



An Australian Government Initiative

# A Snapshot of Early Childhood Development in Australia

Australian Early Development Index (AEDI)

National Report 2009

Re-issue

A partnership between the Centre for Community Child Health  
(at The Royal Children's Hospital, Melbourne and a key  
research centre of the Murdoch Childrens Research Institute)  
and the Telethon Institute for Child Health Research, Perth.



Australian Early Development Index  
[www.aedi.org.au](http://www.aedi.org.au)

December 2009. Re-issued March 2010.

Written by the Centre for Community Child Health (at The Royal Children's Hospital, Melbourne and a key research centre of the Murdoch Childrens Research Institute) and the Telethon Institute for Child Health Research, Perth.

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Details in this report are correct at time of printing. This report can also be found at: [www.aedi.org.au](http://www.aedi.org.au).

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National Report 2009  
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The Australian Early Development Index (AEDI) is funded by the Australian Government and is conducted by the Centre for Community Child Health (at The Royal Children's Hospital, Melbourne and a key research centre of the Murdoch Childrens Research Institute) in partnership with the Telethon Institute for Child Health Research, Perth.



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# Foreword

*Message from the Deputy Prime Minister and Minister for Education, the Hon. Julia Gillard, and the Minister for Early Childhood Education, Child Care and Youth, the Hon. Kate Ellis.*

The Rudd Government's reform agenda for early childhood is focussed on providing children with the best start in life. All children deserve early childhood experiences that will equip them for life and learning.

This is why we have provided \$21.9 million to implement the Australian Early Development Index (AEDI) across the country. For the first time in the nation's history we have a comprehensive picture of how children are developing in their early years. This will give communities and governments a vital source of information to shape the services and support we provide for children and their families.

*A Snapshot of Early Childhood Development in Australia—AEDI National Report 2009* summarises the results for Australian children. The report shows that the majority of children are doing well, however it clearly highlights some areas for improvement.

The report highlights the breadth of information that will be available from the AEDI data and confirms the vital role the AEDI will have in strengthening our early childhood evidence base.

We would like to thank Professor Frank Oberklaid, Professor Fiona Stanley and their respective teams at the Centre for Community Child Health at The Royal Children's Hospital, Melbourne and the Telethon Institute for Child Health Research in Perth for their commitment to delivering this important initiative for Australia.

We hope that you find *A Snapshot of Early Childhood Development in Australia—AEDI National Report 2009* informative and look forward to continuing to work with local communities, early childhood providers and schools to give all our children the start to life they deserve.



A handwritten signature in black ink that reads "Julia Gillard" with a horizontal line underneath.

The Hon. Julia Gillard MP  
Deputy Prime Minister  
Minister for Education



A handwritten signature in black ink that reads "Kate Ellis" in a cursive style.

The Hon. Kate Ellis MP  
Minister for Early Childhood Education  
Child Care and Youth

# Foreword

It is with great excitement that we present this first national report on the development of Australia's young children.

We know that children's early years are crucial in shaping the adults they'll become. What happens in their earliest years will affect not only their immediate health and wellbeing, but will lay the foundations for their future.

The Australian Early Development Index (AEDI) presents us with a unique opportunity. After a second round of data collection in 2010, we will have community-level information about early childhood development for all of Australia. In the same way the GDP is a measure of our economic status, the AEDI is a national measure of how well we are supporting our children's development.

*A Snapshot of Early Childhood Development in Australia* is the first AEDI national report, and follows nationwide data collection on more than 261,000 children.

With the support of the Australian Government, the 2009 national implementation of the AEDI is a truly remarkable effort; the results give us, for the first time, a picture of the health and development of Australia's young children. Quite literally, we are putting children's development on the map.

The initial national results show us that the majority of Australia's children are developing well. There are however, children who are entering full-time school who are developmentally vulnerable.

AEDI results for communities, available alongside this national snapshot, will help us work together to build and strengthen communities in our efforts to give children the best start in life. These results will enable governments and communities to pinpoint the services, resources and supports that young children need.

The AEDI is conducted by the Centre for Community Child Health in Melbourne, working in partnership with the Telethon Institute for Child Health Research in Perth. The AEDI results are available at [www.aedi.org.au](http://www.aedi.org.au) and are supported by a range of resources to help communities understand and use AEDI results.

We look forward to sharing the AEDI results with communities right across Australia.



A handwritten signature in black ink, reading "Frank Oberklaid".

Professor Frank Oberklaid OAM  
Director, Centre for Community Child Health

The **Centre for Community Child Health** is a multidisciplinary academic centre, internationally recognised for its work on prevention and early intervention in children's health and development. The Centre integrates research, training, clinical and community work to promote evidence-based policy and programs for the benefit of young children and their families.



A handwritten signature in black ink, reading "Fiona Stanley".

Professor Fiona Stanley AC  
Director, Telethon Institute for Child Health Research

The **Telethon Institute for Child Health Research** is dedicated to the prevention of childhood diseases and disability. The Institute brings together researchers from different fields of science to tackle major issues in child health and wellbeing and is committed to ensuring that the benefits of research are translated into therapies and policies to improve the health and wellbeing of children.

# Acknowledgements

There are a number of key groups to be acknowledged in creating this first national snapshot of the early childhood development of Australia's children.

- The Australian Government who have invested \$21.9 million to 30 June 2011 to implement the AEDI nationally.
- All schools and teachers across Australia that completed the AEDI. We thank them for their time and effort.
- Each of the State and Territory AEDI Coordinators and their Coordinating Committees who helped to facilitate the AEDI data collection in their respective jurisdictions. This important contribution ensured the successful national implementation of the AEDI.
- Key groups that have provided support and feedback throughout the report's development: the AEDI Steering Group, the AEDI Technical Advisory Group, the Indigenous Adaptation Study Reference Group, the Language Background Other Than English (LBOTE) Study Advisory Group, the AEDI Communications Group, and the AEDI Strategic Policy Committee. For members of these key groups please see [www.aedi.org.au](http://www.aedi.org.au). We appreciate the time and commitment of these groups, which has helped improve the quality of the AEDI program.
- The AEDI Indigenous Adaptation Study, initiated by the Centre for Developmental Health and the Kulunga Indigenous Research Network, provided a substantial contribution to the adaptation of the AEDI for national implementation.
- Shell Australia for their generous support of the AEDI pilot studies and the AEDI Indigenous Adaptation Study.
- The Australian Bureau of Statistics (ABS) who advised on key sections of this report.
- Communities across Australia who have provided important input into the development of the AEDI.

This report was written by the AEDI Partnership between the Centre for Community Child Health and the Telethon Institute for Child Health Research, and the AEDI National Support Centre (based at the Centre for Community Child Health).



# Executive summary

For the first time, Australia has a national snapshot of young children's health and development. *A Snapshot of Early Childhood Development in Australia* is the first Australian Early Development Index (AEDI) national report, providing a picture of early childhood development outcomes for Australia.

In 2009, the AEDI was completed nationwide. Information was collected on 261,203 Australian children (97.5 per cent of the estimated five-year-old population) in their first year of full-time school between 1 May and 31 July.

The initial results from the AEDI provide communities around Australia with information about how local children have developed by the time they start school, across five areas of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based), and communication skills and general knowledge.

In addition to this national report, the AEDI results are reported at the community level. This can help communities understand how their local children are developing compared to children nationally. Communities can use AEDI results to develop and evaluate their efforts to improve outcomes for children. Mapped results, providing visual representation of the results at the community level are available online. In March 2010, Community Profiles will also be available online at [www.aedi.org.au](http://www.aedi.org.au).

The key findings from this national snapshot are:

## *Profile of Australia's children*

- There is diversity in the languages spoken by children with 246 languages other than English spoken in the home.
- In the year before entering full-time school, 92.7 per cent of all Australian children were reported to be in some form of non-parental care and/or educational programs.
- There are 11,486 (4.4 per cent) children with reported chronic physical, intellectual and medical needs (special needs status).

## *Early childhood development results across Australia*

- The majority of children are doing well on each of the five AEDI developmental domains.
- Overall in Australia, 23.5 per cent of children are *developmentally vulnerable* on one or more domain/s.
- Overall in Australia, 11.8 per cent of children are *developmentally vulnerable* on two or more domains.
- There are higher proportions of children living in the most socio-economically disadvantaged communities and in very remote areas of Australia who are *developmentally vulnerable* on each of the AEDI domains.
- The majority of Australian Indigenous children are developmentally *on track* on the AEDI domains, with the exception of the language and cognitive skills domain.
- Children who are proficient in English and speak another language at home are less likely to be *developmentally vulnerable* on most of the AEDI domains compared to all other children.
- There are children in Australia who only speak English, but are reported as not proficient in English. These children are more likely to be *developmentally vulnerable* on all the AEDI domains.



# 1

## Introduction

It is understood that life success, health and emotional wellbeing have their roots in early childhood<sup>1</sup>. Research shows that investing resources to support children in their early years of life brings long-term benefits to them and to the whole community. Early childhood development outcomes are therefore important markers of the welfare of children, and can predict future health and human capital.

It is within this context that the Council of Australian Governments (COAG) has recognised the need for all communities to have information about early childhood development, and has endorsed the Australian Early Development Index (AEDI) as a national progress measure of early childhood development. The Australian Government has invested \$21.9 million to 30 June 2011 to implement the AEDI nationally. The AEDI is being conducted by the Centre for Community Child Health at The Royal Children's Hospital, Melbourne, in partnership with the Telethon Institute for Child Health Research in Perth.

The AEDI is a measure of how young children are developing in different communities across Australia. The results from the AEDI will help communities, governments and policy-makers pinpoint the types of services, resources and support that young children and their families need to give children their best possible start in life.



