

MITCHELL REPORT NO. 01/2016

Quality Early Education for All

Fostering creative, entrepreneurial, resilient
and capable learners

APRIL 2016

Megan O'Connell
Stacey Fox
Bronwyn Hinz
Hannah Cole

About the authors

Megan O’Connell

Megan O’Connell is a public policy expert with experience across the early childhood, school and tertiary education sectors. A key focus of her work leading Mitchell’s research program is developing policy to improve transitions across the education continuum.

Stacey Fox

Dr Stacey Fox has worked in research and policy across child, youth and family sectors for a number of years. Stacey has co-authored significant reports on parent engagement in learning and systems design to support prevention and early intervention, and has worked in strategic and international social policy, program design and family policy.

Bronwyn Hinz

Bronwyn Hinz recently completed a PhD on education policy reform and federalism, jointly supervised by the School of Social and Political Sciences and the Melbourne Graduate School of Education. For the past 18 months she has been Vice President of a community-run public preschool with responsibilities for policy, regulation, staffing and OHS issues.

Hannah Cole

Hannah Cole has public policy experience in the areas of early childhood, schooling and child health and wellbeing. She has considerable experience working on government-wide policy projects and initiatives designed to improve educational outcomes for vulnerable learners.

Acknowledgements

A number of individuals provided confidential, invaluable and important feedback on drafts of this paper. In particular we wish to thank:

Myra Geddes, Goodstart Early Learning

Chris Steel, Early Childhood Australia

Dahle Suggestt, PTR Consulting

About the Mitchell Institute

The Mitchell Institute at Victoria University is an independent think tank that works to improve the connection between evidence and policy reform. The Mitchell Institute promotes the principle that high-quality education, from the early years through to early adulthood, is fundamental to individual wellbeing and to a prosperous and successful society. We believe in an education system that is oriented towards the future, creates pathways for individual success, and meets the needs of a globalised economy. The Mitchell Institute was established in 2013 by Victoria University, Melbourne with foundational investment from the Harold Mitchell Foundation.

Please cite this report as: O’Connell M, Fox S, Hinz B and Cole H (2016). ‘Quality Early Education for All: Fostering, entrepreneurial, resilient and capable leaders’, Mitchell Institute policy paper No. 01/2016. Mitchell Institute, Melbourne. Available from: www.mitchellinstitute.org.au

■ Table of contents

Executive Summary: Quality Early Education for All	v
Missed Opportunities: The benefit of early education for all	1
Challenges and opportunities	2
Recognising achievement and looking forward.....	4
The Impact of Quality Early Education	6
Why quality matters	7
The foundations for future life and learning	9
Return on investment	9
Early Childhood Education in Australia: Looking back to look forward	12
Looking back.....	12
Size of the investment	13
The National Quality Framework.....	16
A skilled and supported workforce	20
The current policy environment	21
In conclusion	22
How Australia’s children are tracking	24
Participation in ECEC services (0-5 year olds).....	24
Participation in preschool (4-5 year olds).....	24
Australian Early Development Census	27
Downstream impacts	32
Supporting increased participation	33

Priorities for the next five years	41
Accelerating quality and access	41
Ensuring equitable access to early education for all children	42
Ensuring all children receive high-quality early education.....	44
Investment that is proportionate to impact	46
Conclusion: Priority Recommendations	48
Recommendation 1: Universal Access	48
Recommendation 2: The highest quality for the children with the greatest need	49
Recommendation 3: Quality early education for all children.....	50
Recommendation 4: A national data strategy and coordinating agency	50
Recommendation 5: Recognising the importance of early education	51
Appendix One	52
References	55

■ Executive Summary: Quality Early Education for All

There is a mismatch between investment and opportunity in early childhood policy in Australia. The early years are a critical window for building the foundations that enable all children to become creative, entrepreneurial, resilient and capable learners. Yet current policy settings are not meeting the needs of the children who stand to benefit most. This report aims to inform priorities for action for the next five years.

Early education is one of the most significant investments in education and productivity that governments make. It has positive impacts on all children and is a key strategy for overcoming the impact of early disadvantage on educational outcomes and life chances.

However, in Australia, there remains an unacceptable divide in both opportunity and outcome between the poorest and wealthiest communities, between cities and very remote towns, and between children from different cultural backgrounds.

A third of Australian children do not attend preschool for the number of hours needed to make a difference and children in poorer communities have fewer high-quality services available to them.

More than one-in-five children start school with vulnerabilities that can make it hard for them to take up the opportunities that schooling provides.

This has long-term consequences for the future productivity and prosperity of the nation.

We need to act urgently.

Australia does not have a coherent or equitable policy framework and service delivery platform for children and their families in the early years. The system is complex, fragmented, and unequal access to effective services further entrenches health, social and economic inequalities.

The early childhood education and care (ECEC) sector is a key element of the early years platform and shares this complexity. Responsibility for funding and delivery of early education is spread across all levels of government and there is a lack of robust data to measure impact and target investment decisions.

Advances in boosting participation in early education have been made, and the National Quality Framework (NQF) provides the foundations for high-quality and more equal ECEC but the pace of change is too slow. Australia does not yet provide all Australian children with high-quality early education.

Current policy settings are still not extending educational opportunity equally to all children. This means we are missing out on chances to maximise the potential of all children to thrive, participate in and contribute to our society.

The growing gap between the most advantaged and least advantaged children, in both learning and wellbeing, creates significant challenges for an education system already struggling to reduce the gap in achievement. Unequal access to early education and difficult transition into primary school also contributes to increased risks around early disengagement from school, the incidence of mental health issues, substance misuse and involvement in juvenile justice.

High-quality, developmentally-appropriate early education in the two years prior to school must be a core component of national investment to secure the health, wellbeing and education of our children and to secure positive futures for them and for the country.

This report aims to inform priorities for action for the next five years to ensure that all Australian children can benefit from a quality early education.

High-quality, developmentally appropriate early education in the two years prior to school must be a core component of the platforms our nation invests in to secure the health, wellbeing and education of our children, to secure positive futures for them and for the country

Early education in Australia

The signing of the National Partnership Agreement in 2009 (and commencement of the NQF in 2012) ushered in a new national approach to the regulation and delivery of high-quality ECEC in Australia. The NQF provides the foundation and framework for lifting levels of quality across the system. Its core elements – the Early Years Learning Framework (EYLF) and the National Quality Standard (NQS) – reflect research evidence and a broad professional consensus about the conditions that create positive relationships and a high-quality learning environment for children. The EYLF and NQS highlight the fact that children learn through play and in the context of secure and positive relationships and recognise that the early years are a crucial period for early cognitive and social and emotional development.

In the past five years, the proportion of children accessing early education has increased and progress has been made towards achieving higher and more consistent quality across services. This is a strong foundation that can and must be built on.

Although measurable progress has been made, access and quality are still skewed by socio-economic status, meaning that we are missing opportunities to extend access to quality early education to the children who stand to benefit most.

A substantial proportion of services have been independently assessed as working towards the minimum quality standards outlined in the NQF. The NQF Assessment and Ratings results provide independent confirmation that quality remains highly variable across the country, although there are indications that the assessment process is resulting in services improving their quality. A quarter of services have still not been assessed.

Of most concern is that nearly one-in-four services experience difficulty in meeting the NQF's 'education program and practice' standard which focuses on embedding children's individual learning, exploration and identity in everyday practice.

There is a clear need for a focused strategy to ensure all services meet the NQS. In particular, it is necessary to accelerate assessment processes to drive an increase in quality and to embed quality improvement across the system.

How Australia's children are tracking

Despite the rapid expansion in provision, access and funding for early education and care in the past decade, there are cohorts of children who are either not accessing a preschool education, or who are not accessing the hours of quality early education needed to make difference to their development.

Each year, 15 per cent of the children from the lowest socio-economic quintile and around 60,000 children in total enter school developmentally vulnerable. Quality early educational opportunities are a vital strategy for reducing these numbers.

While overall levels of developmental vulnerability have not shifted significantly, these levels have widened between the poorest and wealthiest communities, and metropolitan cities compared to very remote towns. Cohorts of children and an unacceptable number of communities fare extremely poorly on the Australian Early Development Census (AEDC).

Early education must be delivered in a way that, as far as possible, reduces barriers to access for the children who stand to benefit most. Priorities include shifting family and community perceptions about the importance of early education and delivery models that prioritise assertive outreach, engagement with families, cultural appropriateness and additional support for families where needed.

Early education must also be delivered with a level of quality and an intensity that is proportionate to need, which will require additional investment in the communities the AEDC indicates need more support.

Priorities and recommendations

This report makes five priority recommendations that the Mitchell Institute believes should be key national objectives for early childhood policy over the next five years.

These overarching recommendations address issues of access, equity, quality and data. They reflect the evidence about which investments can have the greatest impact and a pragmatic approach to building on existing achievements.

The Mitchell Institute will explore these issues in more detail in 2016.

Mitchell Institute Priority Recommendations

1. Establish affordable access to preschool as a legislated entitlement, make a permanent commitment to funding Universal Access for 4 year olds, and commence work on extending Universal Access to 3 year olds
2. Scale up evidence-based, high-intensity programs for the most vulnerable children, prioritising the communities in each state that are in the bottom decile for developmental vulnerability in the AEDC
3. Ensure the NQF is achieving its objectives and is appropriately resourced to do so, and that all services are meeting the NQS, at a minimum, by mid-2017
4. Deliver a national early childhood data strategy that establishes the information infrastructure needed to drive policy and practice improvement into the future
5. Commence a national campaign to strengthen family and community knowledge and beliefs about children's early learning

■ Missed Opportunities: The benefit of early education for all

It is well-established that the early years are a crucial window for fostering positive health and wellbeing and for establishing the foundations that enable all children to become creative, entrepreneurial, resilient and capable learners. Yet current policy settings are not meeting the needs of the children who could benefit most.

Successive reports have identified the need for a coherent policy and service delivery framework that integrates effective health, learning, wellbeing and parenting support for children, and their families, from birth to school age (and beyond) delivered with an intensity proportionate to need (Marmot, 2010; Moore, 2008; Moore et al, 2014; Fox et al, 2015).

Despite various attempts to move from rhetoric to practice, and the existence of many pockets of excellent practice, the service system as a whole remains characterised by fragmentation, inaccessibility, the delivery of poorly-evidenced interventions, a lack of clarity about what outcomes are being achieved, and uncertainty about where to target investment to optimise outcomes (DHS, 2011; Cassells et al, 2014; valentine and Hilferty, 2011).

One of the most significant opportunities to improve practice and outcomes in early childhood is by expanding access to quality early education and better equipping the early education and care (ECEC) sector to support children's learning, development and wellbeing.¹

Children are learning from the moment they are born and relationships provide the context in which they are supported to explore, learn and develop positively (National Scientific Council on the Developing Child, 2004). This report focuses on the role of early education in the two years prior to entering school, but recognises the importance of children's learning in their earliest years and the crucial role families play as children's first teachers.

The service system as a whole remains characterised by fragmentation, inaccessibility, the delivery of poorly-evidenced interventions, a lack of clarity about what outcomes are being achieved, and uncertainty about where to target investment to optimise outcomes

¹ A quality early learning experience ideally follows high-quality child and family healthcare, including sustained nurse home visiting from the antenatal period to age 2 for families who stand to benefit from a more intensive service (Moore et al, 2012), augmented by access to parenting skill development, support to provide a rich home learning environment and early intervention for emerging language and social and emotional wellbeing issues (Fox et al, 2015).

Early education is especially important for the cohort of children likely to arrive at school developmentally vulnerable.

Australia has made significant advances in the past five years, but issues around ensuring equitable access to high-quality early education remain a challenge.

The Mitchell Institute is focused on building an education system that is oriented towards the future, creates pathways for individual success, and meets the needs of a globalised economy. This requires creative, entrepreneurial, resilient and capable learners. The Mitchell Institute's landmark 2015 report, 'Educational Opportunity in Australia 2015: Who Succeeds and Who Misses Out', found that many of the 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 (Lamb et al, 2015). Children experiencing multiple and intersecting forms of adversity are the least likely to catch up. They are also the least likely to have access to high-quality early education.

In order to achieve more equitable outcomes for children, this report identifies three key issues:

- Ensuring access to early education for all children, including systemic implementation of evidence-based strategies for attracting and retaining the families who currently experience significant barriers to access.
- Ensuring all children receive high-quality early education with the 'dose and intensity' necessary to make a difference.
- Investment that is proportionate to impact, including the investments needed to achieve equitable outcomes for disadvantaged children and the ability to measure that impact.

Challenges and opportunities

Early childhood education is a genuinely challenging policy space, currently caught between shifting community attitudes, a compelling but complex evidence-base and difficult fiscal circumstances.

Australia appears to be caught between the perception that early education is primarily a private concern and family responsibility – because the purpose of 'child care' is primarily to help parents get back to paid work – and the growing recognition of the significant public benefits that flow from investing in the early years. The recent Productivity Commission 'Childcare and Early Childhood Learning Inquiry' report suggests that because many of the benefits of early education "accrue primarily to the child attending ECEC and to their family" it is not reasonable to expect the governments to fully fund their participation (PC, 2015, p. 13). More recently the Government's proposed childcare legislation, *Jobs for Families Child Care Package (2015)* ties children's access to childcare subsidies to their parents' workforce participation status.

However, it might be argued that the benefits of healthcare and *school* education also accrue primarily to the individual, although there is widespread recognition of the public benefits of universal access to health and education and a strong community belief – reinforced by and reflected in legislation – that children are entitled to health and school education in their own right.

There is clear recognition that public investment in health and education benefits us all. There is also unequivocal evidence that early childhood education delivers some of the strongest returns on investment of all social

"Children who start school in good shape are likely to learn well, they're likely to develop the expertise and skills that will make them productive members of the workforce."

PROFESSOR OBERKLAID

programs (Heckman, 2009; WISPP). Melhuish (2011) asserts that “the benefit arriving from 18 months of pre-school is similar to that gained from 6 years of primary school”.

It is time that quality early education is considered a core entitlement for all Australian children.²

The evidence for what constitutes quality early education is strong: existing information can provide a reliable compass for action if backed by ongoing measurement, evaluation and mechanisms to support continual quality improvement. But there are no perfect answers and ‘silver bullet’ solutions. We need to use this evidence and develop and evaluate Australian-specific solutions to answer the crucial questions around ‘what works’, for whom and in what circumstances.

High-quality ECEC is a significant lever for improving children’s outcomes – a critical part of the package of inputs that sets children up to succeed at school and in life – but it is important that it is not seen as *the* solution for transformational change.

High-quality universal platforms offer the best opportunity to shift outcomes at the population-level and should be the priority for investment

Bold policy decisions are needed for Australia to address the huge downstream personal and social costs of missing the opportunity to act early – when interventions are most effective. Responding to the consequences of the stark socio-economic differences evident when children arrive at school is enormously challenging for the education system. Recent Grattan Institute data on the impact of disadvantage on educational attainment highlights the difficulty the current education system has in maximising the potential of all children, including the huge gulf in learning between the most highly performing and lowest performing students (Goss and Sonnerman, 2016). This reinforces the Mitchell Institute’s findings in ‘Educational Opportunity’ that without additional support, early disadvantage can continue throughout a child’s schooling.

One of the core issues plaguing social policy and service delivery in Australia is that of funding and delivery models that are often incapable of servicing the number of people who need them. In the same way that only taking half a course of antibiotics will not address the underlying infection, a program with the capacity to work with 30 children in a community of 1000 children will never shift the outcomes measured by the Australian Early Development Census (AEDC). This is why AEDC results have not substantially altered since 2012, despite investments in a range of evidence-based programs. These programs have their place, and should be supported, but will not deliver the population-level change we need unless they reach the majority of children likely to benefit from them. Similarly, low to moderate quality early education will not be sufficient to close the gap in school readiness and subsequent achievement.

High-quality universal platforms offer the best opportunity to shift outcomes at the population-level and should be the priority for investment.

There is, therefore, a clear and compelling rationale to prioritise establishing early education as a universal entitlement for all Australian children, ensuring that education is delivered with the intensity and with the quality needed. We also need to build capacity to track the extent to which it is, in fact, benefitting children.

Australia has begun building the infrastructure needed to achieve genuine Universal Access, but a proactive approach is needed to ensure that previous landmark reforms are able to achieve their intended outcomes.

² The International Labour Organization contends that broad acceptance of the idea that early education is a public good is likely to coincide with its inclusion as part of the school system (ILO, 2012, p. 24).

Recognising achievement and looking forward

In 2008 and 2009 the Council of Australian Governments (COAG) made historic commitments to introduce a new National Quality Framework for ECEC and a new national commitment to ensure that all children can access a preschool program delivered by a qualified Early Childhood Teacher (ECT) in the year before school.³

The national law underpinning the NQF, passed in 2010, was a significant milestone. It provided, for the first time:

- a consistent national approach to ECEC regulation including staff qualifications and ratios, and an outcomes-based regulatory framework (the NQS);
- a new single national curriculum and pedagogy framework (the EYLF);
- the development of processes and information infrastructure to support nationally consistent measurement of some elements of ECEC data (the Assessment and Ratings process);
- a shared commitment to the provision of preschool education in the year before school; and
- formal recognition that quality early education is important for children's development, not just parental workforce participation.

Five years on from these breakthrough reforms, and in the wake of a major inquiry by the Productivity Commission and new federal legislation, it is timely to reflect on the extent to which the reforms have achieved their intended purpose and to articulate key areas for policy and practice development over the next five years.

Crucially, it is important to remember that the 2010 reforms simply brought Australia up to international norms (OECD, 2001). A significant gap remains between international best practice and Australia's current policy settings and Australia remains considerably below average for public investment in ECEC (OECD, 2015; Brennan and Adamson, 2014, p. 8).

The NQS is designed to set national minimum benchmarks for quality, and its Assessment and Ratings process and Quality Improvement Plan provide a framework for continuous improvement and for services to exceed the standards. However, 31 per cent of services that have received a rating were assessed as 'Working Towards' the standards. Critically, after five years 26 per cent of services have not even been assessed (ACECQA, 2016). This is not sufficient to drive continuous improvement in the sector, or to encourage excellence.

The pace of the change initiated by the NQF is too slow. With around 60,000 children arriving at school developmentally vulnerable each year, we cannot move quickly enough to raise levels of quality to at least minimum levels, so that all services deliver a quality education for all children.

Funding for the ECEC sector is complex and often opaque. In addition to family contributions (fees and fundraising), there are three main funding sources: childcare subsidies provided by the Australian Government; the Universal Access to Preschool National Partnership, and state and local government investment in providing access to preschool for (some) 3 and 4 year olds.

We can learn from overseas experience. The United Kingdom extended subsidised ECEC to all 3 and 4 years olds in 2004 and 1998 respectively, and to the 40 per cent most disadvantaged 2 year olds in 2012. However, evaluation of the United Kingdom's expansion of free ECEC to all 3 and 4 year olds has not had an impact of the size expected. It appears that the primary reasons for this are related to the quality of the services provided and

³ In this report, the term 'preschool' is used to refer to an educational program delivered (across settings) in the year before fulltime schooling.

the fact that although all children can benefit from early education, the biggest gains to be made are through uptake from the most disadvantaged families (Brewer et al, 2014). There are clear lessons here for Australia. Current policy settings will only yield improvements in population-level outcomes through a concomitant focus on quality and access.

Policy objectives for the next five years

The Mitchell Institute goal is for an education system that equips *all* young people to be creative, entrepreneurial, resilient and capable learners. Early childhood education has a pivotal role in developing the building blocks for learning and wellbeing, and in making sure that children's capabilities, attributes and talents shape their futures, not their experiences of disadvantage.

This report aims to inform the ongoing conversation about policy and practice directions for early education in Australia over the next five years. The report:

- provides a synthesis of the evidence around why early childhood education is crucial for all children, and especially important for vulnerable children;
- outlines the expansion of quality early childhood education in Australia over the past decade;
- shows who is participating in early childhood education, who is missing out and why;
- provides a stocktake of data on how Australian children are faring; and
- suggests potential policy levers for driving change and provides recommendations that could be actioned by all levels of government in Australia to improve access, quality, data and outcomes.

