

Victorian Results for the Australian Early Development Index 2009





The 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.

Published by the Data, Outcomes
and Evaluation Division
Department of Education and
Early Childhood Development

Melbourne April 2010

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and Early Childhood Development) 2010

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ISBN 978-0-7594-0613-1

Authorised by the Department of Education and
Early Childhood Development
2 Treasury Place, East Melbourne, Victoria, 3002.

This document is also available on the internet
at <http://www.education.vic.gov.au/about/directions/children>

Contents

Preface	2
Complementary resources	2
1. The Australian Early Development Index	3
1.1 What is the AEDI?	3
1.2 How is vulnerability defined and reported?	3
1.3 AEDI data collection	4
1.4 How can the AEDI results be used?	4
2. How are Victorian Children Faring?	5
Victorian and national results	5
Children developmentally ‘at risk’	7
3. AEDI results for Population Groups	8
Children in economically disadvantaged communities	9
Vulnerability within disadvantaged areas	10
Vulnerability across disadvantaged areas	11
Aboriginal children	13
4. Next Steps	14
Mapping	14
Links and Bibliography	16

Preface

The first national implementation of the Australian Early Development Index (AEDI) took place from May to July 2009, providing the first national measure of the developmental status of almost every child in the nation as they start school. In Victoria, 94.2 per cent of the eligible population of children were surveyed, providing a powerful opportunity to better understand the developmental status of children at a local community level. The AEDI results will be a valuable resource in planning for service delivery, both in early childhood and in school settings.

The first wave of AEDI results was published in December 2009 by the AEDI National Support Centre (refer www.aedi.org.au). This first national release comprised community level data and interactive mapping of results for all eligible communities, accompanied by a range of resources to support the use of the results.

This Victorian Report has been produced by the Data, Outcomes and Evaluation Division of the Department of Education and Early Childhood Development (DEECD) to support the community to use these data for local planning. It is intended to complement the online results that were released in 2009.

This report provides an overview of the AEDI data for Victoria and describes the AEDI and how the data are collected and reported. The report also provides a summary of Victorian results, including comparisons with national results and analyses of outcomes for particular population groups.

This report presents a first look at the AEDI data in a Victorian context. Further analysis is still required to further explore and understand some of these findings.

Complementary resources

The Data, Outcomes and Evaluation Division has prepared additional AEDI data resources to support local planning:

- Regional summary sheets
- Local Government Area summary sheets.¹

Users are also encouraged to consider the AEDI as part of the suite of information on outcomes for children available to support planning in Victoria. At a state level, users can refer to the annual State of Victoria's children reports.² At a local level, users can also refer to the Early childhood community profiles and the Aboriginal early childhood community profiles. DEECD users will be able to access these resources through Data Zone (available to DEECD staff on their intranet).

Mapping

A supplementary mapping report will be released in the near future to accompany this report. These maps will aim to further support both statewide and local planning levels.

1. For communities with small numbers of children, or where demographic data are incomplete, AEDI results for 2009 will not be available. However, follow-up data collection will occur in 2010 for those communities, along with the national AEDI results for communities released in early 2011.
2. <http://www.education.vic.gov.au/about/directions/children/annualreports.htm>

1. The Australian Early Development Index

1.1 What is the AEDI?

The Australian Early Development Index (AEDI) is a population measure of how young children are developing in Australian communities. It measures development across the following five domains:

- **Physical health and wellbeing** measures children's physical readiness for the school day, physical independence and gross and fine motor skills.
- **Social competence** measures children's overall social competence, responsibility and respect, approaches to learning and readiness to explore new things.
- **Emotional maturity** measures children's pro-social and helping behaviour, anxious and fearful behaviour, aggressive behaviour and hyperactivity and inattention.
- **Language and cognitive skills (school-based)** measures children's basic literacy, interest in literacy/numeracy and memory, advanced literacy and basic numeracy.
- **Communication skills and general knowledge** measures children's communication skills and general knowledge based on teacher observations of developmental competencies and skills as measured in the school context.

These domains are important areas of child development and also good predictors of adult health, education and social outcomes.³

1.2 How is vulnerability defined and reported?

AEDI results are reported as average scores, where zero is the lowest score and 10 is the highest, on each of the five domains. AEDI results are reported as proportions of children who are considered to be 'on track', 'developmentally at risk', and 'developmentally vulnerable' on each domain. Children developmentally:

- 'on track' are those who score above the 25th percentile (in the top 75 per cent) of the national AEDI population.
- 'at risk' are those who score between the 10th and 25th percentiles of the national AEDI population.
- 'vulnerable' are those who score below the 10th percentile (in the lowest 10 per cent) of the national AEDI population. These children demonstrate a much lower than average ability in the developmental competencies measured in that domain.⁴

AEDI results are most commonly reported as the proportion of children vulnerable on:

- a particular domain
- one-or-more domains
- two-or-more domains.

While the AEDI data collection includes children with special needs, these children are not included in AEDI reporting. Because the needs of these children are diverse and unique to each child, AEDI data cannot be used to adequately plan the services required for them as a group. However, children with special needs will benefit from any positive changes that come from the AEDI within their own community, just as any other child would.

3. Further information about these domains is available at www.rch.org.au/emplibrary/australianedi/AEDI_Domains_Fact_Sheet_2009.pdf

4. http://www.rch.org.au/emplibrary/australianedi/Understanding_AEDI_Results_Fact_Sheet_December2009_WEB.pdf

1.3 AEDI data collection

The first national collection of the AEDI took place from 1 May to 31 July 2009. Data were collected nation-wide by teachers via an online checklist, in the first year of a child's formal schooling. The average age of these children was five years and seven months. Although the checklists were completed at the school, results are for the community where the child lives because AEDI data is community data.

Between May and July 2009, AEDI checklists were completed for 61,187 children in Victoria, 94.2 per cent of the estimated five-year-old population.⁵ Further information about the data collection and children surveyed is presented in Table 1.1.

