

# Using data to help children thrive

## Barossa community

6 November 2023

This presentation uses data from the Australian Early Development Census (AEDC). The AEDC is funded by the Australian Government Department of Education. The findings and views reported are those of the author and should not be attributed to the Department or the Australian Government.

**Part 1 – An overview of the AEDC**

**Part 2 - Looking at the data**

**Part 3 – Connecting with community**



# **Part 1**

## **An overview of the AEDC**



# Why focus on the early years?

## **Return on investment**

Investing time, effort and resources in the early years brings lifelong benefits to children and the whole community.

## **Brain development in children:**

- A child's brain develops in response to both genes and the environment.
- While genes provide the initial map for development, it is the experiences and relationships that literally shape the brains of babies and children.
- Significant 'wiring' occurs during the first years of a child's life and this effectively programs child development.

## **We know that:**

- Brain development is vulnerable to toxic stress (depending on length and number of stressors for the child)
- Families have an extremely important ongoing influence on children's development.
- The community and service environments in which children and families interact also play a key role in supporting optimal development

# What is the AEDC?

- Nationwide census
- Snapshot of children's development in their first year of full-time school
- Data collected every 3 years since 2009
- Teacher completed instrument (100 questions)
- Schools and children in 3 education sectors
- Collects data on 5 developmental domains
- Validated for use with Aboriginal and Torres Strait Islander children



In 2021, 20,259 (97.8%) children from 601 schools took part, the highest child participation rate to date in SA

# Why is the AEDC important?

## The AEDC:

- is the most comprehensive collection of its kind in the world
- provides a snapshot of children's early development in their first 5 years
- data can help identify what is working well and areas for improvement
- helps governments, communities and support services improve understanding of how to best support children and families
- provides vital information to help shape the future and wellbeing of our children

## Global

- [Sustainable development goals](#)
- [UNICEF Rights of the Child](#)

## National

- [Closing the Gap](#) – 55% on track by 2031
- Early childhood policy and data linkage research

## State

- [SA Royal Commission into ECEC](#)
- [SA Outcomes Framework for Children and Young People](#)
- [State Public Health Plan](#)
- [Early Learning Strategy](#)

## Local

## Government

- [Regional Public Health Plan](#)
- Strategic plan & Accountability plans

## Community

- Community services policy and service provision
- Partnership approaches in response to AEDC results

## ECEC & schools

- [Department for Education Strategic Plan](#)
- ECEC and school improvement planning, programs and policies

# AEDC Domains



## Physical health and wellbeing

Children's physical readiness for the school day, physical independence and gross and fine motor skills.



## Social competence

Children's overall social competence, responsibility and respect, approach to learning and readiness to explore new things.



## Emotional maturity

Children's pro-social and helping behaviours, and absence of anxious and fearful behaviour, aggressive behaviour and hyperactivity and inattention.



## Language and cognitive skills (school-based)

Children's basic literacy, interest in literacy, numeracy and memory, advanced literacy and basic numeracy.



## Communication skills and general knowledge

Children's communication skills and general knowledge based on broad developmental competencies and skills measured in the school context.

### Summary indicators

OT5

Developmentally on track on five domains

DV1

Developmentally vulnerable on one or more domain(s)

DV2

Developmentally vulnerable on two or more domains

### AEDC indicators

- For each domain, children receive a score from 0 to 10
- Using 2009 data, cut-offs (0-10) were set to define 3 categories of development for each domain:
  - **Developmentally vulnerable** (below 10th percentile)
  - **Developmentally at risk** (10th to 25th percentile)
  - **Developmentally on track** (above 25th percentile)
- The cut-offs (0-10 scale) are fixed over time, this allows us to track changes in the % of children who are developmentally on track, at risk and vulnerable on each domain for successive cohorts of children

Relevant links: [About the AEDC domains \(aedc.gov.au\)](http://aedc.gov.au)  
[Understanding the results \(aedc.gov.au\)](http://aedc.gov.au)

# Our vision – all SA children start school on track

A child who is 'on track' as measured by the AEDC:

- physically copes with their school day
- is independent and confident
- has excellent motor skills
- works and plays well with others
- follows routines and concentrates
- helps others
- is calm, kind and thoughtful
- can read and write simple sentences
- can count, recognise shapes and do math
- communicates and expresses themselves well, tells stories





# Australia and the AEDC



The number of children included in the AEDC has increased over the years, from over 260,000 in 2009 children to over 305,000 in 2021

In total, around 1.5 million children were included over the last 5 cycles

# Research tells us

AEDC results can be **predicted by**:

- Perinatal indicators
- Preschool attendance
- Playgroup attendance
- Child protection contacts

AEDC results can **predict**:

- NAPLAN
- Academic achievements
- Wellbeing
- Life course outcomes

If a child attends **playgroup** or **preschool** they are less likely to be measured as developmentally vulnerable on 1 or more or 2 or more domains

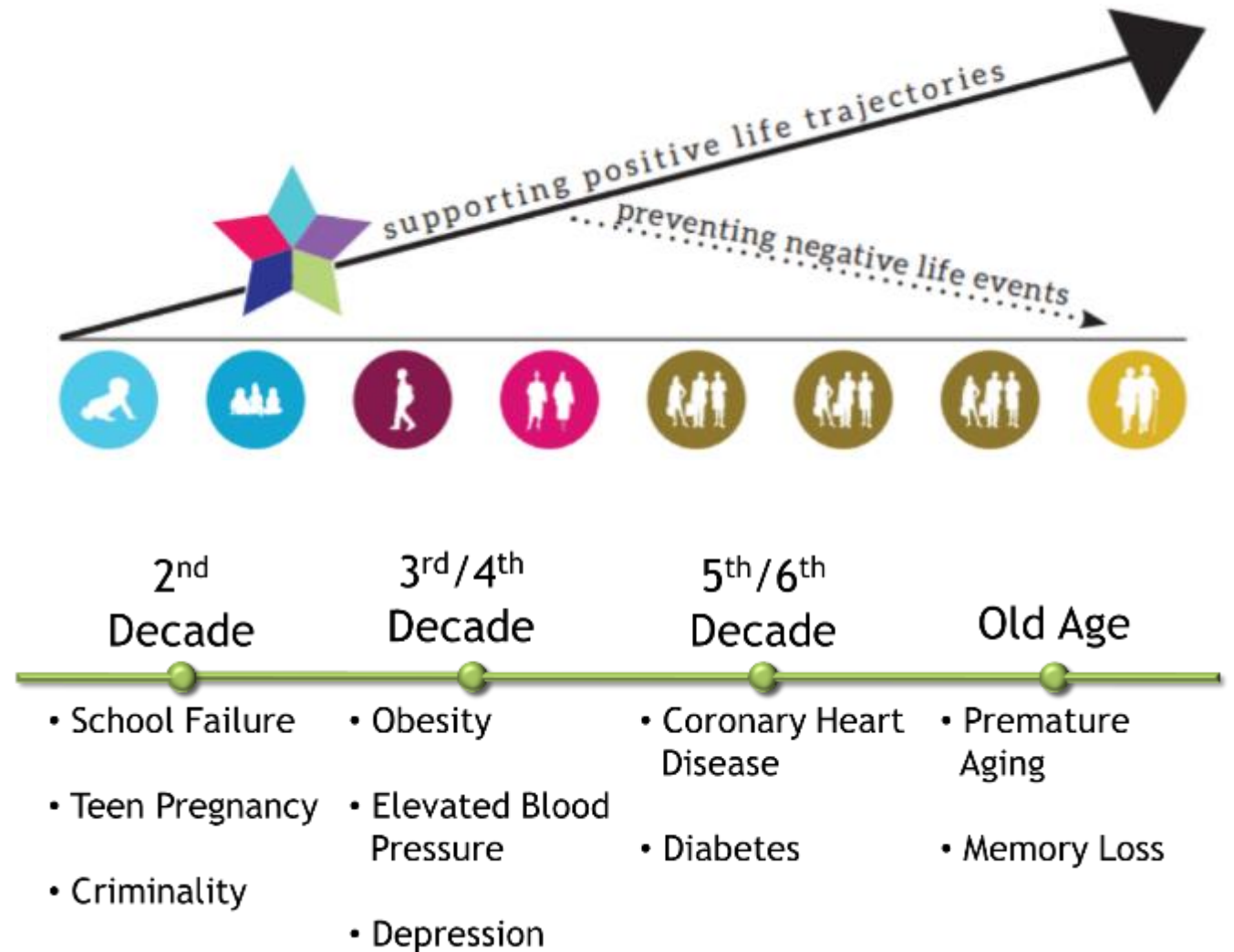
If a child experiences **out of home care (Child Protection System)** they are 3 times more likely to be measured as developmentally vulnerable on 1 or more domains as they start school and to perform poorly in Year 3 NAPLAN

If a child is measured as developmentally vulnerable on 1 or more domains at the time they start school, they are 2 times more likely to score in the bottom 20% of students completing NAPLAN

# AEDC predicts life course outcomes

## Research tells us:

- Early intervention and the prevention of developmental vulnerability leads to improved outcomes in health, wellbeing and academic success.
- Children that are developmentally 'on track' are more likely to experience a positive life trajectory, reducing negative events.