An education system
that equips *all* young
people to be creative,
entrepreneurial,
resilient and capable
learners

The Impact of Quality Early Education

Quality early education provides a strong foundation for positive life outcomes for children. It can play a key role in narrowing the gap between advantaged and disadvantaged children that begins long before a child's first year of school.

Early education provides children with opportunities to develop critical skills during the years prior to school (Cloney et al, 2015), and is particularly important for children who have not had the opportunity of exposure to a rich home learning environment. Numerous studies have shown the impact of quality early education on children's social, emotional and learning outcomes (Sylva, 2010; Moore and McDonald, 2013; Warren and Haisken-DeNew, 2013; Burchinal et al, 2009). There is a growing evidence-base illustrating the impact of early years interventions on downstream outcomes, such as educational attainment, economic and social participation, involvement in the criminal justice system and family wellbeing (Manning, Homel and Smith, 2009; Schweirnhard et al, 2005; Campbell et al, 2012).

Universal provision of quality early childhood education, delivered with greater intensity for the children who need it most, is a key strategy for changing the trajectories of children and reducing the unsustainable costs of late intervention (Heckman, 2008; Access Economics, 2009; Allen, 2011; Fox et al, 2015). Intervening early is more effective and cost-efficient.

All children benefit from access to high-quality early education, especially in the year before school, but children from disadvantaged backgrounds benefit more (Heckman, 2008; Harrison et al 2012). Available evidence suggests that 15 hours per week is adequate and appropriate for most children.

The children most at risk of poorer outcomes – those experiencing abuse or neglect or who had experienced trauma, and children from families experiencing mental health issues, family violence or drug and alcohol abuse – can benefit significantly from daily access to high-quality early education and care from a young age, especially when this is combined with access to family support and therapeutic services as required (Sylva et al, 2010; Sylva, 2004; Melhuish et al 2006; Burchinal et al, 2009; AIHW, 2015). For children experiencing significant disadvantage, access to at least 30 hours of quality early education from age 3 is optimal.

The impact of quality early education has been highlighted across numerous studies.

- AEDC research snapshots show that children who attend preschool are less likely to be developmentally vulnerable. For example, in 2009 children from advantaged communities who attended a preschool had less than a one-in-seven chance of being developmentally vulnerable, compared to a nearly one-in-four chance for children who did not attend preschool. Similarly,

Universal provision of quality early childhood education, delivered with greater intensity for the children who need it, is a key strategy for changing the trajectories of children

children from diasadvantaged backgrounds had a less than 30 per cent chance of being developmentally vulnerable if they attended preschool, compared to a 40 per cent chance if they did not (Australian Government, 2014).

- The advantage of early education is maintained throughout schooling with the Longitudinal Study of Australian Children (LSAC) confirming that children who attend preschool score higher on Year 3 NAPLAN tests, even after controlling for their personal circumstances (Warren and Haisken-DeNew, 2013).
- LSAC data shows a correlation between children who participated in preschool and reduced probability of being rated by their teachers as doing poorly in school, having low maths or literacy levels, and being rated by their carer as having poor social and emotional development (Biddle & Seth-Purdie 2013). However, they also found that these impacts would disappear for children with multiple risk factors and concluded that standard ECEC (in 2008, prior to the implementation of the NQS) was of insufficiently high quality to mitigate the impacts of disadvantage.
- The OECD finds that a lack of pre-primary education increases a young person's likelihood of performing poorly in maths, and that a child with no pre-primary education is 1.9 times more likely to perform poorly in education than a student who has attended more than a year of pre-primary education, after accounting for other student characteristics (OECD, 2016, p.80).
- In 2012, Australian children with a year of pre-primary education scored 27 points more in the Program for International Student Assessment (PISA) than children who did not attend preschool. This represents an additional six months of learning (OECD, 2015).
- Two years of high-quality ECEC for 15 hours per week gives the same protective effect as having a tertiary-educated mother (Sylva et al, 2010).
- The threshold of 15 hours of high-quality early education per week is well-established in research (Sylva et al, 2004; Loeb et al, 2010), and it appears that highly disadvantaged children can benefit from full-day preschool (Loeb et al, 2010; Chang and Singh, 2008; Chang, 2012; Boardman 2005; Ontario Ministry of Education, 2013).

Why quality matters

“If ECEC is to deliver the benefits that are claimed for it, it must be provided in a way that meets rigorous standards of evidence” (Brennan and Adamson, 2014, p. 5).

ECEC must be high quality to have a positive effect on children's short and long term outcomes. There is broad consensus on what constitutes quality in early education. Quality learning environments are made up of:

Process elements shaping the dynamics of daily occurrences in childcare settings, such as:

- children's interactions and engagement with caregivers;
- children's interactions with other children;
- learning opportunities activities such as language stimulation; and
- health and safety measures.

Structural factors that facilitate these interactions and learning activities, such as:

- child:adult ratios;
- the size of each group of children; and

“Higher levels of social competence and lower behavioural problems in pre-kindergarten classrooms are linked to more emotionally supportive teacher-child interactions in centres that achieve higher levels of quality”

HARRISON ET AL 2012

- the formal education and training of caregivers (Vandell & Wolfe, 2000; Ishimine et al, 2009).

Structural elements are more easily measured and have tended to form the basis of quality measures. However, on their own, they do not work well as a proxy for quality: they enable the enriched educator-child interactions and attention to learning and development that drive improvement in children’s outcomes but are not outcomes in themselves. For this reason, the NQF is intended to influence both structural and process elements of quality. For instance:

Teachers with greater knowledge of early childhood development have been shown to be more attuned to children’s communication and emotional cues, lower carer-child ratios permit more responsive interactions and one-on-one interaction, centres with better qualified staff are more likely to score well on quality rating scales, high quality centres are more likely to result in improved outcomes for children (ARACY, 2015, p. 8).

Also crucial to quality is the developmental appropriateness of the learning environment (Sylva, 2010), particularly the use of play-based and inquiry-focused learning activities, with pedagogical practices that support:

- play-based activities and routines which allow children to take the lead in their own learning;
- support for language and communication (through use of narrative, shared reading, informal conversations, song and rhymes); and
- opportunities to move and be physically active (Mathers et al., 2014 in ARACY 2015).

An overly structured, academic focus in preschool can prevent children from developing the social and emotional skills they need. Studies show that children can experience stress in environments with a predominant focus on academic training (Gray, 2015; Lipsey et al, 2015; Carlsson-Paige et al, 2015; Darling-Hammon and Snyder, 1992; Marcon, 2002). Although more academic approaches result in early achievement gains, especially in literacy, they can be followed by detrimental outcomes longer term, particularly in terms of social and emotional wellbeing (Farran and Lipsey, 2015).

Quality early education is play-based, requires positive educator-child relationships and places children’s social and emotional development at the forefront.

There are significant differences in outcomes depending on the level of quality care provided. High-quality child care benefits cognitive development, improves concentration, and fosters better intellectual development, enhanced vocabularies and greater sociability. In contrast, poor quality care is associated with deficits in language and cognitive function for very young children, and has been associated with poorer social and emotional development (Productivity Commission, 2014; Sammons et al, 2012a, 2012b; Sylva, 2010; Belsky et al, 2007).

- Children who attend preschool with a preschool teacher who has an early childhood education degree or diploma perform better in Year 3 NAPLAN testing for reading, numeracy and spelling than children who did not attend preschool, even when controlling for personal circumstances (Warren & Haisken De-New, 2013).
- Children who attended preschool with a certificate qualified teacher, or a degree-qualified teacher in a field other than early childhood, did not fare better than children who did not attend preschool (Warren and Haisken De-New, 2013).
- Data from the Effective Preschool, Primary and Secondary Education (EPPSE 3-16) Project study shows that there is a difference in outcomes at age 16 between very poor and very high-quality preschools, including

“Children benefit from higher-quality care overall in both their language and social skills, but larger benefits tend to accrue when quality is in the good to high range.”

BURCHINAL ET AL 2009

after adjusting for circumstances. Preschool quality is particularly relevant for children whose mothers were early school leavers, and for children who have not been exposed to a rich home learning environment (Taggart et al, 2015).

- Burchinal et al (2010) found substantially higher impacts on children's outcomes in classrooms that were rated high-quality. For instance, children in classrooms rated highly for 'instructional support' scored over three times higher on expressive language.

Research suggests that children experiencing higher levels of disadvantage benefit most from higher quality early education, and require a greater level of intensity. Pianta notes: "preschool in the United States narrows the achievement gap by perhaps only 5 per cent rather than the 30 per cent to 50 per cent that research suggests might be possible on a large scale if we had high-quality programs" (Pianta et al, 2009, p. 65).

"Programs in low SES areas that include vulnerable children should be model programs of the highest quality" (Cloney, et al, 2015), but are currently the least likely to be meeting the NQS, particularly in the crucial educative component.⁴

The foundations for future life and learning

Quality early childhood education is also vital for building the social and emotional skills that are key to succeeding at school and employability in the long term. In the recent Skills Outlook 2015: 'Youth, Skills and Employability', the OECD cited a lack of social and emotional skills as a key barrier to employment, including for low-skill jobs.

The Centre for the Developing Child at Harvard University points to the importance of the early years for developing these skills, as well as children's executive functioning, the cognitive and life skills that require working memory, mental flexibility and self-control. Executive functioning, they suggest, underpins school achievement, positive behaviours, good health and successful transition to work. Development of executive functioning starts early:

"The rudimentary signs of these capacities (e.g., focusing, attention) emerge during the first year of life. By age 3, most children are already using executive function skills in simple ways (e.g., remembering and following simple rules). Ages 3-5 show a remarkable burst of improvement in the proficiency of these skills (e.g., increased impulse control and cognitive flexibility)" (Centre on the Developing Child, 2016, p. 8).

Given that children develop these skills through "their relationships, the activities they have opportunities to engage in, and the places in which they live, learn, and play" high-quality early education and care has a crucial role to play in supporting the development of crucial capabilities for life and learning (CDC, 2016; CDC, 2011).

Return on investment

"It is no longer viable to take ever increasing amounts of taxation from the public to deal with the ever increasing impact of failing to intervene early" (Allen and Smith, 2008, p. 113).

Governments at all levels have competing priorities, and need to make complex and often challenging fiscal decisions about where to invest in order to maximise impact.

The strongest, and most frequently cited, return on investment data comes from a handful of intensive programs from the US, all implemented in the 1970s and 1980s in very specific circumstances (Table 1).

⁴ Biddle and Seth-Purdie note that quality standards prior to the introduction of the NQS "were not adequate to mitigate developmental vulnerability and that [long day care], at the time, may have been harmful" (2013, p. i).

Table 1: Benefit-cost ratios cited for early education and care programs (return per dollar invested)

Program	Benefit to cost ratio
Perry Preschool Program	17 : 1 for participants at 40 year follow up
Abecedarian Program	Between 3-4 : 1 at 21 year follow up
Chicago Child-Parent Centres	10 : 1 at 28 year follow up

Source: Fox et al, 2015, p. 45

It is unlikely that Australian interventions will achieve the same impact, given the vast difference in context and base-level social protection and health systems, but PWC modelling works with the lower ratios and applies a 75 per cent discount and still finds significant positive impacts. Cost-benefit evaluations of system-wide preschool and early education programs, conducted in 2013 by the Washington Institute for Public Policy (WISPP), continued to find strong positive returns on investment (WISPP, n.d.; Kay and Pennucci, 2014; Bania, Kay, Aos and Pennucci, 2014) (Table 2).

In the EPPSE 3-16 study it was found that individuals who attend preschool earn, on average, £27,000 more over their working lives than those who do not attend preschool, with the largest difference for children with low-educated mothers attending quality preschool (Taggart et al, 2015, p. 14).

Table 2: WISPP modelling of cost-benefit of preschool and early education

Program name	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs	Benefit to cost ratio	Chance benefits will exceed costs
State and district early childhood education programs	\$37,036	\$11,955	\$25,081	(\$7,130)	\$29,906	\$5.19	93 %
Head Start	\$27,175	\$8,864	\$18,311	(\$8,783)	\$18,392	\$3.09	82 %

Source: WISPP, 2015

PricewaterhouseCoopers Australia (PWC) has modelled a range of impacts associated with the impact of increased access to quality ECEC:

- In 2014, they suggested that children accessing ECEC services that were Meeting or Exceeding the NQS would yield benefits of up to \$10.3 billion by 2050, while engaging children from the lowest income brackets who currently receive no ECEC would resulting in an additional \$13.3 billion by 2050.
- In 2016, they modelled the impact of the Australian Government’s proposed legislation and found a net fiscal saving to the Australian Government of \$4.3 billion by 2050, an extra 29,000 workers either joining the workforce or increasing their hours of employment, and an increase of \$7.6 billion in real GDP by 2050.

In conclusion

Early education has substantial and sustained impacts on children’s learning, development and wellbeing. It is a key strategy for mitigating the socio-economic gradient that so strongly influences children’s progress at school and their trajectories over their lives.

The NQF provides a good foundation to set minimum standards for quality early education – although implementation of its assessments remains slow and quality is variable, indicating that further work is required to maximise the impact of this important reform.

High-quality early education must become a core component of contemporary systems for achieving positive learning and development for Australian children, alongside and of equivalent value to child and family health and school education.

The benefits of the current investment in the ECEC sector will be muted if higher levels of quality are not achieved, particularly for the most disadvantaged children.

“The advantages gained from effective early interventions are best sustained when they are followed by continued high quality learning experiences ... [and] due to dynamic complementarity, or synergy, early investments must be followed by later investments if maximum value is to be realised”

HECKMAN 2008

■ Early Childhood Education in Australia: Looking back to look forward

The early education and care reforms that Australia has pursued over the past five years have had significant impacts, with substantial increases in the proportion of children accessing early education and progress towards achieving a consistent base-level of quality for all children. The foundations have been built – but there is more to be done.

This section provides an overview of key recent developments in ECEC policy and delivery in Australia and identifies opportunities and critical junctures for further development.

Looking back

An historical division of responsibilities for ECEC policy and delivery exists in Australia (Elliot, 2006), which has resulted in different conceptualisations of the policy problem and of policy goals, and contributed to a highly fragmented ECEC sector. The sector has different policy instruments, different guiding philosophies and highly variable quality of services.

The focus of this report is on solutions to assist all children to succeed in education, and as such does not delve into the complexities of governance, accountability and funding responsibilities. However, Appendix One highlights the difficulty of navigating the ECEC sector including the impact of the fragmentation of the sector on levels of fees and funding. Further work is needed to address these complexities.

Historically, state and territory governments have had primary responsibility for schooling and a number of jurisdictions extended downwards to provide or subsidise optional preschool services, often approaching preschool from a more formal educational perspective.

In contrast, the Australian Government has had responsibility for national workforce and economic issues, and began subsidising childcare services as a productivity measure to increase the participation of parents – especially mothers of young children – in the labour market.

This division persists in the perception that there is, or should be, a separation between ‘education’ and ‘care’ in early years policy (PC, 2015), but lags behind the explosion of research on early brain development and early learning of the past 20 years (Shonkoff and Phillips, 2000; McCain, Mustard and Shanker, 2007; OECD, 2007; NSCDC, 2004a, 2004b, 2010, 2006, 2011, 2012; Winter, 2010). This research conclusively establishes the importance of the first five years of a child’s life for their later outcomes, and makes any division between ‘care’ and ‘education’ redundant.

In the past decade, ECEC in Australia has expanded in terms of demand, supply, expenditure and the breadth and depth of services provided.

- About 43 per cent of Australian children aged 0-5 years old now participate in ECEC in Government-approved services, up from 36 per cent in 2006;
- In March 2015, there were 16,966 Australian Government Child Care Benefit-approved childcare services in Australia and 273 state and territory government-only funded children care services (PC, 2016).

This growth has largely been driven by the expansion of female workforce participation, but the expansion of preschool also reflects a growing recognition of the importance of early education as well as explicit cross-government policy goals.

Size of the investment

Australia's public and private investment in ECEC has grown significantly, driven primarily by increases in the number of children in care and an increase in hours (PC, 2015, p. 116).

- Combined public funding is projected to increase to \$11 billion a year in 2018-19, if proposed legislation is passed, but \$8.5 billion under current arrangements.
- The Australian Government's expenditure in the ECEC sector has increased by over 250 per cent in ten years, to \$7.2 billion in 2014/15.⁵
- State and territory government spending has increased approximately 150 per cent since 2009-2010 to \$1.2 billion in 2012/13.⁶
- Average fees for childcare and preschool services have increased by around 50 per cent between 2007 and 2013.

Combined public and private expenditure per child in preschool in Australia is \$13,421, among the highest in the OECD, compared to an average of \$10,432 (OECD, 2015, p. 2), converted to AUD. However, Australian public investment in ECEC as a proportion of GDP remains well below OECD averages, especially in terms of programs that deliver a strong educational component. The Melbourne Graduate School of Education notes that:

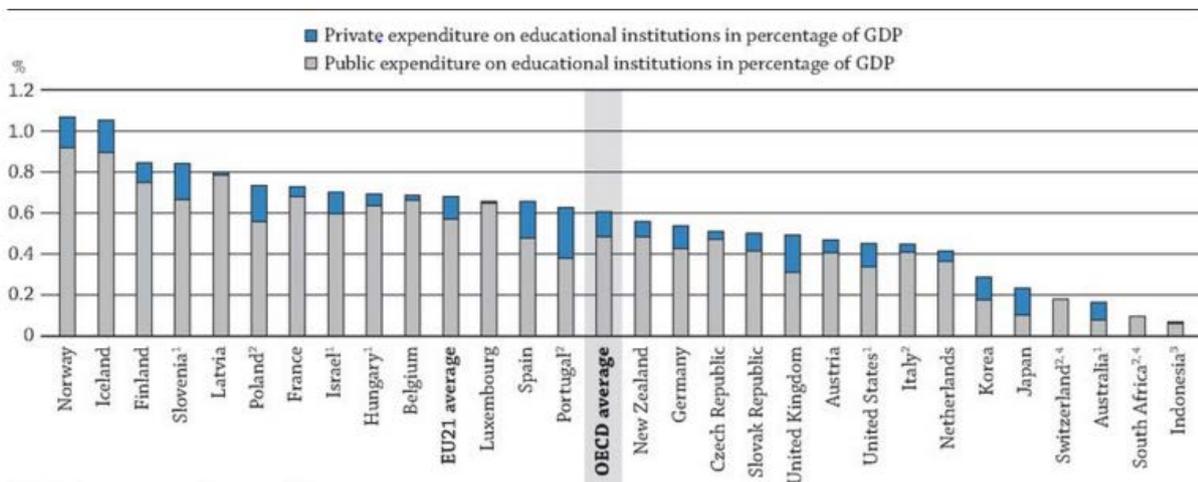
"In international terms Australia is not yet providing sufficient threshold investment in quality early learning provision: Australian children do not yet have sufficient access to ECEC programs of internationally comparable quality and duration" (MGSE, 2015, p. 3).

There is a substantial discontinuity between investment in early education and primary and secondary education (Figure 1). While governments spent an average of AUD\$6,100 in 2012-13 on ECEC for every child in formal care (Productivity Commission, 2015, p. 128), in 2014 the school resourcing standard was a fixed amount of AUD\$9,271 per primary school student and AUD \$12,193 per secondary student (Australian Government, 2013a). Heckman (2008, 2010) suggests that public investment in children should follow the opposite pattern: frontloading investment from the antenatal period.

⁵ Eighty seven per cent of Australian Government funding is in payments to families to offset fees, with 7 per cent supporting the National Partnership Agreements and 6 per cent on quality assurance.

⁶ State and territory funding goes to a range of regulatory functions, direct provision, capital investment, planning and capacity building, with significant differences across jurisdictions.

Figure 1: Public and private expenditure on pre-primary education as a percentage of GDP in 2012/13



Source: OECD, 2015, p. 328.

The gap between the total cost of early education and government support is met by families, and the high private costs of early education remain a barrier to access for many families (Brennan, 2012; Brennan and Adamson, 2014).

