, these estimates provide jurisdictions with an understanding of the number of children from CALD backgrounds requiring additional support for their early learning and development, before they reach school.



Conclusion

Stronger Starts Brighter Futures II examines trends in early child development of children from culturally and linguistically diverse (CALD) backgrounds in Australia and their participation in Early Childhood Education and Care (ECEC), drawing on a national census of children. Families, neighbourhoods, and communities are the cornerstone of safety and support for children's development. Experiences in early childhood have lasting impacts throughout the life course and there is compelling evidence of the benefits of ECEC to reduce children's developmental vulnerabilities, facilitate successful transition to school, and promote positive outcomes throughout the life course. Evidence shows that participation in quality ECEC in the two-years before starting school is especially beneficial for disadvantaged children.

The findings reported here align with research which highlights the multiple financial and non-financial barriers that CALD families face in accessing quality early childhood education and early intervention support in Australia. From the existing evidence base, common themes around 'what works?' to promote the early development of children from CALD backgrounds indicate that a mix of targeted and place-based interventions are needed to complement universal approaches to increase their participation in learning and development in the pre-school years. We know that strong early beginnings predict positive long-term trajectories of children. Conversely, children who start school behind generally stay behind. The gaps evident in this research of trends in AEDC data point to a set of recommendations for governments at all levels, early education providers and settlement providers to help to reduce developmental disparities between children from CALD backgrounds and other children in Australia, and secure Australia's social, cultural and economic future.

Link to Appendices

Appendix 1: Additional tables and figures NSW

Appendix 2: Additional tables and figures QLD

Appendix 3: Additional tables and figures VIC

<https://www.ssi.org.au/ssi-insight/stronger-starts-brighter-futures/>

References

- Agbenyega, J., & Peers, C. (2010). Early Childhood Inclusion: A Silver Lining in the Dark Clouds for African Immigrant Children? *International Journal of whole schooling*, 6(2), 46-58.
- Australian Bureau of Statistics. (2022). 2021 Census: Nearly half of Australians have a parent born overseas (Press release). Retrieved from: <https://www.abs.gov.au/media-centre/media-releases/2021-census-nearly-half-australians-have-parent-born-overseas>
- Australian Competition & Consumer Commission (ACCC). (2023). *Childcare Enquiry, Interim Report*. Retrieved from: https://www.accc.gov.au/system/files/Childcare%20inquiry%20-%20Interim%20report%20-%20September%202023_0.pdf
- Australian Competition and Consumer Commission. (2024). Childcare inquiry – Final report. Retrieved from ACCC: <https://www.accc.gov.au/system/files/ACCC%20Childcare%20Inquiry-final%20report%20December%202023.pdf>
- Australian Government Department of Education. (2022). *Belonging, Being and Becoming: The Early Years Learning Framework for Australia (V2.0)*. Retrieved from Australian Government Department of Education for the Ministerial Council: <https://www.acecqa.gov.au/sites/default/files/2023-01/EYLF-2022-V2.0.pdf>
- Bennett, J., & Tayler, C. (2006). *Starting strong II. Early childhood education and care*: OECD publishing.
- Bove, C., & Sharmahd, N. (2020). Beyond invisibility. Welcoming children and families with migrant and refugee background in ECEC settings. *European Early Childhood Education Research Journal*, 28(1), 1-9. doi:10.1080/1350293X.2020.1707940
- Bray, J. R., Carroll, M., Baxter, J., & et al. (2022). *Evaluation of the Inclusion Support Program*: Australian Institute of Family Studies.
- Brinkman, S., Gregory, T., Goldfeld, S., Lynch, J., & Hardy, M. (2014). Data Resource Profile: The Australian Early Development Index (AEDI). *Int J Epidemiol*, 43(4), 1089-1096. doi:10.1093/ije/dyu085
- 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(4), 695-708. doi:10.1007/s12187-013-9189-3
- Brinkman, S., & Stanley, F. (2014). Public Health Aspects of Child Well-Being. In A. Ben-Arieh, F. Casas, I. Frønes, & J. E. Korbin (Eds.), *Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective* (pp. 317-350). Dordrecht: Springer Netherlands.
- Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., . . . Bhutta, Z. A. (2017). Nurturing care: promoting early childhood development. *The Lancet*, 389, 91-102. doi:10.1016/S0140-6736(16)31390-3
- Centre for Community Child Health. (2023). Restacking the Odds. Retrieved from: https://www.rch.org.au/ccch/Restacking_the_Odds/
- CFECFW. (2023). *Report on Government Services 2023: Child Protection*. Retrieved from: <https://www.cfecfw.asn.au/report-on-government-services-2023-child-protection/>
- Commerford, J., & Robinson, E. (2017). Supported playgroups for parents and children: The evidence for their benefits. *Family Matters : Newsletter of the Australian Institute of Family Studies; Melbourne*(99).
- dandolopartners. (2021). *Links to Early Learning – evaluation report*. Retrieved from: <https://www.paulramsayfoundation.org.au/news-resources/links-to-early-learning-evaluation-report>
- Davidson, P., Bradbury, B., Wong, M., & et al. (2023). *Inequality in Australia 2023: overview*: Australian Council of Social Service.
- De Gioia, K. (2013). Cultural negotiation: Moving beyond a cycle of misunderstanding in early childhood settings. *Journal of Early Childhood Research*, 11(2), 108-122. doi:10.1177/1476718x12466202
- Dennaoui, K., Nicholls, R. J., O'Connor, M., Tarasuik, J., Kvalsvig, A., & Goldfeld, S. (2016). The English proficiency and academic language skills of Australian bilingual children during the primary school years. *International Journal of Speech-Language Pathology*, 18(2), 157-165. doi:10.3109/17549507.2015.1060526
- Elango, S., García, J. L., Heckman, J. J., & Hojman, A. (2015). Early childhood education. In *Economics of means-tested transfer programs in the United States, volume 2* (pp. 235-297): University of Chicago Press.
- Geatches, L., Preston, C., & Putnis, A. (2023). Where are we? Place-based approaches to tackling community challenges in Australia.
- Goldfeld, S., O'Connor, E., O'Connor, M., Sayers, M., Moore, T., Kvalsvig, A., & Brinkman, S. (2016). The role of preschool in promoting children's healthy development: Evidence from an Australian population cohort. *Early Child Res Q*, 35, 40-48. doi:10.1016/j.ecresq.2015.11.001
- Haslam, D., Mathews, B., Pacella, R., Scott, J. G., Finkelhor, D., Higgins, D., . . . Lawrence, D. M. (2023). The prevalence and impact of child maltreatment in Australia: Findings from the Australian Child Maltreatment Study: Brief Report.
- Hernandez, D. J. (2014). Child well-being and ethnic diversity in affluent societies. *Handbook of Child Well-Being*, 3159-3192.

