

*For every dollar you
spend on my development,
I'll repay you fifteen dollars
a year when I grow up.*



Time to Act

Investing in our children and our future



minderoo

“Whether in the developing or developed world, the importance of a child’s first five years of life are critical. It is essential that we see early childhood as the foundation for lifelong success”

NICOLA FORREST

CEO, Minderoo Foundation



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A Message from Nicola Forrest

CEO, Minderoo Foundation



Australia needs a workforce capable of meeting the challenges of a knowledge and technology-based economy but also citizens able to participate in and benefit from the social well-being of our country.

In 2010, I was invited to visit the Challis Parenting and Early Learning Centre (CPELC) to observe their integrated early intervention program. The CPELC, located at the Challis Primary School, is in Armadale, considered to be one of the lowest socio-economic suburbs in Perth. I was very impressed by what I saw and Minderoo became an investor in the program.

Since then, the program has produced outstanding outcomes, lifting the children on a developmental measure from below state average to above state average. These results have been documented by the Telethon Kids Institute in a report commissioned by the Minderoo Foundation.

Over the past 10 years, we have supported many early childhood and education related programs in response to the need to deal with the effects of disadvantage within our community. This support has enabled some fantastic results to be achieved across Australia and we are honoured to have partnered with many great organisations.

However we have become acutely aware of the need to take a preventative approach if we are to truly lift the outcomes of our most at-risk children. In other words, we must address the cause not the symptoms of disadvantage in our community.

The Review into Indigenous Training and Employment undertaken by Minderoo's Chairman Andrew Forrest at the request of the Prime Minister the Hon Tony Abbott was released in August 2014. The Review highlights the importance of the first three years of a child's life in determining their life trajectory and proposes intervention strategies as the most effective approach to address individual and community disadvantage.



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Research over the past decade shows that the biological pathways developed in early childhood influence health, learning, behaviour and well-being throughout a person's life. The research also shows that a national commitment to well-designed and implemented integrated early intervention programs can improve children's development and deliver transformative economic and social benefits.

The smart course for all governments is to ensure that every disadvantaged child has access to such programs. This course is the most cost-effective, efficient and evidence-based strategy to address economic and social disadvantage. Further, such an approach will set our children on a path to personal achievement and contribute to the productivity and resilience of our economy and the cohesion and inclusion of our nation.

The Minderoo Board has set Early Childhood Development (ECD) as one of its priority areas for the next three years, under the banner of Thrive by Five. This document represents our reasoning behind this decision and the immediate actions we have resolved to undertake.

The importance of early childhood investment for the future of our nation demands a partnership between government, the community and philanthropy.

We welcome partnerships and collaborations with the many talented and committed organisations and individuals working in this critically important area.

MINDEROO FOUNDATION

Nicola Forrest





Overview

Early childhood development sets the foundation for learning, behaviour and health, and helps build social capital and equality, all of which are crucial for the social and economic well-being of our nation.

At present, there are approximately 60,000 children in Australia who are considered developmentally vulnerable – children whose poor health, social competence and language skills mean they are less likely to commence formal education ‘school ready’ (Australian Early Development Census, 2012).

Longitudinal data from international studies demonstrate that a child who is developmentally vulnerable at the start of their schooling is likely to continue a life trajectory of poor life outcomes (The Ounce of Prevention Fund, 2014).

As a nation, our response to disadvantage has been largely remedial focused on intensive pre-employment training, school attendance measures, increased incarceration capacity and adult literacy programs. Such responses are necessary; however it is now acknowledged that early intervention is a more cost efficient and effective way to deal with disadvantage. Despite this our focus on prevention has been limited and fragmented.