There is a strong association between family income and access to early education. Brennan and Adamson show that:

- In families with a combined weekly income of \$2,000 or more, 52 per cent of 0-14 year old children regularly participate in child care, compared to 25 per cent in families earning \$800 or less.
- Children whose parents' weekly income exceeds \$2,000 are more likely than those earning less than \$800 to use both formal care (18 per cent and 11 per cent respectively) and informal care (24 per cent and 13 per cent).
- Families earning \$800-999 per week are the least likely to use either formal or informal child care (2014, p. 21).

This pattern of access continues, with more recent Australian Bureau of Statistics (ABS) data showing a sharp discrepancy between access to ECEC across income brackets (Table 3).

“For children in low-income families, access to early childhood education will only become a reality if services are offered at no, or minimal, cost”

DEBORAH BRENNAN, 2012

Table 3: Type of care usually attended by children aged 0-12, by weekly income of parents

	Weekly income of couple parents						Weekly income of single parents			
	<\$1000	\$1000- \$1399	\$1400- \$1999	\$2000- \$2499	>\$2500	Total	<\$600	\$600- \$999	>\$1000	Total
Usually attended care	31.2	39.2	46.9	55.9	54.6	46.2	49.7	58.0	76.3	57.1
Usually attended formal care only	10.8	16.1	15.3	19.3	19.6	16.0	11.3	12.1	16.8	12.8
Usually attended Informal care only	17.2	19.5	23.9	25.9	22.7	22.1	29.1	35.0	43.8	33.5
Usually attended formal and informal care	3.1	3.2	7.9	11.2	12.3	8.1	8.4	9.2	18.7	10.7
Did not usually attend care	68.5	60.5	53.4	44.1	45.3	53.8	50.9	43.2	21.4	42.9

Source: ABS 2015: Early Childhood Education and Care, June 2014 (Tables 6 and 7)

The cost of accessing early education remains a significant barrier to families and the complex funding environment in the ECEC sector adds to the difficulties families face in making decisions about the cost and benefit of enrolling their children in early education.

There is currently a two-tier model of preschool funding. Standalone preschools are funded through the National Partnership Agreement to provide low or no cost preschool for 15 hours per week. Parents are levied low or minimal fees. Preschool delivered in long daycare (childcare) services is funded through fees paid by parents. These fees are offset by means-tested, activity-tested subsidies. Fees are often levied for full days even if children only attend part of the day, so parents may need to fund two or more whole days for their child to receive 15 hours of preschool.

The scenario below is for a median preschool and childcare service in New South Wales and illustrates the impact of different funding approaches on 'out of pocket' costs.

Standalone Government preschool (NSW)

Child A attends a local government preschool 3 days a week from 9am to 2pm

The service receives

\$1850 National Partnership Agreement in funding

Fees are \$2.50 per hour for the 15 hours of attendance

Parents are

\$37.50 per week out of pocket

Preschool in childcare service (NSW)

Child B attends a childcare service preschool program 2 days a week from 9am to 4:30pm

The service receives

\$300 National Partnership Agreement funding

Fees are \$90.60 per full day of care. Parents receive 50% rebate on fees.

Parents are

\$90.60 per week out of pocket

The National Quality Framework

In 2008 and 2009 the Council of Australian Governments made historic commitments to introduce a new national approach to the delivering high-quality and accessible ECEC.

The National Quality Framework was introduced from 2010 (and came into effect in 2012) to drive continuous improvement, consistency, transparency and accountability in early childhood services and to improve developmental outcomes for all children. It comprises:

- **The National Quality Standards (NQS)**, which establishes national benchmark for early childhood education and care and establishes minimum standards of acceptable quality, with the intention of driving improvement over time.
- **Belonging, Being and Becoming: The Early Years Learning Framework for Australia (EYLF)**, which provides a nationally consistent early years curriculum and pedagogical approach, with a “specific emphasis on play-based learning and recognises the importance of communication and language (including early literacy and numeracy) and social and emotional development” (EYLF, 2009, p. 5).
- **Independent Assessment and Ratings process** and embedded Quality Improvement Plans in every service
- **Publicly available information** about services quality ratings is available to parents.

The NQF was a significant achievement, providing a major and long-overdue overhaul of Australia’s ECEC sector and bringing Australia closer to the research-informed baseline standards and frameworks that characterise other systems internationally. The key elements of the NQF and NQS are:

- better (higher and more related) educator qualifications;
- lower educator-to-child ratios;
- streamlined regulatory arrangements, with uniform national standards;
- a National Register of educators and services to enable families to assess the quality of approved education and child care services across the country; and
- the National Quality Standard Ratings, which provide a transparent, evidence-informed and accessible way to communicate quality.

Under the 2009 National Partnership Agreement on the National Quality Agenda for Early Childhood Education and Care (December 2009), the Commonwealth, states and territories have different but complementary roles in funding, regulating, providing and planning early education and care, supported by the Australian Children’s Education and Care Quality Authority (ACECQA), the national, independent, statutory authority for the ECEC sector.⁷

1. Educational program and practice
2. Children’s health and safety
3. Physical environment
4. Staffing arrangements
5. Relationships with children
6. Collaborative partnerships with families and communities
7. Leadership and service management.

QUALITY DOMAINS OF THE NQS

⁷ ACECQA’s fundamental role is overseeing the implementation and administration of the NQF, especially with regard to monitoring and promoting consistency. ACECQA’s secondary roles include educating and informing the sector and the

States and territories share responsibility with ACECQA for administering the National Quality Framework. Each state or territory is responsible for monitoring and assessing the quality of services within their jurisdiction and reporting this information to ACECQA. These state and territory regulatory agencies are generally located within departments of education, who also grant service and provider approvals, record and investigate incidents and complaints, and ensure ECEC services meet legislative requirements.

Additionally, states and territories fund and manage preschool programs, including those delivered within childcare service settings, or directly provide preschool programs and other programs themselves. Some states and territories offer funded access to an additional year of preschool for very vulnerable children and targeted cohorts such as Aboriginal and Torres Strait Islander children.

Implementation progress and outcomes

Given the early stage of the NQF's implementation, its impact on children's development and academic performance over the course of their schooling and later health, economic and social outcomes, is not yet known (AIHW, 2015). The NQF has largely achieved its primary goals of lower ratios and better-qualified staff with the final tranche of ratio changes delivered in 2016. Requirements for early childhood teachers (ECTs) in childcare centres have largely been implemented, with at least one bachelor-qualified teacher, especially in the 'preschool room' of their service, although many educators and early childhood teachers are still 'working towards' their qualification.

The significant change and upskill of the workforce necessary for full implementation of the NQS has required a phased implementation approach. The final implementation is scheduled for 2020 with the introduction of a second ECT from 1 January 2020.

Implementation of the standards has, however, been uneven and is not yet complete:

- Only 74 per cent of Australia's 15,166 ECEC services have been visited and rated by ACECQA, with 3905 services yet to receive a rating (Figure 2).
- Fourteen per cent (367) of preschools across Australia received a Working Towards rating when they were assessed against the National Quality Standards, an improvement on the previous three years.
- Of all services that have received a rating, 68 per cent were rated overall as meeting or exceeding the National Quality Standard (ACECQA, 2016b).
- Services that rated as Working Towards the NQS or requiring Significant Improvement are disproportionately located in areas of concentrated disadvantage (Cloney et al, 2015; ACECQA 2016b; Lamb et al, 2015).
- Only 44 out of 11,261 services have received an Excellent rating.⁸
- There was only a 3 per cent increase in services meeting or exceeding the NQS between 2014 and 2015.
- While 85 per cent of preschools met or exceeded the NQS, only 65 per cent of long daycare services, and only 54 per cent of family day care services did.
- ACECQA report that 440 services have been rated more than once, with just under half of these moving from 'working towards' to 'meeting' the NQS and the remainder moving from 'meeting' to 'exceeding' the NQS (ACECQA, 2016b).

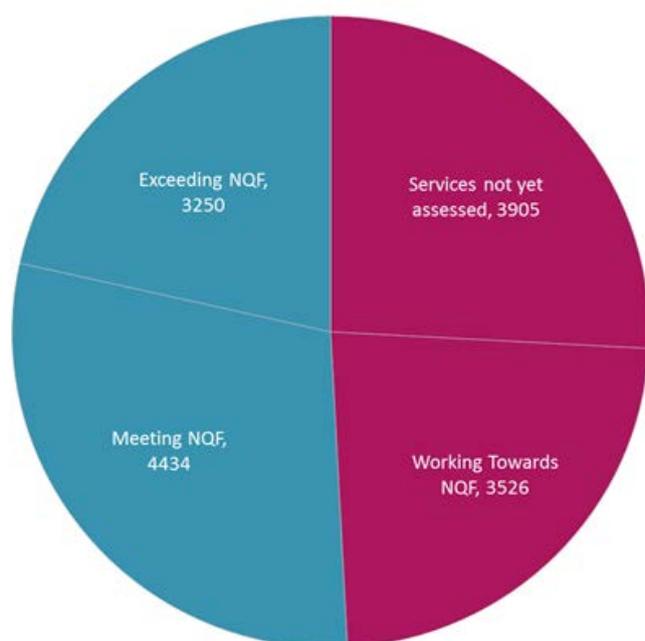
There were also differences between states, with a majority of services in Western Australia, Tasmania, the Australian Capital Territory and the Northern Territory rated as 'working towards' the NQS. These results are not

community on the importance of quality ECEC and provision of current, authoritative research to ensure the NQF policy and service delivery is in line with best practice (ACECQA, 2015).

⁸ This may reflect the fact that 'excellent' ratings have an additional application and assessment process and require additional fees.

unexpected given that, prior to the introduction of the national system, some service types had not previously been regulated against a regime of quality standards. Recent research confirms that there are fewer services available in lower socio-economic areas and lower levels of quality (Cloney et al, 2015; ACECQA 2016; Lamb et al, 2015).

Figure 2: Breakdown of service assessment ratings as at 31 December 2015



Source: ACECQA 2016b

Achieving high-quality learning environments

Worryingly, the quality area least likely to have been met nationally was 'Education program and practice'. In the E4Kids study, Cloney et al (2015) found generally high and consistent levels of emotional support across socio-economic quintiles, but generally low and much more inequitable levels of instructional support (Figure 3).

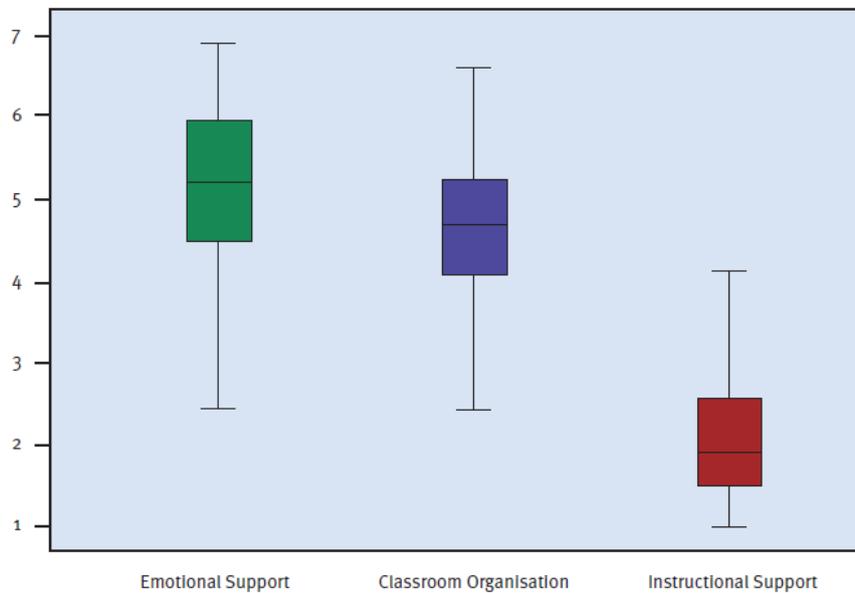
E4Kids confirmed that only 7 per cent of children in the lowest socio-economic quintile attended programs delivering the highest levels of instructional support, compared to 30 per cent of children from the highest socio-economic quintile (MGSE, 2015, p. 6).

Overall, in Australia, 31 per cent of services that have been assessed are not meeting the minimal national standard and are still working towards the NQF, while 26 per cent of services have not been assessed.

The elements that services were least likely to meet are:

- Each child's current knowledge, ideas, culture and interests provide the foundation for the program;
- Each child's learning and development is assessed as part of an ongoing cycle of planning, documenting and evaluating children's learning;
- Critical reflection on the children's learning and development, both as individuals and in groups, is regularly used to implement the program.

Figure 3: Classroom Assessment Scoring System (CLASS) assessment of ECEC classrooms on 3 summary domains



Source: E4Kids, 2012.

More than 20 per cent of services were also not meeting elements related to: the impact of curriculum decision-making on children’s identity; connection with community; wellbeing and confidence as learners; documentation of each child’s learning and providing this to families; promoting the agency of each child; and educators responding to children’s ideas and play, using intentional teaching to scaffold and extend learning (ACECQA, 2016b).

ACECQA report that many services found it difficult to provide appropriately creative and responsive learning environments that built on children’s knowledge, interests, cultures and capabilities in accordance with the ELYF (2016). Services also experienced difficulties planning, documenting and evaluating their educational programs, and sharing relevant information about their educational program and each child’s participation in the program with the child’s parents.

The quality of the learning and relational environment is the key driver of the positive impacts of early education. There is a significant opportunity to add value to the existing investment in ECEC by boosting the quality of the instructional support provided to children. The assessment process is not yet responsive enough to work effectively as a continuous quality improvement framework.

Quality in instructional support involves “intentional teaching approaches in a play-based learning environment. It is about how teachers use discussions and activities to promote thinking skills, encourage children’s language and extend learning through responses to children’s ideas”.

E4KIDS

The slow progress on assessing services under the NQS (let alone reassessing) is a lost opportunity to accelerate the quality of early education in Australia.

A skilled and supported workforce

There are persistent workforce challenges, especially around attracting and retaining highly qualified staff in a context of inequitable pay and conditions, which impact Australia's ability to accelerate the provision of high-quality early education for all children (PC, 2011). Continuing to strengthen children's exposure to enriched learning environments, in which intentional teaching is embedded in everyday interactions and play-based activities, requires a workforce with a strong grounding in child development and skills in pedagogical practice.

Early childhood teachers can play an important role in developing a learning-rich program for all children, and in building the skills and knowledge of other educators. Attraction and retention of early childhood teachers is often limited by:

- The difference in remuneration, professional support and occupational status between early years settings (including long daycare) and primary schools.
- The availability of professional learning, community of practice and career development opportunities, especially around the role of early childhood teachers in shaping the educational program of centres.
- Community understanding of the nature and impact of learning in the early years and recognition of the professional skill and role of early childhood teachers.
- Difficulties in hiring highly qualified staff in some regional and remote areas or in some disadvantaged communities.

Given the importance of quality in early education, there is a clear role for government in facilitating workforce development.

The shift towards professional registration of early childhood teachers by state-based regulatory bodies is a positive one, reflecting Productivity Commission recommendations (2011, p. 268). However, broader strategies will be needed to build widespread recognition of the importance of learning in the early years, and it is clear that market-based mechanisms alone are not adequate for addressing discrepancies in pay and conditions and creating incentives to attract early childhood teachers to hard-to-staff locations.

Similarly, the lack of professional wages and the difficulty of accessing professional learning are consistently identified as issues for educators with certificate and diploma-level qualifications. The Productivity Commission identified the limitations of the market in driving improved remuneration and the challenge of sharing costs for the increase in qualifications under the NQS between government, services and families.

Government-funded initiatives to meet the increased demand for training driven by the NQS (such as reductions in Vocational Education and Training (VET) fees and the creation of additional university places) appear to have had some success, but limitations on the number of places available and partial subsidies not covering the full cost of training limit the potential impact of these strategies.⁹ In order to ramp up quality standards across the system and for all children, consideration should be given to strategies that have proven effective, such as:

⁹ Work by the Mitchell Institute has demonstrated that VET fee-relief has a more substantial impact on decisions to accessing training or upskill than HECS discounts because VET fees are paid up-front. Consideration needs to be given to extending income-contingent loans across the entire tertiary sector (Noonan and Pilcher, 2015).

- Investing in evidence-based professional learning approaches such as observational approaches, coaching and mentoring, including for centre managers (Jensen et al, 2016; Pianta et al, 2008; Pianta et al, 2014; Powell et al, 2012; Downer, Kraft-Sayle and Pianta, 2009; Pleschová and McAlpine, 2015; Walter and Briggs, 2012).¹⁰
- The types of resources, tools and data systems that support continuous quality improvement approaches in other sectors (Shortell et al, 1995; Reed and Card, 2015; Schierhout et al, 2013).
- Incentivising partnerships and ongoing collaboration between innovative providers of early education and researchers.
- Scaling up incentives and pathways to increase the qualifications of workers and support for them to work in difficult-to-fill positions – including scholarships, reduced HECS, qualification funds, professional registration of early childhood teachers and other strategies outlined in the National Early Childhood Workforce Strategy implementation plans deemed effective (Productivity Commission, 2011).
- Cluster management approaches that facilitate professional learning, communities of practice and the dissemination and scale up of effective practice.

The current policy environment

Three years after the establishment of the NQF, the Productivity Commission was asked to review ECEC evidence, policy and funding – with a focus on:

- the contribution ECEC makes to increased workforce participation and child development;
- current and future need for ECEC in Australia;
- potential models for implementation and/or scale-up in Australia;
- options for enhancing how Australian families receive support for ECEC; and
- benefits and impacts of the NQS and options for change (within the existing funding envelope).

The Productivity Commission's report acknowledged the funding pressures that restrict access to ECEC, especially for low-income families, as well as recognising the benefit of high-quality preschool. However, the Commission's draft report raised a number of issues of concern:

- An overarching focus on parental workforce participation rather than a prioritisation of child development and wellbeing.
- Suggestions that the structural quality standards in the NQS could be reduced, including lower ratios and less frequent assessment, in order to reduce costs.
- Proposing a division between 'education' (for 3-5yr olds) and 'care' (for 0-3yr olds), including reducing the qualifications needed for working with 0-3yr olds (ECA, 2015; ARACY, 2015; Goodstart, 2015; Degotardi and Cheeseman, 2015, SNAICC, 2015).

The final report stepped back from the initial suggestions around lowering NQS thresholds and the education/care division, but beyond addressing affordability (and payment complexity) issues, the Commission's report appeared to question many of the advances made through the 2012 reforms and did not outline a strong vision for progressing ECEC policy in Australia.

The groundswell of support for the NQF from the sector resulted in an early announcement from the Australian Government that it would be retained. However, subsequent proposed legislation in relation to childcare subsidies (the Jobs for Families Child Care Package) contains several problematic elements:

¹⁰ A robust evaluation of the Inclusion and Professional Support Program and scale-up of effective elements is also warranted, especially as the format and funding for the program changes in mid-2016.

- Tying children’s access to subsidised childcare to their parents’ workforce participation status, meaning that many children likely to benefit most from early education are likely to have reduced hours or no access to subsidies if accessing long daycare.
- In particular, children from low-income families have had their hours subsidy reduced, and families in insecure or seasonal work may also experience changes in their access to subsidy. Australian National University (ANU) modelling indicates that 149,000 families are likely to be affected by the activity test, most of whom have both parents working less than eight hours per fortnight (Phillips, 2016, p. 7).
- Complexities around sustained, streamlined and adequate access to ECEC for children deemed ‘at risk’, especially the determination that these children will need to be involved with their state or territory child protection system to qualify for assistance, the narrow definition of vulnerability and the reduction of the entitlement for vulnerable children from 24 hours of subsidised care per week to 12 hours per week.
- Changes in block funding grants that are likely to reduce access for Aboriginal and Torres Strait Islander families (SNAICC, 2015).

The Jobs for Families package aims to inject an additional \$3.2 billion into the sector, targeted at lower and middle-income families, but largely fails to:

- set a clear agenda and vision for the future of early education and children’s learning and development for Australia;
- resolve the muddy landscape around funding, fees and access; and
- target investment where it will have the biggest impact – children from disadvantaged backgrounds.