*“A society that is good to children is one with the smallest possible inequalities for children, with the vast majority of them having the same opportunities from birth for health, education, inclusion and participation.”*

Stanley, Richardson & Prior, 2005

### 1.1 About the AEDI

The AEDI is a population measure of children's development as they enter school. It is an adapted version of the Canadian Early Development Instrument (EDI)<sup>2</sup>, developed in response to communities' increasing interest in knowing how their children were developing. A population measure places the focus on all children in the community and therefore the AEDI reports on early childhood development across the whole community. It is recognised that moving the focus of effort from the individual child to all children in the community can make a bigger difference in supporting efforts to create optimal early childhood development.

The AEDI measures five areas of early childhood development from information collected through a teacher-completed checklist:

- physical health and wellbeing
- social competence
- emotional maturity
- language and cognitive skills (school-based)
- communication skills and general knowledge.

Following the development and implementation of the Canadian EDI for more than 520,000 Canadian children, and the successful trial of the EDI in the northern metropolitan suburbs of Perth in 2002 and 2003<sup>3</sup>, the Australian Government funded the Australian Early Development Index: *Building Better Communities for Children* project between 2004 and 2008<sup>4</sup>. This project adapted the Canadian EDI for use in Australia, undertook further validity studies<sup>5</sup>, and trialled and evaluated the implementation of the adapted EDI—the AEDI—in 60 communities across Australia<sup>6</sup>.

*“The AEDI is the first comprehensive dataset in these communities which indicates how well young children are developing.”*

Community Representative, Central/Eastern Wheatbelt, Western Australia, 2006

To ensure the AEDI is relevant to Australia's culturally diverse population, two important studies have been funded by the Australian Government. The AEDI Indigenous Adaptation Study further developed the AEDI to ensure its relevance and sensitivity to the needs of Australian Indigenous children. This study was initiated by the Centre for Developmental Health and the Kulunga Indigenous Research Network at Perth's Telethon Institute for Child Health Research in 2007 and has been supported by Shell Australia and the Australian Government. The AEDI Language Background Other than English (LBOTE) Study was initiated in 2008 by the Centre for Community Child Health to review the AEDI implementation process, results and data usage for culturally and linguistically diverse populations. Although recommendations from these two studies have been incorporated in the 2009 AEDI data collection, the studies are ongoing and will inform the important next steps to refine and evaluate the community engagement processes and resources for reporting AEDI findings to communities. For more information visit [www.aedi.org.au](http://www.aedi.org.au).

In 2009, the AEDI was completed nationally for the first time. Teachers completed the AEDI Checklists for children in their first year of full-time school on the secure web-based data entry system developed especially for the AEDI by the Australian Council for Educational Research. Checklists were completed by teachers based on their knowledge and observation of the children in their class, along with demographic information from school enrolment forms. Teachers were provided with a comprehensive AEDI Guide for Teachers, including a training CD-ROM that provided detailed response criteria for the AEDI Checklist items.

## 1.2 A snapshot of early childhood development in Australia

Both nature and nurture (genes and environment) influence our children's development. The quality of children's earliest environments and the availability of appropriate experiences at the right stages of development are crucial determinants in building the brain's architecture. Supporting environments that promote optimal early childhood development greatly increases children's chances of successful transition to school; achieving better learning outcomes while at school; and, better education, employment and health after school.

This report provides the **first national snapshot of early childhood development in Australia**. In 2009, between 1 May and 31 July, AEDI Checklists were completed for 261,203 children (97.5 per cent of the estimated five-year-old population) in their first year of full-time school across Australia by 15,528 teachers from 7,423 Government, Catholic and Independent schools (95.6 per cent of schools with eligible children).

Although information for the AEDI is collected by teachers, results are reported for the community where children live, not where they go to school. The AEDI results are geographically mapped to provide communities with a picture of their strengths and vulnerabilities in early childhood development on five developmental areas. The initial AEDI results are released through:

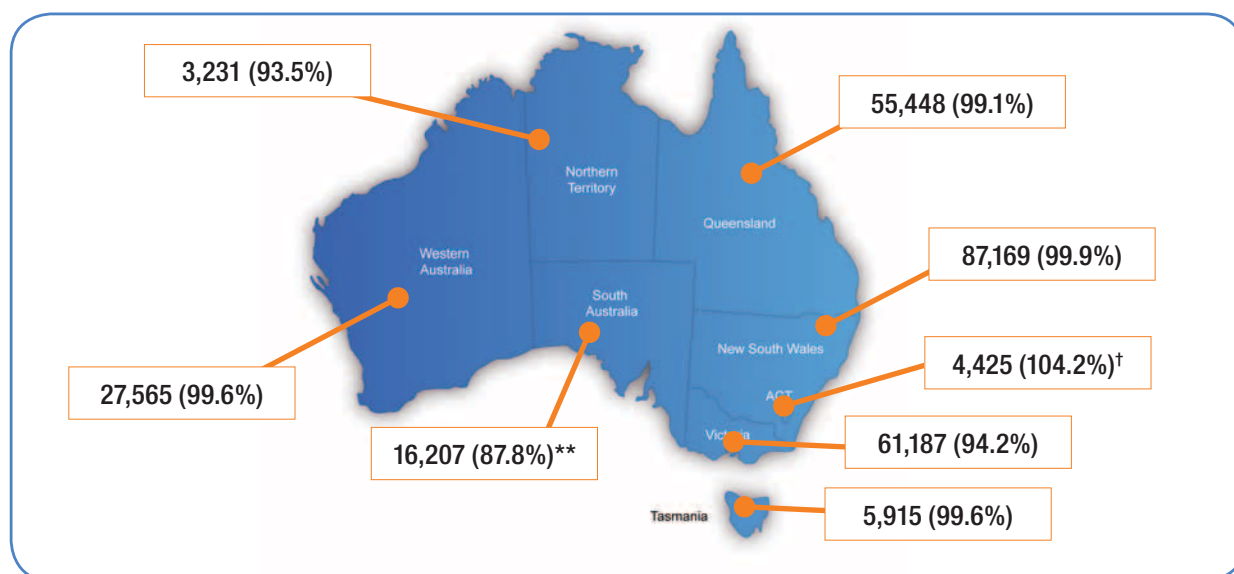
- the 2009 national report, which provides a snapshot of the AEDI results for Australia and its states and territories
- online maps, which provide a visual representation of the results at the community level, available at [www.aedi.org.au](http://www.aedi.org.au)
- Community Profiles, available from March 2010 at [www.aedi.org.au](http://www.aedi.org.au).

A range of resources to help communities understand the AEDI results, including a results guide and fact sheets, are available at [www.aedi.org.au](http://www.aedi.org.au).

For communities with small numbers of children, or where demographic data are incomplete, AEDI results will not be available in 2009. For those communities with small numbers of children, follow-up data collection will occur in 2010. The final national release of results for all communities will be in early 2011.

An overview of the number of AEDI Checklists completed by states and territories in 2009 is shown in Figure 1.1.

**Figure 1.1: A snapshot of Australia's children, completion of AEDI Checklists by state/territory (Total = 261,203<sup>#</sup>, 97.5%<sup>\*</sup>)**



<sup>#</sup>State and territory totals do not add up to 261,203 as there were ten children living outside Australia and 46 children for whom their state or territory was unknown.

<sup>\*</sup>Source: AEDI Checklist 2009/ABS 2009, Estimated Resident Population for five-year-olds, 31 March 2009.

<sup>\*\*</sup>There are four school intakes per year in South Australia (one per term). Prior to completing the AEDI, it is recommended that the teacher has known the child for at least one month. Children who started school in Term 2 may not have been at school for sufficient time to be included in the AEDI data collection. This may reflect the relatively lower participation rate in South Australia.

<sup>†</sup> More children were surveyed for the AEDI than the estimated number of eligible children.

# 2

## Profile of Australia's children

The information in this section of the report summarises demographic, language, school transition and other support information on the children surveyed for the AEDI.

### Key findings

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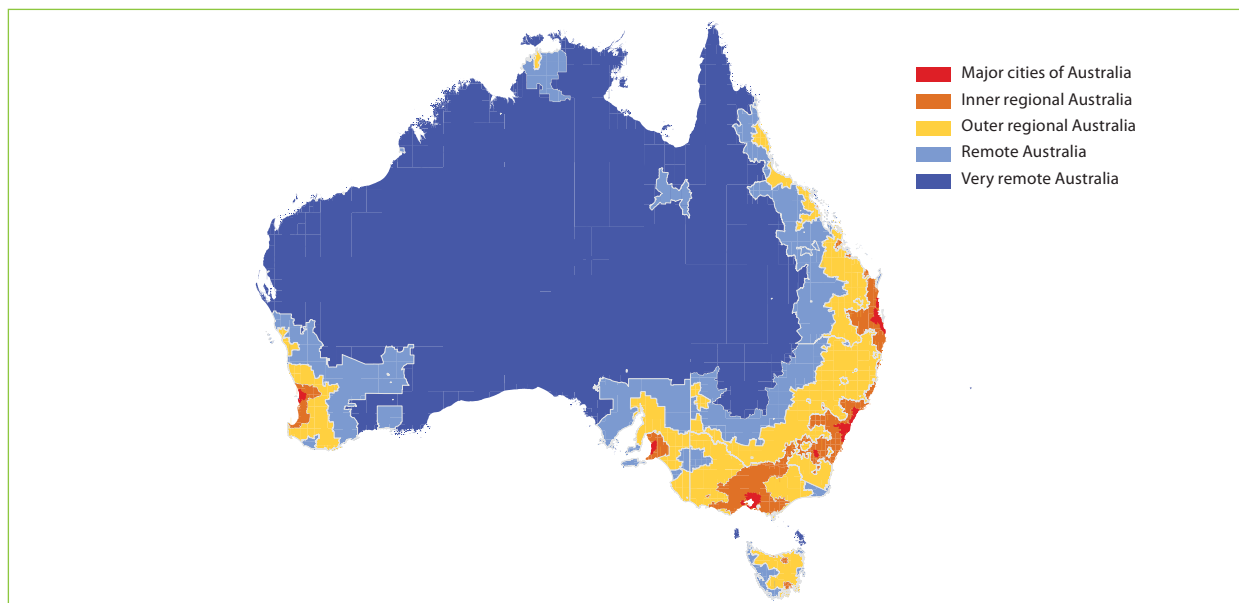
- **There is diversity in the languages spoken by Australian children.**
  - 22.3 per cent of Australian Indigenous children spoke languages other than English in the home, with 111 different languages spoken.
  - 17.2 per cent of all Australian children (including Australian Indigenous children) spoke languages other than English in the home, with 246 different languages spoken.
  - 6.5 per cent of children were born outside Australia in 190 different countries.
- **Australian children are spread across a broad range of geographical locations from major cities to very remote Australia.**
  - While 65 per cent of Australian children live in major Australian cities and only 3 per cent live in remote or very remote Australia, the distribution of the population varies across states and territories.
- **In the year before entering full-time school, 92.7 per cent of all Australian children were reported to be in some form of non-parental care and/or educational programs.**
- **The majority of Australian children are reported to be transitioning well into the school environment.**
  - 76.6 per cent of children are making good progress in adapting to the structure and learning environment of the school.
  - 69.9 per cent of children have parent(s)/caregiver(s) who are actively engaged with the school and supporting their child's learning.
  - 69.8 per cent of children are regularly read to/encouraged in their reading at home.
- **There are some Australian children with additional support needs.**
  - 4.4 per cent of children are reported as having chronic physical, intellectual and medical needs (special needs status).
  - 10.5 per cent of all children were identified by teachers as requiring more assessment.