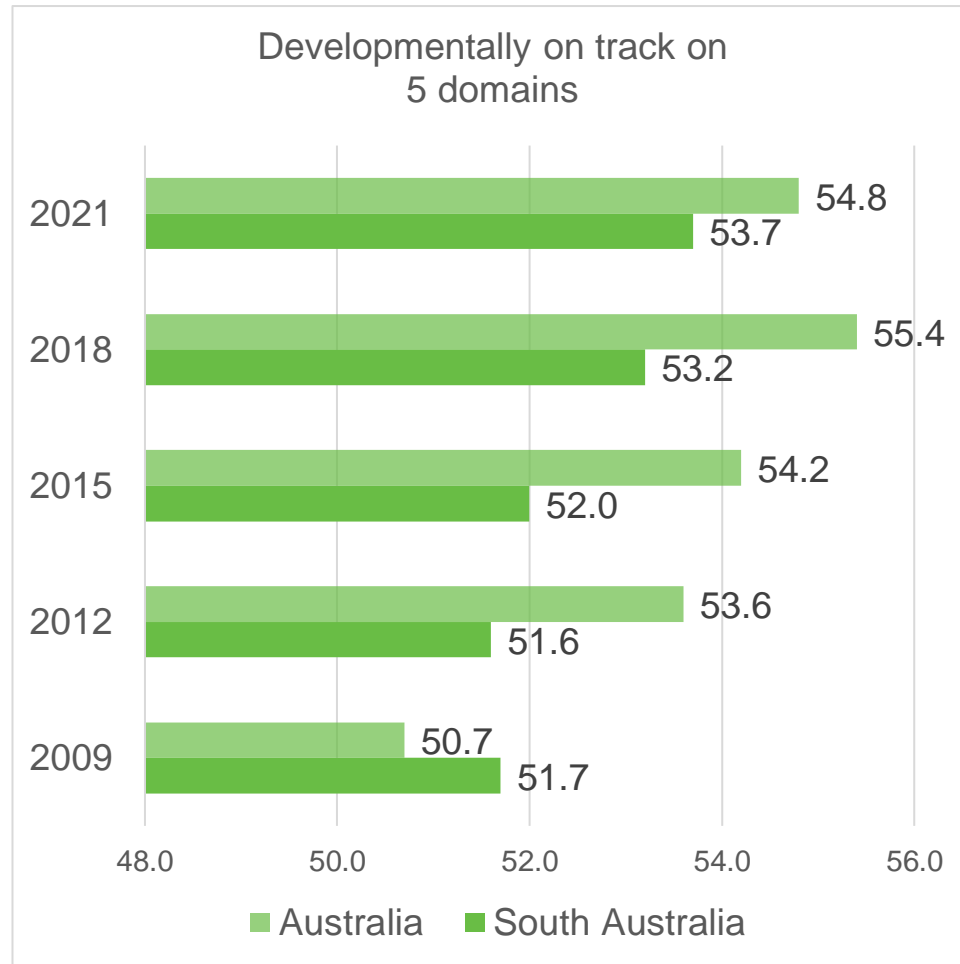
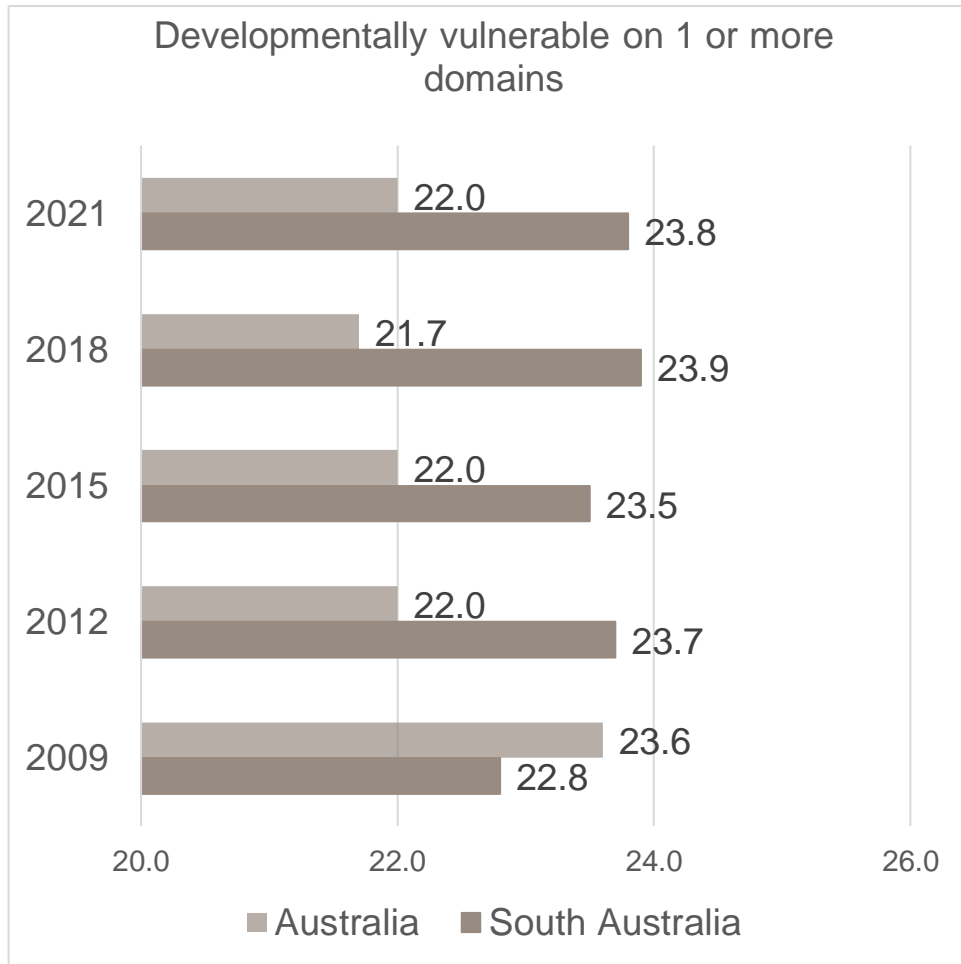
Source: Hertzman 2011