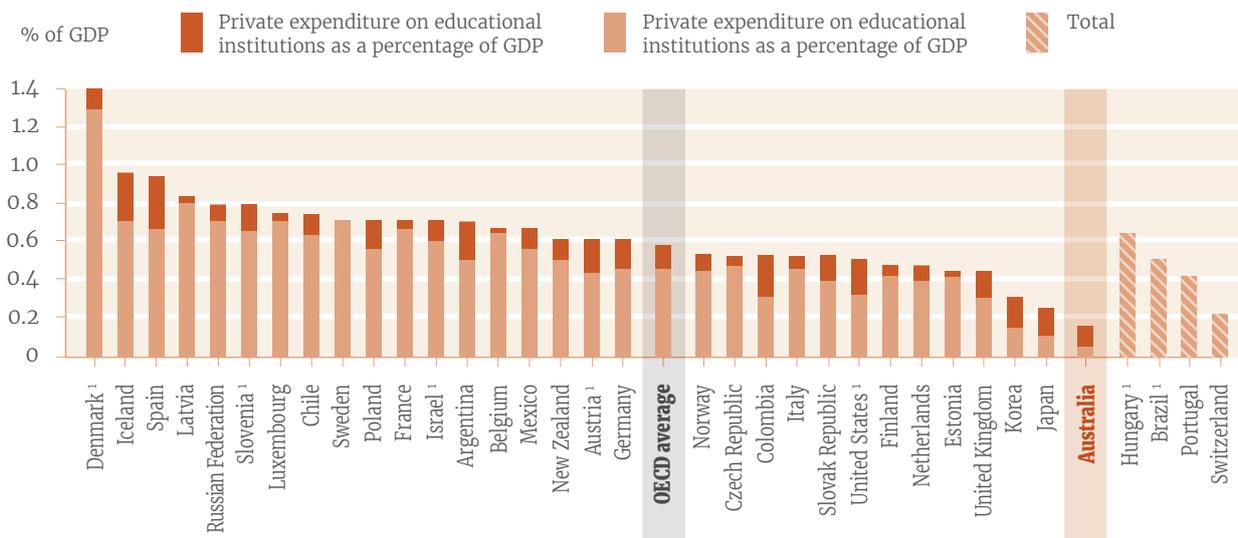
As shown in the graph following, Australia only commits 0.1% of GDP to early childhood educational institutions while the Organisation for Economic Co-Operation and Development (OECD) average is nearly 0.6%. This comparatively low aggregate spending reflects early childhood programs typically starting at a later age and being shorter in duration, with children transitioning into primary education earlier than in many OECD countries (OECD, 2014).

On average in OECD countries most spending on early childhood comes from public funding: 81% versus 19% from private funding. In Australia private expenditure exceeds public on early childhood institutions: 55% coming from private and only 45% from public funding.

Australia ranks 34 out of 37 countries in the OECD for the percentage of three year olds in early childhood education – 18% in 2012 compared to the OECD average of 70%. The rate of growth of early childhood education is also slower than the OECD average: growing just 1% from 2005 to 2012 compared to the OECD average of 6%.



Expenditure on early childhood educational institutions (2011) As a percentage of GDP, by funding source



1. Includes some expenditure on childcare. Countries are ranked in descending order of public and private expenditure on educational institutions. (OECD, 2014)

“Quality early childhood programs for disadvantaged children are not ‘entitlements’ or bottomless wells of social spending. They foster human flourishing and they improve our economic productivity in the process. There is no trade-off between equity and efficiency... Investing in quality early childhood development for disadvantaged children from birth through age five will help prevent achievement deficits and produce better education, health, social and economic outcomes.

Such investments will reduce the need for costly remediation and social spending while increasing the value, productivity and earning potential of individuals. In fact, every dollar invested in quality early childhood development for disadvantaged children produces a 7% to 10% return, per child, per year.”

James Heckman
Nobel Laureate in Economics



This statement by Professor James Heckman, the 2000 Nobel Memorial Prize Laureate has been further demonstrated through a recent study conducted by Professor Heckman and others in Jamaica. The study showed that quality early childhood education can compensate for developmental delays, boost earnings and reduce equality. Children aged from 9 months to 24 months who participated in the early education program showed significant long-term improvements in cognition, psychosocial skills and school attainment as well as substantial gains in earnings (Heckman, 2014). In the Australian setting, modelling recently completed by PricewaterhouseCoopers has also shown significant cumulative contributions to GDP through more effective expenditure in the early years (PricewaterhouseCoopers, 2014).

While it is every parent's responsibility to provide early childhood nurturing and care, many disadvantaged parents lack the education, income and social skills to provide this on their own. As a nation, we have a social responsibility to help disadvantaged children and their families gain access to the early childhood resources they need for effective early childhood development. The returns to the nation will be significant in terms of future savings to the social services, education, health and juvenile justice budgets.

Minderero believes the time to act is now.