## 2.1 Demographics

### Geography

The AEDI uses the Australian Standard Geographical Classification (ASGC) Remoteness Areas\* to classify the communities (which range from remote rural areas to city centres) where children live. The following map (Figure 2.1) and table (2.1) show the five Remoteness Areas across Australia and the number of communities within each area. Table 2.2 shows the distribution of children surveyed for the AEDI according to the ASGC Remoteness Areas.

**Figure 2.1: ASGC Remoteness Areas\* of Australia**



Source: [http://www.gisca.adelaide.edu.au/web\\_aria/aria/aria.html](http://www.gisca.adelaide.edu.au/web_aria/aria/aria.html). 2003.  
\* See relevant Definition of terms.

**Table 2.1: Local communities within ASGC Remoteness Areas\* of Australia**

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Australia
Major Cities of Australia	955	469	499	387	291	0	101	0	2,702
Inner Regional Australia	890	688	600	156	173	131	2	0	2,640
Outer Regional Australia	661	327	553	225	233	248	0	108	2,355
Remote Australia	61	14	176	73	155	17	0	65	561
Very Remote Australia	28	0	137	36	102	7	0	127	437

Source: [http://www.gisca.adelaide.edu.au/web\\_aria/aria/aria.html](http://www.gisca.adelaide.edu.au/web_aria/aria/aria.html). 2003.  
\* See relevant Definition of terms.

**Table 2.2: Distribution of children surveyed for the AEDI according to the ASGC Remoteness Areas\***

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Australia
Major Cities of Australia	63,171	45,038	32,631	11,424	18,333	0	4,400	0	167,243
Inner Regional Australia	16,895	13,028	11,504	2,123	3,823	3,794	7	0	53,216
Outer Regional Australia	5,563	2,882	8,226	1,857	2,554	1,987	0	1,627	24,030
Remote Australia	667	45	1,430	476	1,351	96	0	707	4,924
Very Remote Australia	118	0	934	154	934	21	0	846	2,986
<b>Total</b>	<b>86,414</b>	<b>60,993</b>	<b>54,725</b>	<b>16,034</b>	<b>26,995</b>	<b>5,898</b>	<b>4,407</b>	<b>3,180</b>	<b>258,646<sup>#</sup></b>

\* See relevant Definition of terms.

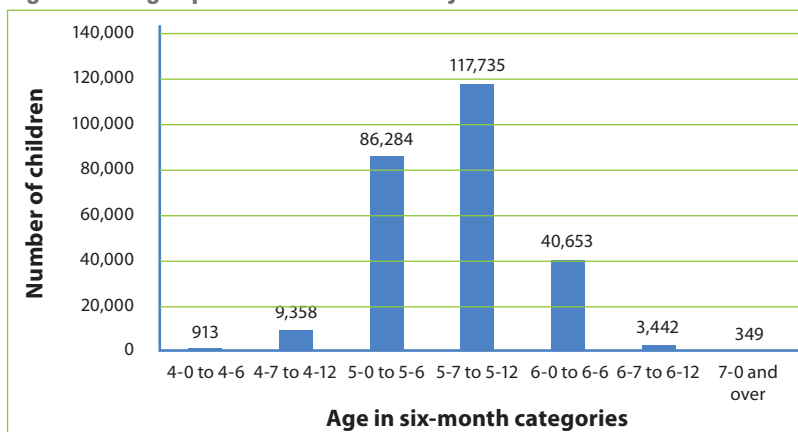
<sup>#</sup> There were 261,203 children surveyed for the AEDI. Place of residence and state/territory was able to be mapped for 261,147 children. Remoteness Areas were able to be mapped for 258,646 children.

## Section 2 Profile of Australia's children

### Age

The average age of the children at the time AEDI Checklists were completed was five years and seven months, however this varied in different states and territories, reflecting the different starting ages for children in their first year of full-time schooling<sup>†</sup>. Figure 2.2 provides the age spread of children surveyed and Table 2.3 shows a breakdown of the mean age of children surveyed by state and territory.

**Figure 2.2: Age spread of children surveyed for the AEDI<sup>†\*</sup>**



**Table 2.3: Age by state/territory<sup>†</sup>**

State/Territory	Mean Age
NSW	5 years 7 months
VIC	5 years 7 months
QLD	5 years 5 months
WA	5 years 5 months
SA	5 years 7 months
TAS	5 years 11 months
ACT	5 years 10 months
NT	5 years 5 months
<b>Australia</b>	<b>5 years 7 months</b>

<sup>†</sup> It is important to note that age-based cut-offs are used for all AEDI analyses and therefore age is controlled for in the AEDI results. Also see relevant Definition of terms.  
<sup>\*</sup> The age of 2,469 children could not be calculated due to invalid dates of birth being reported by teachers. These children are excluded from the AEDI age analysis.

### Australian Indigenous and Language Background Other Than English (LBOTE\*) children

The Australian population is one of the most culturally and linguistically diverse in the world and this is represented in the children surveyed for the AEDI. The table below shows the number of children by state and territory who are considered LBOTE (who speak languages other than or additional to English at home, or are reported by teachers to have English as a Second Language status), and/or Indigenous (who have Aboriginal or Torres Strait Islander heritage). As the table shows, these groups are not mutually exclusive. For example, it is possible for children to be both Indigenous and have LBOTE status.

**Table 2.4: Australian Indigenous and Language Background Other Than English (LBOTE\*) children by state/territory**

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
LBOTE	21,029 (24.1%)	12,002 (19.6%)	5,545 (10.0%)	4,095 (14.9%)	2,121 (13.1%)	197 (3.3%)	757 (17.1%)	1,303 (40.3%)	47,049 (18.0%)
Indigenous	3,965 (4.5%)	670 (1.1%)	3,695 (6.7%)	1,799 (6.5%)	622 (3.8%)	285 (4.8%)	109 (2.5%)	1,307 (40.5%)	12,452 (4.8%)
LBOTE	175	46	934	651	228	5	20	1009	3068
Non-LBOTE	3,788	623	2,761	1,148	394	280	92	314	9,400
Non-Indigenous	83,205 (95.5%)	60,525 (98.9%)	51,751 (93.3%)	25,770 (93.5%)	15,586 (96.2%)	5,631 (95.2%)	4,320 (97.5%)	1,932 (59.4%)	248,720 (95.2%)
LBOTE	20,854	11,958	4,611	3,444	1,893	192	738	307	43,999
Non-LBOTE	62,351	48,566	47,140	22,326	13,693	5,439	3,582	1,625	204,735

\* See relevant Definition of terms.

## 2.2 Language diversity of Australia's children

### Australian Indigenous children

Across Australia, teachers reported there were 12,468 (4.8 per cent) Australian Indigenous (Aboriginal and Torres Strait Islander) children. Indigenous Cultural Consultants completed the AEDI Checklist collaboratively with the child's classroom teacher for 4,061 children (representing 32.6 per cent of Australian Indigenous children). Indigenous Cultural Consultants were: Aboriginal and Islander Education Workers, Aboriginal Early Years Liaison Officers, Aboriginal Education Officers, Aboriginal Education Workers, Aboriginal and Islander Education Officers, Aboriginal Teachers Aides, Assistant Teachers, Home Liaison Officers, Inclusion Support Officers, and Literacy Support Officers.

Teachers reported that 2,782 (22.3 per cent) Australian Indigenous children spoke languages other than English in the home. There was diversity in the languages spoken by Australian Indigenous children, with 111 different main home and additional languages to English reported. Table 2.5 provides an overview of the main languages other than English spoken by Australian Indigenous children. The complete list of languages can be found at [www.aedi.org.au](http://www.aedi.org.au).

**Table 2.5: Main languages other than English spoken by Australian Indigenous children**

Main languages other than English spoken by Australian Indigenous children Top 15	Number of children	(Total = 2,782) %
Aboriginal English	1,064	38.2
Kriol / Creole	732	26.3
Torres Strait Creole	101	3.6
Arrernte	77	2.8
Warlpiri	75	2.7
Pitjantjatjara	74	2.7
Other Yolngu Matha	73	2.6
Djambarrpuyngu	71	2.6
Alyawarr	58	2.1
Kalaw Kawaw Ya/Kalaw Lagaw Ya	46	1.7
Martu Wangka	45	1.6
Nyungar	44	1.6
Luritja	30	1.1
Wik Mungkan	27	1.0
Walmajarri	23	0.8

### All Australian children

Teachers reported 33,578 (12.9 per cent) children had English as a second language (ESL) and an additional 13,489 (5.2 per cent)\* children, while not reported as ESL, spoke languages other than English in the home, making the full cohort of children with language backgrounds other than English (LBOTE)<sup>†</sup> 47,049 (18.0 per cent). Teachers were asked to report the child's main home languages other than English (Table 2.6) and country of birth (Table 2.7). Overall, teachers reported there were 246 main languages other than English spoken in the home. There were 16,868 (6.5 per cent) children born outside Australia in 190 different countries\*. The complete list of languages and countries of birth can be found at [www.aedi.org.au](http://www.aedi.org.au).