Given the potential impact of early education, a strong and evidence-informed vision for the future is essential for keeping Australia on the front foot.

In conclusion

Establishing a national early years curriculum and a consistent national approach to articulating and monitoring quality were considerable achievements for Australia. They provide a strong foundation that can be built on.

Although significant progress has been made, Australia does not yet provide universal access to high-quality early education for all children. Access and quality are still skewed by a family’s socio-economic status, meaning that the children who need the most assistance are the least likely to receive it.

A substantial proportion of services are yet to meet the base-level quality standards established by the NQF, resulting in highly variable levels of quality across the country. Of most concern is the difficulty many services experience in meeting the crucial standards around the delivery of an educative program.

There is a clear need for a focused strategy to ensure all services meet the NQS and to accelerate assessment processes to proactively drive an increase in quality across the system.

This analysis of the current state of policy and delivery provides the rationale for the recommendations made in this report around:

- Ensuring access to early education for all children, including systemic implementation of evidence-based strategies for attracting and retaining the families who currently experience significant barriers to access.
- Ensuring all children receive high-quality early education with the ‘dose and intensity’ necessary to make a difference, and
- Investment that is proportionate to impact, including the investments necessary to achieve equitable outcomes for disadvantaged children and the ability to measure that impact.

■ How Australia's children are tracking

Authors of the Mitchell Institute's landmark report, 'Educational Opportunities', concluded that, "Australia's education system is not working well for the most disadvantaged young people" (Lamb et al, 2015). There is a cohort of children who arrive at school developmentally vulnerable and never catch up to their peers.

Lamb et al contend that the disparity in outcomes for these children is compounded by differences in access to educational services: they attend fewer hours of early education, have lower attendance at school, are more likely to leave school early and are less likely to go to university or vocational education and training.

The education system clearly struggles to reduce the impact of early disadvantage on educational outcomes and appears to be maintaining rather than reducing inequality. Early education can play an important role in reducing the socio-economic gradient evident when children arrive at school. This section reviews recent data on participation in early education and children's outcomes.

Participation in ECEC services (0-5 year olds)

Overall more children are entering early childhood education. However, recent Productivity Commission data (2016) shows that some cohorts of children are clearly under-represented (Figure 1.3):

- Forty-three per cent of children aged under 5 attend ECEC services, up from 34 per cent in 2006.
- Aboriginal and Torres Strait Islander children make up 5.5 per cent of the of all 0-5 year olds, but only 2.2 per cent of ECEC participants.
- Children with a disability make up 4 per cent of 0-5 year olds, but only 2.9 per cent of ECEC participants.
- Children from regional areas make up 26.3 per cent of the population, but only 23.7 per cent of ECEC participants (declining from 25.2 per cent in 2013).
- Participation of children from culturally and linguistically diverse (CALD) backgrounds increased between 2010 and 2013 from 13.7 per cent to 17.3 per cent.
- While they make up 20 per cent of the population, only 11.1 per cent of children from CALD backgrounds are participating in preschool.
- Disadvantaged children make up 19.5 per cent of the community, but only 17.6 per cent of children attending preschool in the year before full-time schooling.

Participation in preschool (4-5 year olds)

The National Partnership Agreement (NPA) on Universal Access to Early Childhood Education aims to ensure that "all children have access to a quality early childhood education program in the year before they go to full time school" (COAG, 2013). Quality is measured by the inclusion of the service in the NQS, regardless of the

assessment the service receives, and the program must be delivered by a four-year qualified teacher in a range of settings, including long daycare, government or community preschools or family day care.

The initial NPA set a target of 95 per cent enrolment by 2015, although it is important to note that these targets reflect enrolment and not attendance (COAG, 2013).¹¹ Attendance rates are lower than enrolment – by up to 6 per cent – and the proportion of children meeting the objective of 15 hours of attendance per week is lower still, especially for Aboriginal and Torres Strait Islander children (Figure 4).

Figure 4: Representation of 4-5 year old cohorts in preschool

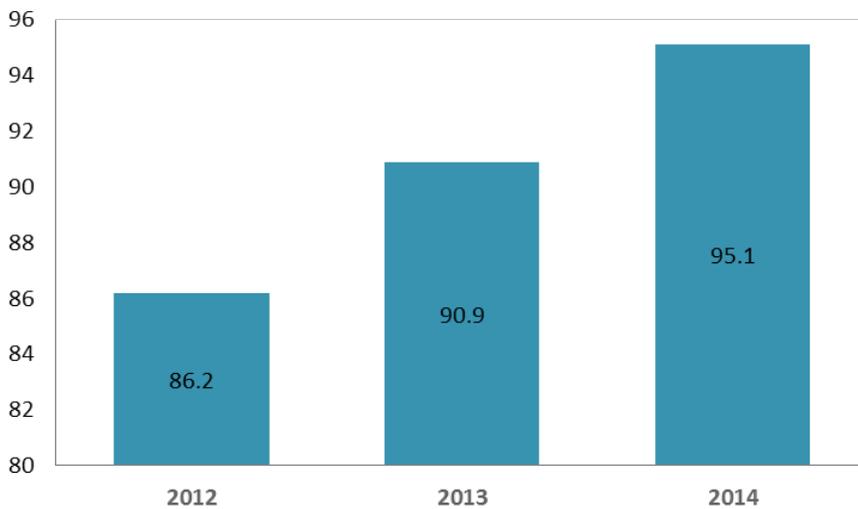


Source: Productivity Commission, 2016

Preschool participation among Australian 4 year olds has increased significantly over the past decade, and is now on par with OECD rates (Figure 5). In 2014, the most recent year for which comparable data is available, 95.1 per cent of Australian 4 year old children attended preschool in the year before full-time school, up from only 51 per cent in 2005.

¹¹ Current data systems do not allow an accurate assessment of how many hours children attend preschool. Measures for attendance vary across the country, with attendance information for some providers derived from the hours a service operates. Given the pivotal importance of early learning, greater transparency is crucial (see Appendix One for more detail). Shifting national targets from measuring enrolment to prioritising attendance for at least 15 hours per week (or equivalent) would also be an important advance.

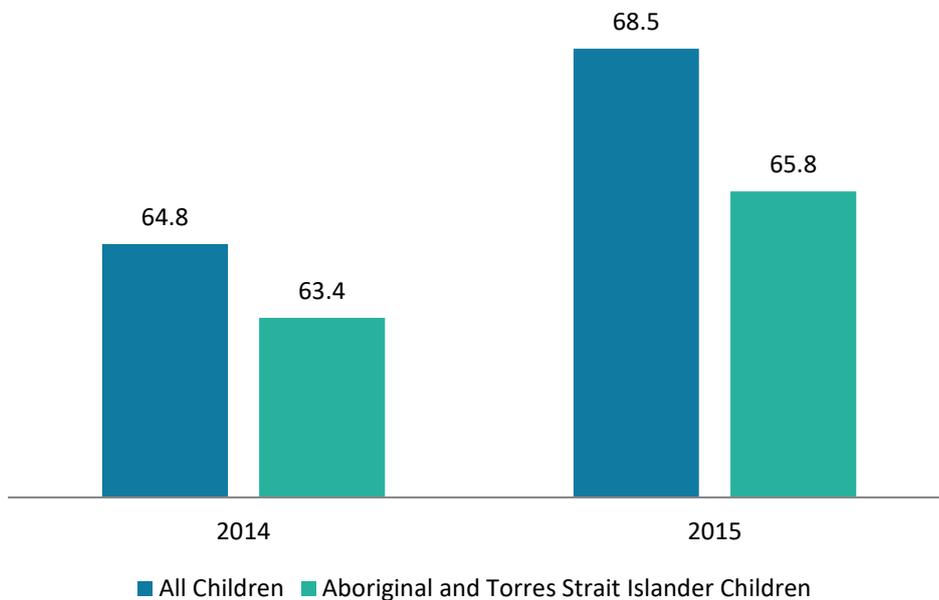
Figure 5: Percentage of children involved in preschool



Source: Productivity Commission, 2016

Whilst more than 57,000 children enrolled in preschool in the most disadvantaged areas, under 36,000 attended 15 hours or more of preschool (ABS Preschool Education 2015)¹² (Figure6).

Figure 6: Proportion of 4-5 year olds attending at least 15 hours of preschool per week



Source: ABS 2014 and 2015, Preschool Education, Australia.

¹² Figures on attendance may be inflated for children attending preschool at long daycare (see Appendix One).

On the whole, the NPA has been successful in increasing access and boosting participation in early education. However, Australia does not yet have universal access to quality early childhood education for all children in the year before school.

- While most children (86 per cent) are enrolled in preschool for 15 hours a week, a significant minority do not attend for this time, with participation skewed to higher socio-economic areas. More than a quarter of children – 80,000 out of nearly 300,000 – attend less than 15 hours per week (ABS, 2015).
- Children that are under-represented in preschool participation include: Aboriginal and Torres Strait Islander children, CALD children, children with a disability and children from low-income families (PC, 2015; CCCH, 2009).

Participation of Aboriginal and Torres Strait Islander children is below national averages, but their attendance rate in the year before school has increased to nearly 70 per cent. This is a welcome rise from 60 per cent in 2012, although the rate in 2014 was the same as in 2013 (Steering Committee for the Review of Government Service Provision, Table 3A.36).

This indicates the success of targeted funding and intergovernmental collaboration on their participation as part of the National Partnership Agreements. Interestingly, Aboriginal and Torres Strait Islander children are more likely to attend preschool in the year before school if they live in a remote area (nearly three in four children) compared to those living in a major city (65 per cent) (Steering Committee for the Review of Government Service Provision, Table 3A.35).

Australia is close to international norms on the attendance of 4 year olds in a preschool program, but significantly below OECD averages for the proportion of 3 year olds participating in early education. Three year olds, especially those from disadvantaged backgrounds, benefit significantly from earlier participation in early education. Earlier participation in early education also provides greater opportunities for early intervention in health, learning and wellbeing issues that can impact on children's ability to succeed at school.

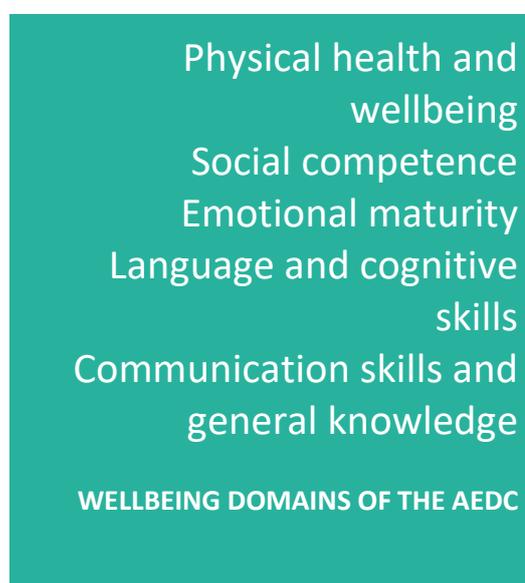
Australian Early Development Census

The Australian Early Development Census (AEDC) is a nationwide triennial, population-based census of children that measures how children are developing as they enter their first year of school, and indicates where further efforts are required. The AEDC is made up of five domains that have been shown to predict later wellbeing and academic success.

The AEDC reports whether children are on track, at risk or developmentally vulnerable, based on benchmarks developed in 2009:

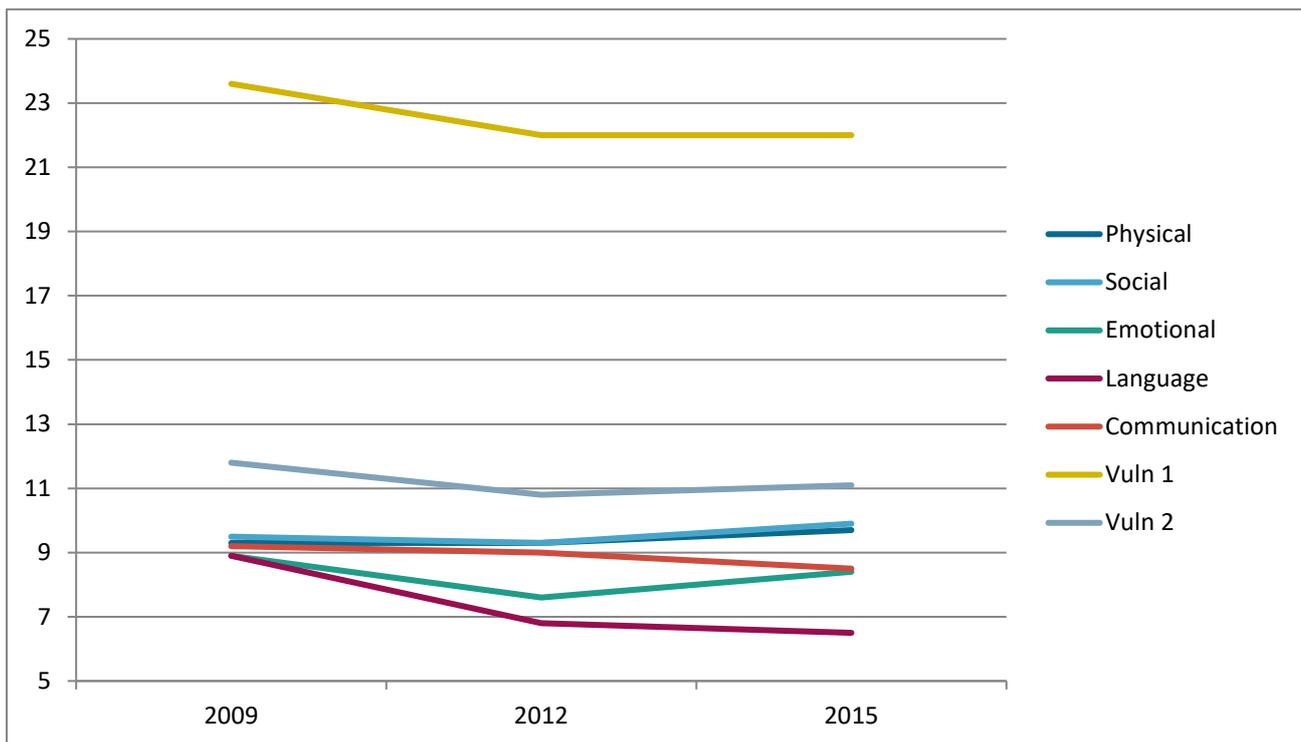
- **Developmentally vulnerable:** scores ranked in the lowest 10 per cent;
- **Developmentally at risk:** scores ranked between 10 per cent and 25 per cent; and
- **Developmentally on track:** scores that ranked in the highest 75 per cent.

Overall progress on the AEDC has remained consistent since 2012 (Figure 7). Most children are tracking well but a significant minority are developmentally vulnerable.



- In 2015 nearly four-in-five children (78.0 per cent) are not developmentally vulnerable in any domain. This was the same as in 2012 and an improvement on 2009 (76.4 per cent).
- Twenty two per cent of children are developmentally vulnerable on one or more domain.
- 11.1 per cent are developmentally vulnerable on two or more domains.

Figure 7: Trends in rates of developmental vulnerability 2009-2015



Source: Australian Government, 2016

Although nearly 80 per cent of children are not developmentally vulnerable, there are highly variable patterns across the country (Table 4) and clear patterns of locational disadvantage (Vinson et al, 2015):

- Eighty per cent of children living in major cities are developing well, compared to just over half of children in very remote areas.
- Children living in the least socio-economically disadvantaged Australian communities are most likely to be on track on each of the AEDC domains.
- Under 16 per cent of children living in the least socio-economically disadvantaged Australian communities are developmentally vulnerable on one or more of the AEDC domain/s, compared with nearly 33 per cent of children in the most disadvantaged communities.
- Children from a language background other than English are more likely to be developmentally vulnerable, although their level of vulnerability reduces significantly if they are proficient in English.

Table 4: Developmental vulnerability by jurisdiction

	Physical	Social	Emotional	Language	Communication	Vuln 1	Vuln 2
Australia	9.7	9.9	8.4	6.5	8.5	22	11.1
NSW	8.5	9.2	6.8	4.8	8.1	20.2	9.6
VIC	7.9	8.7	8	6.3	7.6	19.9	9.9
QLD	12.4	12.4	10.1	8	10.5	26.1	14
SA	10.8	10.8	9.7	6.8	8.2	23.5	12.2
WA	9.9	8.4	8.5	6.6	8	21.3	10.5
TAS	10	8.6	8.9	7.5	6.4	21	10.7
NT	15.9	18.5	15.5	21.5	16.2	37.2	23.1
ACT	10.9	9.4	8.2	5.9	7.7	22.5	10

Source: Australian Government, 2016

2015 data show most Aboriginal and Torres Strait Islander children are developing well and not considered developmentally vulnerable on each of the five AEDC developmental domains. But Aboriginal and Torres Strait Islander disadvantage remains a persistent concern with levels of Aboriginal and Torres Strait Islander childhood vulnerability around double that of non-Aboriginal and Torres Strait Islander children.

The influence of early education

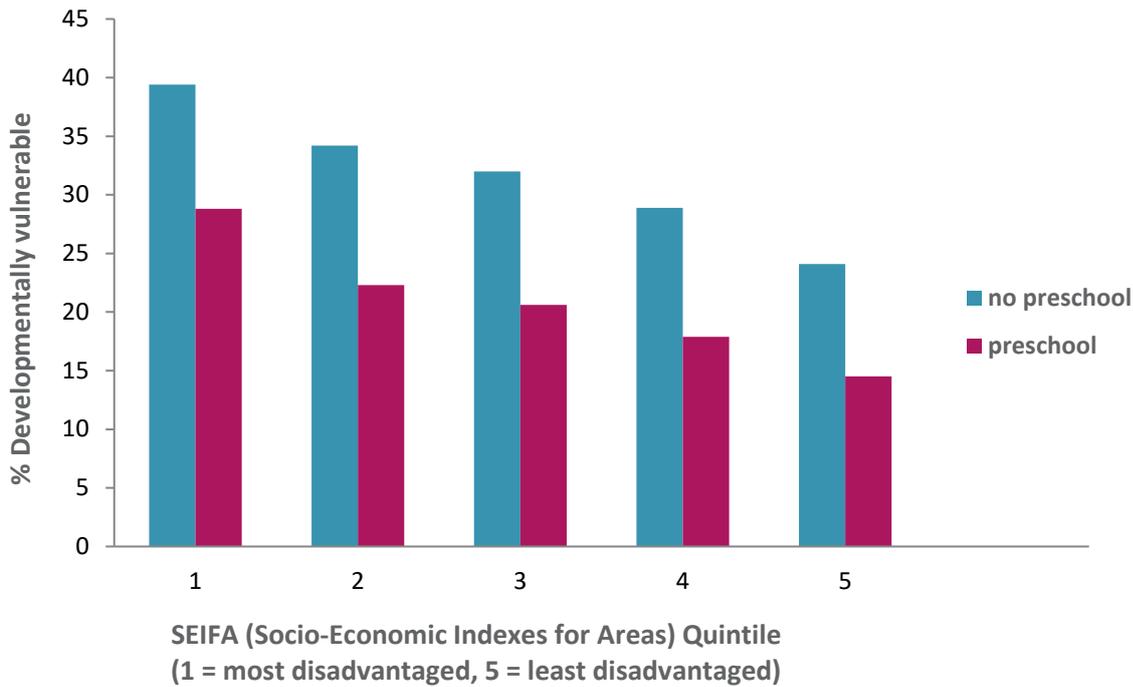
Children who attended preschool are less likely to be developmentally vulnerable across all five developmental domains assessed by the AEDC (Figure 8):¹³

- Preschool had a positive effect on children from both advantaged and disadvantaged communities, but there were still higher rates of vulnerability among children living in disadvantaged communities who attended preschool than children from advantaged communities who did not attend preschool.
- The highest rate of vulnerability was among children from disadvantaged communities who did not attend preschool.

Research highlights the importance of preschool attendance for promoting strong developmental outcomes and successful school transitions for all children. Accordingly, lower rates of preschool attendance by disadvantaged children may be contributing to early developmental vulnerabilities and inequities. Conversely, children from low socio economic areas who attend preschool and are not at risk on the AEDC transition continue to perform well at school, albeit not as well as children from higher socio-economic backgrounds who attend preschool.