DEECD has been chosen by the Victorian Government (through the Victorian AEDI State Coordinating Committee) as the primary custodian of Victorian AEDI data on its behalf.

Table 1: AEDI data collection summary, Victoria and Australia, 2009

Selected characteristic	Victoria	Australia
Number of children surveyed	61,187	261,203
Proportion of estimated equivalent population (per cent)	94.2	97.5
Number of children included in AEDI analyses ⁶	57,492	245,380
Number of teachers involved in completing checklists	3,783	15,528
Number of schools where checklists were completed	1,765	7,423
Percentage of children who are Aboriginal	1.1	4.8
Percentage of children with a language background other than English	19.6	18.0

Source: AEDI National Report 2009 (viewed online March 2010).

1.4 How can the AEDI results be used?

The AEDI has been developed as a 'summary indicator' around children's progress. It is a population measure and has not been designed to provide an individual assessment on how a child is faring. The AEDI is most suited to mapping patterns of relative need, particularly geographic comparisons, and the data will be a valuable resource in planning for service delivery for children and families.

5. ABS 2009, Estimated Resident Population for five-year-olds, 31 March 2009.

6. Analysis of AEDI results excludes children with special needs, children with an invalid age and children for whom there were a low number of responses across the checklist.

2. How are Victorian Children Faring?

Victorian and national results

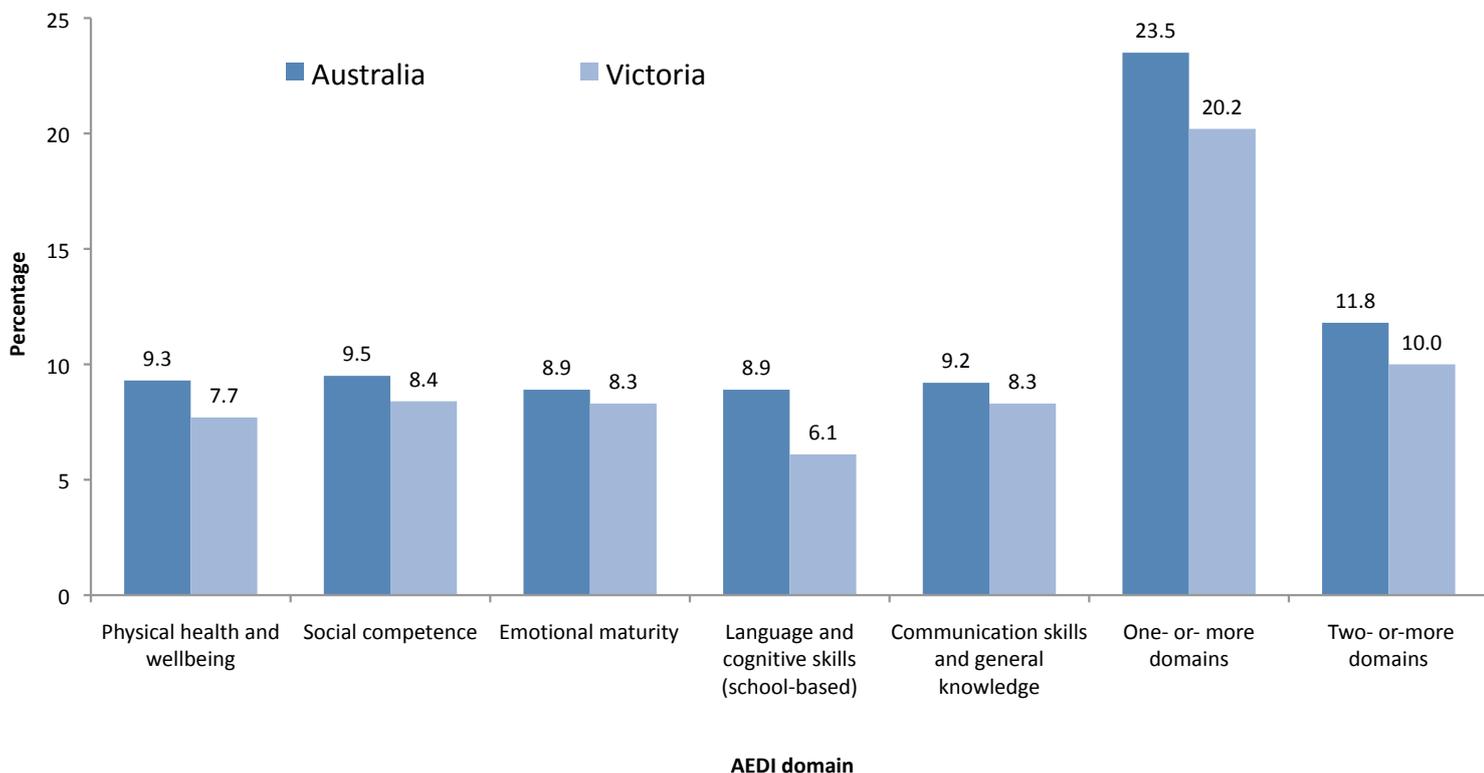
Both nationally⁷ and within Victoria, the majority of children are developmentally on track according to the AEDI results. Preliminary analysis of the Victorian data suggests that Victorian children are faring better than their national counterparts; that is, they are less likely to be vulnerable across the AEDI domains. However, approximately one-in-five Victorian children (20.2 per

cent of those surveyed) are considered developmentally vulnerable on one or more of the five AEDI domains. Furthermore, one-in-ten Victorian children (10 per cent of those surveyed) are considered developmentally vulnerable on two or more of the five AEDI domains.

Figure 2.1 shows the proportion of children in Victoria and nationally who are developmentally vulnerable on each of the five AEDI domains, and also who are developmentally vulnerable on one or more or two or more of the five domains.