# **Part 2**

## **Looking at the data**



# National and SA summary indicators

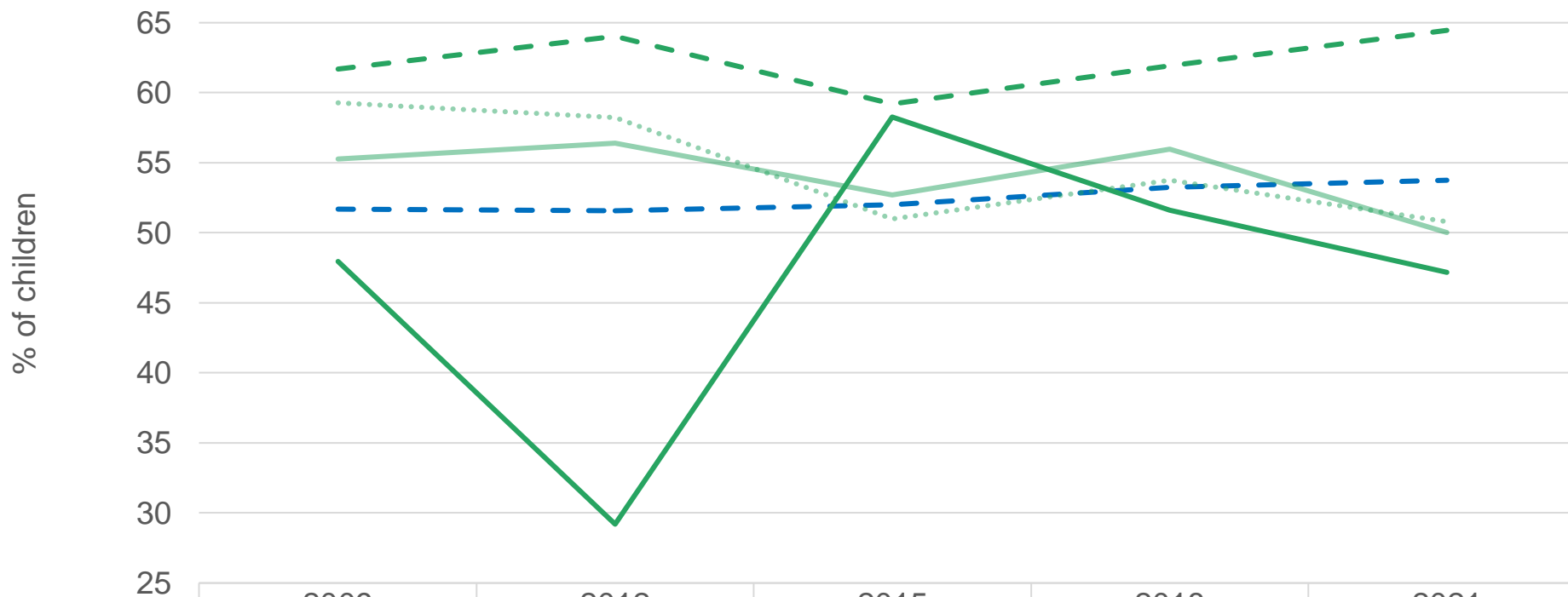


Nearly 1 in 4 children are developmentally vulnerable when starting school in SA

SA % of DV1 remains higher than the national results

In SA, OT5 has continued improving since 2012

# SA, Barossa and surrounds^ – developmentally on track on all 5 domains

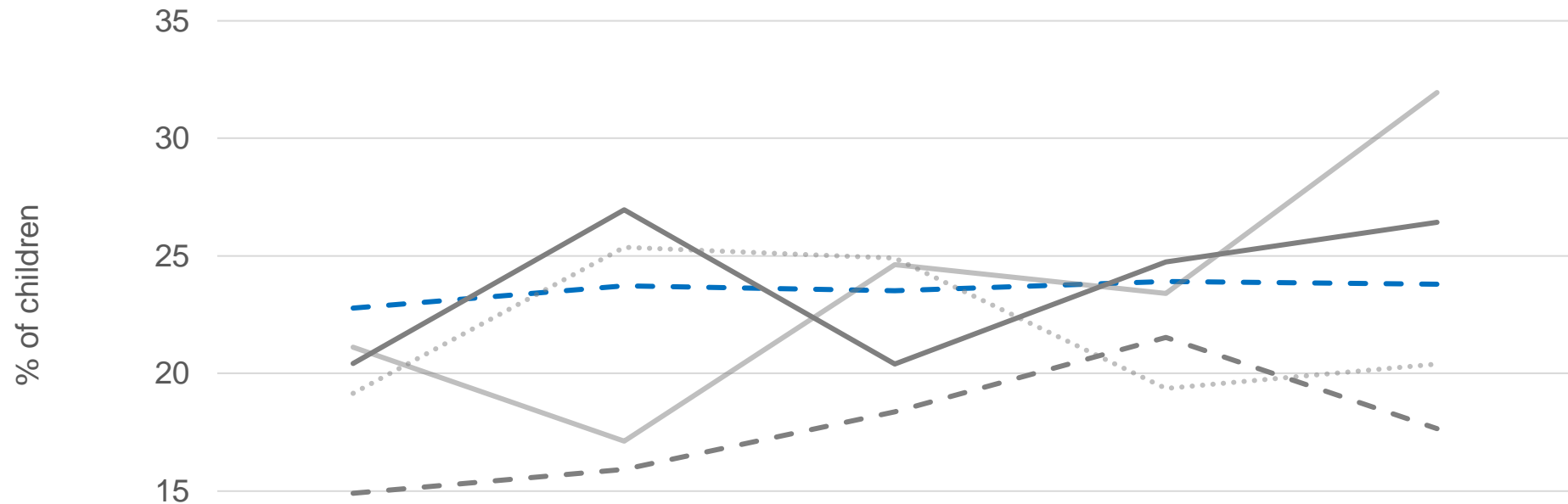


	2009	2012	2015	2018	2021
— South Australia	51.7	51.6	52.0	53.2	53.7
— Adelaide Plains	48.0	29.2	58.3	51.6	47.2
— Barossa	61.7	64.0	59.2	61.9	64.5
..... Gawler	59.3	58.2	51.0	53.8	50.8
— Light	55.3	56.4	52.7	56.0	50.0

^based on local government areas for each region

Source: 2021 AEDC National Report and [Public table by Local Government Area \(LGA\) 2009-2021](#)

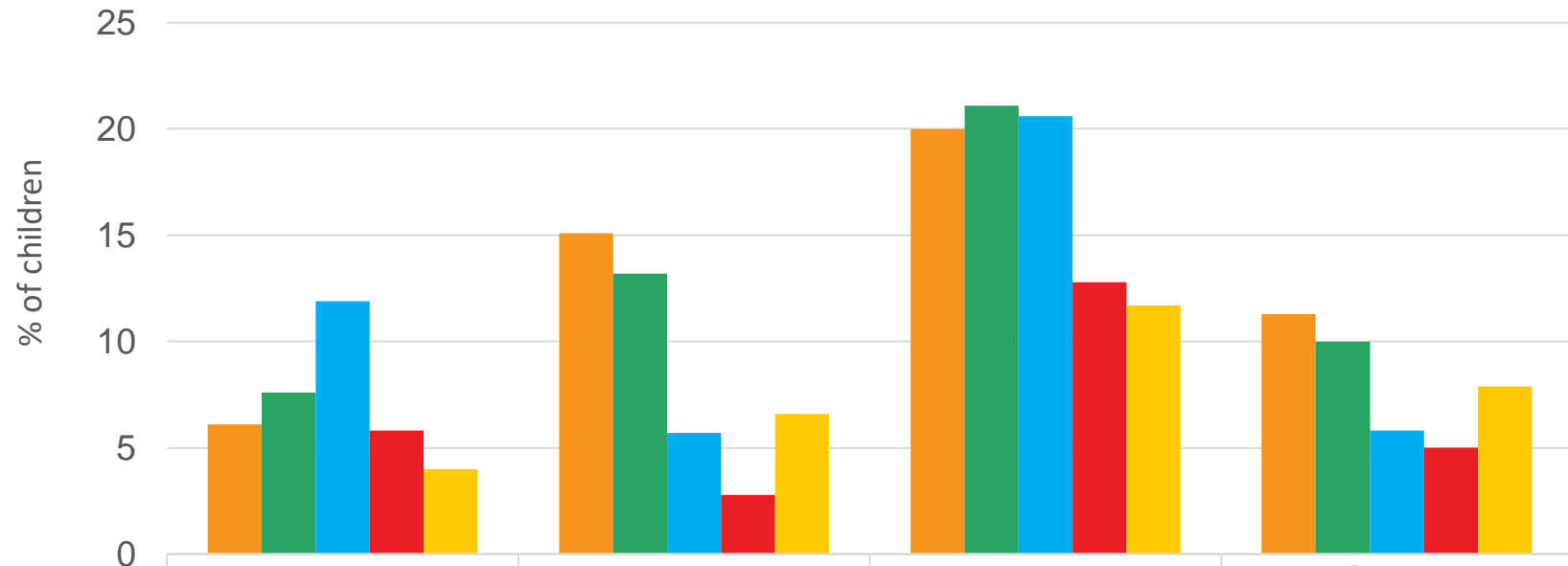
# SA, Barossa and surrounds^ - developmentally vulnerable on one or more domains