¹³ However, this data should be interpreted with some caution as it reflects limitations in available data. Preschool, childcare and playgroup attendance data for the AEDC is collected through teacher report rather than systematic data collection and data linkage. For instance, around 70 per cent of teachers report not knowing about a child's playgroup attendance, although preschool data is more robust, given it plays a stronger role in school transition processes and teachers are more likely to be aware of children's participation.

Figure 8: Developmental vulnerability by preschool participation status



Source: CCCH and TICHR, 2009

Measuring change over time

A number of changes have been observed in the seven years the AEDC has been in operation.

Improvements in language, communication and knowledge:

- The percentage of children developmentally vulnerable in the language and cognitive skills (school-based) domain has fallen from 8.9 per cent to 6.5 per cent from 2009 to 2015.
- The percentage of children developmentally vulnerable on the communication skills and general knowledge domain fell from 9.2 per cent to 8.5 per cent from 2009 to 2015.

Decreases in social and emotional wellbeing and physical health:

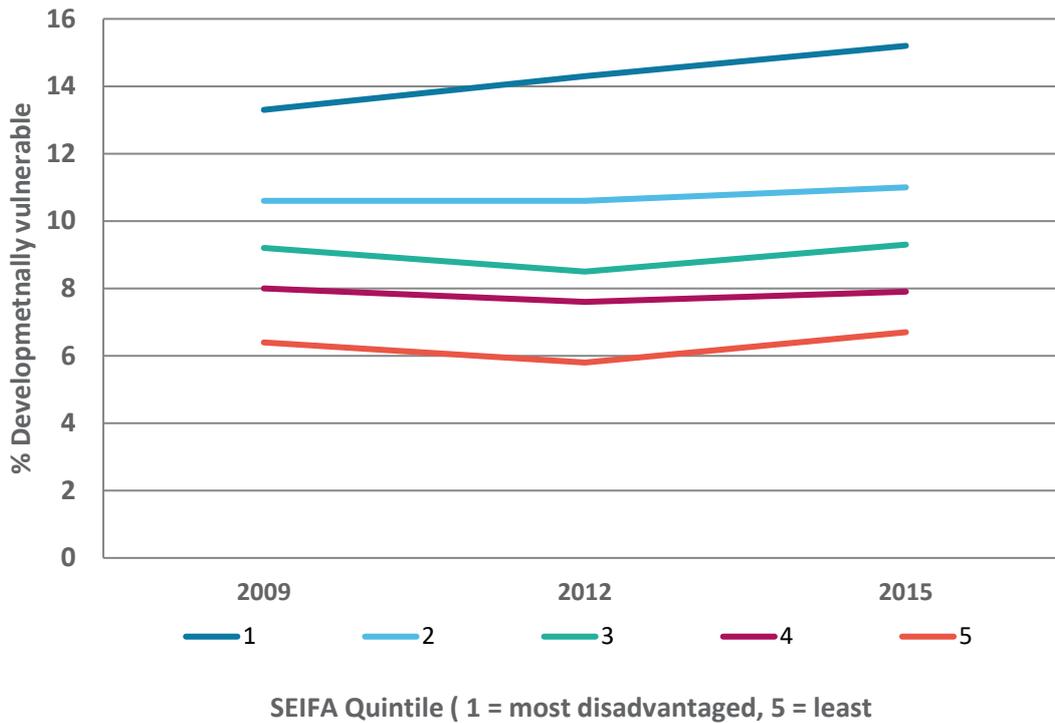
- Vulnerability in the physical health and wellbeing domain increased from 9.3 to 9.7 per cent from 2012–2015.
- Vulnerability on the social competence domain increased from 9.3 per cent in 2012 to 9.9 per cent on 2015.
- Vulnerability in emotional maturity increased from 7.6 per cent in 2012 to 8.4 per cent in 2015.

The improvement in the language and cognitive skills and communication skills and general knowledge domains is welcomed, the commensurate decrease in other domains is cause for concern.

There is a widening divide between the most and the least disadvantaged communities (Figure 9).

- Over 15 per cent of children in the most disadvantaged quintile are developmentally vulnerable, an increase from 13 per cent in 2009.
- Levels of developmental vulnerability in the least disadvantaged communities are just over 6 per cent.

Figure 9: AEDC % Developmentally vulnerable by SEIFA quintile

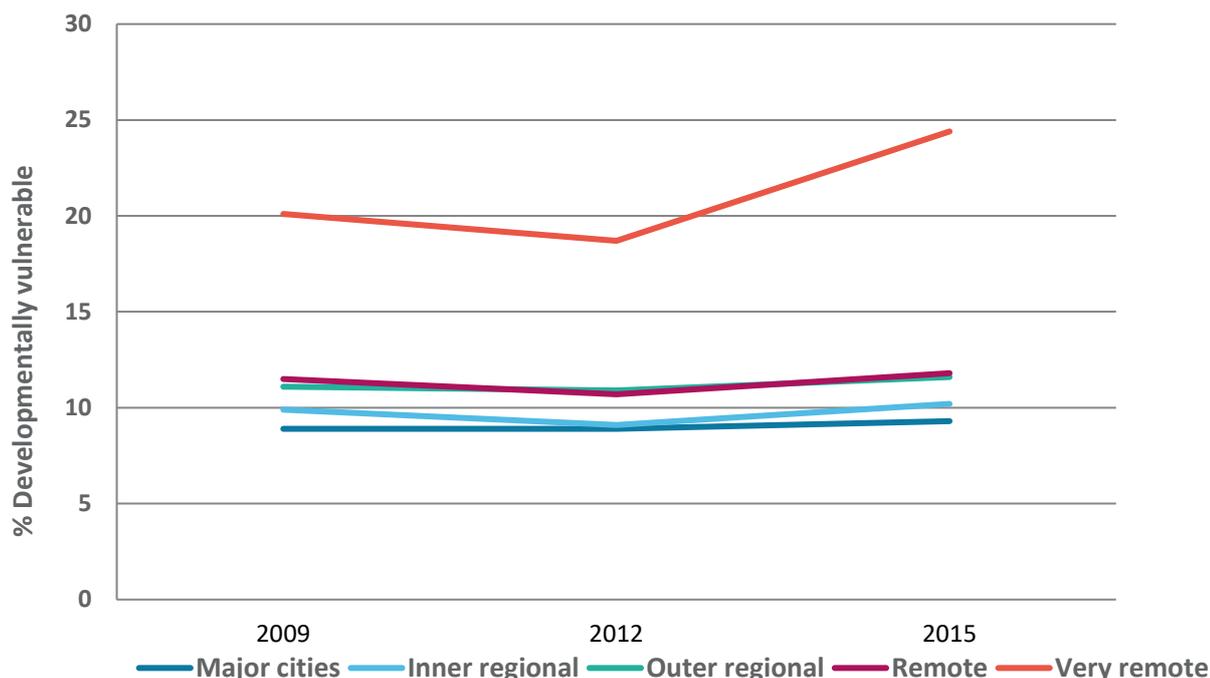


Source: AEDC, 2009, 2013, 2015

Similarly, levels of developmental vulnerability have increased for very remote communities far more than in major cities (Figure 10). Between 2009 and 2015 developmental vulnerability increased from 8.6 per cent in 2009 to 8.9 per cent in major cities, but increased from 21.8 to 23.4 per cent in very remote communities.

If the gap between the most advantaged and least advantaged continues to grow, the personal and social costs will be significant.

Figure 10: AEDC % Developmentally vulnerable by social competence domain



Source: CCCH and TICHR, 2009; Australian Government 2013, 2015

Downstream impacts

A number of studies have found substantial evidence relating to the sustained impacts of early education and intervention on later adolescent outcomes. For example, Manning, Homel and Smith (2009) undertook a meta-analysis of early years programs targeting vulnerable children aged 0-5 years, including preschool programs. Significant effects were found in a number of key outcome areas, including educational success, cognitive development, reduced involvement in criminal justice and improved social and emotional development. Overall, there was a 61 per cent difference between intervention and control groups.

Participation in high-quality early education boosts children's readiness to learn, their social and emotional development, and can support positive transitions into primary schooling. It is a key strategy for supporting children's opportunities for early educational success, and therefore for initiating and sustaining their engagement in learning, positive relationships with peers, and sense of belonging at school. These are key factors for retaining young people in education (Burns et al, 2008).

Other protective factors for supporting young people's engagement in education include high levels of wellbeing, high literacy and numeracy skills and early school achievement (Burns et al, 2008). Parental engagement in education is a protective factor for children and young people in all age groups (Fox and Olsen, 2015). Early

education helps to set the foundation for the development of these vital capabilities and later engagement and success in schooling.

In addition to school-based and structural factors, student disengagement is associated with disrupted education, poverty, lack of positive relationships with peers and adults, alcohol and drug use, having a disability or mental health issues and offending behaviours (Burns et al, 2008, Deloitte Access Economics, 2012). This is highlighted in a recent evaluation of an education justice initiative in Victoria, which found that nearly 40 per cent of youth justice clients aged 12-16 years were not involved in any education. Those who were involved attended infrequently (Te Riele and Rosauer, 2015). Quality early education helps build the social and emotional skills that act as key protective factors for preventing early disengagement (Fox et al, 2015).

The Business Council of Australia estimates that GDP would increase by \$1.8 billion over 20 years if school completion rates increased from 80 per cent to 90 per cent, with a rate of return on investment of 8-10 per cent. Currently, around 21 per cent of young people leave school early (Deloitte Access Economics, 2012). While this may yield short-term savings to governments the economic and social benefits of school completion are far greater (Te Riele, 2013). School completion is an important indicator as it predicts the longer-term employment and life prospects for young people.

Supporting increased participation

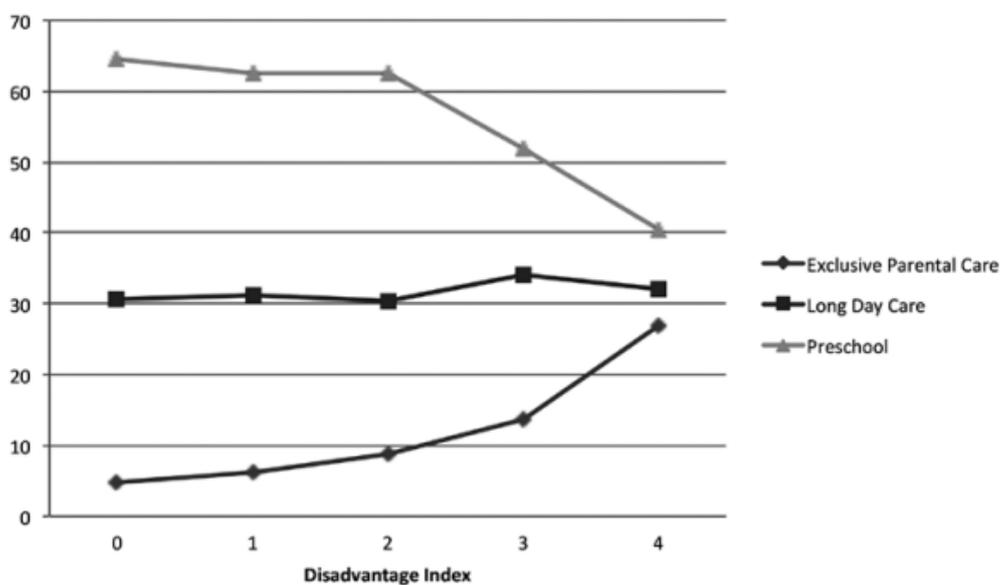
Families who are less likely to be participating in ECEC services are most often represented among disadvantage groups.¹⁴ Wong et al (2014) found that children with multiple indicators of disadvantage were more likely to be in exclusive parental care, with rates of preschool attendance declining as levels of disadvantage increased (Figure 11).

Figure 11: Use of early education services by level of disadvantage

¹⁴ This includes families from low socio-economic backgrounds, single-parent families, young parent families, Aboriginal and Torres Strait Islander families, some CALD communities, families living in remote communities, families experiencing issues with housing, domestic violence or who have had contact with Child Protection, and families with a child or parent who has a disability or mental health issues (Carbone et al, 2004; Centre for Community Child Health, 2009; Baxter and Hand, 2013).

Source: Wong et al, 2014

Figure 1. Percentage utilisation of ECEC by Disadvantage Index



Disadvantaged families often experience concurrent barriers to participating in and accessing early education (Carbone et al, 2004; CCCH, 2009; Baxter and Hand, 2013; Grace and Bowes, 2010). Families consistently highlight a number of structural and contextual factors that impact the decision to participate in early education services:

- parents' preferences and beliefs about the value of early education and about child development;
- access and availability, including cost, operating hours, location (remoteness and living in disadvantaged communities) and lack of private and public transport;
- services not meeting need;
- poor coordination between services;
- limited access to specialist supports for children with additional needs;
- lack of publicity about services;
- complex paper work and enrolment processes; and
- lack of trust in services and fear of judgemental attitudes/behaviours (Cabone et al, 2004; CCCH, 2009; Baxter and Hand, 2013).

Beliefs about the importance of early education appear to be a core driver of parental decisions about enrolling children in ECEC. As part of LSAC, parents of 4-5 year old children who were expected to start full-time school the following year but were not enrolled in ECEC were asked why they did not use services. The most common responses were that parents were available and preschool was therefore not needed (20 per cent) or that the child did not need it (19 per cent) (AIFS, 2013). These findings are echoed in another study of 101 disadvantaged families, where 20 per cent of respondents reported that they chose not to participate in ECEC, despite initiatives to extend hours or provide transport, due to a belief: in the role of mothers as full-time carers of children; that ECEC does not provide valuable education and/or that education begins when children start school (Grace and Bowes, 2010).

National and international research has identified a number of best-practice approaches for engaging and retaining vulnerable families in ECEC:

- strength-based approaches;
- solution-focused approaches;
- family-centred practice;
- culturally responsive and culturally safe delivery;
- relationship-based practice; and
- accessible and family-friendly environments (CCCH, 2009).

There are a number of examples of excellent practice in Australia, and increasingly, these initiatives are supported by high-quality evaluations. This growing evidence-base must be used to drive scale-up across the system – changes in outcomes at a population-level will only be achieved through systemic changes of quality provision, not simply by pockets of excellence.

Examples of promising practice are provided in Boxes 1-5.

Box 1: The Home Interaction Program for Parents and Youngsters (HIPPY)

- Home-based early education and parenting program aiming to build parents' capacity and skills to create a positive home learning environment to prepare for their child's schooling.
- Currently operates in 100 Australian communities with a high proportion of families experiencing disadvantage and supports approximately 4,000 children annually.
- The program is voluntary, free and aligns with the AEDC domains and the Australian Early Years Learning Framework. It is funded by the Australian Government.
- Over two years parents are supported to undertake educational activities with their child for around 10-15 minutes every day, including playing and reading together. They also participate in parent meetings and social gatherings.
- A tertiary qualified coordinator works with around 50 families in each location and a team of home tutors each work with 10-15 families. The tutors are paid, receive training and support and participate in the program with their own child.
- Sites are encouraged to set up or join an existing local advisory group with representation from key partners in their community, such as schools and government agencies.
- An evaluation in 2011 found that the program has positive impacts across a number of child and family domains, is meeting a significant need and is cost-effective when compared with other programs in Australia and overseas – for every dollar spent the return on investment is up to \$2.53.
- The program is a promising approach for engaging Aboriginal and Torres Strait Islander families (Liddell et al, 2011).

Box 2: Western Australia – Child and Parent Centres (CPCs)

- There are 21 CPCs in WA, operated by non-government organisations and established in parts of the state with a high proportion of children who are developmentally vulnerable.
- WA Government has invested \$52.5 million over 2013 to 2017.
- Hub model – located on or near public schools and provides support to families with young children up to 8 years of age (mainly targeting 0-4). Services available to all in the community and surrounding areas.
- CPCs design and implement sustainable strategies/interventions to improve developmental outcomes for children in their relevant locality, working closely with their local community to target effort where it is needed.
- The overall aim is to reduce levels of child vulnerability, across all domains of the AEDC, and improve children’s transition into school.
- A coordinator is employed to work with the local community, parents and schools.
- The latest AEDC results for WA showed that 21 per cent of children were developmentally vulnerable in 2015 compared to 25 per cent in 2009 – WA results were also better than the national average (22 per cent) for the first time (Australian Government, 2015; Government of Western Australia, 2016).

Box 3: National Community Hubs program

- Community Hubs (42 altogether, based in QLD, NSW and VIC) work with women and preschool-aged children from migrant/refugee backgrounds, located in areas with a high proportion of disadvantaged families.
- Key components of the model: school-based approach (where services, schools and the community work together); amplifying reach and impact through service networking; and resourcing to support program delivery (Press et al, 2015).
- Services open to all families in the relevant area and may include supported playgroups, parenting and family support programs, English classes, as well as linking families to other services like child and family health.
- Funded by the Australian Government, in partnership with Community Hubs Australia and the Scanlon Foundation.
- Place-based, community-engagement approach, engaging families in a safe and accessible environment in their own neighbourhood – usually a primary school or community space.
- Builds on tested model in Victoria (Hume Early Years Community Hubs program), where child development/readiness for school scores increased for children aged 4-5 years.
- Future vision to expand to 100 locations nationally. Currently piloting an Outcomes Evaluation Framework in sample hubs in Melbourne and Sydney (Community Hubs, 2016).

Box 4: The Let’s Count Program

- Early mathematics program for children aged 3-5 years – primarily aims to support children from disadvantaged backgrounds to develop appropriate maths knowledge and skills in the lead up to school.
- Based on the premise that when educators and families have positive dispositions towards maths, the children in their care are also more likely to have positive experiences.

- Approach underpinned by strong partnerships between early childhood educators and families and use of play, discussion and investigation.
- Addresses research showing the importance of numeracy for future success, and that disadvantaged children are more likely to have difficulty with numbers, shapes and time concepts.
- Piloted in five disadvantaged locations in 2011. Four-year partnership to expand program valued at \$1.6 million.
- Over 2011-15 the program reached 8,500 children, 4,500 parents and more than 300 educators across more than 17 Australian communities.
- Three year evaluation showed the program increases children's maths skills – for example, while only 17 per cent of children could rote count to 20 before the program, 55 per cent of participating children successfully completed this task by the end of the program, compared with 37 per cent who did not participate; 61 per cent of participating children could successfully divide four teddies between four mats, compared with 31 per cent (The Smith Family, 2015).

Box 5: Supporting the transition into schooling

- Following the 2009 AEDC results, Mahogany Rise Primary School set an ambitious goal to improve outcomes for children commencing schooling, particularly in the areas of language and communication.
- The school is located in a Victorian community with a high proportion of families from low socio-economic backgrounds. The community has high levels of child vulnerability across all domains in comparison with state and national averages.
- Using the AEDC as an early education tool, the school worked with local learning centres to identify priority areas, plan for and implement interventions, and track progress.
- An Oral Language Program was subsequently introduced in the school and learning centres, allowing children's language development to be tracked well before they transition into schooling.
- A Child and Family Centre, co-located with the primary school, offers preschool and integrated parenting and family services. In addition, the school offers alternative educational options for students with additional social and emotional needs.
- A local Early Years Network was also established to address the high rates of child vulnerability in the area. Members work together to develop coordinated responses and include local schools, preschools, childcare providers and government agencies.
- As part of the network's efforts, speech therapists from local schools started visiting local preschools, and teachers from Mahogany Rise visited local preschools for four hours each week to help build preschoolers' phonic awareness skills.
- Since 2009 substantial improvements in AEDC results have been achieved. Levels of child vulnerability have improved overall, with around 41 per cent of children vulnerable on one or more domains in 2015 compared with 70 per cent in 2009. Furthermore, vulnerability in the communication domain has significantly decreased, with around 15 per cent of children vulnerable in 2015 compared with 46 per cent in 2009 (AEDC, 2016).

Working with the community

A key feature of the delivery models that appear to be more effective at engaging and retaining children and families experiencing barriers to access, is the capacity of centres to be linked in with their communities – both with other services and organisations including schools, and with the members of the community itself.