Data suggest that Victorian children are faring better; that is, they less likely to be developmentally vulnerable compared to children of the same age across Australia in all domains. The greatest difference can be observed on the 'Language and cognitive skills (school-based)' domain, with 8.9 per cent of children developmentally vulnerable on this domain across Australia, compared to 6.1 per cent of children in Victoria.

Figure 2.1: Proportion of children developmentally vulnerable by each AEDI domain, on 'one-or-more' and 'two-or-more' domains, Victoria and Australia, 2009 (per cent)



Source: AEDI National Report 2009 viewed online March 2010..

[7. Across the whole of Australia](#)

Table 2.1 summarises the AEDI results for each state and territory. While children in Victoria are least likely to be developmentally vulnerable on the ‘Language and cognitive skills (school-based)’ domain than any of the other AEDI domains, this is not where Victorian children are faring best when compared to other jurisdictions. The one domain where Victorian children fare better than all jurisdictions is the ‘Physical health and wellbeing’ domain.

Table 2.1: Proportion of children developmentally vulnerable on each of the AEDI domains by state or territory, 2009 (per cent)

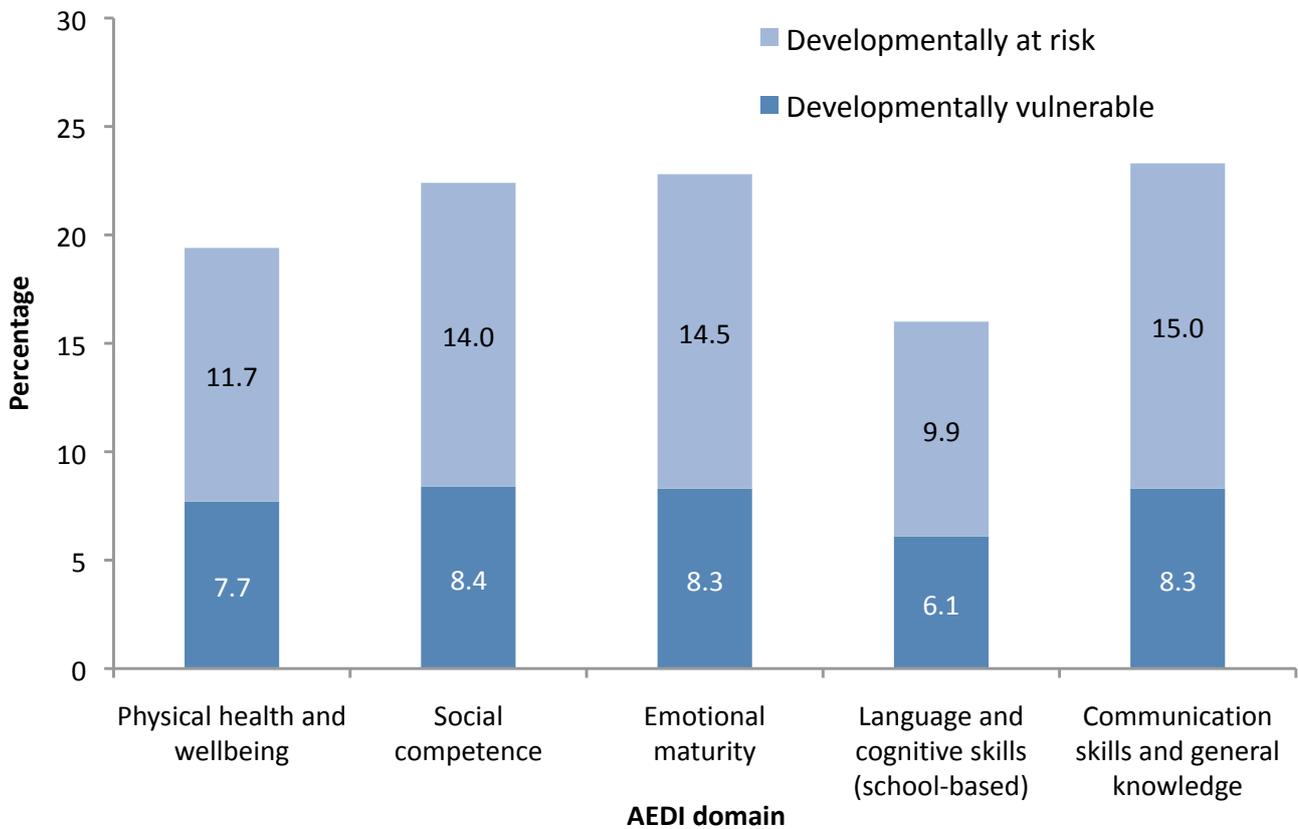
Domain	Aust	Vic	NSW	QLD	WA	SA	Tas	ACT	NT
Physical health and wellbeing	9.3	7.7	8.7	11.0	10.1	10.0	10.0	9.4	18.9
Social competence	9.5	8.4	8.8	12.1	7.7	10.0	8.6	8.9	18.1
Emotional maturity	8.9	8.3	7.4	11.0	8.8	10.3	8.5	9.0	15.4
Language and cognitive skills (school-based)	8.9	6.1	5.9	15.5	12.0	6.1	7.7	5.7	22.4
Communication skills and general knowledge	9.2	8.3	9.1	10.4	8.9	8.0	7.0	8.9	17.5
One-or-more domains	23.5	20.2	21.3	29.5	24.6	22.7	21.8	22.1	38.6
Two-or-more domains	11.8	10.0	10.3	15.7	12.2	11.5	10.8	10.8	23.4

Source: AEDI National Report 2009 (viewed online March 2010).

Children developmentally ‘at risk’

From a planning perspective, it is also important to consider the proportion of children who are developmentally ‘at risk’ on each of the five AEDI domains (refer Figure 1.1). Figure 2.2 shows the combined proportions of children who are developmentally ‘vulnerable’ and developmentally ‘at risk’ in Victoria. As depicted, of the five AEDI domains, Victorian children are least likely to be vulnerable on the ‘Language and cognitive skills (school-based)’ domain, and also least likely to be developmentally ‘at risk’ on this domain.