It is time to invest in solutions for future generations while we continue to address today's problems.





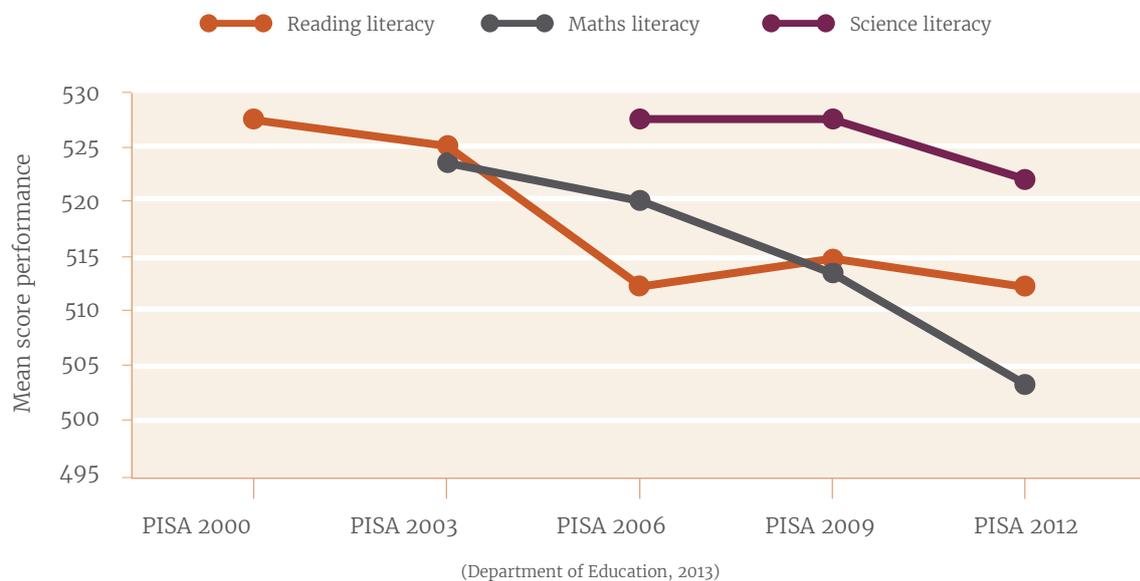
Australia Snapshot

Australia is ranked number two out of 187 countries and territories on the United Nations Human Development Index (United Nations, 2013). The index assesses three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living.

Despite such a ranking and reputation as a 'lucky country', a closer assessment of Australia's educational performance paints a different picture. As a whole, Australia's performance is declining comparative to that of other OCED nations and student results in reading, maths and science are continuing to drop.

Trends in Australia's Programme for International Student Assessment Results

2000 - 2012





- As an OECD member, Australia has fallen from a ranking of second in reading and literacy to seventh between 2000 – 2009 (OECD, 2010).
- The gap between low and high performing students in Australia is far greater than many other OECD countries (OECD, 2010).
- The academic performance of Australian students has declined at all levels of achievement over the past decade (Department of Education, Employment and Workplace Relations, 2011).
- Australia's 15 year olds fell further in reading, math and science in the 2012 Program for International Student Assessment (OECD, 2014).
- Disadvantaged students are on average 2-3 years behind in reading and maths by the time they are 15 years old (Thomson et al., 2011).
- Australian Workforce and Productivity Agency modelling indicates an increased industry demand for higher level skills (2012)
- Two million people, or 40% of the workforce, are currently below the minimum language, literacy and numeracy (LLN) standard needed to function in a knowledge economy (Australian Industry Group, 2013).
- Building LLN skills is critical to increasing labour force participation and increasing productivity in a higher skilled economy (Australian Industry Group, 2013).
- Only 0.1% of GDP is spent on early childhood educational institutions, compared to 0.8% or more in countries such as Chile and Denmark (OECD, 2014).





The Heckman Equation

“James J. Heckman is the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago, a Nobel Memorial Prize winner in economics and an expert in the economics of human development. His ground breaking work with a consortium of economists, developmental psychologists, sociologists, statisticians and neuroscientists has shown that quality early childhood development heavily influences health, economic and social outcomes for individuals and society at large. Heckman has shown that there are great economic gains to be had by investing in early childhood development.”

www.heckmanequation.org

Develop

Nurture early development of cognitive and social skills in children from birth to age five.