\* Based on ABS Standard Australian Classification of Countries.

† See relevant Definition of terms.

## Section 2 Profile of Australia's children

**Table 2.6: Main languages other than English spoken in the home**

Main languages other than English spoken in the home* Top 15	Number of children**	(Total = 47,049#) %
Arabic	5,563	11.8
Vietnamese	3,935	8.4
Greek	2,002	4.3
Chinese languages		
Chinese***	1,206	2.6
Mandarin	1,755	3.7
Cantonese	1,677	3.6
Hindi	1,494	3.2
Spanish	1,171	2.5
Italian	1,082	2.3
Aboriginal English	990	2.1
Korean	933	2.0
Samoan	874	1.9
Turkish	842	1.8
Tagalog	773	1.6
Japanese	751	1.6

\* This is the main home language other than English spoken in the home and does not include additional languages that may be spoken by LBOTE children.

\*\* These numbers are based on teacher report only.

\*\*\* Chinese language not specified by the teacher.

# There are 2,199 children who are reported as ESL but were not reported to speak another language in the home.

**Table 2.7: Country of birth**

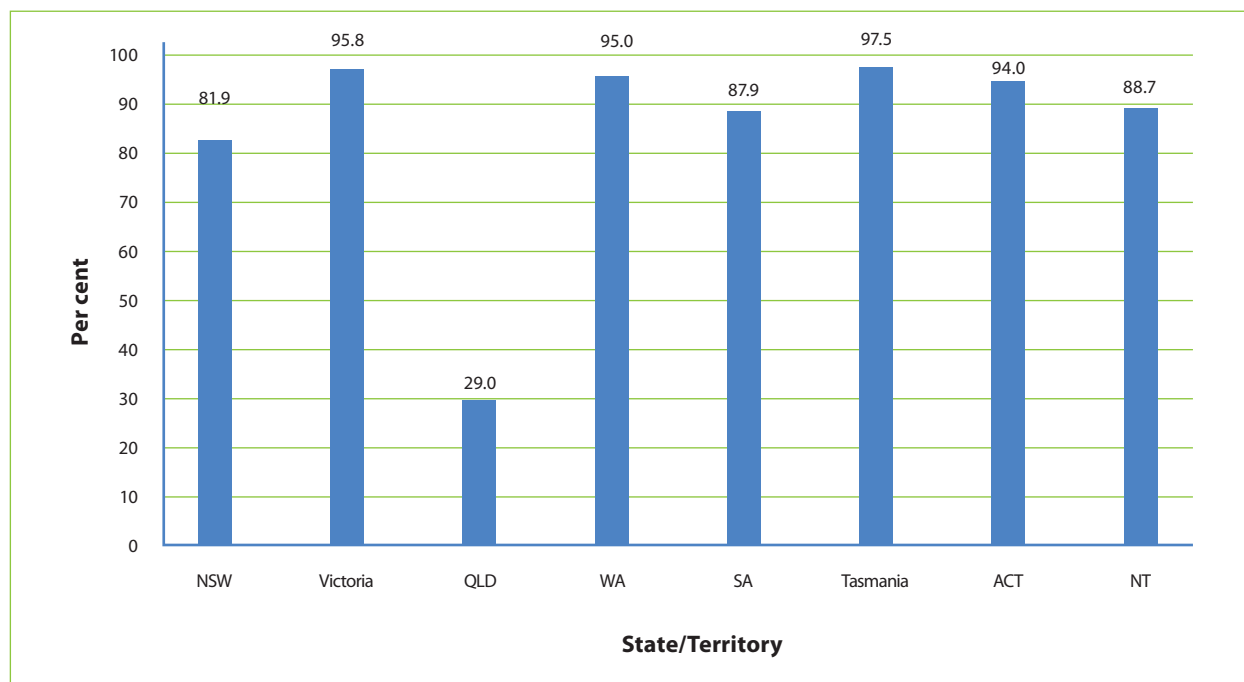
Country of Birth Top 15	Number of children	(Total = 261,203) %
Australia	244,083	93.4
England	2,538	1.0
New Zealand	2,440	0.9
India	1,454	0.6
United States of America	684	0.3
Philippines	678	0.3
China (excludes Hong Kong, Macau, Taiwan)	584	0.2
South Africa	513	0.2
Korea, Republic of (South)	396	0.2
Sri Lanka	364	0.1
Malaysia	300	0.1
Southern and East Africa	298	0.1
Thailand	292	0.1
Vietnam	257	0.1
Sudan	245	0.1



## 2.3 Care and educational experiences in the year before entering full-time school/school transitions

There are a range of factors that impact on the AEDI results including parental and family circumstances, and the availability and take-up of services such as health, allied health, early childhood education, child care and parenting support. Across jurisdictions, the availability and take-up of these types of services varies. For example, Figure 2.3 shows participation rates in a preschool program in the year before full-time school.

**Figure 2.3: Proportion of children enrolled in a preschool program (2008 and 2009 data)\***



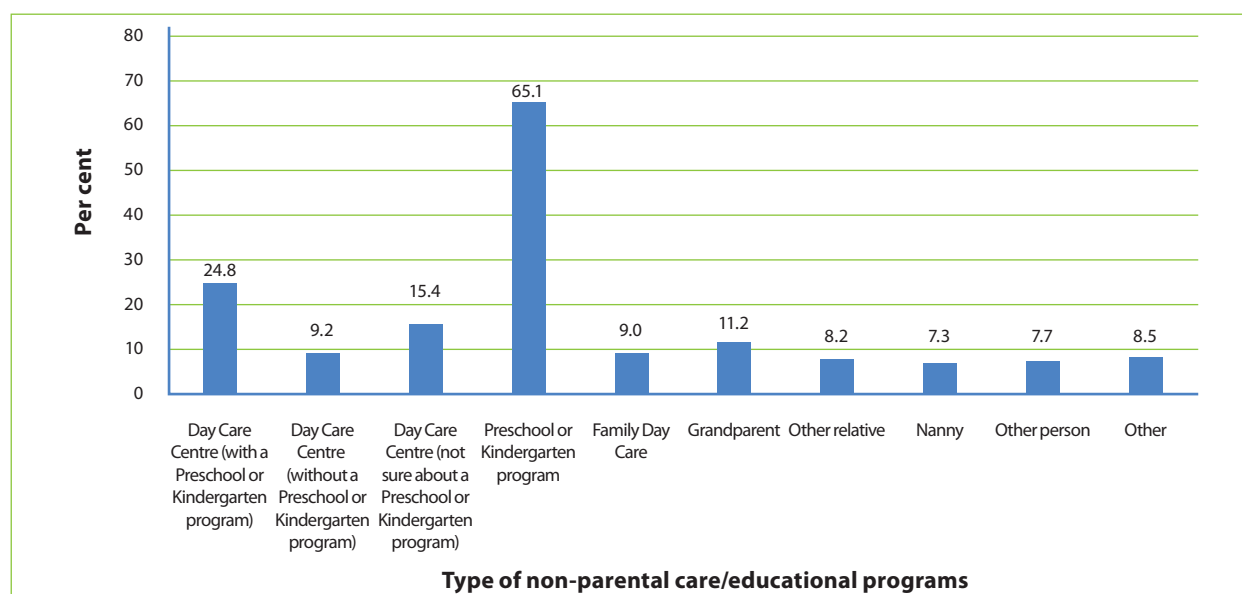
Source: Bilateral agreements between the Commonwealth and each State and Territory on achieving universal access to early childhood education. These agreements are made as part of the National Partnership Agreement on Early Childhood Information. The National Partnership Agreement on Early Childhood Education and the Bilateral Agreements on Achieving Universal Access to Early Childhood Education can be accessed from [http://www.deewr.gov.au/EarlyChildhood/Policy\\_Agenda/ECUA/Pages/home.aspx](http://www.deewr.gov.au/EarlyChildhood/Policy_Agenda/ECUA/Pages/home.aspx)

\* Preschool program includes structured, play-based early childhood education. Alternative terms currently used for preschool in some jurisdictions include 'kindergarten', 'pre-prep' and 'reception'. Preschool programs occur in different settings, for example, stand-alone services, as part of some schools and in some child care services.

As part of the AEDI Checklists, teachers were asked to record children's experiences in the year before entering full-time school. Overall there were 222,431 (92.7 per cent) children reported to be in some form of non-parental care and/or educational programs (such as family day care, preschool or kindergarten, or care by a grandparent). There were 17,629 (6.8 per cent) children who had only been in parental care. For 19,061 (7.4 per cent) children, teachers did not know what sort of care arrangements the child experienced in the year before entering school. The type of care and education is reported in Figure 2.4.

## Section 2 Profile of Australia's children

Figure 2.4: Participation in non-parental care and/or educational programs in the year before entering school\*†



\* For 21,143 children, the form of non-parental care and/or educational program before entering school was not known or not reported by the teacher.

† The total across categories exceeds 100 per cent as teachers may have nominated more than one form of care or education type for a child.

Includes only children where teachers knew if they had been in non-parental care or education or not, in the year before entering school (Total= 240,060).

Teachers were also asked questions about how children were settling into the school environment (Table 2.8).

Table 2.8: School transitions\*

	Often or very true (Total = 174,035) %	Sometimes or somewhat true (Total = 174,035) %	Never or not true (Total = 174,035) %	Don't know (Total = 174,035) %
Child is making good progress in adapting to the structure and learning environment of the school	76.6	20.5	1.8	0.1
Child has parent(s)/caregiver(s) who are actively engaged with the school in supporting their child's learning	69.9	21.2	7.1	0.8
Child is regularly read to/encouraged in his/her reading at home	69.8	16.9	4.1	8.2

\* These questions were not asked in NSW.