Figure 2.2: Proportion of children developmentally ‘vulnerable’ and developmentally ‘at risk’ on each AEDI domain, Victoria, 2009



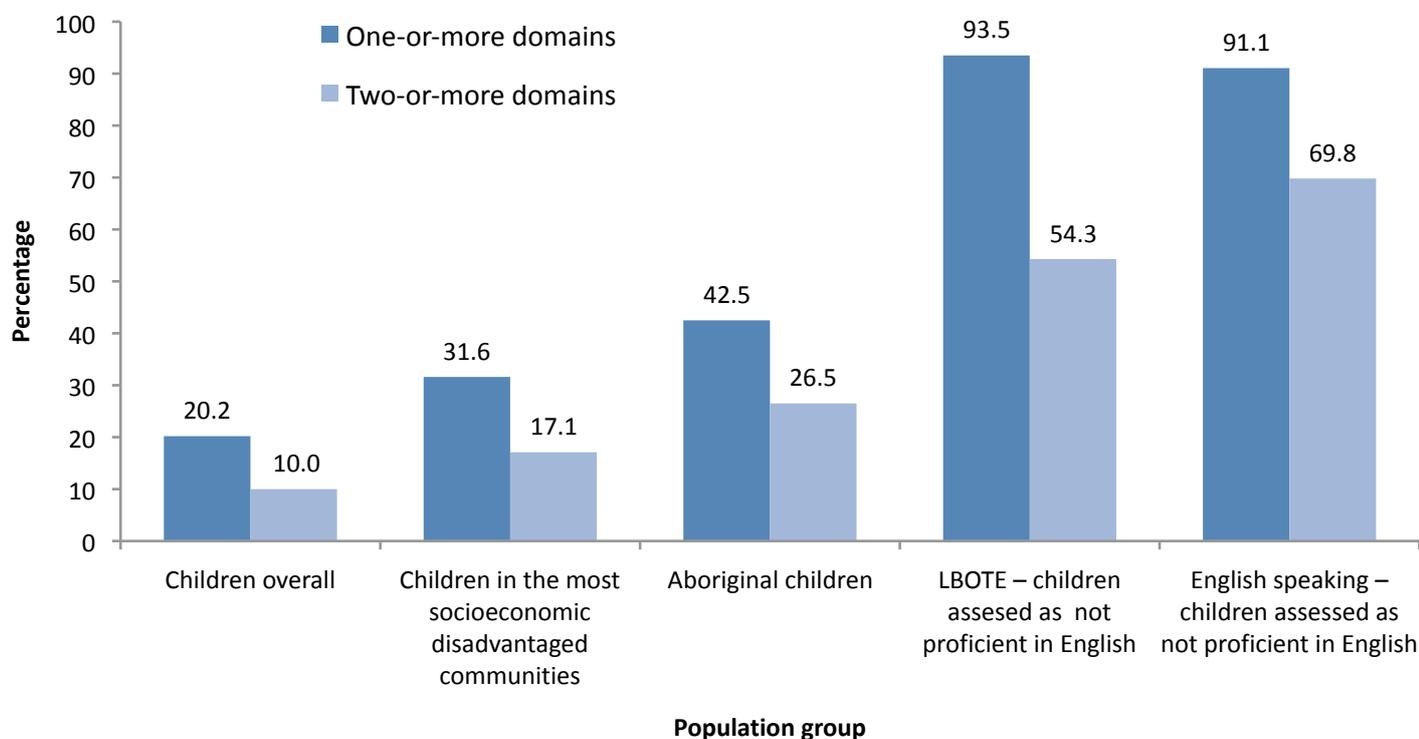
Source: AEDI National Report 2009 (viewed online March 2010).

3. AEDI Results for Population Groups

While the majority of children in Victoria are developmentally on track, there are population groups with differing prevalence of vulnerabilities:

- Children in the most economically disadvantaged communities have approximately one-and-a-half times the state average of vulnerability on ‘one-or-more’ and on ‘two-or-more’ domains.
- Children who are Aboriginal are twice as likely to be vulnerable on one-or-more domains and two-and-a-half times as likely to be vulnerable on two-or-more domains.
- Children assessed as not proficient in English, regardless of whether their language background is English or non-English, are highly vulnerable, with seven in ten vulnerable on two or more of the domains.

Figure 3.1: Population groups by results on one-or-more and two-or-more AEDI domains, Victoria, 2009⁸



Source: AEDI 2009 – DEECD Analysis.

8. The acronym LBOTE stands for Language Background other than English. In the last two groups the children may be proficient in their home languages.