With the right support and resourcing early education services are well-placed to:

- identify early any learning or health issues a child might be experiencing;
- provide information to families on parenting strategies and ways to support children’s learning at home;
- build supportive relationships with families that might be disengaged from other services; and
- help link families to other services when they need additional support.

Given that children and families from across the socio-economic spectrum can experience vulnerability, this is a role that all early education services can and should play. However, investing in building relationships with families and participating place-based/integrated service delivery initiatives is especially important for early education services in disadvantaged communities.

A number of governments in Australia and internationally are investing in integrated service hubs for children and families, most of which include early education alongside a range of other services, as well as place-based approaches to funding, governance and commissioning. The Australian evidence-base about the conditions that support the effectiveness of these initiatives is growing (Taylor et al, 2015; Department of Education and Employment, 2013).

The impact of early education will be strengthened when connections between health, parenting support, early intervention, ECEC and schools are systematised, sustained and seamless.

Transition to School

A collaborative relationship between early years settings and schools is one of the most important for promoting children’s learning and wellbeing. A positive start to school sets children up to be engaged and confident learners: schools have a role to play in reaching out to families early.

Research on effective transitions highlights the importance of continuity between settings, including continuity of pedagogical approach, and the impact of coordination and relationship-building between early education providers, schools and families (Dockett and Perry, 2015; Eastman et al, 2012).

Although state and territory governments have implemented a number of initiatives to improve transition practice in Australia, it is clear that these have not necessarily been systematised and sustained so that all children benefit from a coordinated and evidence-informed approach to transition (CESE, 2015). Regulatory and industrial barriers to collaboration and coordinated approaches remain.

The impact of early education will be strengthened when connections between health, parenting support, early intervention, ECEC and schools are systematised, sustained and seamless.

Given that around 60,000 children arrive at school each year experiencing developmental vulnerability – many of whom never catch up to their peers – there is a compelling rationale for more comprehensive and individualised approach to transition, so that schools can be ready for the children and communities they serve.

Research on transition initiatives in Australia highlights the importance of a whole-of-system approach to building and maintaining the relationships that facilitate effective transition. This includes:

- enabling policy frameworks that create an authorising environment, defining transition as a core responsibility for schools and early education settings, and support action;
- adequate support and resourcing for relationships and collaboration on the ground;¹⁵
- tools and resources, such as transition statements, coupled with training and support to use them well;¹⁶ and
- engaging with families and delivering programs that build the capacity of families to support their children’s learning.¹⁷

A more systematised approach to connecting early education settings and primary schools is needed, so that supported and effective transitions are the norm for all children.

In conclusion

Despite the rapid expansion in provision, access and funding for ECEC in the past decade, and a raft of good local practice, there are cohorts of children who are either not accessing a preschool education, or who are not accessing the hours needed to make difference to them.

There are cohorts of children and numerous communities that continue to exhibit poorer outcomes on the AEDC: levels of developmental vulnerability have remained relatively consistent for them since 2009.

Early education must be delivered in a way that, as far as possible, reduces barriers to access for the children who stand to benefit most. Shifting community perceptions about the importance of early education and delivery models that prioritise assertive outreach, engagement with families and cultural appropriateness is a priority.

Early education must also be delivered with a level of quality and an intensity that is proportionate to need, which will require additional investment in the communities that the AEDC shows need the greatest help.

“More than any other element of transition, relationships between and among children, families and educators are the basis for continuity between home, prior-to-school, school and school age care settings”

DOCKETT AND PERRY, 2007

¹⁵ Evaluation of Victoria’s Linking Schools and Early Years project highlighted the impact of a local facilitator responsible for forging relationships and maintaining momentum on the ground, as well as concerns about sustainability without this support (Eastman et al, 2012; Newton and valentine, 2013).

¹⁶ New South Wales’s evaluation of transition statements found teachers reported being better informed about the strengths, interests and learning styles of their students and better able to respond to the learning needs of their class (CESE, 2015). However, uptake of the transition statements was low, especially in regions where it was not actively promoted and supported, where 76 per cent of respondents had heard of the statements but only 26 per cent had used them (CESE, 2015).

¹⁷ Tasmania’s Launching into Learning program provides resources to schools to work with families to support children’s early learning prior to their entry into school. The program resulted in significantly improved outcomes for participating children at entry into school, with the greatest impact experienced by children from disadvantaged backgrounds and improvements that are sustained in Year 3 NAPLAN results (Educational Performance Services, 2014).

■ Priorities for the next five years

Accelerating quality and access

Over the past decade, Australia has begun building the foundations of a strong and effective platform for early education, but there is more to be done. To reap the benefits of public investment in early education, the priorities are boosting access, ramping up quality, investment that reflects impact and better measurement of that impact.

This section provides a snapshot of key considerations and potential policy directions for accelerating access, quality and impact. The next section outlines the Mitchell Institute's immediate priority recommendations.

These strategies or approaches are happening already, the point is that they tend to be patchy and inconsistent rather than systematised and sustained.

Our pockets of good practice and instances of effective policy settings need to be scaled up across the system, supported by the information infrastructure that allows their effectiveness to be monitored.

Additional work is needed to map out the detail of each of these priority areas and key considerations, including funding options, governance and accountability mechanisms, implementation planning and data and evaluation needs.

The intention of this report is to inform priorities for action in the short and medium term.

Throughout 2016, the Mitchell Institute will be releasing additional papers on its priority recommendations and catalysing conversation about the priorities and strategies explored here.

Australia needs to accelerate

- Access to early learning for all children, including systemic implementation of evidence-based strategies for attracting and retaining the families who currently experience significant barriers to access
- The ability of all children receive high quality early learning with the 'dose and intensity' necessary to make a difference
- Investment that is proportionate to impact, including the investments necessary to achieve equitable outcomes for disadvantaged children

Early education is a core component of the platforms our nation invests in to secure the health, wellbeing and education of our children, to secure positive futures for them and for the country. We must ensure that all children can benefit from a quality early education.

Ensuring equitable access to early education for all children

Countries achieving the best early learning outcomes "... have established a right to ECEC. The guarantee of a place puts the onus on governments to ensure that services are available and accessible to all children" (Brennan and Adamson, 2014, p. 36)

Although their participation in early education has expanded significantly over the last decade, there are cohorts of children missing out and clear indications that many children are not accessing the optimum number of hours. The children who are least likely to experience early education are often those who could benefit most.¹⁸

Priorities for ensuring equitable access to early education for all children

- Reframing the perception that early education is less important than school education
- Embedding and resourcing family engagement, with a focus on:
 - developing relationships with families to attract and retain children in early education
 - building the capacity of families to be active partners in their children's learning, and
 - active outreach for families not currently accessing early education
- Prioritising access to early education services in future planning and development

¹⁸ These include: children from low socio-economic backgrounds; Aboriginal and Torres Strait Islander children; children living outside major cities and towns; children from families experiencing issues with housing, domestic violence, mental health issues or who have had contact with child protection; and some culturally and linguistically diverse communities (Carbone, Fraser, Ramburuth and Nelms, 2004; CCCH, 2009; Baxter and Hand, 2013).

Perceptions of the benefit of early education for children is a key driver of family decision-making around enrolling children in preschool, and may explain low rates of attendance for 3 year old children. Similarly, lack of recognition about the importance of early learning – and the professional skill involved in fostering young children’s learning, social and emotional wellbeing and identity – contributes to the lower status of early childhood educators and, by extension, to workforce attraction and retention issues in the sector.

There are substantial differences between the way education experts and Australian families understand child development and early learning. In particular, while experts see early education as a critical site of development and learning, families often see ‘child care’ primarily as a place where children are looked after safely while they work or study (Kendall-Taylor and Lindland, 2013). There are also relatively low levels of community knowledge about child development and the important role families play in supporting their children’s learning and development in the years before school (ARACY, 2011).

Social marketing has been a core component of many effective Australian initiatives to promote changes in health and safety (ARACY, 2011; Kendall-Taylor and Lindland, 2013). In conjunction with other strategies (like regulatory changes, information provision, changes in service delivery), social marketing and strategic communication can have a significant impact on individual beliefs and community norms – leading to changes at a population-level.

Strategies for reframing early education include:

- Establishing access to preschool as a formal, legislated entitlement for all children in the year before school. This will require a firm and ongoing commitment to the National Partnership Agreement on Universal Access to remove uncertainty about funding sustainability.
- Extending Universal Access to 3 year olds and prioritising free access for disadvantaged 3 year olds.
- Encouraging continuity and alignment between early education and primary schooling, with a focus on enabling positive transitions, with a strong commitment to the early education sector’s developmentally-appropriate pedagogical approach (play-based, inquiry-focused, child-focused).
- Clear and consistent messaging from all levels of government about the importance of early education.
- Use of evidence-informed social marketing strategies to shift community beliefs about the importance of early childhood development and learning in the early years, with social marketing understood as “an approach used to develop activities aimed at changing or maintaining people’s behaviour for the benefit of individuals and society as a whole” (Hopwood and Merritt, 2011, p. 4).
- A focus on family engagement in learning from birth, including ongoing support and scale-up of evidence-based programs that strengthen family knowledge and skills around providing a strong home-learning environment.

Strategies for engaging families include:

- Building the capacity of services to engage and retain families in ECEC, including resourcing family engagement strategies, investing in localised strategies that target the cohort of families not utilising ECEC, and strengthening the cultural appropriateness of services.
- Increasing linkages (on-the-ground and in policy frameworks and governance arrangements) between child and family health, ECEC and primary schooling systems to encourage continuity, and supporting children and families to move through these systems.
- Reducing the red tape (regulatory, industrial and other systemic barriers) that inhibit more coordinated and collaborative approaches, especially around greater continuity between early education settings and primary schools.

- Utilising localised approaches that build capacity across regions and enable whole-of-community collaboration (like cluster management), and fostering the capacity of the ECEC sector to participate in place-based service delivery approaches.
- Prioritising accessibility to early education and strategies to facilitate co-location in planning processes, including systematising the co-location of key services such as child and family health, early education and care, schools and community services.¹⁹

Ensuring all children receive high-quality early education

“Policy and provision should strive to exceed standards and continuously improve the quality and coherence of children’s early experiences. Beyond these minimum standards defining and assuring quality should be participatory and democratic, involving different groups including children, parents, families and professionals who work with children” (OECD, 2001, p. 131).

Nearly half of all ECEC services are not yet meeting the NQS. Its Assessment and Rating process is not happening quickly enough to facilitate and drive continuous quality improvement. Ensuring that all services are, at a minimum, Meeting the NQS must be a priority.

This requires an ongoing commitment by government to supporting workforce development. A long-term strategy for addressing the issues around pay and conditions and access to professional learning is needed. This should look at strategies that have been effective in other sectors, like coaching and professional supervision, and consider linking professional development with place-based, collaboration strategies.

The quality standards established in the NQS meet the needs of most children, but some children require additional access and a broader package of supports to maximise their potential. Investing in higher-intensity programs in the communities with the greatest need provides the most promising opportunity to lower the socio-economic gradient evident upon entry into school.

Large-scale implementation of high-quality and high-intensity early education for all children who stand to benefit – not just in selected centres or in a handful of locations – reflects benefits of a proportionate universalism approach. It also indicates the fundamental limitation of many current social policy interventions in Australia: they are often only accessible to a tiny fraction of the children who need them, and therefore cannot shift outcomes at a population level.

The current evidence-base provides strong guidance about the features of high-quality intensive early education services, but it does not provide a silver bullet answer. Evaluated programs such as the Abecedarian approach,²⁰ promising models such as the Early Years Education Program²¹ (currently mid-way through a randomised

¹⁹ Early Childhood Australia note that “currently there is no national planning mechanism or agreement in place across the three levels of government (federal, state and local) to address this. The provision of ECEC is entirely dependent on market forces. ECEC is such an important service that families need and expect to be able to access that we believe there should be a national approach to planning and influencing service provision” (ECA, 2015, p. 44).

²⁰ Abecedarian is a research-based approach to early learning, with the Australian adaptation emphasising strategies around learning games, conversational reading and enhanced caregiving, with an overarching focus on language learning and emotional development (Sparling, 2015). US studies have found significant impacts on early development and long-term outcomes (Campbell et al, 2012)

²¹ The Early Years Education Program is a universal yet intensive model of early education and care, in which children receive at least 25 hours a week for 50 weeks of the year. The program involves “high staff-to-child ratios; qualified staff; attachment-focused and trauma-informed care; a child-centred curriculum based on the EYLF; integration with family support services; support from infant mental health professionals; and partnerships between educators and parents” (Fordham, 2015; Jordan et al, 2014).

controlled trial), and the broader literature on high-quality ECEC and attracting and retaining families in support services, establish a number of critical elements.

These models tend to commence prior to age 3 and are characterised by greater attendance hours, high child-staff ratios, a strong learning focus with individualised curriculum approaches, connections with other services, and strong partnerships with families (Harrison, Metcalfe, Goldfeld and Moore, 2012).

As with all initiatives to scale-up evidence-based approaches, it is crucial to pay close attention to:

- implementing the elements of models that are the core of their impact and effectiveness, while tailoring them to local contexts and community priorities;
- building and sustaining workforce and system capacity;
- coaching, mentoring and the provision of quality and sustained professional development;
- working with Aboriginal and Torres Strait Islander communities to ensure cultural appropriateness;²² and
- ensuring mechanisms are in place to track whether the approaches are effective in lifting practice standards of educators and improving outcomes for children.

Priorities for accelerating provision of high-quality early education

- Ensuring all services currently not meeting the NQS are required and supported to meet the standard as a matter of urgency
- Ongoing commitment to the NQF to enable it to meet its potential as a quality improvement mechanism as well as a regulatory framework
- Resolving workforce issues that impact the ability of the sector to provide high-quality education and care
- Investing in higher-intensity and higher-quality programs for children who will benefit most from them

Strategies for strengthening quality include:

²² Harrison et al (2012) indicate that “designing and implementing early learning programs for Indigenous children requires a process that goes beyond simply taking into account what has worked elsewhere. The process of implementation will need to consider all of the aspects that make Indigenous children, families and communities unique” (p. 10). SNAICC’s work on the implementation of the EYLF provides an extensive analysis of strategies that have been effective in engaging Aboriginal and Torres Strait Islander families in ECEC services (Mason-White, 2012).

- Investing in capacity-building and faster assessment and reassessment to ensure all services are Meeting the NQS by mid-2017 at the latest.
- Increasing the pace of the Assessment and Rating process so that the NQF is better able to support continuous quality improvement.
- Scaling up evidence-based, high-intensity programs for the children most likely to benefit.
- Addressing workforce issues that impact the ability of the sector to ensure quality care, such as discrepancies in status and remuneration, through a long-term strategy to provide professional wages and access to professional learning.
- Reinforcing and continuing to embed the pedagogical approaches underpinning the EYLF so that all children receive developmentally-appropriate educational experiences.

Investment that is proportionate to impact

“Creating a stable research framework would help inform effective policy-making and raise the overall quality of ECEC. As in other areas of social and educational policy, the field is changing rapidly and there is a need for up-to-date research and evaluation information to strengthen the connections between research, policy, and practice” (OECD, 2001, p134).

Australia ranks well below the OECD average level of public investment in ECEC and has one of the largest shares of private funding. Given the potential of high-quality early education to impact learning and wellbeing outcomes,

Priorities for investment and impact

- Building the data and evidence infrastructure needed to drive policy reform and maximise investment decisions, including:
 - Strengthening nationally consistent data
 - Leveraging the opportunities of data linkage to answer the more fine-grained questions about what works, for whom, and in what circumstances
 - A national research agenda to support identification and system-wide scale-up of evidence-based practice
 - Establishing an independent national body to collect, link, analyse and disseminate data and information on early childhood
- Lifting public investment in early education, with investment targeted to ensuring access to the highest quality ECEC for vulnerable families

it warrants an investment that is proportionate to its impact. This requires both an increased investment, a clear and coherent strategy about where that investment can have the greatest impact, and the ability to measure and track the size and scale of the impact.

Strategies for investment and impact include:

- A national early childhood data strategy that establishes the infrastructure needed to drive policy and practice improvement into the future.
- Establishing a jointly-funded and independent national organisation to collect, link, analyse and disseminate data, either as a standalone body or as a new responsibility of an existing organisation. This organisation would have the capacity to drive a national data linkage agenda and responsibility for disseminating data and analysis in ways that can be used on the ground, including to support local planning and commissioning.
- Improving access to quality linked data for planning, commissioning, research and evaluation purposes.
- Setting a long-term investment agenda for ECEC that progressively increases funding in the areas where ECEC can have the biggest impact.

■ Conclusion: Priority Recommendations

This report highlights a broad range of challenges and opportunities facing the provision of early education in Australia. The Mitchell Institute's five overarching recommendations reflect the evidence about which investments can have the greatest impact and a pragmatic approach to building on existing achievements.

Investment decisions are always difficult for governments, even more so in a tight and uncertain fiscal environment. Initiating and sustaining systemic change is complex and challenging work. There is no easy answer to transforming the provision of early education in Australia. These five recommendations address issues of access, equity, quality and data and should be considered key national objectives for the next five years.

More work is needed on what implementation could look like, including funding options, governance and accountability mechanisms, data and evaluation needs, as well as knowledge gaps and strategies needed to test, confirm, scale and systematise new approaches.

Recommendation 1: Universal Access

Priority recommendations

1. Establish affordable access to preschool as a legislated entitlement, make a permanent commitment to funding Universal Access for 4 year olds, and commence work on extending Universal Access to 3 year olds
2. Invest in scaling up evidence-based, high-intensity programs for the most vulnerable children, targeting the communities scoring in the bottom 10% in the AEDC in each state and territory
3. Ensure the NQF is achieving its objectives and is appropriately resourced to do so, and that all services are Meeting the NQS, at a minimum, by mid-2017
4. Deliver a national early childhood data strategy that establishes the information infrastructure needed to drive policy and practice improvement into the future
5. Commence a national campaign to strengthen family and community knowledge and beliefs about children's early learning

Establish affordable access to preschool as a legislated entitlement, make a permanent commitment to funding Universal Access for 4 year olds, and commence work on extending Universal Access to 3 year olds

Establishing preschool education as a legislated entitlement, equivalent in status and importance to primary and secondary schooling, both brings Australia into line with OECD peer nations (Brennan and Adamson, 2014) and consolidates and extends the significant achievements of the National Partnership on Universal Access to Early Childhood Education. Establishing preschool access as a legislated entitlement has the two-fold impact of:

- Shifting the discourse around early education to emphasise that preschool holds equivalent importance to primary and secondary school and is an entitlement that each 4 year old child holds in their own right (regardless of workforce participation status of their parents); and
- Establishing a requirement for governments to provide ongoing and sustainable funding for preschool.

Framing preschool education as an entitlement held by all Australian children and a firm commitment to ongoing and sustainable funding would address two of the key issues currently inhibiting access and quality.

This does not necessarily require significant new funding, as funding for universal access to preschool is already provided under the National Partnership Agreement on Universal Access (currently only agreed until 2017). A more permanent commitment is needed.

Commencing work on planning the extension of Universal Access to 3 year olds would bring Australia into line with international norms. A pathway that follows the successful approach of the current National Partnership Agreement would be appropriate – beginning with a range of jurisdiction-specific strategies to increase the total number of places available, measures to address workforce issues, setting nationally consistent minimum hours requirements, and developing funding approaches that prioritise free access for disadvantaged 3 year olds. Additionally, it will be necessary to develop resources and support for a developmentally-appropriate play-based learning program for 3 year olds and consider optimum models for delivery.

Recommendation 2: The highest quality for the children with the greatest need

Invest in scaling up evidence-based, high-intensity programs for the children most at risk of developmental vulnerability, targeting the communities scoring in the bottom 10% in the AEDC in each state and territory

The NQS is an extremely valuable and appropriate approach to establishing a common standard of quality, sufficient to meet the needs of most children, as the basis of a system-wide regulatory framework. However, it was not designed to provide the level of intensity and quality that research shows most developmentally vulnerable children need to reach their potential:

“In the typical programs and in the absence of no specific additional supports or interventions, our analyses support the finding that children with low baseline scores tend to remain below the level of ability expected for their age two years later” (Tayler, Cloney and Niklas, 2015, p. 58).