+

Sustain

Sustain early development with effective education through to adulthood.

=

Gain

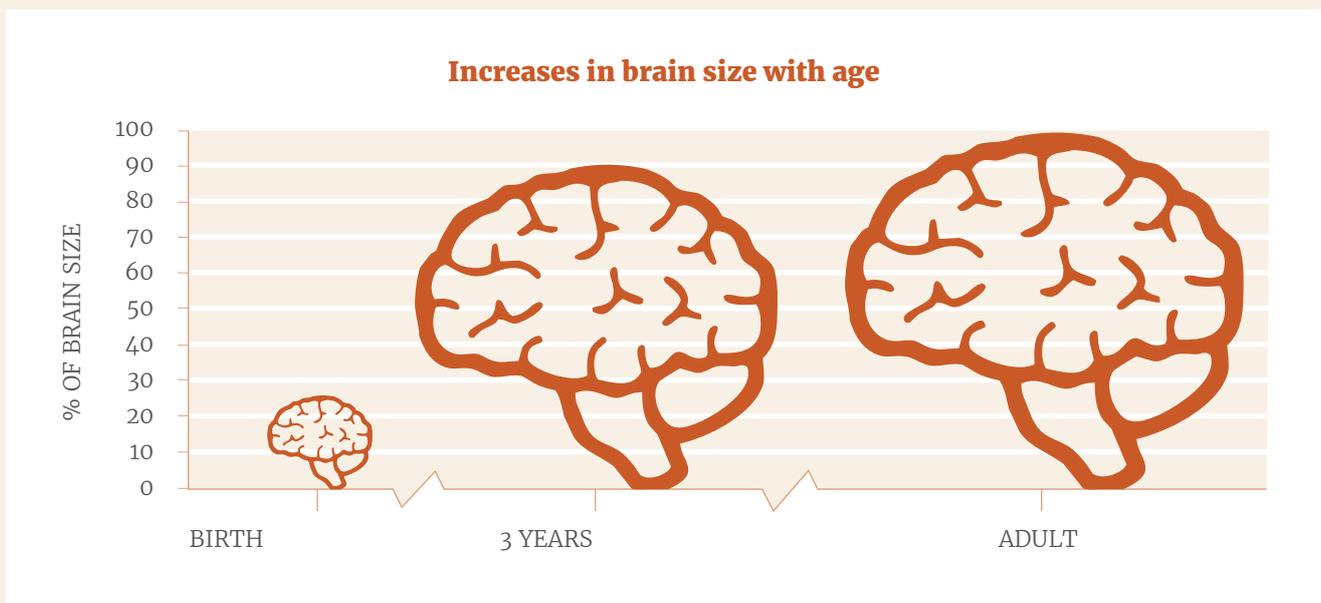
Gain a more capable, productive and valuable workforce that pays dividends for generations to come.