	2009	2012	2015	2018	2021
— — South Australia	22.8	23.7	23.5	23.9	23.8
— Adelaide Plains	20.4	27.0	20.4	24.7	26.4
- - Barossa	14.9	15.9	18.4	21.5	17.6
..... Gawler	19.2	25.4	24.9	19.4	20.4
— Light	21.1	17.1	24.6	23.4	31.9

^based on local government areas for each region  
 Source: 2021 AEDC National Report and [Public table by Local Government Area \(LGA\) 2009-2021](#)

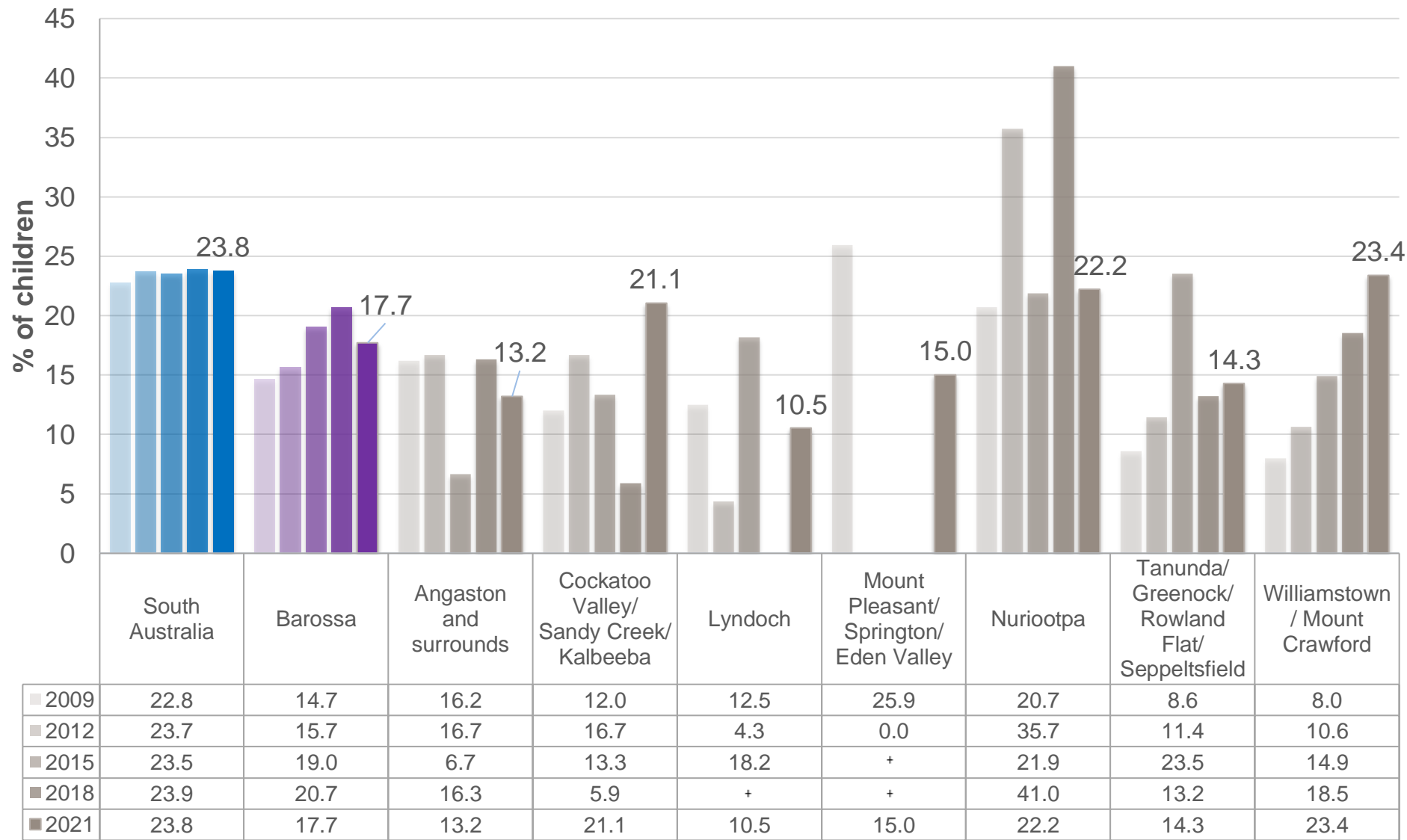
# Barossa and surrounds - 2021 developmentally vulnerable across the domains



	Barossa	Mallala	Light	Gawler
Physical health and wellbeing	6.1	15.1	20	11.3
Social competence	7.6	13.2	21.1	10
Emotional maturity	11.9	5.7	20.6	5.8
Language skills and cognitive skills (school-based)	5.8	2.8	12.8	5
Communication skills and general knowledge	4	6.6	11.7	7.9



# % children developmentally vulnerable on 1 or more domains



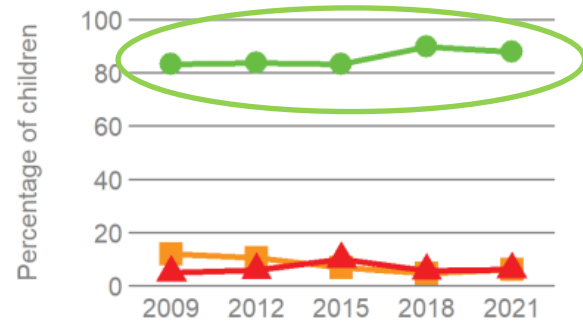
Community Area	No children 2021*
<b>Barossa</b>	<b>49</b>
Angaston and surrounds	7
Cockatoo Valley/Sandy Creek/Kalbeeba	4
Lyndoch	2
Mount Pleasant/Springton/Eden Valley	3
Nuriootpa	14
Tanunda/Greenock/Rowland Flat/Seppeltsfield	8
Williamstown/Mount Crawford	11

# Summary of trends for the Barossa community

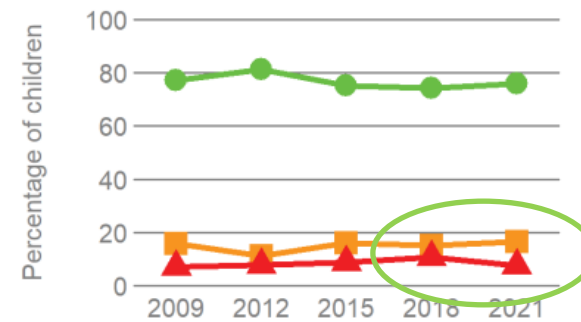
(available on page 11 of the AEDC 2021 Community Profile)

Figure 2.1 to 2.5 show broad trends for each domain from 2009 to 2021. Results are also presented in tabular format in Table 2.1.

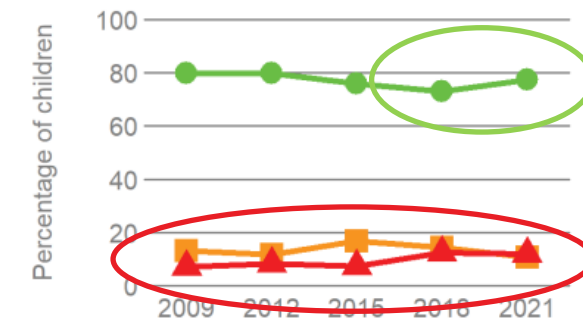
**Figure 2.1 – Trends in the physical health and wellbeing domain for this community.**



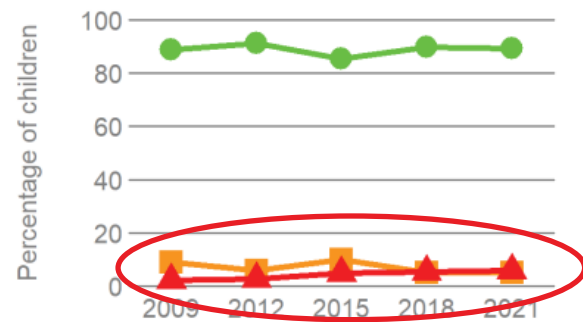
**Figure 2.2 – Trends in the social competence domain for this community.**