- Higgins, D. J. (2015). A public health approach to enhancing safe and supportive family environments for children. *Family Matters*, 96.
- Hurley, P., Matthews, H., & Pennicuik, S. (2022). *Deserts and oases: how accessible is childcare in Australia?*: Mitchell Institute.
- Janus, M. (2007). The Early Development Instrument, a tool for monitoring childrens development and readiness for school. In M. E. Young & L. M. Richardson (Eds.), *Early Child Development – from measurement to action: A priority for growth and equity* (pp. 141-155). Washington DC., USA: World Bank.
- Karoly, L. A., & Gonzalez, G. C. (2011). Early Care and Education for Children in Immigrant Families. *The Future of Children*, 21(1), 71-101. Retrieved from: <http://www.jstor.org/stable/41229012>
- Katz, I., & Redmond, G. (2010). Review of the Circumstances Among Children in Immigrant Families in Australia. *Child Indicators Research*, 3(4), 439-458. doi:10.1007/s12187-010-9069-z
- Lamb, C. S. (2020). Constructing early childhood services as culturally credible trauma-recovery environments: participatory barriers and enablers for refugee families. *European Early Childhood Education Research Journal*, 28(1), 129-148. doi:10.1080/1350293X.2020.1707368
- Marmot, M. (2010). *Fair Society, Healthy Lives: The Marmot Review*. Retrieved from: <http://www.marmotreview.org/AssetLibrary/pdfs/Reports/FairSocietyHealthyLives.pdf>
- Melhuish, E. (2004). A literature review of the impact of early years provision on young children, with emphasis given to children from disadvantaged backgrounds.
- Melhuish, E., Ereky-Stevens, K., Petrogiannis, K., Ariescu, A., Penderi, E., Rentzou, K., . . . Leerstoel, L. (2015). A review of research on the effects of Early Childhood Education and Care (ECEC) upon child development. In: EU CARE project.
- Molloy, C. S., Guo, S., & Goldfeld, S. (2023). Patterns of participation in early childhood education before and during the COVID-19 pandemic in Australia. *Australasian Journal of Early Childhood*, 48(3), 182-202. doi:10.1177/18369391231189901
- Muir, K., Katz, I., Purcal, C., Patulny, R., Flaxman, S. Abello, D., ... Hayes, A. (2010). *National Evaluation (2004-2008) of the Stronger Families and Communities Strategy 2004-2009*. FaHCSIA Occasional Paper No. 24, Retrieved from: <https://webarchive.nla.gov.au/awa/20201112162459/> <https://www.dss.gov.au/our-responsibilities/families-and-children/publications-articles/number-24-national-evaluation-2004-2008-of-the-stronger-families-and-communities-strategy-2004-2009>
- Mustard, J. F., & Young, M. E. (2007). Measuring child development to leverage ECD policy and investment. *Early Child*, 253.
- National Health and Medical Research Council. (2006). *Cultural competency in health: a guide for policy, partnership and participation*. Retrieved from: <https://www.nhmrc.gov.au/about-us/publications/cultural-competency-health>
- Ndofor-Tah, C., Strang, A., Phillimore, J., Morrice, L., Michael, L., Wood, P., & Simmons, J. (2023). *Home Office Indicators of Integration framework 2019*. Retrieved from: https://sussex.figshare.com/articles/report/Home_Office_Indicators_of_Integration_framework_2019/23468528
- New, R., Guilfoyle, A., & Harman, B. (2015). Children's School Readiness: The Experiences of African Refugee Women in a Supported Playgroup. *Australasian Journal of Early Childhood*, 40(1), 55-62. doi:10.1177/183693911504000108
- Niklas, F., Wirth, A., Guffler, S., Drescher, N., & Ehmgig, S. C. (2020). The home literacy environment as a mediator between parental attitudes toward shared reading and children's linguistic competencies. *Frontiers in Psychology*, 11, 1628.
- O'Connell, M., Fox, S., Hinz, B., & et al. (2016). *Quality early education for all*: Mitchell Institute.
- O'Connor, M., Arnott, W., McIntosh, B., & Dodd, B. (2009). Phonological awareness and language intervention in preschoolers from low socio-economic backgrounds: A longitudinal investigation. *British Journal of Developmental Psychology*, 27, 767-782. doi:10.1348/026151008X372492
- OECD. (2017). *Starting Strong 2017*.
- Pascoe, S., & Brennan, D. (2017). *Lifting our game: report of the review to acheive educational excellence in Australian schools through early childhood interventions*. Retrieved from Melbourne, Vic.:
- Patel, S., & Agbenyega, J. (2013). How we View Australian Early Childhood Education Practice: Indian Migrant Parents' Perspectives. *Australasian Journal of Early Childhood*, 38(1), 49-54. doi:10.1177/183693911303800109
- Productivity Commission. (2022). *Report on Government Services 2022, Part B, Section 3*. Retrieved from: <https://www.pc.gov.au/ongoing/report-on-government-services/2022/child-care-education-and-training/early-childhood-education-and-care>
- Productivity Commission. (2023). *A path to universal early childhood education and care: draft report*. Retrieved from: <https://www.pc.gov.au/inquiries/current/childhood/draft/childhood-draft.pdf>