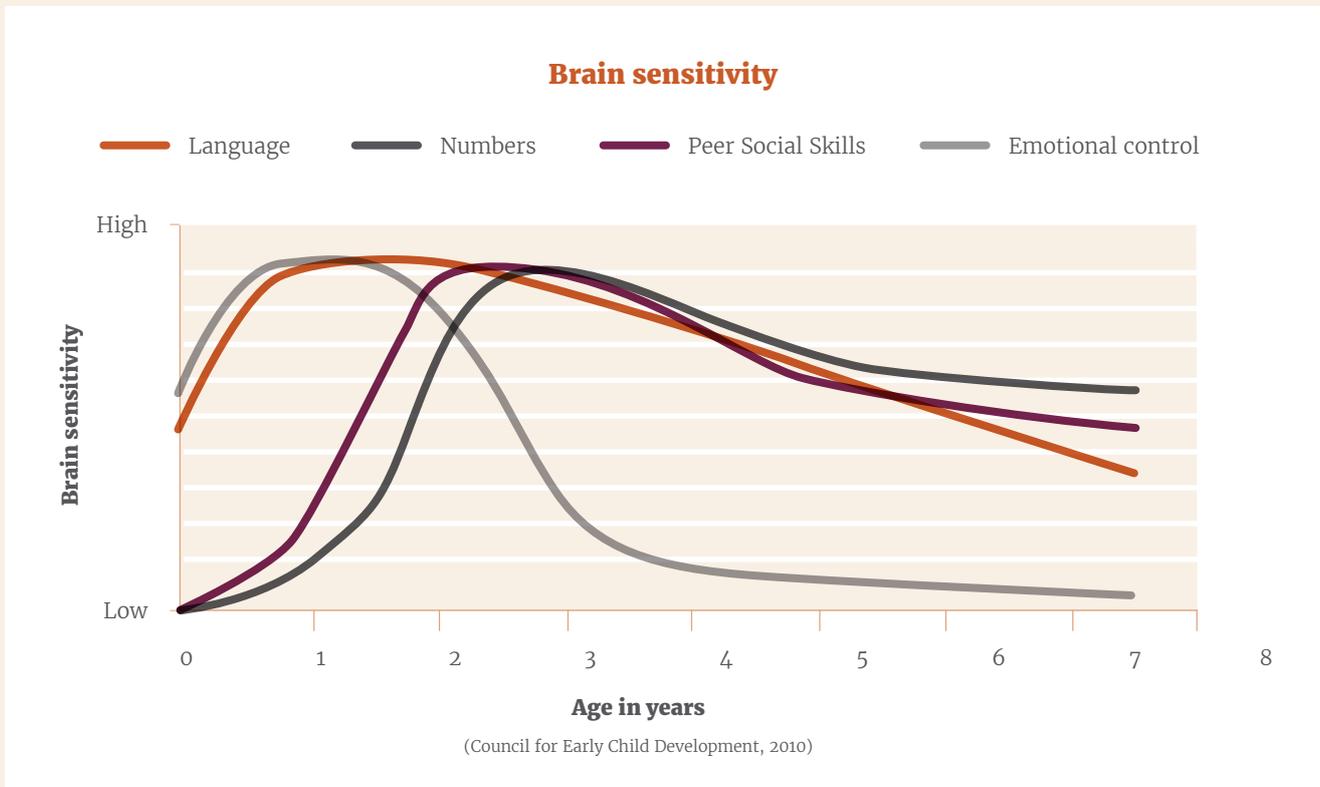
The case for early investment

By the age of three years, a child's brain has reached 90% of its adult size and research indicates that the brain sensitivity to language, numeracy, social skills and emotional control peaks before the age of four.

Over the past decade advances in the science of early development have shown that the biological pathways developed in early childhood influence lifetime health, well-being, learning and behaviour. The science also shows that improving children's development before this critical period can have transformative social and economic effects.



Every child needs effective early childhood supports. Early development takes place in the context of families and communities and is shaped by the everyday experiences and environments from birth which establish pathways for lifelong learning, behaviour and health. In addition, the sensitive periods in brain development occur during age 0 – 3 years old, as demonstrated in the following graph.



Disadvantaged families are the least likely to have the economic and social resources to provide the necessary early development stimulation every child needs to build the foundation necessary for future success. A child who does not receive the required early nurturing, learning experiences and physical health care in the early years is likely to commence formal education without being ‘school ready’. For too many of our children this development gap never entirely closes leading to a cycle of disadvantage that prevents full participation in our society.

Research shows that one of the most effective strategies for economic growth is investing in the developmental growth of at-risk children. Investing in the early childhood development of disadvantaged children will produce great returns to individuals, families and the nation in better education, health, economic and social outcomes.

According to AEDC data, 22% of five years olds in Australia are considered vulnerable (AEDC, 2012). As defined by the AEDC measures, being vulnerable means having poor “physical health and well-being, social competence, emotional maturity, language and cognitive skills and communication skills and general knowledge”.



Longitudinal research of at-risk children in the United States found those who do not receive a high-quality early childhood education are:

- 25% more likely to drop out of school
- 40% more likely to become a teenage parent
- 60% more likely to never attend higher education
- 70% more likely to be arrested for a violent crime.

(The Ounce of Prevention Fund, 2014)

Such trends are similar to the Australian context with the resultant long-term costs to the economy. Despite this, our reaction as a nation is to continue to direct resources and efforts to symptoms rather than preventative strategies.

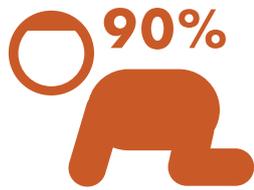
Well-defined programs which serve the interests of babies, toddlers and young children can provide the stimulating environment that is of critical importance in the early years and which may be missing in the home.