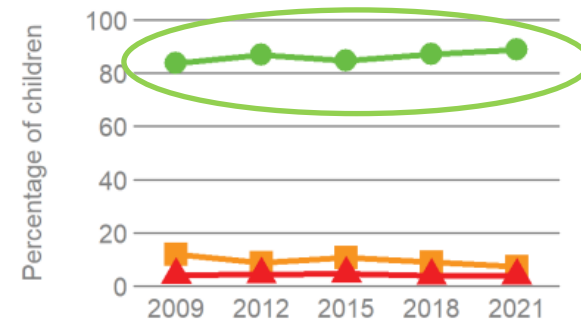
**Figure 2.3 – Trends in the emotional maturity domain for this community.**



**Figure 2.4 – Trends in the language and cognitive skills (school-based) domain for this community.**








**Figure 2.5 – Trends in the communication skills and general knowledge domain for this community.**



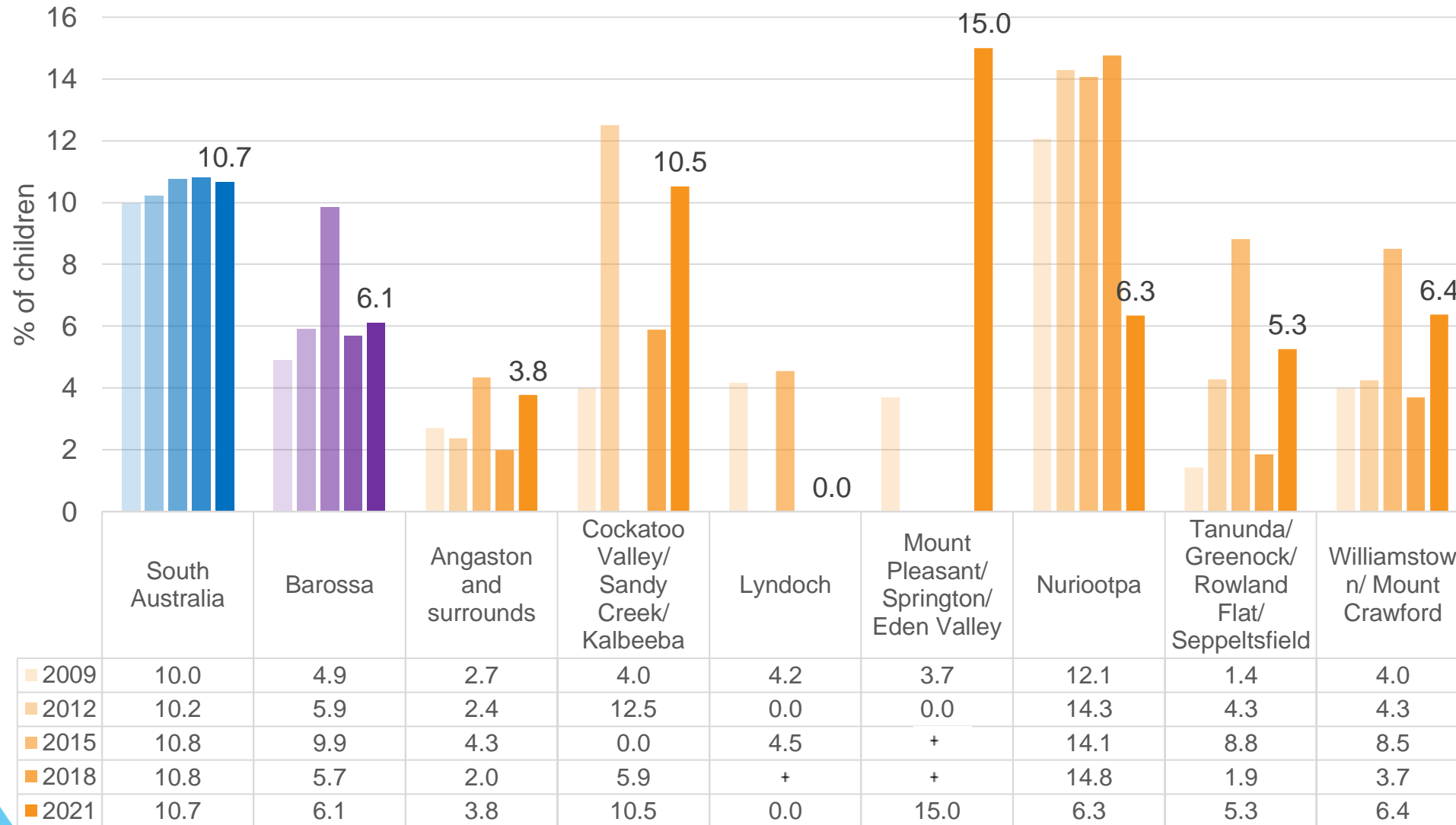
- On track
- At risk
- ▲ Vulnerable

# Summary of trends for the Barossa community

(available on page 12 of the AEDC 2021 Community Profile)

		2009		2012		2015		2018		2021		Significant change	
		n	%	n	%	n	%	n	%	n	%	2009 vs 2021	2018 vs 2021
 Physical health and wellbeing	On track	221	83.1	240	83.6	228	83.2	236	89.7	244	87.8	Increase	No change
	At risk	32	12.0	30	10.5	19	6.9	12	4.6	17	6.1	Decrease	No change
	Vulnerable	13	4.9	17	5.9	27	9.9	15	5.7	17	6.1	No change	No change
 Social competence	On track	205	77.1	233	81.2	206	75.2	195	74.1	211	75.9	No change	No change
	At risk	42	15.8	32	11.1	44	16.1	40	15.2	46	16.5	No change	No change
	Vulnerable	19	7.1	22	7.7	24	8.8	28	10.6	21	7.6	No change	Decrease
 Emotional maturity	On track	212	79.7	229	79.8	207	75.8	192	73.0	214	77.3	No change	Increase
	At risk	35	13.2	34	11.8	46	16.8	38	14.4	30	10.8	No change	No change
	Vulnerable	19	7.1	24	8.4	20	7.3	33	12.5	33	11.9	Increase	No change
 Language and cognitive skills (school-based)	On track	236	88.7	262	91.3	233	85.3	234	89.7	248	89.2	No change	No change
	At risk	24	9.0	17	5.9	27	9.9	13	5.0	14	5.0	No change	No change
	Vulnerable	6	2.3	8	2.8	13	4.8	14	5.4	16	5.8	Increase	No change
 Communication skills and general knowledge	On track	223	83.8	249	86.8	232	84.7	229	87.1	247	88.8	Increase	No change
	At risk	32	12.0	25	8.7	29	10.6	24	9.1	20	7.2	Decrease	No change
	Vulnerable	11	4.1	13	4.5	13	4.7	10	3.8	11	4.0	No change	No change