- Rajwani, H., Culos, I., & McMahon, T. (2021). *Stronger starts, brighter futures: exploring trends in the early development of children from culturally and linguistically diverse backgrounds in Australia*. Settlement Services International.
- Royal Commission into Early Childhood Education and Care. (2023). *Royal Commission into Early Childhood Education and Care, Report*. Retrieved from Government of South Australia: https://www.royalcommissionecec.sa.gov.au/_data/assets/pdf_file/0009/937332/RCECEC-Final-Report.pdf
- Sincovich, A., Gregory, T., Harman-Smith, Y., & Brinkman, S. A. (2019). Exploring Associations Between Playgroup Attendance and Early Childhood Development at School Entry in Australia: A Cross-Sectional Population-Level Study. *American Educational Research Journal*, Published online June 12. doi:10.3102/0002831219854369
- Social Ventures Australia. (2019). *The economic case for early intervention in the child protection and out-of-home care system in Victoria*: Berry Street.
- Sylva, K., Siraj-Blatchford, I., & Taggart, B. (2003). *Assessing quality in the early years: Early childhood environment rating scale: Extension (ECERS-E), four curricular subscales*: Trentham Books.
- Targowska, A., Teather, S., & Guilfoyle, A. (2015). Optimising Children's Readiness to Learn through Mediating Social Disadvantage: Exploring Models of Best Practice. *Australasian Journal of Early Childhood*, 40(2), 12-19. doi:10.1177/183693911504000203
- The Front Project. (2019). *A Smart Investment for a Smarter Australia: Economic analysis of universal early childhood education in the year before school in Australia*, The Front Project. Retrieved from Australia: <https://www.thefrontproject.org.au/images/downloads/ECO%20ANALYSIS%20Full%20Report.pdf>
- The Front Project. (2022). *Supporting all children to thrive: The importance of equity in early childhood education*. Retrieved from: <https://www.thefrontproject.org.au/media/attachments/2022/05/04/supporting-all-children-to-thrive-report.pdf>
- Uniting Research and Social Policy. (2023). *More than money, Why some children are left behind by early learning*. Retrieved from: https://www.uniting.org/content/dam/uniting/documents/community-impact/research-and-innovation/Uniting_white_paper_More_than_money_access_to_early_learning.pdf
- Warr, D., Mann, R., & Forbes, D. (2013). Once you've built some trust: Using playgroups to promote children's health and wellbeing for families from migrant background. *Australasian Journal of Early Childhood*, 38(1), 41-48.
- Williams, K. E. (2018). Moving to the Beat: Using Music, Rhythm, and Movement to Enhance Self-Regulation in Early Childhood Classrooms. *International Journal of Early Childhood*, 50(1), 85-100. doi:10.1007/s13158-018-0215-y
- Woolfenden, S., Posada, N., Krchnakova, R., Crawford, J., Gilbert, J., Jursik, B., . . . Kemp, L. (2015). Equitable access to developmental surveillance and early intervention - understanding the barriers for children from culturally and linguistically diverse (CALD) backgrounds. *Health Expectations*, 18(6), 3286-3301. doi: <https://doi.org/10.1111/hex.12318>



We're SSI.
We stand for a world in which everyone
has access to equal opportunity.
We are driven by equality, empathy,
and celebration of every individual.

ssi.org.au