## 2.4 Support information

The additional or special needs status of children was recorded by teachers completing the AEDI Checklists (Table 2.9). Overall there were 11,486 (4.4 per cent) children with chronic physical, intellectual and medical needs, and 27,223 (10.5 per cent) children identified by teachers as requiring further assessment.

Table 2.9: Additional or special needs of children

Conditions/Impairments	Number of children	(Total = 261,203) %
Number of children with chronic physical, intellectual and medical needs (special needs status)*	11,486	4.4
Number of children identified by teachers as requiring further assessment	27,223	10.5**

\* Children with special needs are those who have chronic medical, physical or intellectual disabilities that require special assistance. Teachers were asked to base their response on medical diagnosis.

\*\* Teachers completed this question for children they had known for more than one month, therefore the denominator is 259,121.

# 3

## Early childhood development results across Australia

This section of the report provides the early childhood development results across Australia.

### Key findings

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- **The majority of children are doing well on each of the five developmental domains of the AEDI: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based) and communication skills and general knowledge.**
- **There are children in Australia who are developmentally vulnerable as they enter school.**
  - 23.5 per cent of Australian children are developmentally vulnerable on one or more of the AEDI domain/s.
  - 11.8 per cent of Australian children are developmentally vulnerable on two or more of the AEDI domains.
- **Demographic factors have a significant impact on the development of Australian children.**
  - Geographic location*
    - There are higher proportions of children living in very remote areas of Australia who are developmentally vulnerable on all the AEDI domains.
    - 47.3 per cent of children living in very remote Australia are developmentally vulnerable on one or more of the AEDI domain/s.
    - 30.7 per cent of children living in very remote Australia are developmentally vulnerable on two or more of the AEDI domains.
  - Socio-economic status of communities where children live*
    - Children living in the most socio-economically disadvantaged Australian communities are more likely to be developmentally vulnerable on each of the AEDI domains.
    - 31.9 per cent of children living in the most socio-economically disadvantaged Australian communities are developmentally vulnerable on one or more of the AEDI domain/s.
    - 17.5 per cent of children living in the most socio-economically disadvantaged Australian communities are developmentally vulnerable on two or more of the AEDI domains.

## Section 3 Early childhood development results across Australia

### *Sex*

- Girls are more likely to be developmentally on track on the AEDI domains in comparison to boys. This is consistent with other research.
- Girls are less likely to be developmentally vulnerable on two or more of the AEDI domains (7.4 per cent) than boys (16.2 per cent).

### *Australian Indigenous children*

- The majority of Australian Indigenous children are developmentally on track on all the AEDI domains, with the exception of the language and cognitive skills (school-based) domain.
- There are higher proportions of Australian Indigenous children developmentally vulnerable on each of the AEDI domains compared to non-Indigenous children.
- 47.4 per cent of Australian Indigenous children are developmentally vulnerable on one or more of the AEDI domain/s.
- 29.5 per cent of Australian Indigenous children are developmentally vulnerable on two or more of the AEDI domains.

### *Language diversity*

- Children who are proficient in English and speak another language at home are less likely to be developmentally vulnerable on the AEDI domains compared to all children.
- 21.6 per cent of children who are proficient in English and speak another language at home are developmentally vulnerable on one or more of the AEDI domain/s, compared to 93.5 per cent of children who speak a language other than English and are not proficient in English.
- 9.4 per cent of children who are proficient in English and speak another language at home are developmentally vulnerable on two or more of the AEDI domains, compared to 58.3 per cent who speak a language other than English and are not proficient in English.
- There are children in Australia who only speak English, but are reported as not proficient in English. These children are more likely to be developmentally vulnerable on all the AEDI domains.



### 3.1 Introduction

Australia is a vibrant multicultural society and our children are culturally diverse. The AEDI provides results that can be used by communities to support all children. Universal trends in children's development are used in the AEDI Checklist allowing it to be implemented in countries with distinct cultural practices with minimal modifications<sup>7</sup>.

There are a wide range of influences on child development and consideration of the demographic and cultural context of the children surveyed in each community is therefore important. In particular, when interpreting the AEDI results where there are smaller numbers of children, special consideration of the demographics and cultural context is needed.

The AEDI reports on five domains of children's development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based), and communication skills and general knowledge. These five developmental domains are closely linked to the predictors of good adult health, education and social outcomes. The AEDI domains and sub-domains are illustrated in the following table.

Physical health and wellbeing	Social competence	Emotional maturity	Language and cognitive skills (school-based)	Communication skills and general knowledge
Physical readiness for the day	Overall social competence	Pro-social and helping behaviour	Basic literacy	Communication skills and general knowledge
Physical independence	Responsibility and respect	Anxious and fearful behaviour	Interest in literacy, numeracy and memory	
Gross and fine motor skills	Approaches to learning	Aggressive behaviour	Advanced literacy	
	Readiness to explore new things	Hyperactivity and inattention	Basic numeracy	

#### AEDI scores

Every AEDI Checklist receives a score for each domain. The scores range from 0 to 10 (0 is the lowest score; 10 is the highest score). AEDI results are presented as average (middle or median) scores, proportions of children who are considered to be 'on track', 'developmentally at risk' and 'developmentally vulnerable'. To determine which children fall into these groupings, AEDI cut-offs have been set for each domain. The cut-offs have been created on the basis of all children who have participated in the AEDI nationally in 2009 (the whole national AEDI population).

Children who score in the lowest 10 per cent of the AEDI population are classified as 'developmentally vulnerable'. These children demonstrate a much lower than average ability in the developmental competencies measured in that domain. Children who score between the 10<sup>th</sup> and 25<sup>th</sup> percentile of the AEDI population are classified as 'developmentally at risk'. Children who score above the 25<sup>th</sup> percentile (in the top 75 per cent) of the AEDI population are classified as 'on track'.

Information about children with special needs is not included in the following tables due to their already identified substantial developmental needs. However, teachers complete background information on children with special needs in order to ensure communities take into account services, resources and programs that are likely to benefit all young children.

Differences between boys and girls are statistically significant across all five domains of the AEDI, with girls scoring higher than boys overall. This is consistent with other research and confirms developmental differences between boys and girls, and, indirectly, the validity of the domains<sup>8</sup>.

AEDI results are reported for Australian children nationally, including socio-economic status, location, sex and language, as well as results for states and territories.

In the following tables, to enable socio-economic comparisons, the suburb of residence of the child as recorded in the AEDI was matched to the Australian Bureau of Statistics (ABS) State Suburb (SSC) geography. The ABS Socio-Economic Indexes for Areas (SEIFA) Index for Relative Socio-Economic Disadvantage (IRSD) scores for the SSC were added to the dataset. There were 4,906 children for which the data could not be matched to the ABS geography. For the geographic location comparisons the ASGC Remoteness Areas were matched to the Statistical Local Area where children lived. For more information see Definition of terms.

## Section 3 Early childhood development results across Australia

### 3.2 Physical health and wellbeing domain

This domain measures children's physical readiness for the school day, physical independence and gross and fine motor skills.

	Children developmentally vulnerable	Children on track
Physical readiness for school day	Have at least sometimes experienced coming unprepared for school by being dressed inappropriately, coming to school hungry or tired.	Never or almost never experienced being dressed inappropriately for school activities, and do not come to school hungry or tired.
Physical independence	Range from those who have not developed one of the three skills (independence, handedness, co-ordination), to those who have not developed any of the skills.	Are independent regarding their own needs, have an established hand preference and are well coordinated.
Gross and fine motor skills	Range from those who have an average ability to perform skills requiring gross and fine motor competence and good or average overall energy levels, to those who have poor fine and gross motor skills, poor overall energy levels and physical skills.	Have an excellent ability to physically tackle the school day and have excellent or good gross and fine motor skills.



## Section 3 Early childhood development results across Australia

Table 3.1: AEDI results for physical health and wellbeing domain

	Number of children*	Average score# 0–10	Developmentally vulnerable	Developmentally at risk	On track	
			Below the 10 <sup>th</sup> percentile	Between the 10 <sup>th</sup> and 25 <sup>th</sup> percentile	Between the 25 <sup>th</sup> and 50 <sup>th</sup> percentile	Above the 50 <sup>th</sup> percentile
			%	%	%	%
Australia	245,400	9.6	9.3	13.0	21.7	56.0
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage#)</b>						
Quintile 1 (most disadvantaged)	53,222	9.6	13.3	14.6	22.4	49.7
Quintile 2	43,997	9.6	10.3	13.9	21.9	53.8
Quintile 3	42,606	9.6	8.9	13.5	22.1	55.5
Quintile 4	43,945	9.6	7.8	12.5	21.5	58.2
Quintile 5 (least disadvantaged)	60,025	10.0	6.1	10.8	20.8	62.3
<b>Geographic location (ASGC Remoteness Areas#)</b>						
Major Cities of Australia	166,207	9.6	8.6	12.7	21.4	57.3
Inner Regional Australia	48,551	9.6	9.7	13.6	22.2	54.4
Outer Regional Australia	23,418	9.6	11.6	13.6	22.5	52.3
Remote Australia	4,512	9.6	12.1	11.9	22.5	53.4
Very Remote Australia	2,647	8.8	23.1	17.0	22.1	37.7
<b>Sex</b>						
Male	123,815	9.6	11.8	14.4	24.0	49.9
Female	121,585	10.0	6.8	11.6	19.4	62.2
<b>Indigenous</b>						
Indigenous	11,106	8.8	21.9	17.5	23.3	37.3
Non-Indigenous	234,293	9.6	8.7	12.8	21.6	56.9
<b>Language diversity</b>						
LBOTE#†	41,775	9.6	10.5	13.3	21.4	54.7
Proficient in English#	35,538	9.6	7.3	11.9	21.1	59.6
Not Proficient in English	6,146	7.9	29.0	21.3	22.9	26.8
English Only†	203,625	9.6	9.1	12.9	21.8	56.2
Proficient in English	196,896	9.6	7.7	12.6	21.9	57.8
Not Proficient in English	6,582	7.1	49.8	22.1	18.2	9.8
<b>State/territory</b>						
New South Wales	82,273	9.6	8.7	12.9	21.3	57.2
Victoria	57,500	10.0	7.7	11.7	20.8	59.9
Queensland	52,191	9.6	11.0	14.2	24.0	50.8
Western Australia	25,761	9.6	10.1	12.2	21.2	56.5
South Australia	14,911	9.6	10.0	14.8	20.1	55.2
Tasmania	5,688	9.6	10.0	13.5	22.5	54.0
Australian Capital Territory	4,180	9.6	9.4	14.3	22.8	53.6
Northern Territory	2,862	9.2	18.8	15.0	20.4	45.8

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

# See relevant Definition of terms.

† The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.