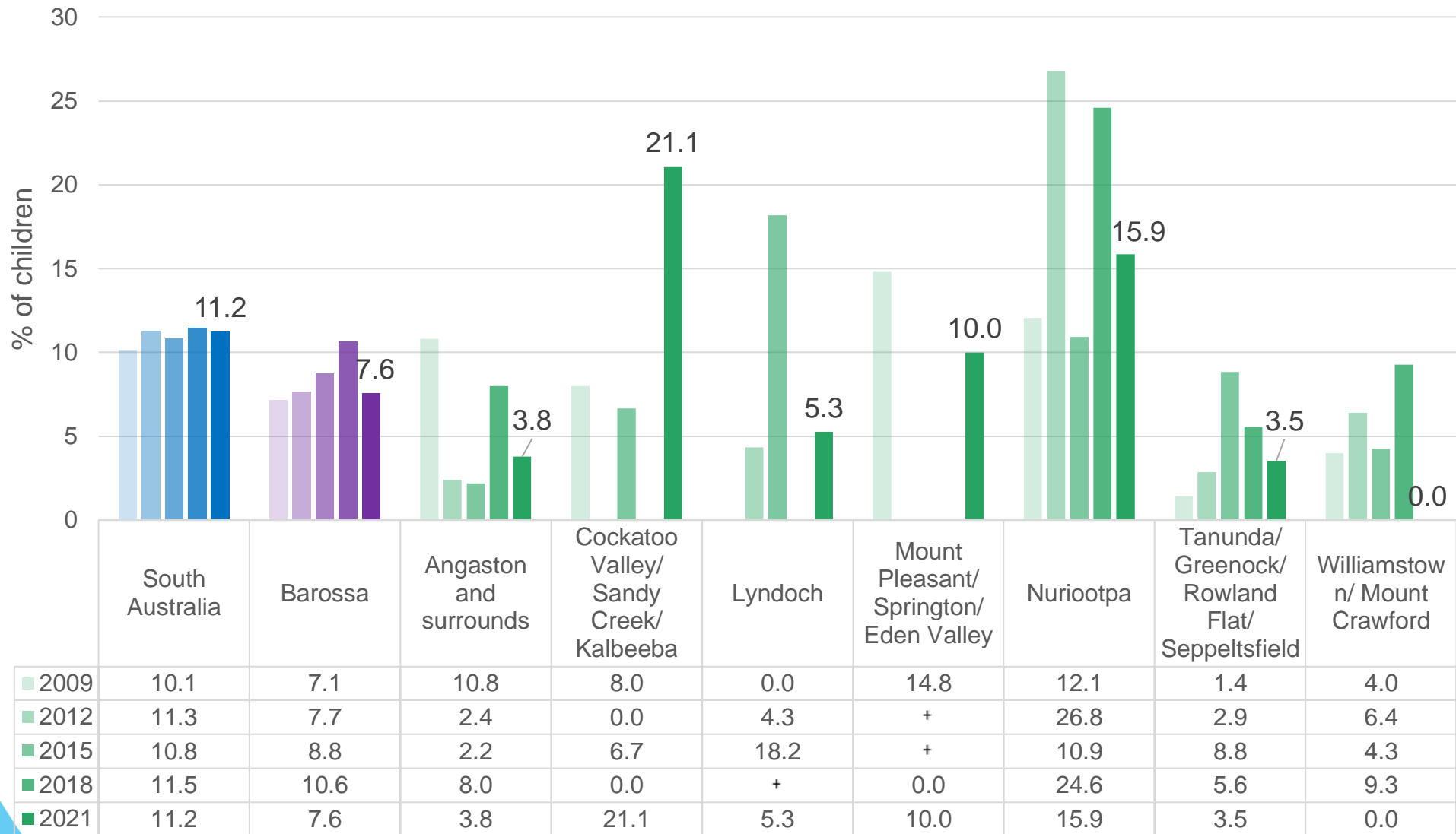
# % children developmentally vulnerable in **physical health and wellbeing**



Children learn best when they are healthy, independent and physically ready for each day of school

Community Area	No children 2021*
<b>Barossa</b>	<b>17</b>
Angaston and surrounds	2
Cockatoo Valley/Sandy Creek/ Kalbeeba	2
Lyndoch	0
Mount Pleasant/Springton/Eden Valley	3
Nuriootpa	4
Tanunda/Greenock/Rowland Flat/Sepptlesfield	3
Williamstown/Mount Crawford	3

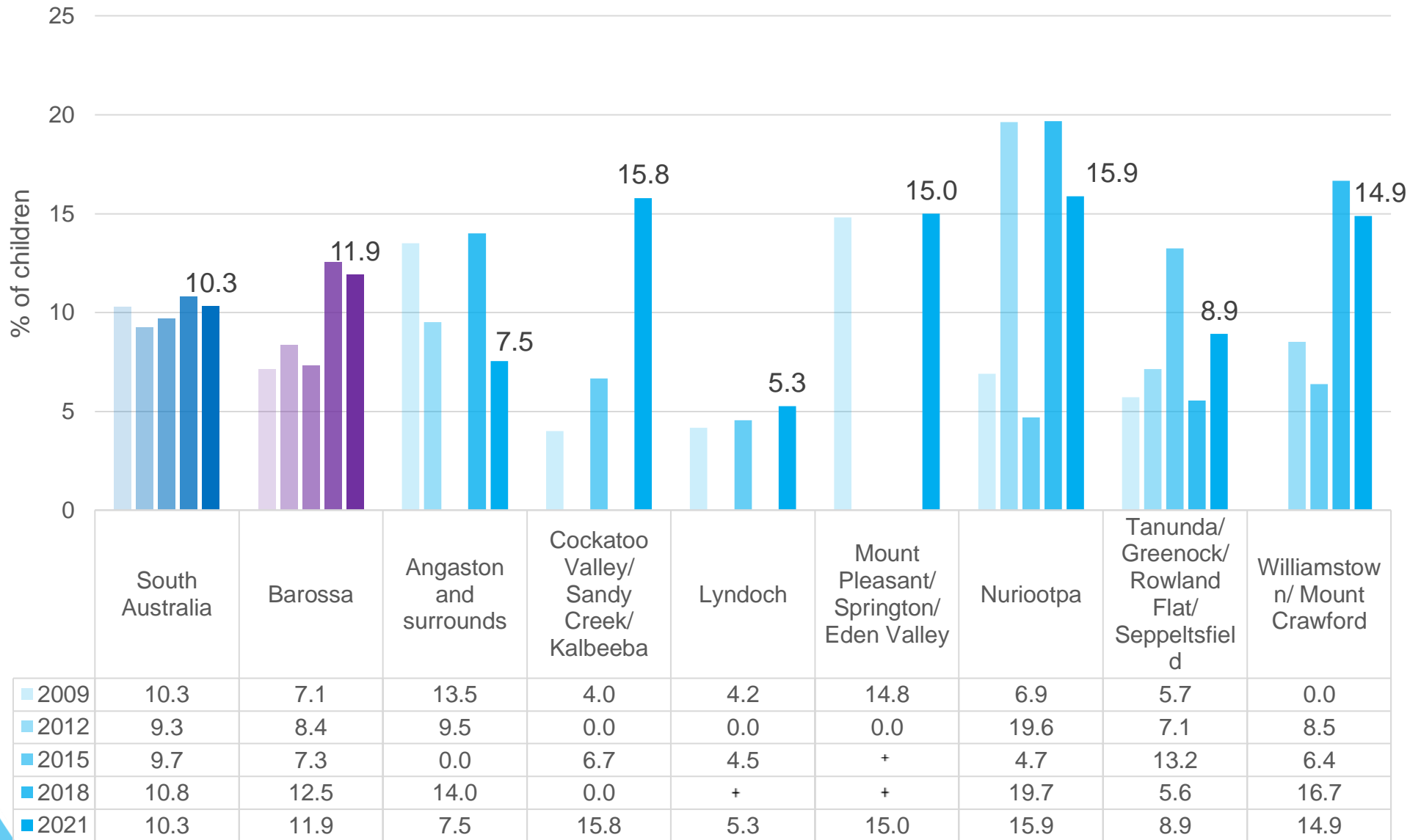
# % children developmentally vulnerable in social competence



Children do well in social settings when they are confident, happy to try new things and can get along well with other children

Community	No children 2021*
Barossa	21
Angaston and surrounds	2
Cockatoo Valley/Sandy Creek/Kalbeeba	4
Lyndoch	1
Mount Pleasant/Springton/Eden Valley	2
Nuriootpa	10
Tanunda/Greenock/Rowland Flat/Seppeltsfield	2
Williamstown/Mount Crawford	0