Short-term costs are more than offset by the immediate and long-term benefits through reduction in the need for special education and remediation, better health outcomes, reduced need for social services and welfare, lower juvenile justice costs and increased self-sufficiency and productivity among families.

The highest rate of return in early childhood development comes from investing as early as possible, from before birth through to age five in disadvantaged families. International cost benefit analysis shows that for every dollar spent on effective early childhood intervention, there is a US\$15 return to society (Heckman, 2000).

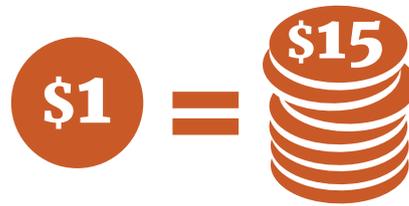
Case studies of such returns include the Michigan Perry Preschool Program, Chicago Child Parent Centres and United Kingdom Nurse-Family Partnership Program. The returns are greatest for the young for two reasons:

- Younger people have a longer horizon over which to recoup the fruits of their investments; and
- Skill begets skill. Skill remediation programs for adults with severe educational disadvantages are much less efficient compared to early intervention programs as are training programs for more mature displaced workers.



Critical age

90% of brain development occurs from 0 to 3 years



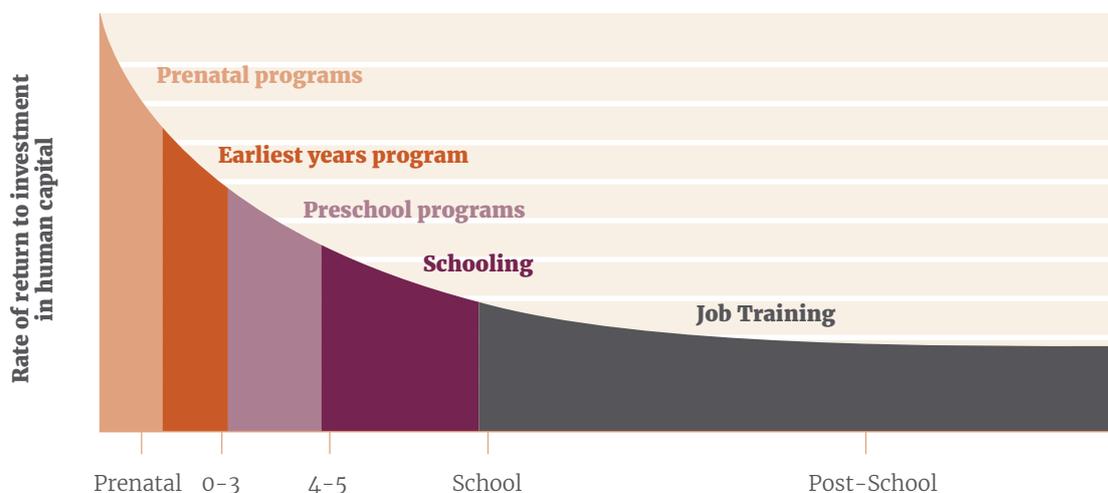
Worth the investment

For every \$1 spent on early childhood, society sees \$15 returned

The available evidence clearly suggests that adults past a certain age and below a certain skill level obtain poor returns to skill investment. At certain levels of investment, marginal returns are highest for the young. This does not mean that remedial programs should be discarded, rather that priority should be given to preventative programs.

Early childhood development is a smart investment

The earlier the investment, the greater the return



(Source: James Heckman, Nobel laureate in economics)



Successful economies and societies of the future will be those with a well-educated and adaptive population capable of creative and innovative thinking. With 40% of the Australian workforce below the minimum literacy and numeracy standard needed to function in a knowledge economy we are heading backwards (Australian Industry Group, 2013).

In the long run, significant improvements in the skill levels of Australian workers are unlikely without substantial improvements in the arrangements that foster early learning. We cannot afford to postpone investing in children until they are adults, nor can we wait until they reach school age – a time when it may be too late to intervene.

Research and statistical evidence shows that coordinated, intensive and early efforts to meet specific developmental milestones before a child reaches three years of age, combined with early parental engagement are the most effective way to lift families out of disadvantage and provide pathways to jobs and productive engagement rather than welfare and exclusion.