## Section 3 Early childhood development results across Australia

### 3.3 Social competence domain

This domain measures children's overall social competence, responsibility and respect, approaches to learning and readiness to explore new things.

	Children developmentally vulnerable	Children on track
Overall social competence	Have average to poor overall social skills, low self-confidence and are rarely able to play with various children and interact cooperatively.	Have excellent or good overall social development, very good ability to get along with other children and play with various children, usually cooperative and self-confident.
Responsibility and respect	Only sometimes or never accept responsibility for actions, show respect for others and for property, demonstrate self-control, and are rarely able to follow rules and take care of materials.	Always or most of the time show respect for others, and for property, follow rules and take care of materials, accept responsibility for actions, and show self-control.
Approaches to learning	Only sometimes or never work neatly and independently, are rarely able to solve problems, follow class routines and do not easily adjust to changes in routines.	Always or most of the time work neatly, independently, and solve problems, follow instructions and class routines, easily adjust to changes.
Readiness to explore new things	Only sometimes or never show curiosity about the world, and are rarely eager to explore new books, toys or unfamiliar objects and games.	Are curious about the surrounding world, and are eager to explore new books, toys or unfamiliar objects and games.





## Section 3 Early childhood development results across Australia

Table 3.2: AEDI results for social competence domain

	Number of children*	Average score <sup>#</sup> 0–10	Developmentally vulnerable	Developmentally at risk	On track	
			Below the 10 <sup>th</sup> percentile	Between the 10 <sup>th</sup> and 25 <sup>th</sup> percentile	Between the 25 <sup>th</sup> and 50 <sup>th</sup> percentile	Above the 50 <sup>th</sup> percentile
			%	%	%	%
Australia	245,356	9.2	9.5	15.2	22.8	52.6
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage<sup>#</sup>)</b>						
Quintile 1 (most disadvantaged)	53,213	9.0	13.2	17.6	23.6	45.6
Quintile 2	43,984	9.2	10.5	16.1	23.2	50.2
Quintile 3	42,597	9.2	9.4	15.4	23.2	52.0
Quintile 4	43,940	9.4	8.1	14.4	22.5	55.0
Quintile 5 (least disadvantaged)	60,020	9.4	6.1	12.5	21.8	59.6
<b>Geographic location (ASGC Remoteness Areas<sup>#</sup>)</b>						
Major Cities of Australia	166,185	9.2	8.9	14.7	22.7	53.7
Inner Regional Australia	48,541	9.2	9.7	15.7	22.8	51.7
Outer Regional Australia	23,416	9.0	11.1	16.4	23.4	49.1
Remote Australia	4,511	9.0	11.5	16.3	23.1	49.0
Very Remote Australia	2,639	8.1	20.8	21.6	22.5	35.1
<b>Sex</b>						
Male	123,797	8.8	13.0	18.7	24.0	44.3
Female	121,559	9.4	5.9	11.5	21.5	61.1
<b>Indigenous</b>						
Indigenous	11,088	8.1	20.3	21.1	24.8	33.9
Non-Indigenous	234,267	9.2	9.0	14.9	22.7	53.5
<b>Language diversity</b>						
LBOTE <sup>#†</sup>	41,749	9.0	11.8	16.3	24.0	48.0
Proficient in English <sup>#</sup>	35,523	9.2	7.7	14.4	24.1	53.7
Not Proficient in English	6,137	6.9	35.0	26.7	23.6	14.7
English Only <sup>†</sup>	203,607	9.2	9.0	14.9	22.5	53.6
Proficient in English	196,886	9.4	7.8	14.5	22.7	55.1
Not Proficient in English	6,581	6.0	45.4	28.7	17.9	8.0
<b>State/territory</b>						
New South Wales	82,259	9.2	8.8	14.1	23.0	54.2
Victoria	57,488	9.4	8.4	14.0	22.2	55.4
Queensland	52,185	9.0	12.1	17.1	22.6	48.2
Western Australia	25,759	9.2	7.7	16.1	23.5	52.8
South Australia	14,908	9.2	10.0	16.3	22.9	50.7
Tasmania	5,689	9.2	8.6	16.2	23.2	51.9
Australian Capital Territory	4,179	9.2	8.9	16.2	24.2	50.7
Northern Territory	2,856	8.8	18.1	17.5	20.5	43.9

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

<sup>#</sup> See relevant Definition of terms.

<sup>†</sup> The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.

### 3.4 Emotional maturity domain

This domain measures children’s pro-social and helping behaviour, anxious and fearful behaviour, aggressive behaviour and hyperactivity and inattention.

	Children developmentally vulnerable	Children on track
Pro-social and helping behaviour	Never or almost never show most of the helping behaviours including helping someone hurt, sick or upset, offering to help spontaneously, and inviting others to join in.	Often show helping behaviours including helping someone hurt, sick or upset, offering to help spontaneously, and inviting others to join in.
Anxious and fearful behaviour	Often show most of the anxious behaviours; they could be worried, unhappy, nervous, sad or excessively shy, indecisive; and they can be upset when left at school.	Rarely or never show anxious behaviours, are happy, and able to enjoy school, and are comfortable being left at school.
Aggressive behaviour	Often show most of the aggressive behaviours; they get into physical fights, kick or bite others, take other people’s things, are disobedient or have temper tantrums.	Rarely or never show aggressive behaviours and do not use aggression as a means of solving a conflict, do not have temper tantrums, and are not mean to others.
Hyperactivity and inattention	Often show most of the hyperactive behaviours; they could be restless, distractible, impulsive; they fidget and have difficulty settling to activities.	Never show hyperactive behaviours and are able to concentrate, settle to chosen activities, wait their turn, and most of the time think before doing something.



## Section 3 Early childhood development results across Australia

Table 3.3: AEDI results for emotional maturity domain

	Number of children*	Average score# 0–10	Developmentally vulnerable	Developmentally at risk	On track	
			Below the 10 <sup>th</sup> percentile	Between the 10 <sup>th</sup> and 25 <sup>th</sup> percentile	Between the 25 <sup>th</sup> and 50 <sup>th</sup> percentile	Above the 50 <sup>th</sup> percentile
			%	%	%	%
Australia	244,363	8.7	8.9	15.5	25.4	50.2
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage#)</b>						
Quintile 1 (most disadvantaged)	52,941	8.5	11.7	18.0	25.7	44.6
Quintile 2	43,824	8.5	9.6	16.2	25.8	48.4
Quintile 3	42,418	8.6	9.0	15.9	25.7	49.4
Quintile 4	43,788	8.7	7.6	14.6	25.7	52.2
Quintile 5 (least disadvantaged)	59,809	8.9	6.3	13.0	24.6	56.1
<b>Geographic location (ASGC Remoteness Areas#)</b>						
Major Cities of Australia	165,547	8.7	8.3	15.0	25.4	51.3
Inner Regional Australia	48,366	8.7	9.4	15.9	25.3	49.3
Outer Regional Australia	23,345	8.5	10.1	16.5	26.2	47.1
Remote Australia	4,442	8.5	11.4	16.7	24.9	47.0
Very Remote Australia	2,601	7.8	19.8	22.7	25.8	31.6
<b>Sex</b>						
Male	123,192	8.3	13.5	19.8	26.7	40.0
Female	121,171	9.0	4.2	11.1	24.1	60.6
<b>Indigenous</b>						
Indigenous	10,995	7.9	17.1	22.6	25.7	34.6
Non-Indigenous	233,367	8.7	8.5	15.2	25.4	51.0
<b>Language diversity</b>						
LBOTE#†	41,479	8.5	9.4	17.3	27.1	46.1
Proficient in English#	35,341	8.7	7.1	15.1	27.0	50.8
Not Proficient in English	6,053	7.3	23.2	30.4	27.5	18.8
English Only†	202,884	8.7	8.7	15.1	25.1	51.0
Proficient in English	196,217	8.7	7.9	14.6	25.2	52.3
Not Proficient in English	6,528	6.7	34.0	30.3	21.5	14.2
<b>State/territory</b>						
New South Wales	81,930	8.7	7.4	14.3	24.7	53.5
Victoria	57,223	8.7	8.3	14.5	24.5	52.8
Queensland	52,018	8.5	11.0	17.5	26.8	44.7
Western Australia	25,658	8.5	8.8	17.2	28.0	45.9
South Australia	14,837	8.7	10.3	15.3	24.7	49.6
Tasmania	5,673	8.7	8.5	15.6	24.7	51.2
Australian Capital Territory	4,170	8.7	9.0	15.5	25.7	49.8
Northern Territory	2,823	8.3	15.4	18.8	21.9	43.9

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

# See relevant Definition of terms.

† The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.