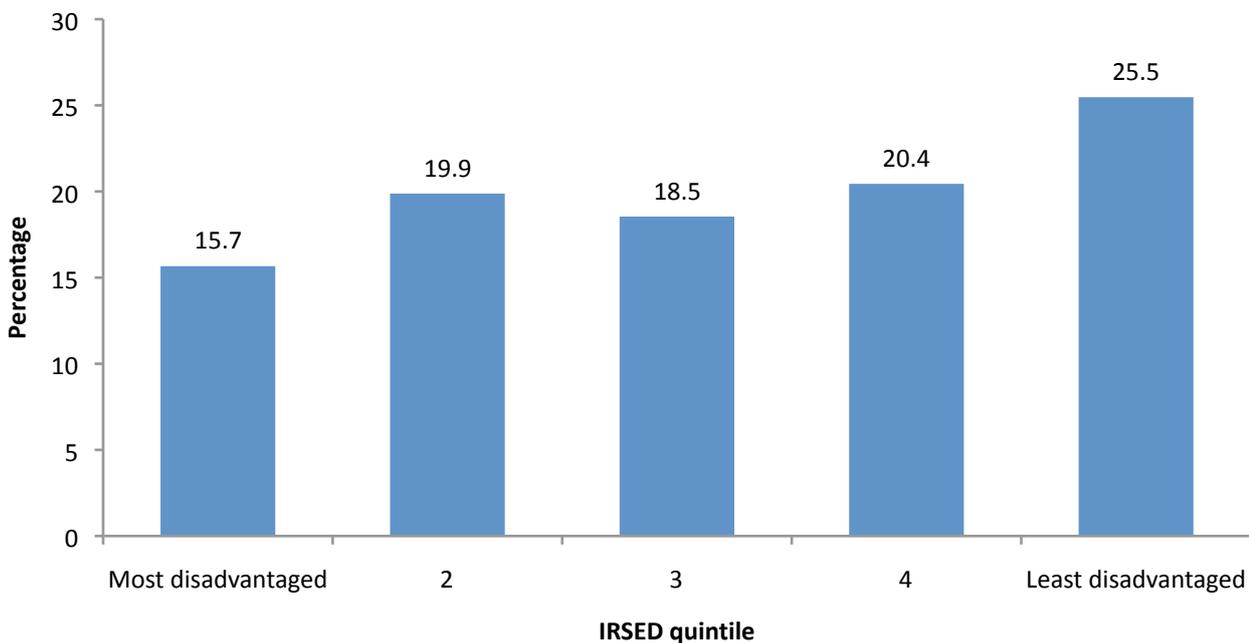
Children in economically disadvantaged communities

Socio-Economic Indexes for Areas (SEIFA) were developed by the Australian Bureau of Statistics (ABS). One of them is the *Index for Relative Socio-economic Disadvantage* (IRSED), which can be used alongside the AEDI results to show how children in more or less disadvantaged areas are faring.

Each geographic area in Australia is given an IRSED score that ranks its disadvantage in comparison with other areas across Australia. Areas can also be grouped into quintiles based on their IRSED score to provide groupings by level of disadvantage, with quintile one being the most disadvantaged, and quintile five the least. (A quintile is one of the five classes, each one containing one-fifth (20 per cent) of the total number of elements, in which a distribution can be divided.)

Figure 3.2 presents the distribution of all *Victorian children* surveyed (number = 61,187) on the AEDI across the five IRSED quintiles. As depicted, 45.9 per cent of Victorian children live in areas where there is less disadvantage (quintiles four and five), while 35.6 per cent live in areas of greater disadvantage (quintiles one and two), with the remaining 18.5 per cent living in areas that are in the third, or middle, IRSED quintile. More children in Victoria live in less disadvantaged areas (that is, in quintiles four and five, compared to quintiles one and two).

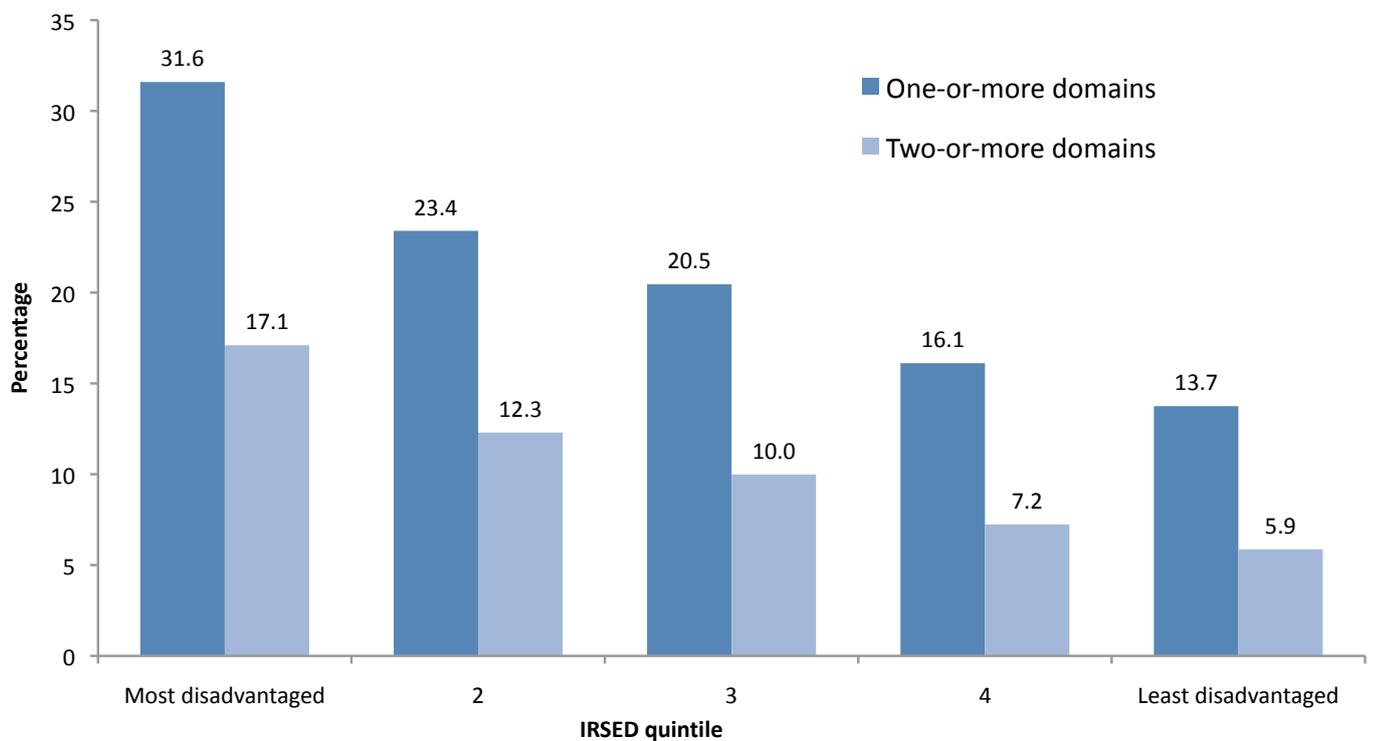
Figure 3.2: Distribution of all children assessed on the AEDI across IRSED quintiles, Victoria, 2009



Vulnerability within disadvantaged areas

Analysis of AEDI data and IRSED data shows a relationship between socioeconomic disadvantage and developmental vulnerability on the AEDI, with developmental vulnerability more highly concentrated within disadvantaged areas (refer Figure 3.3).