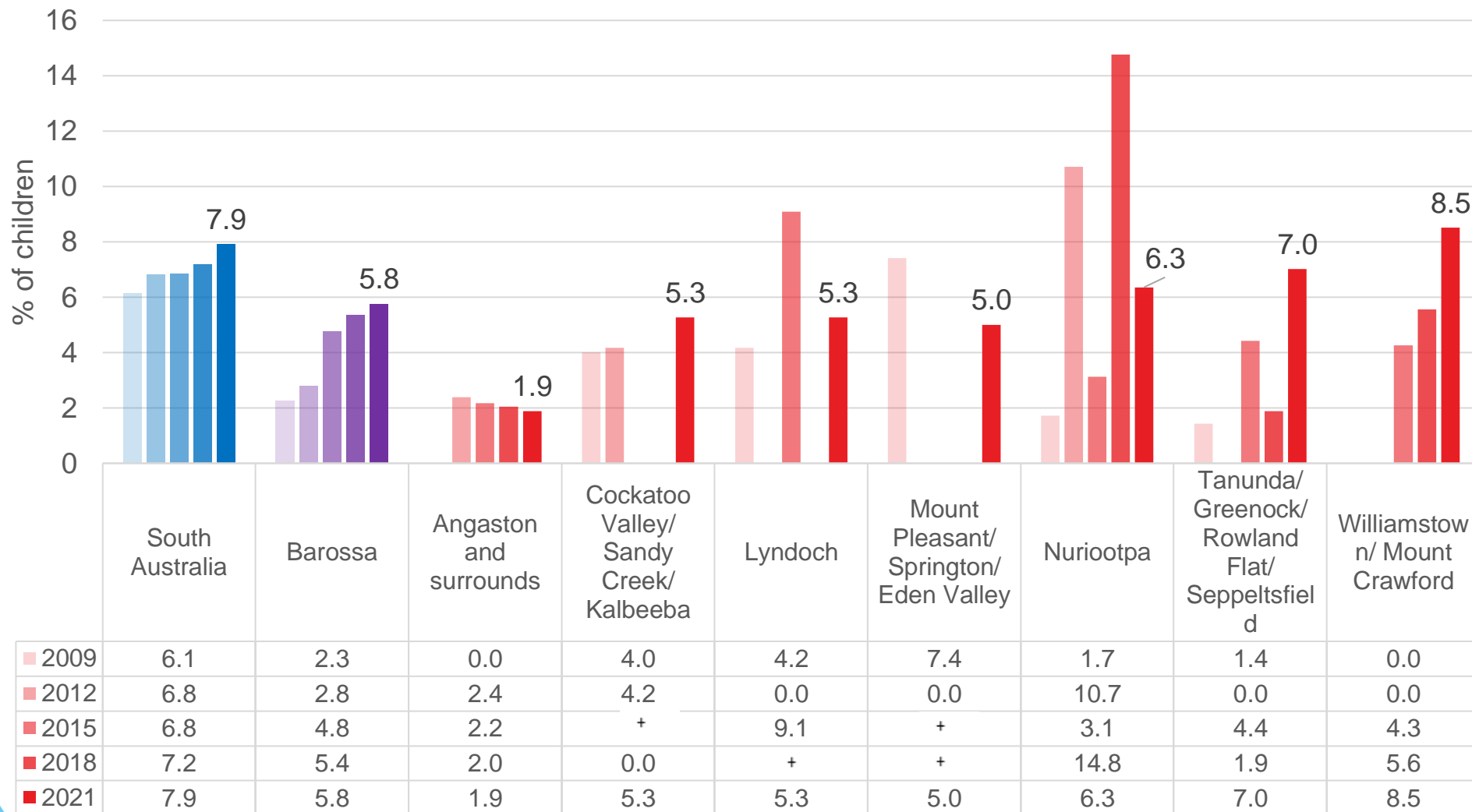
# % children developmentally vulnerable in emotional maturity



Children adapt best to a classroom environment when they can consider others, concentrate, have patience and are beginning to manage their emotions.

Community	No children 2021*
<b>Barossa</b>	<b>33</b>
Angaston and surrounds	4
Cockatoo Valley/Sandy Creek/Kalbeeba	3
Lyndoch	1
Mount Pleasant/Springton/Eden Valley	3
Nuriootpa	10
Tanunda/Greenock/Rowland Flat/Seppeltsfield	5
Williamstown/Mount Crawford	7

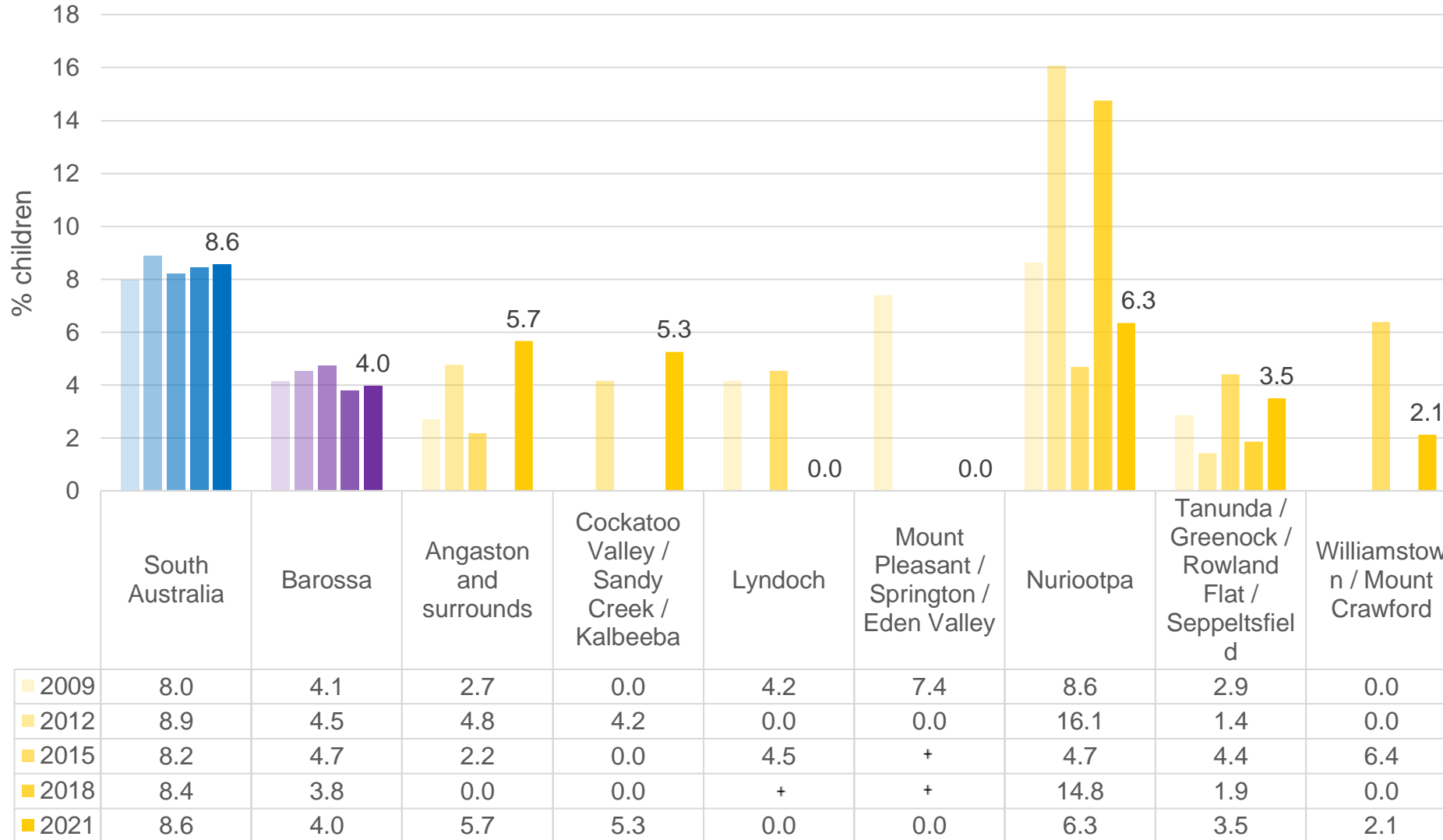
# % children developmentally vulnerable in **language and cognitive skills (school – based)**



Children love to learn. Reading, counting and recognising numbers and shapes, are important for school and life

Community	No children 2021*
<b>Barossa</b>	<b>16</b>
Angaston and surrounds	1
Cockatoo Valley/Sandy Creek/Kalbeeba	1
Lyndoch	1
Mount Pleasant/Springton/Eden Valley	1
Nuriootpa	4
Tanunda/Greenock/Rowland Flat/Seppeltsfield	4
Williamstown/Mount Crawford	4

# % children developmentally vulnerable in communication skills and general knowledge



Children love to talk about their world with other children and adults.