### 3.5 Language and cognitive skills (school-based) domain

This domain measures children's basic literacy, interest in literacy/numeracy and memory, advanced literacy and basic numeracy. This domain mainly reflects teachers' scores for children's language and cognitive skills based on those necessary for school (with English as the language of instruction) and does not necessarily reflect children's proficiency in their home language.\*

	Children developmentally vulnerable	Children on track
Basic literacy	Do not have most of the basic literacy skills; they have problems with identifying letters or attaching sounds to them, rhyming, may not know the writing directions and how to write their own name.	Have all the basic literacy skills including how to handle a book, are able to identify some letters and attach sounds to some letters, show awareness of rhyming words, know the writing directions, and are able to write their own name.
Interest in literacy/ numeracy and memory	May not show interest in books and reading, or maths and number games, or both, and may have difficulty remembering things.	Show interest in books and reading, maths and numbers, and have no difficulty with remembering things.
Advanced literacy	Have only up to one of the advanced literacy skills; cannot read or write simple words or sentences, and rarely write voluntarily.	Have at least half of the advanced literacy skills such as reading simple words or sentences, and writing simple words or sentences.
Basic numeracy	Have marked difficulty with numbers, cannot count, compare or recognise numbers, may not be able to name all the shapes and may have difficulty with time concepts.	Have all the basic numeracy skills and can count to 20, recognise shapes and numbers, compare numbers, sort and classify, use one-to-one correspondence, and understand simple time concepts.

\* Children from Language Backgrounds Other Than English may be proficient in their home languages.



## Section 3 Early childhood development results across Australia

**Table 3.4: AEDI results for language and cognitive skills (school-based) domain**

	Number of children*	Average score# 0–10	Developmentally vulnerable	Developmentally at risk	On track	
			Below the 10 <sup>th</sup> percentile	Between the 10 <sup>th</sup> and 25 <sup>th</sup> percentile	Between the 25 <sup>th</sup> and 50 <sup>th</sup> percentile	Above the 50 <sup>th</sup> percentile
			%	%	%	%
Australia	244,981	9.2	8.9	14.0	24.9	52.3
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage#)</b>						
Quintile 1 (most disadvantaged)	53,117	8.9	14.0	17.3	25.4	43.3
Quintile 2	43,923	9.2	10.0	14.6	24.3	51.1
Quintile 3	42,517	9.2	8.6	14.8	26.6	50.1
Quintile 4	43,882	9.2	6.8	13.1	25.3	54.7
Quintile 5 (least disadvantaged)	59,952	9.6	4.7	10.6	23.3	61.4
<b>Geographic location (ASGC Remoteness Areas#)</b>						
Major Cities of Australia	165,971	9.2	7.6	12.9	24.5	55.0
Inner Regional Australia	48,462	9.2	9.7	14.8	24.3	51.1
Outer Regional Australia	23,362	8.9	12.2	17.7	27.8	42.4
Remote Australia	4,488	8.5	15.7	18.9	30.5	34.9
Very Remote Australia	2,631	7.3	30.0	23.3	26.3	20.4
<b>Sex</b>						
Male	123,610	8.9	11.3	16.2	25.7	46.8
Female	121,371	9.2	6.4	11.7	24.0	57.9
<b>Indigenous</b>						
Indigenous	11,054	7.3	28.6	23.3	23.8	24.3
Non-Indigenous	233,926	9.2	7.9	13.5	24.9	53.6
<b>Language diversity</b>						
LBOTE#†	41,661	8.9	12.4	15.1	23.8	48.7
Proficient in English#	35,483	9.2	7.5	13.2	24.2	55.1
Not Proficient in English	6,100	6.3	41.0	26.3	21.4	11.3
English Only†	203,320	9.2	8.2	13.7	25.1	53.0
Proficient in English	196,631	9.2	6.6	13.4	25.4	54.5
Not Proficient in English	6,557	5.4	53.4	24.7	15.0	6.8
<b>State/territory</b>						
New South Wales	82,212	9.6	5.9	9.5	19.4	65.2
Victoria	57,425	9.6	6.1	9.9	18.5	65.5
Queensland	52,022	8.1	15.5	23.5	35.9	25.1
Western Australia	25,714	8.1	12.0	20.8	38.9	28.3
South Australia	14,889	9.6	6.1	10.8	20.6	62.5
Tasmania	5,687	9.6	7.7	11.7	18.9	61.7
Australian Capital Territory	4,165	9.6	5.7	10.5	19.5	64.3
Northern Territory	2,831	8.1	22.4	17.4	27.7	32.4

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

# See relevant Definition of terms.

† The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.

### 3.6 Communication skills and general knowledge domain

This domain measures children's communication skills and general knowledge. This is based on teachers' observations of broad developmental competencies and skills as measured in the school context.\*

	Children developmentally vulnerable	Children on track
Communication skills and general knowledge	Range from being average to very poor in effective communication, may have difficulty in participating in games involving the use of language, may be difficult to understand and/or have difficulty in understanding others and may show little general knowledge.	Have excellent or very good communication skills and can communicate easily and effectively, can participate in story-telling or imaginative play, articulate clearly and show adequate general knowledge.

\* Children from Language Backgrounds Other Than English may be proficient in their home languages.



## Section 3 Early childhood development results across Australia

Table 3.5: AEDI results for communication skills and general knowledge domain

	Number of children*	Average score# 0–10	Developmentally vulnerable	Developmentally at risk	On track	
			Below the 10 <sup>th</sup> percentile	Between the 10 <sup>th</sup> and 25 <sup>th</sup> percentile	Between the 25 <sup>th</sup> and 50 <sup>th</sup> percentile	Above the 50 <sup>th</sup> percentile
			%	%	%	%
Australia	245,380	9.4	9.2	15.8	20.2	54.8
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage#)</b>						
Quintile 1 (most disadvantaged)	53,217	8.8	14.0	18.9	21.6	45.5
Quintile 2	43,989	9.4	10.1	17.2	20.4	52.2
Quintile 3	42,598	9.4	8.9	15.9	20.3	54.8
Quintile 4	43,942	9.4	7.3	14.6	20.3	57.8
Quintile 5 (least disadvantaged)	60,022	9.4	5.4	12.6	18.7	63.3
<b>Geographic location (ASGC Remoteness Areas#)</b>						
Major Cities of Australia	166,179	9.4	9.2	15.4	19.9	55.6
Inner Regional Australia	48,547	9.4	8.2	16.6	20.9	54.4
Outer Regional Australia	23,419	9.4	9.5	16.3	21.2	53.0
Remote Australia	4,515	9.4	9.7	15.9	19.5	54.9
Very Remote Australia	2,650	7.5	23.1	19.9	23.8	33.2
<b>Sex</b>						
Male	123,811	8.8	11.7	18.2	21.7	48.5
Female	121,569	9.4	6.6	13.3	18.8	61.3
<b>Indigenous</b>						
Indigenous	11,106	7.5	21.3	22.9	23.0	32.9
Non-Indigenous	234,273	9.4	8.6	15.4	20.1	55.9
<b>Language diversity</b>						
LBOTE#†	41,750	8.1	20.2	20.3	21.0	38.5
Proficient in English#	35,534	8.8	7.9	22.5	24.4	45.2
Not Proficient in English	6,139	1.9	91.2	7.4	1.4	0.0
English Only†	203,630	9.4	6.9	14.8	20.1	58.2
Proficient in English	196,924	9.4	4.1	15.0	20.7	60.1
Not Proficient in English	6,584	2.5	90.4	8.5	1.1	0.0
<b>State/territory</b>						
New South Wales	82,261	9.4	9.1	15.8	19.2	55.9
Victoria	57,492	9.4	8.3	15.0	17.5	59.2
Queensland	52,184	8.8	10.4	16.9	23.5	49.2
Western Australia	25,764	9.4	8.9	14.2	23.7	53.2
South Australia	14,910	9.4	8.0	16.6	19.4	56.0
Tasmania	5,690	9.4	7.0	17.0	18.6	57.4
Australian Capital Territory	4,176	9.4	8.9	15.9	21.2	54.0
Northern Territory	2,864	8.8	17.5	17.4	20.0	45.0

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

# See relevant Definition of terms.

† The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.

## Section 3 Early childhood development results across Australia

### 3.7 Overall results on one or more AEDI domain/s

The following table reports on the proportions of children who are developmentally vulnerable on one or more developmental domain/s and developmentally vulnerable on two or more developmental domains (these children are considered to be at particularly high-risk developmentally).

**Table 3.6: AEDI results vulnerable on one or more domain/s**

	Number of children*	Developmentally vulnerable on one or more domain/s %	Developmentally vulnerable on two or more domains** %
Australia	245,357	23.5	11.8
<b>Socio-economic status of communities where children live (SEIFA Index for Relative Disadvantage#)</b>			
Quintile 1 (most disadvantaged)	53,216	31.9	17.5
Quintile 2	43,985	25.5	13.2
Quintile 3	42,596	23.5	11.6
Quintile 4	43,940	20.3	9.6
Quintile 5 (least disadvantaged)	60,015	16.1	7.1
<b>Geographic location (ASGC Remoteness Areas#)</b>			
Major Cities of Australia	166,178	22.4	11.0
Inner Regional Australia	48,541	23.7	12.2
Outer Regional Australia	23,415	26.8	14.1
Remote Australia	4,513	28.8	15.5
Very Remote Australia	2,646	47.3	30.7
<b>Sex</b>			
Male	123,797	30.1	16.2
Female	121,560	16.7	7.4
<b>Indigenous</b>			
Indigenous	11,098	47.4	29.5
Non-Indigenous	234,258	22.3	11.0
<b>Language diversity</b>			
LBOTE#†	41,753	32.2	16.7
Proficient in English#	35,522	21.6	9.4
Not Proficient in English	6,145	93.5	58.4
English Only†	203,604	21.7	10.8
Proficient in English	196,883	19.2	8.7
Not Proficient in English	6,584	93.8	74.8
<b>State/territory</b>			
New South Wales	82,264	21.3	10.3
Victoria	57,483	20.2	10.0
Queensland	52,183	29.5	15.7
Western Australia	25,758	24.6	12.2
South Australia	14,907	22.7	11.5
Tasmania	5,688	21.8	10.8
Australian Capital Territory	4,179	22.1	10.8
Northern Territory	2,862	38.6	23.4

\* Results for children with special needs are not included in the results. If there are a certain number of questions not answered by teachers these children do not contribute to the domain analyses.