Figure 3.3: Proportion of children vulnerable on one-or-more and two-or-more AEDI domains, within each IRSED quintile, Victoria, 2009 (per cent)

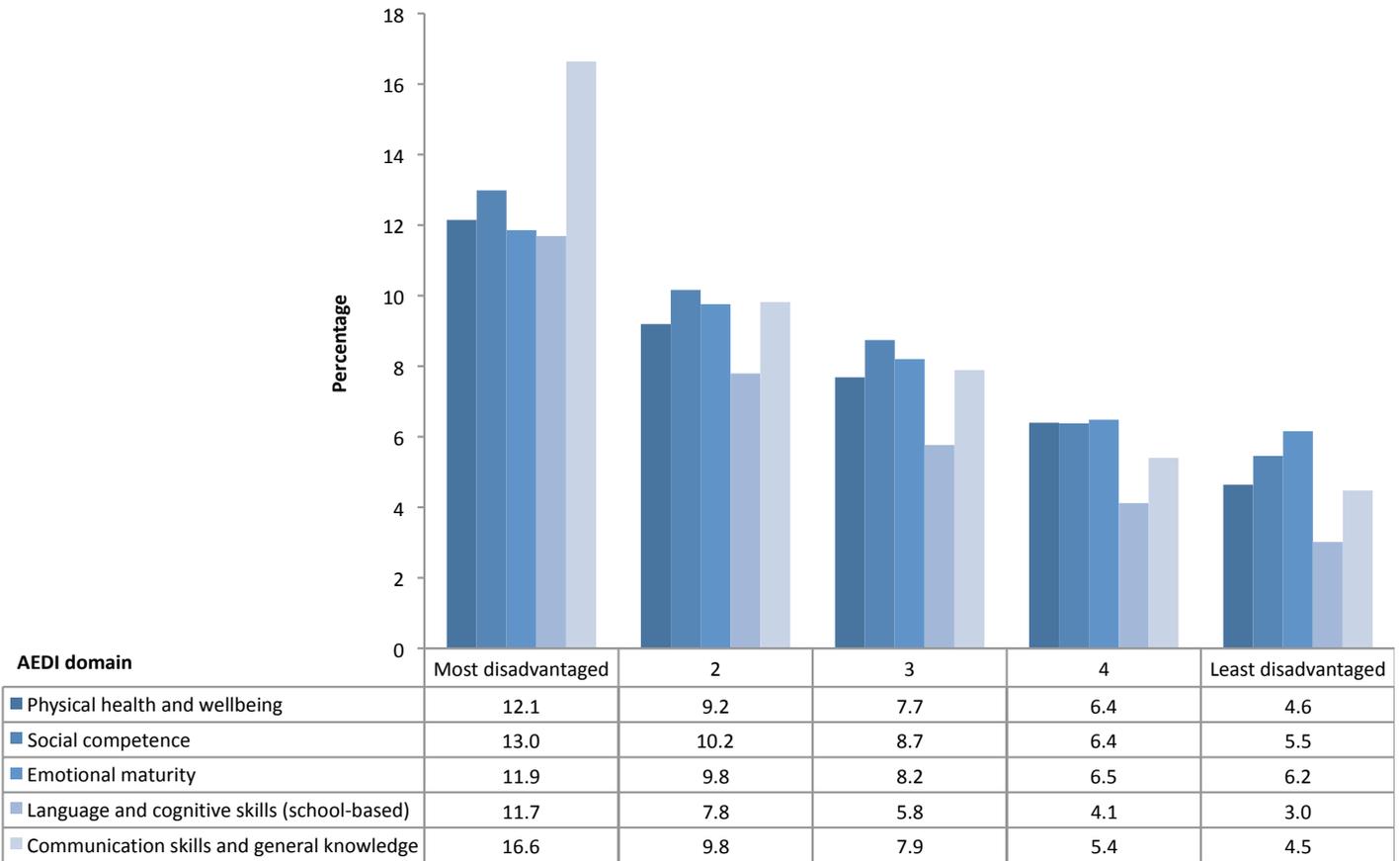


Source: AEDI 2009 – DEECD Analysis.

Figure 3.3 shows that 17.1 per cent of children living in the most disadvantaged IRSED quintile are vulnerable on two-or-more domains, compared with just 5.9 per cent of children in the least disadvantaged quintile. Therefore, children living in the most disadvantaged category are almost three times more likely to be vulnerable on two-or-more domains than children living in the least disadvantaged quintile.

Across each of the five AEDI domains, children are more likely to be vulnerable if they live in an area of greater disadvantage. However, differences in the patterns of vulnerability emerge when we look at the proportion vulnerable on each domain within each quintile. For example, as shown in Figure 3.4, within the most disadvantaged areas children are most likely to be vulnerable on the ‘Communication skills and general knowledge’ domain, whereas within the least disadvantaged areas children are most likely to be vulnerable on the ‘Emotional maturity’ domain.