Community	No children 2021*
<b>Barossa</b>	<b>11</b>
Angaston and surrounds	3
Cockatoo Valley/Sandy Creek/Kalbeeba	1
Lyndoch	0
Mount Pleasant/Springton/Eden Valley	0
Nuriootpa	4
Tanunda/Greenock/Rowland Flat/Seppeltsfield	2
Williamstown/Mount Crawford	1

Source: [AEDC Barossa Community Profile 2021](#)

\*Number of children developmentally vulnerable on 1 or more domains + data suppression rules apply



# AEDC data – early childhood programs & transition to school

Engagement with early learning program/care type:	2015		2018		2021	
	n	%	n	%	n	%
Playgroup attendance	68	66	70	66	28	35.4
Centre based day care	56	43.8	63	46.7	125	63.5
Preschool/Kindergarten	279	96.5	252	96.2	289	99
Family day care	5	4.5	5	3.9	6	3.6
Grandparent care	38	36.2	33	26	18	12.7
Other relative	8	8.6	4	3.2	≤3	≤2.2

Engagement with learning/transition activity type:	2015		2018		2021	
	n	%	n	%	n	%
Child has parents who are actively engaged with the school in supporting their child's learning	283	95.9	264	96.7	283	95.9
Child is regularly read to/ encouraged in his/her reading at home	279	94.6	254	93	276	93.6

As a protective factor children and families benefit from participating in early years child-parent programs eg playgroup

Decreasing playgroup engagement and grandparent care in the community, along with increase day care engagement – *what might this tell us about the context of families in our community? How could we test this?*

Note: data is to the best of the teacher's knowledge

# AEDC data – children’s support

	2015		2018		2021	
	n	%	n	%	n	%
Children with special needs status	21	7.1	10	3.7	17	5.7
Children identified by teachers as requiring further assessment	37	12.8	31	11.5	58	20.1

This information can help you understand the support needs of children in your sites and communities.

An increase in the proportion of children teachers report as requiring further assessment could indicate increased complexity in child needs, concerns with referral networks or educators being better equipped to identify and refer children for further assessment

# How to find the data for your community?

The screenshot shows the AEDC website interface. At the top, there is a navigation bar with links for ABOUT, PRIVACY, RESOURCES, RESEARCH, FAQs, CONTACT, and SIGN IN. The AEDC logo is on the left, and the tagline 'Our Children · Our Communities · Our Future' is on the right. Below this is a dark navigation bar with links for PARENTS, EARLY CHILDHOOD, COMMUNITIES, SCHOOLS, RESEARCHERS, and DATA, along with a search bar. The main content area features a breadcrumb trail 'You are here: Home > Data' and a descriptive paragraph: 'The AEDC census data provides a snapshot of children's development that can inform communities and support planning, policy and action.' Below this, a section titled 'How the data can be viewed' is divided into three columns: DATA EXPLORER, DATA PRODUCTS, and KEY FINDINGS. Each column contains a small image of the respective tool and a brief description of its capabilities.

**DATA EXPLORER**

Explore results by AEDC community and local community and compare with jurisdictional and national results. Download 2021 Community Profiles.

**DATA PRODUCTS**

Access additional data products such as time series public tables by LGA, SA2, SA3, SA4, GCCSA, Remoteness, GIS data and SEIFA

**KEY FINDINGS**

Key findings, with an interactive chart showing trends in the AEDC for individual domains and summary indicators from 2009 to 2021 at the national and jurisdictional level

# Complementary data

AEDC is just one dataset

Combine AEDC data with other datasets to create a richer understanding of the community (strengths and challenges) to inform your work, including:

- [Australian Bureau of Statistics \(ABS\)](#)
- [Social Health Atlases of Australia \(PHIDU\)](#)
- [Community profiles and population forecasts \(.id\)](#)
- [South Australian Government Data Directory \(Data.SA\)](#)
- [Location SA Map Viewer](#)

Also ask yourself:

- What data do you already have access to?
- What community engagement data is available for your area?
- What anecdotal information is available?
- What information may local partners be able to provide to help in creating the community context picture?

AEDC Data explorer provides ABS data such as: completed year 12, recent address change, SEIFA, Young single parents and unemployment.

# **Part 3**

## **Connecting with community**



# AEDC community story - Mid Murray Family Connections



# Why communities use the AEDC

Provides a common language around children's development and wellbeing

- Supports people to come together to work toward a common goal

Provides reliable data to support groups to reflect on the context of children and families and plan their services and supports:

- Informs an approach to localised needs assessment: consider the scale and intensity of support needs and how these differ across communities
- Reflect on the experience of families in accessing the system of supports available
- Reflect on the strengths and protective factors that already exist in communities
- Develop collaborative and place-based approaches to improving outcomes for children and families

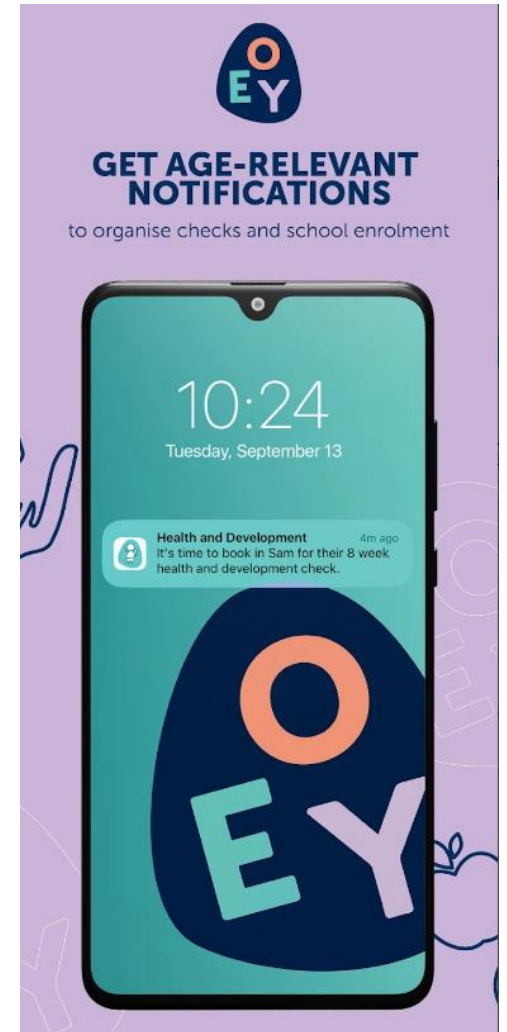


# AEDC Practice Principles



# Resources for parents & community members

- [Early Years SA app](#), provides trusted information complementing the blue book
- [My Local Services](#), a free app that delivers localised council information to residents of South Australia
- [Raising Children Network](#), has expert parenting information from pregnancy onwards.
- [Open your world](#) provides South Australians and their families with valuable resources, tools and information to support improving wellbeing by staying healthy, active and connected.
- [Parenting SA](#) has practical guides and short videos about raising children.



# Resources for parents and community members (continued)

- [Learning Potential](#) has tips and ideas about helping your child's learning.
- [Starting Blocks](#) provides parents with information about early childhood education and care.
- [Great Start](#) provides everyday ideas for learning.
- [Our Learning SA](#) has resources to help families and children to continue learning between school and home.
- [The free Bright Tomorrows app](#) has 1000s of ideas to help build a child's brain.
- [The Let's Read](#) website has tips and tools to promote reading with young children.
- [Visit the National Disability Insurance Scheme website](#) for information about accessing support if you have concerns about your child's development.



# Resources for community stakeholders

- [2021 AEDC National Report](#)
- [AEDC Choosing effective interventions fact sheet](#)
- [AEDC Early Childhood Sector User Guide \(aedc.gov.au\)](#)
- [AEDC Community stories \(aedc.gov.au\)](#)
- [AEDC research findings / research snapshots](#)
- [AEDC Data explorer](#)
- [AEDC Resources for Communities \(aedc.gov.au\)](#)
- [AEDC FAQ's](#)
- [Centre for Community Child Health : Platforms \(rch.org.au\)](#)
- [The Australian Physical Literacy Framework \(pescholar.com\)](#)



Briana Green

**Principal Program Officer – Local Activation, Australian Early Development Census  
Early Childhood Services and Strategy**

**Office for the Early Years**

Department for Education | 30 Flinders Street, Adelaide SA 5000

m 0429 878 514

e [Education.AEDCTeam@sa.gov.au](mailto:Education.AEDCTeam@sa.gov.au)

w [About AEDC in SA](#) | w [www.education.sa.gov.au](http://www.education.sa.gov.au) | w [aedc.gov.au](http://aedc.gov.au) |

Note: national results drawn from the 2021 AEDC National report and SA data sourced from the SA 2021 AEDC Pivot Table  
Quote from Inclusive SA (State Disability Inclusion plan 2019-2023)