\*\* The denominator for this calculation may be lower than the denominator for 'developmentally vulnerable on one or more domain/s' as there are less children with valid scores on more than one domain. For the total number of children for Australia (245,443), the denominator for 'developmentally vulnerable on two or more domains' is lower by 134 children.

# See relevant Definition of terms.

† The subsets of these categories do not equal the total because teachers have selected the 'Don't Know' response.



# References

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- <sup>3</sup> Hart, B., Brinkman, S., & Blackmore, S. (2003). *How well are we raising our children in the north metropolitan area?* Early Development Index (Rep. No. ISBN 0-646-42987-6). Perth, Australia: North Metropolitan Health Service (Western Australia).
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- <sup>5</sup> Brinkman, S.A., Silburn, S.R., Lawrence, D., Goldfeld, S., Sayers, M., & Oberklaid, F. (2007). *Construct and concurrent validity of the Australian Early Development Index*. *Early Education and Development*, Vol. 18, No. 3: pages 427-451.
- <sup>6</sup> Sayers, M., Coutts, M., Goldfeld, S., Oberklaid, F., Brinkman, S.A., & Silburn, S.R. (2007). *Building Better Communities for Children: Community Implementation and Evaluation of the Australian Early Development Index*. *Early Education and Development*, Vol. 18, No. 3: pages 519-534.
- <sup>7</sup> Brinkman, S.A., Sayers, M., Goldfeld, S., & Kline, J. (2009). *Population monitoring language and cognitive development in Australia: The Australian Early Development Index*, *International Journal of Speech-Language Pathology*, 2009; 11 (5): pages 419-430.
- <sup>8</sup> Andrich, D., & Styles, I. (2004). *Final report on the psychometric analysis of the Early Development Instrument (EDI) using the Rasch Model: A technical paper commissioned for the development of the Australian Early Development Instrument (AEDI)*.



# Definition of terms

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<b>Australian Early Development Index (AEDI)</b>	<p>A population measure of young children's development based on a teacher-completed checklist (the AEDI Checklist). The five developmental domains measured are:</p> <ul style="list-style-type: none"><li>• physical health and wellbeing</li><li>• social competence</li><li>• emotional maturity</li><li>• language and cognitive skills (school-based)</li><li>• communication skills and general knowledge.</li></ul>
<b>AEDI Checklist</b>	<p>A teacher-completed checklist which consists of more than 100 questions measuring the five developmental domains.</p>
<b>AEDI Community Profiles and Maps</b>	<p>All AEDI data collected in a geographic area are collated and analysed at the suburb or small area locality (local community) where the child lives. This is reported to the community through AEDI Community Profiles and AEDI maps.</p>
<b>AEDI cut-offs</b>	<p>AEDI results present proportions of children who are considered to be 'on track', 'developmentally at risk' and 'developmentally vulnerable'. To determine which children are 'on track', 'developmentally at risk' and 'developmentally vulnerable', AEDI cut-offs have been set for each domain. The cut-offs have been created on the basis of all children who have participated in the AEDI nationally (the AEDI population).</p>
<b>AEDI score</b>	<p>Every checklist receives a score for each domain. The AEDI scores range from 0 to 10 (0 is the lowest score; 10 is the highest score possible).</p> <p>The AEDI National Report and Community Profiles report the average (middle or median) AEDI score for each developmental domain, as well as the proportion of children 'on track', 'developmentally at risk' and 'developmentally vulnerable'.</p>
<b>Age-based cut-offs</b>	<p>The ages of children in their first year of full-time school vary. As age is likely to have an impact on children's development, it is necessary to control for age when analysing the AEDI data. To do this, age-based cut-offs have been used.</p>
<b>ASGC Remoteness Areas</b>	<p>The Australian Standard Geographical Classification (ASGC) Remoteness Areas were developed by the Australian Bureau of Statistics to classify places of remoteness. Geographical areas are given a score based on the road distance to service towns of different sizes. Scores for regions are derived by averaging scores from a one square kilometre grid.</p> <p>The five Remoteness Areas are:</p> <ol style="list-style-type: none"><li>1. Major Cities – relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.</li><li>2. Inner Regional – some restrictions to accessibility of some goods, services and opportunities for social interaction.</li><li>3. Outer Regional – significantly restricted accessibility of goods, services and opportunities for social interaction.</li><li>4. Remote – very restricted accessibility of goods, services and opportunities for social interaction.</li><li>5. Very Remote – very little accessibility of goods, services and opportunities for social interaction.</li></ol> <p>For the AEDI, the location of children is classified according to the ASGC. The ASGC Remoteness Areas classification is an all of Australia view. As such, remote parts of Tasmania are remote because of their location in the context of Australia, not their location in Tasmania.</p>

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**Developmentally at risk**

Children who score between the 10<sup>th</sup> and 25<sup>th</sup> percentile of the AEDI population are classified as 'developmentally at risk'. However due to the distribution of results the cut-offs at the 10<sup>th</sup> and 25<sup>th</sup> percentile were made using natural breaks. So although one would expect 15 per cent of children in each domain to fall within this category, there is variability. The actual percentage falling between the 10<sup>th</sup> and 25<sup>th</sup> percentile were:

- physical health and wellbeing: 13.0 per cent
  - social competence: 15.2 per cent
  - emotional maturity: 15.5 per cent
  - language and cognitive skills (school-based): 14.0 per cent
  - communication skills and general knowledge: 15.8 per cent
- 

**Developmentally vulnerable**

Children who score in the lowest 10 per cent of the AEDI population are classified as 'developmentally vulnerable'. However due to the distribution of results, natural breaks closest to the 10<sup>th</sup> percentile were used. The actual cut-offs for vulnerability were:

- physical health and wellbeing: 9.3 per cent
  - social competence: 9.5 per cent
  - emotional maturity: 8.9 per cent
  - language and cognitive skills (school-based): 8.9 per cent
  - communication skills and general knowledge: 9.2 per cent
- 

**Developmentally vulnerable on one or more domain/s**

The percentage of children in the community who have at least one or more AEDI domain score/s below the 10<sup>th</sup> percentile.

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**Developmentally vulnerable on two or more domains**

The percentage of children in the community who have at least two or more AEDI domain scores below the 10<sup>th</sup> percentile.

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**EDI**

The Canadian Early Development Instrument, on which the AEDI is based.

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**Language Background Other Than English/LBOTE**

For the AEDI, children are considered LBOTE if they speak a language other than English at home and/or have English as a Second Language (ESL) status. Children are considered to have ESL status where English is not their first language and they need additional instruction in English; or, where English is not their first language, they have conversational English, but are not yet proficient in English.

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**On track**

Children who score above the 25<sup>th</sup> percentile (in the top 75 per cent) of the AEDI population are classified as 'on track'. Due to the distribution of results, natural breaks were used to define children as 'on track'. The actual percentage of children classified as 'on track' were:

- physical health and wellbeing: 77.7 per cent
  - social competence: 75.4 per cent
  - emotional maturity: 75.6 per cent
  - language and cognitive skills (school-based): 77.2 per cent
  - communication skills and general knowledge: 75.0 per cent
- 

**Percentile**

The AEDI results report on the number of children scoring in the following percentile ranges: 0 to 10<sup>th</sup> percentile (developmentally vulnerable), between the 10<sup>th</sup> and 25<sup>th</sup> percentile (developmentally at risk), between the 25<sup>th</sup> and 50<sup>th</sup> and above the 50<sup>th</sup> percentile (on track).

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**Proficient in English**

Proficient in English refers to what is expected of the average monolingual English speaker in a similar phase of development. For the AEDI, children are considered proficient in English if teachers answered 'average' or 'good/very good' to the AEDI Checklist question: 'How would you rate this child's ability to use language effectively in English?' This question refers to the child's effective use of appropriate words and expressions at appropriate times, as well as the child's contribution to conversations. Effective use is defined as use sufficient to convey the desired message. Only basic grammatical concepts need to be adhered to, so long as the meaning is clear. Teachers were asked specifically to consider English language skills.

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**Quintile**

Quintiles are used for the AEDI comparisons to SEIFA (see definition for SEIFA). The lowest quintile (Quintile 1) represents the most disadvantaged; the highest quintile (Quintile 5) represents the least disadvantaged.

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**SEIFA**

Socio-Economic Indexes for Areas (SEIFA) were developed by the Australian Bureau of Statistics (ABS). They are a set of measures, derived from Census information, that summarise different aspects of socio-economic conditions in an area. The Index for Relative Socio-Economic Disadvantage, which is used in AEDI results, looks at Census information that reflect disadvantage such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. Every geographical area in Australia is given a SEIFA score that ranks the 'disadvantage' of an area, compared with other areas in Australia.

To enable socio-economic comparisons, the suburb of residence of the child as recorded in the AEDI was matched to the ABS State Suburb (SSC) geography. The ABS SEIFA Index for Relative Socio-Economic Disadvantage (IRSD) scores for the SSC were added to the AEDI dataset. Using SEIFA scores for all SSC's in Australia, quintiles (equal 20 per cent ranges) were calculated for these SSC's. Children's suburb of residence as recorded in the AEDI was categorised according to the SEIFA quintile to allow for comparisons.

The majority of children in the AEDI were five years of age in 2009. To investigate how well the AEDI data matched the predicted spread of children across the socio-economic spectrum, a comparison was made with the ABS Usual Resident Population (URP) of three-year-olds using confidentialised 2006 Census counts. Despite the three-year gap between the 2006 Census and AEDI data collection, there was a similar socio-economic distribution. See the following table.

SEIFA – IRSD	AEDI Data Collection		ABS Census Data Collection	
	Number of children	%	URP – 3-year-olds 2006 number	URP – 3-year-olds %
Quintile 1	57,564	22.2	50,482	20.4
Quintile 2	47,098	18.2	46,025	18.6
Quintile 3	45,237	17.4	44,044	17.8
Quintile 4	46,431	17.9	46,450	18.8
Quintile 5	63,053	24.3	59,979	24.3
<b>Total</b>	<b>259,383</b>	<b>100</b>	<b>246,980</b>	<b>100</b>

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