Early experiences and some of their lifelong consequences

					
Experiences	Sustained poverty	Abuse & Neglect (physical, emotional, sexual abuse & neglect)	Early mental health problems	Conduct problems	Poor health and nutrition
Consequences	Unemployment, low income, and low working hours.	Depression, anxiety, drug abuse, suicidal behaviour, STIs, health issues, trust problems, security issues.	Emotional problems, leaving school early, criminal justice system contact, poor physical health.	Anti-social and criminal behaviour	More health problems, poor academic achievement, not graduating on time.

(Source: Adapted from Moore and McDonald, 2013)



Criteria for success

In addition to an increasing focus on the area of early childhood investment and pre-birth engagement, there has been a consistent shift towards the notion of integration between services as the most effective way to lift outcomes.

Servicing the needs of a vulnerable child requires a multi-disciplinary approach with holistic case management. However some current governmental policies and structures prevent such an approach. This leads to fragmentation, duplication and an ineffective use of resources, both human and monetary. Co-locating and integrating existing services at one site leads to more effective service delivery and reduces the risk of a child 'slipping through the cracks'.

There is no single blueprint for the ideal set of effective early interventions. Integrated models should be based on the diagnosed needs of a community and be flexible to changing demographics (McCain and Mustard, 2002).

A review of the British Government's Sure Start program found that while early intervention and family support services may differ, successful approaches within the program demonstrated six characteristics.

Two generations	Parents are involved as well as children.
Non-stigmatising	There is no labelling 'problem families'.
Multifaceted	Target a number of factors, not just, education or health or parenting.
Persistent	Programs last long enough to make a real difference, at least to age eight.
Locally driven	Consultation with and involvement of both parents and local communities.
Culturally appropriate	Programs are sensitive to the needs of children and parents.

(Source: McCain and Mustard, 2002)



A common framework helps ensure an even level of quality across different forms of provision and for different groups of children, while allowing for adaptation to local needs and circumstances.

Minderoo similarly believes successful approaches must share the following characteristics:

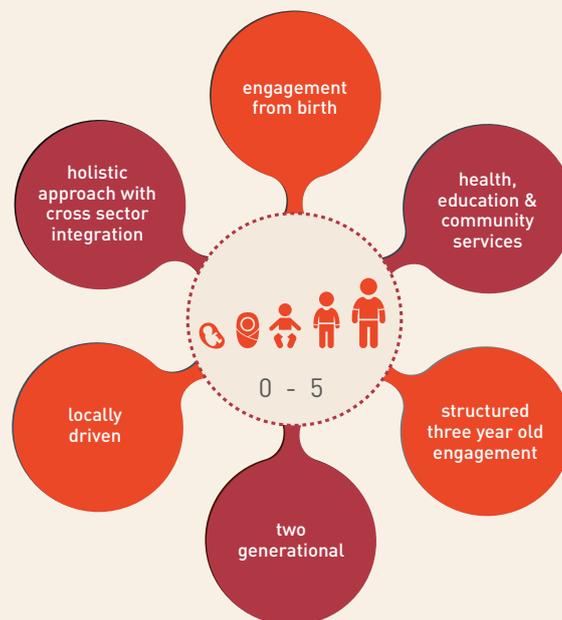
Engagement from birth with mothers and families.

Integration between multi-disciplinary providers where a number of factors, not just education, health or parenting are targeted.

Structured three year old engagement that provides the foundations for literacy and numeracy and supports social and emotional development.

A locally driven and responsive governance structure that ensures the needs of the community are met.

A holistic approach where relevant sectors are planning and working together with strong leadership.



Strategies for success require the integration and localisation of service delivery to allow a holistic approach to the management of disadvantaged children.

This begins with early engagement, preferably before birth with mothers and families. Pregnancy, birth and infancy experiences have a profound effect on the health and well-being of babies and young children and contribute to continuing good health. A child health nurse is essential as part of the integrated team.



Early diagnosis of developmental issues is a critical part of the program and immediate access to specialist and remedial services should be available at the same location.

The early learning programs need to focus on parents and families as well as children. Parents are the primary teachers of their children and have principal responsibility for their care. Strengthening parenting and family supports is an essential element of early development programs.