Figure 3.4: Children vulnerable on each AEDI domain, within each IRSED quintile, Victoria, 2009 (per cent)



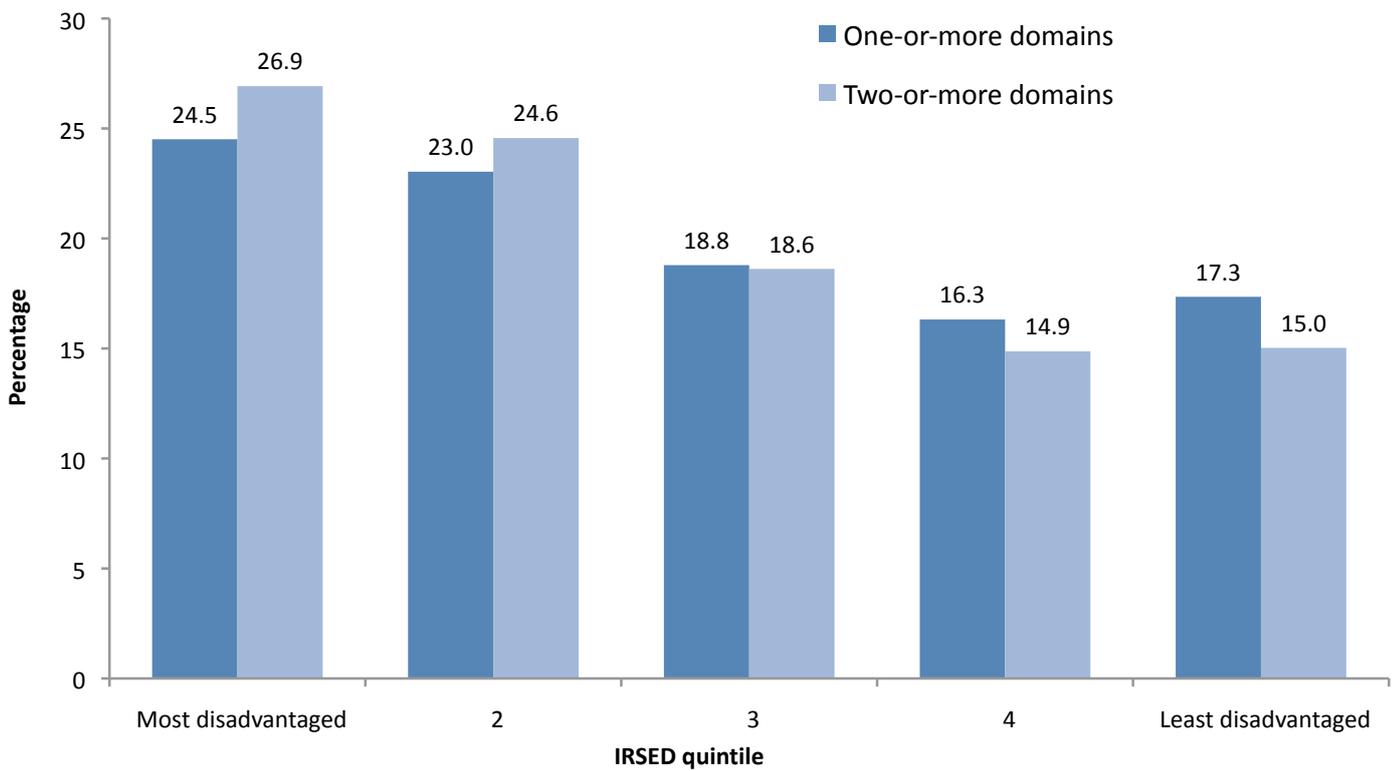
Source: AEDI 2009 – DEECD Analysis.

Vulnerability across disadvantaged areas

While the above data shows that vulnerability is more concentrated within disadvantaged areas, it is also important to consider the *number* of vulnerable children and where these children live. As shown in Figure 3.5, when looking at the *total* population (number = 61,187), more children actually live in the less disadvantaged areas.

Figure 3.5 shows that almost one-in-three children who are vulnerable on one-or-more domains and on two-or-more domains live in the least disadvantaged areas (quintiles four and five). In other words, there is a distribution of children with developmental vulnerability across the socio-economic quintiles. This has important implications for planning as targeting only disadvantaged areas would not address issues for one-in-three vulnerable Victorian children in the least disadvantaged areas.

Figure 3.5: Vulnerable children on the AEDI distributed across IRSED quintiles, Victoria, 2009 (per cent)⁹



Source: AEDI 2009 – DEECD Analysis.

⁹. This figure differs from Figure 3.3 because it maps where the vulnerable children live.