Current policy settings are not adequate for reducing the socio-economic gradient evident in AEDC data, or for reaping the potential benefits of public investments in ECEC for children experiencing developmental vulnerability.

The Mitchell Institute recommends the roll-out of an appropriate suite of evidence-based, high-intensity pedagogical and engagement practices, with the aim of lifting the quality of the learning environment and educative program across *all* existing early education settings in priority communities. Communities currently scoring in the lowest 10 per cent in the AEDC in each state and territory should be the initial priority.

The suite of practices may include widespread implementation of the evidence-based Abecedarian approach and/or wrap-around models that research indicates should involve greater attendance hours, high child-staff ratios, a strong learning focus with individualised learning plans, connections with other services – including

health, family support, cultural workers, early intervention, mental health and other specialist services – and active outreach strategies combined with strategies to build strong partnerships with families.

This approach would dramatically accelerate the availability of high-quality early education for the children who need it most. This strategy must be universal, aiming to reach all 3-4 year old children within the target community, rather than continuing to meet only a fraction of the children who would benefit.

Recommendation 3: Quality early education for all children

Ensure the NQF is achieving its objectives and is appropriately resourced to do so, and that all services are Meeting the NQS, at a minimum, by mid-2017

All children must have access to quality early education opportunities and the NQF is a key strategy for achieving this.

Given that the NQS represents a minimum standard, it is essential that all services currently rated not meeting the NQS be required and supported to be on a rapid path to meeting the standard. This will require assessment of the 3905 services not yet assessed, more rapid re-assessment for the 3526 services now rated as Working Towards the standard and more frequent assessments across the board.

For the next scheduled review of the NQF, it is important to consider the extent to which the it is meeting its objectives, particularly:

- whether it is functioning adequately to support a continuous quality improvement approach;
- determining whether it is adequately resourced and sufficiently responsive;
- strategies to increase the proportion of services exceeding the standards and receiving an excellent rating; and
- the models of professional learning, local collaboration and cluster management that are most effective in lifting standards and supporting the provision of quality learning environments.

Recommendation 4: A national data strategy and coordinating agency

Deliver a national early childhood data strategy and coordinating agency that establishes the information infrastructure needed to drive policy and practice improvement into the future

The recent announcement of a Productivity Commission inquiry into the Education Evidence Base is a welcome opportunity to build the data and information infrastructure needed to make informed investment decisions into the future.

Investment in high-quality, systematic, outcomes-focused data collection will yield dividends for many years to come and should form the basis of a national early childhood data strategy. As the Grattan Institute note, targeting funding to where it is most needed relies on fine-grained data and linked datasets that track progress over time (Goss and Sonnerman, 2016).

There are four key issues for consideration in the development of a data strategy:

- **Administrative data:** considering how the quality and reach – and therefore impact – of existing administrative data can be strengthened. For example, generating more frequent and accurate enrolment and attendance data; unit-level data tracking and linking hours of attendance, pattern of attendance and type of program or environment; and systematic collection of learning and wellbeing outcomes data to enable more comprehensive evaluation of the impact of practice and policy differences.

- **Data linkage:** pursuing opportunities for linking early childhood data to child and family health service data, the AEDC, NAPLAN and other government administrative data, including data held by the Australian Government Department of Human Services, such as families receiving Family Tax Benefit. This will enable much more rigorous and long-term tracking of the impact of investments in early education, especially the more useful and granular data that enables an assessment of ‘what works, for whom, and in what circumstances’.
- **Research:** a long-term research strategy would provide both direction and funding for crucial, policy-relevant research (Harrison et al, 2012; AIHW, 2015). Priorities include longitudinal data to track impact, rigorous (experimental) evaluation of high-intensity programs targeted at vulnerable children, implementation studies that track system-wide delivery and impact; and the ability to track population-level changes.
- **Data literacy and information dissemination:** concurrent investment in making research findings and data available, accessible and meaningful, to both policy-makers and early childhood practitioners, is crucial.

A national independent coordinating agency should be established to collect, link, analyse and disseminate data, with the capacity to drive a national data linkage agenda. This body could be established either as a standalone body or as a new responsibility of an existing organisation.

Recommendation 5: Recognising the importance of early education

Commence a national campaign to strengthen family and community knowledge and beliefs about children’s early learning

Building family and community knowledge about children’s learning in the early years – through a evidence-informed national social marketing campaign – will encourage greater family engagement in children’s learning and enhanced recognition of the importance of early education.

A campaign that makes the insights of the science of early childhood development accessible and available to families will promote positive home learning environments, while also contributing to boosting early education enrolment and attendance rates and the status of early childhood educators.

The campaign should highlight the importance of early education for amplifying children’s learning and development. It should be a long-term campaign, informed by strategic communication strategies and existing evidence on the elements of effective practice, including:

- using multiple media channels;
- delivery in partnership with the early childhood sector;
- building on existing programs, apps and resources (such as the NSW Health’s Love Talk Play Sing Read app, TheSmith Family’s Let’s Count program or the Parenting Research Centre’s smalltalk); and
- communication targeted at key cohorts, including translation into different languages.

■ Appendix One

The structure of the Early Childhood Education and Care sector

The early childhood sector is difficult to navigate, in part due to shared responsibilities across local, state and Commonwealth governments, and the private sector. These complexities, driven by different data collections and funding and fee regimes between levels of government and other entities, make it difficult to gain a comprehensive understanding of the ECEC sector.

All levels of government are involved in funding and governance of ECEC services. The key roles of each are:

- Local government funds some infrastructure, plans delivery and may deliver or coordinate service, including family daycare, occasional childcare and preschool.
- State and territory governments distribute funding to preschools under the National Partnership Agreement for Universal Access, often provide additional funding for disadvantaged cohorts, manage the regulators that conduct the Assessment and Rating process (usually a subsection of state education departments), provide support to approved providers of ECEC services and families using these services and deliver some services directly. For example, the Australian Capital Territory and South Australia directly provide preschool programs that are free of charge to families, whereas in Victoria, Queensland and New South Wales preschool programs are provided by external approved providers (including long daycare centres, Committees of Management composed of parent volunteers, or cluster managers).
- The Australian Government funds childcare subsidies and rebates (paid directly to families or to approved providers, such as childcare centres, who then charge families the gap between the fee and each family's rebate and childcare benefit subsidies), funds the National Partnership Agreements, and supports the implementation of the NQF, particularly through support for the national and independent agency the Australian Children's Education and Care Quality Authority.

Funding complexities

Funding for preschool is provided by state and territory government, supplemented by Commonwealth funding via the short-term National Partnership Agreements on Universal Access to Preschool, and to a lesser degree, payment of the child care benefit as a rebate on fees paid by families.

Each state and territory government has its own funding formulas. For example in New South Wales base funding for preschool programs begins at \$1850 per annum per child with loadings for support, based on a child's relative need and on service location. However, if the preschool program is delivered within in a childcare service setting a base fee of only \$300 is provided (NSW Department of Education and Training 2015). In contrast, preschool in Victoria (where it is known as kindergarten) is funded on the basis of per capita grants. The standard rate is \$3247 per annum with higher rates for rural areas, and much lower rates (\$546 - \$1716) for preschools provided by non-government schools. A fee subsidy of \$1317 per child per annum for preschool (in the year before school) is paid to long daycare services providing preschool programs to children from vulnerable families (to compensate for

services' obligation to waive fees for these children)²³. The Victorian government also provides Kindergarten Inclusion Support Packages (KIS) which provides additional funding to preschools to build their capacity to meet the needs of enrolled children with a disability, complex medical needs or other high support needs and to support inclusive practice. This additional funding for higher needs and to compensate for fee waivers (see footnote 22) does not necessarily fully cover all costs. Preschools set their own fees and enrolment priorities, although all must waive fees for certain children from marginalised backgrounds, and are also encouraged to prioritise the enrolment applications (where demand exceeds supply) of children from these and other marginalised groups (Department of Education and Training, Victoria 2015).

Nearly half of all Australian children attend preschool through a long daycare service. The amount of funding that states and territory governments provide for preschool in long daycare services varies by jurisdiction, and is less than the provision for standalone preschools.

Childcare, including long daycare, funding is provided to parents by the Commonwealth as a rebate on fees paid – rather than a fixed funding cost for service provision as in preschool or schools. Thus at present parents who send their children to a more costly service, mostly located in inner suburbs and growth areas of major cities, receive more government funding (while also incurring greater out-of-pocket) expenses. The Australian Government's proposed *Jobs for Families* legislation addresses this inequity somewhat by funding on a benchmark cost of delivery.

This proposed legislation and accompanying proposed funding package places more stringent activity tests for families to receive childcare subsidies, and could see the cost of preschool through long daycare settings increase for non-working parents. Families would be reliant on sufficient places being available in stand-alone preschools to access lower cost preschool.

Fees

Fees for preschool vary across the country, from free to several dollars per hour of attendance (amounting to several thousand dollars per year). At a national level most state government delivered preschool programs are free, although this is not the case in New South Wales, Victoria or Queensland (ABS, 2015).

The calculation of fees for preschool is likely to underestimate the true cost to families. In some states, such as New South Wales and Queensland, preschool attendance is mainly through long daycare. The National Early Childhood and Care collection includes estimates that parents of children in long daycare only pay for 15 hours of preschool.

Each long daycare service can choose how they provide preschool – it may be for a whole day or only certain hours (such as 9:00 till 2:00 three or four days a week). Services also set their own fees. Families are usually levied fees for the entire day (around 12 hours), regardless of how many hours their child attends. In these circumstances children need to attend several days of long daycare, and families pay for 24 hours of care or more, to receive 15 hours of preschool. Costs of childcare vary tremendously, from under \$80 per day in some family daycare services (which do not provide preschool programs) to nearly \$200 per day for centre-based services in high-demand locales. In some long daycare centres, a lower fee is charged if children only attend for the “preschool program” hours instead of the full day.

²³ Fee waivers – and Victorian government supplementary funding to approved providers to compensate – apply to children that identify as Aboriginal or Torres Strait Islander; children holding (or whose parent or guardian holds) a Commonwealth Health Care Card, concessions card, Veterans' Affairs Gold Card, Refugee Visa, a variety of other humanitarian, protection and emergency rescue visas, children with mothers' at risk and triplets. Each preschool or childcare centre sets their own fee policies and make additional fee reductions, waivers or payment plans.

The Commonwealth Government rebates reimburse parents a portion of the cost of childcare relative to their income.

Governance and Legislative Arrangements

Early childhood education and care is covered by separate governance and legislative arrangements to school education. This has implications for planning and delivery of seamless education across the early years from birth to eight. For example, services face multiple planning regulations when co-locating on school sites. Different teacher registration requirements and different pay scales apply between early childhood education and schools, meaning that teachers are generally not employed across sectors. These issues create added complexity in providing 'joined-up' service delivery.

Implications for data collection and policy

The complexity in the fees, funding and delivery arrangements also affects capacity to fully understand the sector. Given the variation in delivery arrangements in long daycare, we do not know accurately how many hours children attend preschool. Measures for attendance vary across the country, with attendance information derived for some providers, particularly long daycare services, based on the hours a service operates.

Opaque funding arrangements mean that policy makers and researchers alike cannot ascertain comprehensive, accurate information on the early childhood sector. Given the pivotal importance of early learning, greater transparency is needed.

References

- Access Economics (2009), *An economic analysis of the proposed ECEC National Quality Agenda: A report for the Department of Education, Employment and Workplace Relations*, Access Economics, Canberra
- Allen, G, and Smith, I.D (2008), *Early intervention: Good parents, Great Kids, Better Citizens*. London: The Centre for Social Justice and The Smith Institute
- Australian Bureau of Statistics (2015), *Childhood Education and Care*, Australia, June 2014, Cat. No 4402.0
- Australian Bureau of Statistics (2016), *Preschool education, Australia*, 2015, Cat. No 4240.0
- Australian Children’s Education and Care Quality Authority (2015), *How we work*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2015a), *National Consistency Strategy and Implementation Plan 2015-2016*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2015b), *Annual report, 2014-2015*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2015c), *National consistency strategy and implementation plan 2015-2016*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2015d), *Quarterly report Q3 2015*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2016b), *Quarterly report Q4 2015*, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2016a), *Educational program and practice – an analysis of quality area 1 of the national quality standard*, Occasional Paper 1, ACECQA, Sydney
- Australian Children’s Education and Care Quality Authority (2016b), *Submission 44: Senate Education and Employment Committee Inquiry on the Family Assistance Legislation Amendment (Jobs for Families Child Care Package) Bill 2015*
- Australian Government (2009), *Belonging, being and becoming: The early years framework for Australia*, Department of Education, Employment and Workplace Relations, Canberra
- Australian Government (2013a), *A Snapshot of Early Childhood Development in Australia 2012 – AEDI National Report Re-issue November 2013*, Australian Government, Canberra
- Australian Government (2013b), *Australian Education Act 2013*, Australian Government, Canberra
- Australian Government (2014a), *Reform of the Federation White Paper: Issues paper No. 4, Roles and responsibilities in education*, Department of Prime Minister and Cabinet, Canberra
- Australian Government (2014b), ‘Research snapshot: Early childhood education and care and the transition to school’, Department of Education and Training, Canberra

- Australian Government (2015a), *Training for early education and care in Australia*, Australian Skills Quality Authority, Canberra
- Australian Government (2015b), *Family Assistance Legislation Amendment (Jobs for Families Child Care Package) Bill 2015 (Cth)*, Canberra, Explanatory Memoranda
- Australian Government (2016), *Australian Early Development Census national report 2015*, Department of Education and Training, Canberra
- Australian Institute for Health and Welfare (2015), *Literature review of the impact of early childhood education and care on learning and development*, Working Paper, Cat. No. CWS 53, AIHW, Canberra, accessed 1 March 2016, www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129552948
- Australian Research Alliance for Children and Youth (2008), *Preventing Youth Disengagement and Promoting Engagement*, ARACY, Canberra
- Australian Research Alliance for Children and Youth (2011), *Engaging Families in the Early Childhood Development Story: Social Marketing Plan*, ARACY, Canberra
- Australian Research Alliance for Children and Youth (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Bania N, Kay N, Aos S and Pennucci A (2014), *Outcome evaluation of Washington State's Early Childhood Education and Assistance Program*, (Document No. 14-12-2201), Washington State Institute for Public Policy, Olympia
- Baxter J and Hand F (2013), *Access to early childhood education in Australia*, Research Report No. 24, Australian Institute of Family Studies, Melbourne
- Belsky J, Burchinal M, McCartney K, Lowe Vandell D, Clarke-Stewart K and Tresch Owen M (2007), 'Are there any long-term effects of early child care', *Child Development* vol. 78, no. 2, pp. 681-701
- Biddle N and Seth-Purdie, R (2013), *Relationship between development risk and participation in early childhood education: How can we reach the most vulnerable children?* HC Coombs Policy Forum and Social Policy Institute, Australian National University, Canberra
- Boardman M (2005), 'Positive Gains in Kindergarten for Full-Day Children', *Australian Association for Research in Education Conference 2015*
- Brennan D (2012), *Review of NSW Government Funding for Early Childhood Education*, NSW Government, Sydney
- Brennan D, and Adamson E (2014), *Financing the Future: An equitable and sustainable approach to early childhood education and care*, SPRC Report 01/14, Social Policy Research Centre, University of New South Wales
- Brewer M, Cattan S, Crawford C and Rabb B, (2014), *The impact of free early education for 3 year olds in England*, Institute for Fiscal Studies, London
- Burchinal, M, Vandergrift, N, Pianta, R, and Mashburn, A, (2009), *Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs*. *Early Childhood Research Quarterly*. 25, 166-176
- Burns J, Collin P, Blanchard M, De-Freitas N and Lloyd S (2008). *Preventing Youth Disengagement and Promoting Engagement*, ARACY, Canberra

- Campbell FA, Pungello EP, Burchinal M, Kainz K, Pan Y, Wasik BH, Barbarin OA, Sparling JJ and Ramey CT (2012), *Adult outcomes as a function of an early childhood educational program: An Abecedarian project follow-up*, *Developmental Psychology* vol. 48, no. 4, pp. 1033–43
- Carbone S, Fraser A, Ramburuth R, and Nelms L (2004) *Breaking Cycles, Building Futures. Promoting inclusion of vulnerable families in antenatal and universal early childhood services: A report on the first three stages of the project*, Brotherhood of St Laurence, Melbourne
- Carlsson-Paige, N, McLaughlin, G.B and Almon, J.W (2015), *Reading Instruction in Kindergarten: Little to Gain and Much to Lose*. Published online by the Alliance for Childhood
- Cassells R, Cortis N, Duncan A, Eastman C, Gao G, Giuntoli, G, Katz I, Keegan M, Macvean M, Mavisakalyan A, Shlonsky A, Skattebol, J, Smyth C and valentine k (2014), *Keep Them Safe outcomes evaluation final report*, NSW Department of Premier and Cabinet, Sydney
- Center for Advanced Study of Teaching and Learning (n.d.), *MyTeachingPartner (Pre-K): A Series of NICHD-Funded Studies*, Research Brief, University of Virginia
- Centre for Community Child Health (2009), *The inclusion agenda in early childhood services: Evidence, policy and practice*, Centre for Community Child Health, The Royal Children’s Hospital, Melbourne
- Centre for Community Child Health (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Centre for Community Child Health and Telethon Institute for Child Health Research (2009), *A Snapshot of Early Childhood Development in Australia – AEDI National Report 2009*, reissued 2011, Australian Government, Canberra
- Centre for Education Statistics and Evaluation (2015). *Evaluation of the Transition to School Statement*, NSW Government, Sydney
- Center on the Developing Child at Harvard University (2016), *Building core capabilities for life: The science behind the skills adults need to succeed in parenting and in the workplace*, Harvard University, Cambridge
- Center on the Developing Child at Harvard University (2011), *Building the Brain’s “Air Traffic Control” System: How Early Experiences Shape the Development of Executive Function: Working Paper No. 11*, Harvard University, Cambridge
- Chang M and Singh K (2008), ‘Is all-day kindergarten better for children's academic performance? Evidence from the Early Childhood Longitudinal Study’, *Australian Journal of Early Childhood*, vol. 33, no. 4, pp. 35-42
- Chang M (2012), ‘Academic performance of language-minority students and all-day kindergarten: A longitudinal study’, *School Effectiveness and School Improvement*, vol. 23, no. 1, pp. 21-48
- Cleveland G (2014), *Submission 234: Productivity Commission Inquiry in Childcare and Early Learning*, Productivity Commission
- Cloney D, Cleveland G, Hattie J and Tayler C (2015), ‘Variations in the availability and quality of early childhood education and care by socioeconomic status of neighbourhoods’, *Early Education and Development*, vol. 27, no. 3, pp.1-19
- Council of Australian Governments (2009), ‘National Partnership Agreement on the National Quality Agenda for Early Childhood Education and Care’, December 2009