Quality early child development also focuses on the physical, language and motor skills of the child, providing opportunities for interaction and play, and with a structured curriculum from age three.

The early childhood focus of primary schools and their community settings make them an ideal location for integrated service delivery. Primary schools are easily accessible, are well resourced with play and learning spaces and build a routine of school as a critical part of a child's development. Other community facilities may provide potential options for integrated service delivery; however there must be connection with the local school to ensure a child is linked into an ongoing pathway of education.

Strong school leadership and instructional capacity with a single point of accountability provide the foundation for the delivery of the co-ordinated, intensive and early efforts to meet specific developmental milestones before a child starts formal schooling.

Integrated service delivery based on these five criteria are able to deliver effective and intensive support to families while building their capacity to lead healthy, productive lives as well as quickly lifting outcomes for children in the critical early development phase of their lives.

Quality early childhood development produces long-term benefits

- ↑ Cognitive Skills
- ↑ Social-Emotional Skills
- ↑ Earnings
- ↓ Inequality

(Heckman, Gertier et al., 2014)



A national framework for effective early investment

Early childhood development has become a growing policy priority in many countries.

A growing body of research recognises that it provides a wide range of benefits, including social and economic benefits, better child well-being and learning outcomes as a foundation for lifelong learning, more equitable outcomes and reduction of poverty, and increased intergenerational social mobility.

However, these positive benefits are directly related to the ‘quality’ of early childhood development approaches. Based on international literature review findings, the OECD has identified five levers as key policies to encourage quality in early childhood development programs. These include:

- Setting out quality goals and regulations;
- Designing and implementing curriculum standards;
- Improving qualifications, training and working conditions;
- Engaging families and community; and
- Advancing data collection, research and monitoring.

In addition, policies and programs should be designed to:

- Promote healthy pregnancy, birth and infancy;
- Improve parenting and family supports;
- Strengthen early childhood development and care; and
- Strengthen community supports.

Across Australia, philanthropic organisations, non-government service providers, peak bodies, research institutions and corporates have recognised the need to deliver early support to vulnerable families and children.

Minderero believes that the evidence is clear and unequivocal. We must act now, cohesively and under a common set of objectives to improve our approach to early childhood intervention across the nation.



Time to Act

Minderoo believes that by taking a long term and evidence-based approach to early childhood development as a nation, all children in Australia will thrive by the age of five. By starting school with the readiness to learn, a child is more likely to meet future health, education and emotional milestones.

We believe integrated approaches between governments, service providers and disciplines at a community and policy level are the most effective way to holistically deliver services to those most at-risk of being developmentally vulnerable.

Our actions will continue to be guided by the framework Minderoo believes will deliver successful models of early investment.

Engagement from birth with mothers and families.

Integration between multi-disciplinary providers where a number of factors, not just education, health or parenting are targeted.

Structured three year old engagement that provides the foundations for literacy and numeracy and supports social and emotional development.

A locally driven and responsive governance structure that ensures the needs of the community are met.

A holistic approach where relevant sectors are planning and working together with strong leadership.

Minderoo's vision is that all children in Australia will thrive by five years of age and be on a course of lifelong success. We believe this can only be achieved if we adopt a long term strategy as a nation, to the delivery of services to children and families from birth to the age of five years. Further, by taking a multi-disciplinary approach, where health, education, community and other relevant services work together, we can achieve the greatest impact.



Drawing on this framework, its understanding of the sector and in partnership with a number of key stakeholders, Minderoo will pursue its vision for all children to thrive by five through the following actions:

Evidence

Minderoo will drive the increased translation of research to practice and policy so that early childhood approaches are underpinned by sound evidence, informed by the community and adopted at scale, for the long term.

Policy

We will continue to engage with all levels of government to highlight the importance of preventative and long term policy making when responding to challenges within our community.

Advocacy

Minderoo will contribute to an increased national understanding of the importance of effective early childhood investment. We will advocate at the highest level within government, the public and private sector in partnership with likeminded organisations.

Innovation

We will continue collaborations at the ground level to trial service implementation strategies in different settings and through partnerships with likeminded stakeholders to share information and avoid duplication.

Finally, while it is important that the most intensive efforts are focussed on supporting a child before the age of five, our efforts need to continue to build on the success in the early years into the formal education system.





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