Aboriginal children

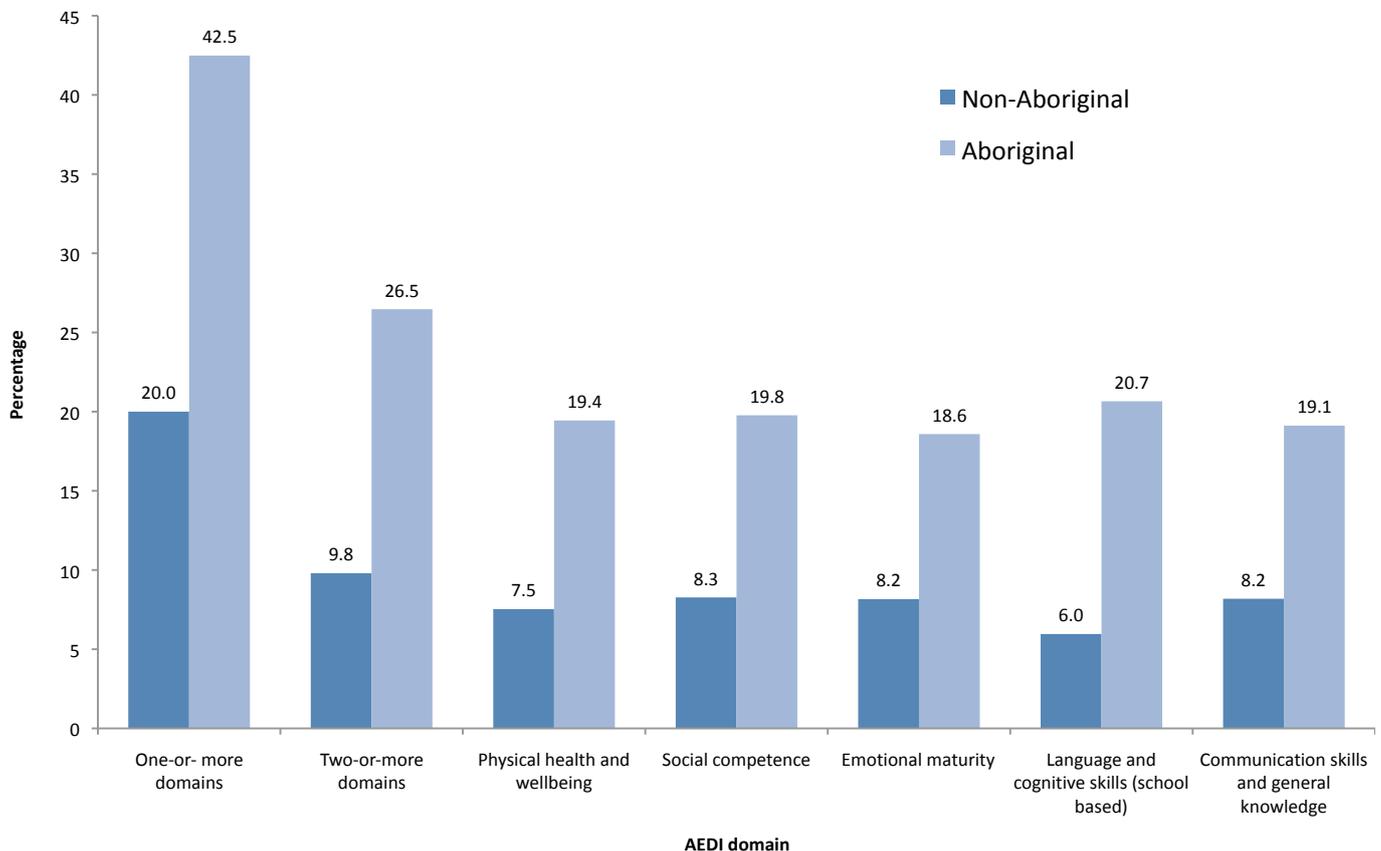
In Victoria, Aboriginal children are significantly more likely to be vulnerable on the AEDI than non-Aboriginal children, mirroring the national AEDI pattern.

Figure 3.6 depicts the proportion of Aboriginal children and non-Aboriginal children in Victoria who are developmentally vulnerable on each of the five AEDI domains. As shown, Aboriginal children are at least twice as likely to be developmentally vulnerable on each of the five domains as compared to their non-Aboriginal counterparts. The greatest difference is observed on the 'Language and cognitive skills (school-based) domain.

Victorian Aboriginal children are twice as likely to be vulnerable on one or more of the AEDI domains than non-Aboriginal children (42.5 per cent compared to 20 per cent); and two-and-a-half times more likely to be vulnerable on two-or-more domains.

Further analysis shows that almost one-in-ten or 9.2 per cent of Aboriginal children in Victoria are vulnerable on four or five of the AEDI domains (that is, almost all or all domains), compared to just 2.4 per cent of non-Aboriginal children.

Figure 3.6: Children vulnerable on the AEDI domains by Aboriginal status, Victoria, 2009 (per cent)

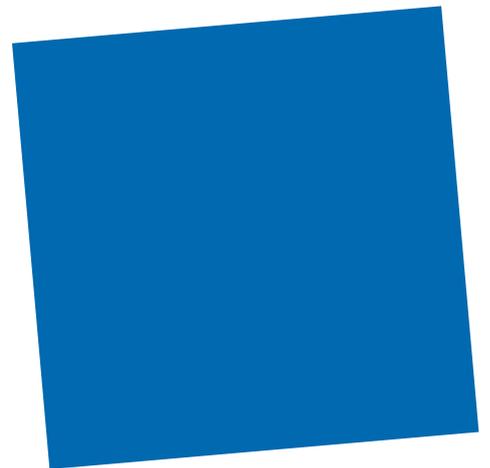


Source: AEDI 2009 – DEECD Analysis.

4. Next Steps

Mapping

A supplementary mapping report will be released in the near future to accompany this report. These maps will aim to further support both statewide and local planning levels.





Bibliography and Links

AEDI online maps	http://maps.aedi.org.au/
AEDI Results Guide	http://training.aedi.org.au/
AEDI website	http://www.rch.org.au/aedi/index.cfm?doc_id=13051
<i>A Snapshot of Early Childhood Development in Australia – AEDI National Report 2009</i>	Centre for Community Child Health and Telethon Institute for Child Health Research, 2009, Australian Government, Canberra.
Australian Standard Geographical Classification 2006 (ABS cat. no. 1216.0)	http://www.abs.gov.au/ausstats/ABS@.nsf/Latestproducts/1AE106C101420508CA2571A900170741?opendocument
Data Zone	Accessible to DEECD staff only via their intranet.
Domain fact sheet	http://www.rch.org.au/emplibrary/australianedi/AEDI_Domains_Fact_Sheet_2009.pdf
Understanding the AEDI results fact sheet	http://www.rch.org.au/emplibrary/australianedi/Understanding_AEDI_Results_Fact_Sheet_December2009_WEB.pdf
About the AEDI fact sheet	http://www.rch.org.au/emplibrary/australianedi/AEDI_Fact_Sheet_December2009__WEB.pdf
<i>State of Victoria's children reports</i>	http://www.education.vic.gov.au/about/directions/children/annualreports.htm
<i>Victorian Child and Adolescent Outcomes Framework</i>	http://www.eduweb.vic.gov.au/edulibrary/public/govrel/Policy/children/vcamsframework.pdf
Victorian Child and Adolescent Monitoring System (VCAMS) online	http://www.education.vic.gov.au/about/directions/children/vcams/default.htm



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