- Council of Australian Governments (2012), *National partnership agreement on universal access to early childhood education*, Australian Government, Canberra
- Darling-Hammond, L and Snyder, J (1992), *Curriculum Studies and the Traditions of Inquiry: The Scientific Tradition*. Edited by Philip W Jackson. Handbook of Research on Curriculum. MacMillan. pp. 41-78
- Degotardi S and Cheeseman S (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Department of Education, Training and Employment (2013), *Evaluation of the early years centre initiative: Summary report*, Queensland Government, Brisbane
- Department of Human Services (DHS) (2011), *Human services: The case for change*, State Government of Victoria, Melbourne
- Deloitte Access Economics (2012), *The socio-economic benefits of investing in the prevention of early school leaving*, Deloitte Access Economics, Kingston
- Dockett S and Perry B (2014), *Continuity of Learning: A resource to support effective transition to school and school age care*. Australian Government Department of Education, Canberra
- Downer JT, Kraft-Sayre ME and Pianta RC (2009), 'Ongoing, web-mediated professional development focused on teacher–child interactions: Early Childhood Educators' usage rates and self-reported satisfaction', *Early Education and Development*, vol. 20, no. 2, pp. 321-345
- E4Kids (2012), *Assessing the quality of Australian child care and kindergartens*, E4Kids Research Bulletin 4, University of Melbourne, Melbourne
- Early Childhood Australia (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Early Childhood Australia (2016), *Inquiry into the provisions of the Family Assistance Legislation Amendment (Jobs for Families Child Care Package) Bill 2015*, Senate Standing Committee on Education and Employment, ECA, Canberra
- Early Learning Association of Australia (2014), *Submission to the Review on the National Quality Framework*, ELAA, Melbourne
- Early Learning Association of Australia (2015a), *Submission to Education State : Early childhood consultation process*, ELAA, Melbourne
- Early Learning Association of Australia (2015b), *The Ten Principles for an Early Childhood Education State*, ELAA, Melbourne
- Eastman C, Koop D, Newton BJ and Valentine K (2012), *Linking Schools and Early Years project evaluation: Data collection round 3: Final report*, Social Policy Research Centre
- Educational Performance Services (2014), *Launching into Learning longitudinal study progress report 2013*, Department of Education, Hobart
- Elliot, A (2006), *Early Childhood Education: Pathways to quality and equity for all children*, Australian Education Review, Australian Council for Educational Research, Camberwell

- Farran D and Lipsey M (2015), *Evidence for the benefits of state pre-kindergarten programs: Myth and misrepresentation*, Manuscript submitted for publication, Vanderbilt University, Nashville, Peabody Research Institute
- Fordham L (2015), *Qualitative Study of the Early Years Education Program (EYEP:Q)*, Research Institute for Professional Practice, Learning and Education, Charles Sturt University, Ballarat
- Fox S and Olsen A (2014), *Education Capital: Our evidence base – defining parental engagement*, ACT Directorate of Education and training, Canberra
- Fox S, Southwell A, Stafford N, Goodhue R, Jackson D and Smith C (2015), *Better systems, better chances: A review of research and practice for prevention and early intervention*, Australian Research Alliance for Children and Youth (ARACY), Canberra
- Gray P (2015), 'Early Academic Training Produces Long-Term Harm', *Psychology Today*, 5 May 2015
- Grace, R and Bowes, J (2010), *Barriers to Participation: The Experience of Disadvantaged Young Children, their Families and Professionals in Engaging with Early Childhood Services*. Report to the NSW Department of Human Services. Children and Families Research Centre, Macquarie University
- Goodstart Early Learning (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*, Brisbane
- Goss, P, Sonnemann, J, Chisholm, C and Nelson, L (2016), *Widening gaps: what NAPLAN tells us about student progress*, Grattan Institute, Melbourne
- Harman-Smith Y and Brinkman S (2013). *Children's Centre evaluation. Interim evaluation report: Summary of qualitative evaluation findings*, Department for Education and Child Development, Adelaide
- Harrison LJ, Goldfeld S, Metcalfe E & Moore T (2012), *Early learning programs that promote children's developmental and educational outcomes*, Resource sheet no. 15, produced for the Closing the Gap Clearinghouse, Australian Institute of Health and Welfare, Canberra and Australian Institute of Family Studies, Melbourne
- Heckman JJ (2008), *The case for investing in disadvantaged young children*, in First Focus, *Big ideas for children: Investing in our nation's future*, First Focus, Washington
- Heckman JJ (2010), *Submission to the National Commission on Fiscal Responsibility and Budget Reform*
- Hopwood, T, and Merritt, R (2011), *Big Pocket Guide to using social marketing for behaviour change*, London, NMSC
- Hunter C and Price-Robertson R (2014), *The good practice guide to Child Aware Approaches: Keeping children safe and well*, CFCA Paper 21, Australian Institute of Family Studies, Melbourne
- International Labor Organization (2012), *Right beginnings: Early childhood education and educator*, ILO, Geneva
- Ireland J (2015). 'Preschool funded like private or public schools under COAG proposal', *Sydney Morning Herald*, 9 December 2015
- Ishimine K, Tayler C and Thorpe K (2009), 'Accounting for quality in Australian childcare: A dilemma for policymakers', *Journal of Education Policy*, vol. 24, no.6, pp. 717-732

- Ishamine K and Tayler C (2014), 'Assessing Quality in Early Childhood Education', *European Journal of Education* vol. 49, no. 2, pp. 272-290
- Jensen J, Sonnermann J, Roberts-Hull K, Hunter A (2016), *Beyond PD: Teacher Professional Learning in High-Performing Systems Australian Edition*, National Center on Education and the Economy, Washington
- Jordan B, Tseng Y, Coombs N, Kennedy A, and Borland J (2014), 'Improving lifetime trajectories for vulnerable young children and families living with significant stress and social disadvantage: The early years education program randomised controlled trial', *BMC Public Health* vol. 14, no. 965
- Jha T (2015), *Regulating for quality in childcare: The evidence base*, CIS Policy Monograph 142, Centre for Independent Studies, Sydney
- Kay N and Pennucci A (2014), *Early childhood education for low-income students: A review of the Evidence and Benefit-Cost Analysis*, WISPP, Olympia
- Kendall-Taylor N and Lindland E (2013), *Modernity, Morals and More Information: Mapping the Gaps Between Expert and Public Understandings of Early Child Development in Australia*, Frameworks Institute, Washington
- Lamb ME (1996), 'Effects of nonparental child care on child development: An update', *The Canadian Journal of Psychiatry* vol. 41, no. 6, pp. 330-342
- Lamb, S, Jackson, J, Walstab, A and Huo, S (2015), *Educational opportunity in Australia 2015: Who succeeds and who misses out*, Centre for International Research on Education Systems, Victoria University, for the Mitchell Institute, Melbourne: Mitchell Institute
- Liddell M, Barnett T, Roost RD, McEachran J (2011), 'Investing in our future: an evaluation of the national rollout of the Home Interaction Program for Parents and Youngsters (HIPPY)', prepared for the Department of Education, Employment and Workplace Relations
- Lipsey MW, Farran DC and Hofer KG (2015), *A Randomized Control Trial Of the Effects Of a Statewide Voluntary Prekindergarten Program On Children's Skills And Behaviours Through Third Grade (Research Report)*. Nashville, TN: Vanderbilt University, Peabody Research Institute.
- Loeb S, Bridges M, Bassok D, Fuller B, Ruberger R (2007), 'How Much is too much? The influence of preschool centers on children's social and cognitive development' *Economics of Education Review*, vol. 26, pp. 52-56
- Manning M, Homel R and Smith C (2011), 'An economic method for formulating better policies for positive child development' *Australian Review of Public Affairs*, vol. 10, no. 1, pp. 61-77
- Manning M, Homel R and Smith C (2009), 'A meta-analysis of the effects of early developmental prevention programs in at-risk populations on non-health outcomes in adolescence', Griffith University, Brisbane
- Marcon, RA (2002) 'Moving up the grades: Relationship between preschool model and later school success'. *Early Childhood Research & Practice* 4(1)
- Marmot, M (2010), *Fair society, healthy lives: The Marmot Review, Strategic Review of Health Inequalities in England post-2010*. London: Institute of Health Equity
- Mason-White H (2012), *Learning from good practice: Implementing the Early Years Learning Framework for Aboriginal and Torres Strait Islander children*, SNAICC, Melbourne

- Mathers S, Eisenstadt N, Sylva K, Soukakou E and Ereky-Stevens K (2014), *Sound Foundations: A review of the research evidence on quality of early childhood education and care for children under three, Implications for policy and practice*, University of Oxford, Oxford
- McCain M, Mustard F and Shanker S (2007), *Early years study 2: Putting science into action*, Council for Early Childhood Development, Toronto
- McDonald M, O'Byrne M, and Prichard P (2015), *Using the Family Partnership Model to engage communities: Lessons from Tasmanian Child and Family Centres*, Centre for Community Child Health at the Murdoch Childrens Research Centre and the Royal Children's Hospital, Melbourne
- Melbourne Graduate School of Education (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Melhuish E (2006), 'What influences the quality of care in English playgroups?' *Early Development and Parenting* vol. 3, no. 3, pp, 135-143
- Melhuish E (2011), 'Preschool Matters', *Science Vol. 333*, Issue 6040, pp. 299-300
- Melhuish E, Ereky-Stevens K, Petrogiannis K, Ariescu A, Penderi E, Rentzou K, Tawell A, Slot P, Broekhuizen M and Leseman P (2015a), 'A review of research on the effects of early childhood education and care (ECEC) upon child development', European Commission, Brussels
- Melhuish E, Ereky-Stevens K, Petrogiannis K, Ariescu A, Penderi E, Tawell A, Leseman P, Broekhuisen, M (2015b), *A Review of research on the effects of early childhood education and care on child development*, CARE
- Moore TG (2008), *Rethinking universal and targeted services*, Centre for Community Child Health, Melbourne
- Moore TG, McDonald M, Sanjeevan S and Price A (2012), *Sustained home visiting for vulnerable families and children: A literature review of effective processes and strategies*, prepared for Australian Research Alliance for Children and Youth, Murdoch Childrens Research Institute and Centre for Community Child Health, Melbourne
- Moore TG and McDonald M (2013), *Acting Early, Changing Lives: How prevention and early action saves money and improves wellbeing*, prepared for The Benevolent Society, Centre for Community Child Health at The Murdoch Children's Research Institute and The Royal Children's Hospital, Melbourne
- Moore TG, McHugh-Dillon H, Bull K, Fry R, Laidlaw B and West S (2014), *The evidence: What we know about place-based approaches to support children's wellbeing*. Collaborate for Children Scoping Project, Centre for Community Child Health, Murdoch Childrens Resarch Institute and The Royal Children's Hospital, Melbourne
- National Scientific Council on the Developing Child (2012), *The science of neglect: The persistent absence of responsive care disrupts the developing brain*, Working Paper 12
- National Scientific Council on the Developing Child (2010), *Early experiences can alter gene expression and affect long-term development*, Working Paper No. 10
- National Scientific Council on the Developing Child (2004), *Children's emotional development is built into the architecture of their brains*, Working Paper No. 2
- National Scientific Council on the Developing Child (2004), *Young children develop in an environment of relationships*, Working Paper No. 1

- Newton BJ and Valentine K (2013). *Linking Schools and Early Years Project Evaluation: Final report*, Social Policy Research Centre, Sydney
- Noonan, P and Pilcher, S (2015) *Financing tertiary education in Australia – the reform imperative and rethinking student entitlements*, Mitchell Institute for Education and Health Policy, Victoria University, Melbourne
- Ontario Ministry of Education (2013), *A Meta Perspective on the Evaluation of Full Day Kindergarten during the First Two Years of Implementation*, McMaster University and Queens University, Ontario
- Organisation for Economic Cooperation and Development (2008), *Understanding the brain: The birth of a learning science new insights on learning through cognitive and brain science*, OECD/CERI International Conference, Learning in the 21st Century: Research, Innovation and Policy
- Organisation for Economic Cooperation and Development (2009), *Doing Better for Children*, OECD, Paris, France
- Organisation for Economic Cooperation and Development (2015), *Low-Performing Students: Why They Fall Behind and How To Help Them Succeed*, OECD, Paris
- Organisation for Economic Cooperation and Development (2015a), *Education at a Glance 2015. Australia Country Note*, OECD, Paris
- Organisation for Economic Cooperation and Development (2015b), *OECD Skills Outlook 2015: Youth, Skills and Employability*, OECD, Paris
- Organisation for Economic Cooperation and Development (n.d.), *Encouraging quality in Early Childhood Education and Care (ECEC) research brief: Working conditions matter*, OECD, Paris
- Organisation for Economic Cooperation and Development (n.d.), *Encouraging quality in Early Childhood Education and Care (ECEC) research brief: Minimum standards matter*, OECD, Paris
- Organisation for Economic Cooperation and Development (2001), *Starting Strong: Early childhood education and care*, OECD, Paris
- Phillips B (2016), *Distributional modelling of proposed childcare reforms in Australia*, ANU Centre for Social Research and Methods, Canberra
- Phoebe M (2015), 'Early childhood teachers in NSW to be accredited like their primary school counterparts: Minister', *Sydney Morning Herald*, 12 January 2016
- Pianta R, Barnett S, Burchinal M, Thornburg KR (2009), 'The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know', *Psychological Science in the Public Interest* vol. 10, no. 2, pp. 49–88
- Pianta, RC, Mashburn, AJ, Downer, JT, Hamre, BK and Justice, LM (2008). 'Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms'. *Early Childhood Research Quarterly*, 23, 431–451
- Pianta R, Burchinal M, Jamil F, Sabol T, Grimm K, Hamre B, Downer J, LoCasale-Crouch J and Howes C (2014), 'A cross-lag analysis of longitudinal associations between preschool teachers' instructional support identification skills and observed behavior', *Early Childhood Research Quarterly*, vol. 29, no. 2, pp. 144-154
- Pleschova G and McAlpine L (2015), 'Enhancing university teaching and learning through mentoring: A systematic review of the literature', *International Journal of Mentoring and Coaching in Education*, Vol. 4, no. 2, pp. 107-125

- Powell DR, Diamond KE and Burchinal M (2012), 'Using coaching-based professional development to improve Head Start teachers' support of children's oral language skills' in C Howes, B Hamre and R Pianta (Eds.), *Effective early childhood professional development: Improving teacher practice and child outcomes*, Brookes, Baltimore
- PriceWaterhouseCoopers Australia (2014), *Putting a value on early childhood education and care in Australia*, PWC, Sydney
- PriceWaterhouseCoopers (2016), *Economic impacts of the proposed child care subsidy: Final Report*, prepared for Goodstart Early Learning
- Productivity Commission (2011), *Early Childhood Development Workforce*, Research Report, Productivity Commission, Melbourne
- Productivity Commission (2015), *Childcare and early childhood learning volume 1*, Inquiry Report No. 73, Canberra
- Productivity Commission (2015), *Childcare and early childhood learning volume 2*, Inquiry Report No. 73, Canberra
- Reed JE and Card AJ (2015), 'The problem with Plan-Do-Study-Act cycles', *BMJ Quality and Safety*, pp. 1-6
- Rose G (1985), 'Sick individuals and sick populations', *International Journal of Epidemiology*, vol. 14, pp. 32-38
- Sammons P, Sylva K, Melhuish E, Siraj-Blatchford I, Taggart B, Draghici D, Smees R and Toth K (2012a), *Effective Pre-School, Primary And Secondary Education Project (EPPSE 3-14): Influences on students' development in Key Stage 3: Social-behavioural outcomes in Year 9*, Research Brief DFE-RB184b, Department for Children, Schools and Families, London
- Sammons P, Sylva K, Melhuish E, Siraj-Blatchford I, Taggart B, Draghici D (2012b), *Influences on students' development in Key Stage 3: Socio-behavioural outcomes in Year 9*, Institute of Education, University of London, London
- Secretariat of National Aboriginal and Islander Child Care (2016), *Submission to the Inquiry into the provisions of the Family Assistance Legislation Amendment (Jobs for Families Child Care Package) Bill 2015*
- Schierhout G, Hains J, Si D, Kennedy C, Cox R, Kwedza R, O'Donoghue L, Fittock M, Brands J, Lonergan K, Dowden M, Bailie R (2013), 'Evaluating the effectiveness of a multifaceted, multilevel continuous quality improvement program in primary health care: developing a realist theory of change', *Implementation Science*, vol. 8, no. 119
- Secretariat of National Aboriginal and Islander Child Care (2015), *Submission to the Productivity Commission Inquiry into Childcare and Early Learning*
- Schweinhart, LJ, Montie, J, Xiang, Z, Barnett, WS, Belfield, CR, and Nores, M (2005), *Lifetime effects: The High/Scope Perry Preschool study through age 40*. (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Press
- Shonkoff JP and Phillips D (2000), *From neurons to neighborhoods*, National Academy Press, Washington
- Shortell SM, O'Brien JL, Carman JM, Foster R.W, Hughes EF, Boerstler H, O'Connor EJ (1995), *Assessing the impact of continuous quality improvement/total quality management: concept versus implementation*. *Health Services Research*. 1995 Jun; 30(2): 377-401
- Siraj-Blatchford I (2008), 'Understanding the relationship between curriculum, pedagogy and progression in learning in early childhood' *Hong Kong Journal of Early Childhood* vol. 7, no. 2, pp. 6-13

- Sloan J (2015), 'Big operator tail wags dog of childcare subsidies', *The Australian*, 15 December, p.12
- Sparling J (n.d.), *The Abecedarian Approach in the early years: Benefits for life*, University of Melbourne, Melbourne
- Steering Committee for the Review of Government Service Provision (2016), *Report on government services 2015, vol. B, Child care, education and training*, Productivity Commission, Canberra
- Sylva K, Melhuish E, Siraj-Blatchford I, Taggart B (2010), *Early childhood matters: evidence from the Effective Pre-school and primary education project*, Routledge, London
- Sylva K, Melhuish E, Sammons P, Siraj I, Taggart B, Smees R, Toht K, Welcomme W and Hollingworth K (2014), *Students' educational and developmental outcomes at age 16 – Effective Pre-school, Primary, and Secondary Education (EPPSE 3-16) Project*, Department of Education
- Sylva, K, Melhuish, E, Sammons, P, Siraj-Blatchford, I and Taggart, B (2004), *Effective provision of pre-school education (EPPE) project: Findings from the early primary years, 1997-2004*. University of London, University of Oxford, University of Nottingham
- Taylor C, Ishimine K, Cloney D, Cleveland G and Thorpe (2013), 'The quality of early childhood education and care services in Australia', *Australasian Journal of Early Childhood*, vol. 38, no. 2, pp. 13–21
- Taylor C, Cloney D and Niklas F (2015), 'A bird in the hand: Understanding the trajectories of development of young children and the need for action to improve outcomes', *Australasian Journal of Early Childhood*, vol. 40, no. 3, pp. 51–60
- Taylor CT, Jose K, Christensen D, and Van de Lageweg WI (2015). *Engaging, supporting and working with children and families in Tasmania's Child and Family Centres. Report on the impact of Centres on parents' use and experiences of services and supports in the Early Years*, Telethon Kids Institute, Perth
- Te Riele, K (2013). *Closing doors: what do school drop outs cost us? The Conversation*, January 30
- Te Riele, K and Rosauer, K (2015) 'Education at the Heart of the Children's Court: Evaluation of the Education Justice Initiative Final Report', The Victoria Institute, Victoria University, Melbourne
- United Nations (1989), *United Nations Convention on the Rights of the Child (UNCRC)*, United Nations, Geneva
- Valentine K and Hilferty F (2011) *Why don't multi-agency child welfare initiatives deliver? A counterpoint to best practice literature*, prepared for NSW Ombudsman, Social Policy Research Centre, University of New South Wales, Sydney
- Vandell DL and Woolfe B (2000), *Child care quality: Does it matter and does it need to be improved?* Institute for Research on Poverty, University of Wisconsin, Madison
- Vinson T, Rawthorne M, Beavis A, Ericson M (2015), *Dropping off the edge 2015: Persistent communal disadvantage in Australia*, Jesuit Social Services, Melbourne and Catholic Social Services Australia, Canberra
- Walter C and Briggs J (2012), *What professional development makes the most difference to teachers?* Department of Education, University of Oxford, Oxford
- Washington State Institute for Public Policy (2015), *Benefit Cost Results*, Olympia
- Watson J (2005), *Active engagement: Strategies to increase service participation by vulnerable families*, NSW Department of Community Services, Sydney

Winter P (2010), *Engaging families in the early childhood development story: Neuroscience and early childhood development, summary of selected literature and key messages for parenting*, Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA), Canberra

Wong S, Harrison L, Rivalland C and Whiteford C (2014), 'Utilisation of early childhood education and care services in a nationally representative sample of Australian children: A focus on disadvantage', *Australian Journal of Early Childhood*, vol. 39, no. 2



Mitchell Institute
300 Queen Street, Melbourne, Victoria 3000
+61 3 9919 1820
mitchellinstitute.org.au
info@mitchellinstitute.org.au