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Understanding Educational opportunities and outcomes: A South Australian Atlas



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*UNDERSTANDING
EDUCATIONAL OPPORTUNITIES
AND OUTCOMES:
A South Australian Atlas*

John Glover
Diana Hetzel
Sarah Tennant
Kristin Leahy

January 2010

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Other Authors/Contributors:

Glover, John.
Public Health Information Development Unit (Australia)

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Public Health Information Development Unit, The University of Adelaide

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Enquiries about or comments on this publication should be addressed to:
PHIDU, The University of Adelaide, South Australia 5005
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Foreword

The Smith Family is proud to be involved in the publication of *Understanding Educational Outcomes and Opportunities: An Atlas of South Australia*.

As a nation, our social and economic prosperity depends upon our children being able to access a world class education – not just to prepare them for future jobs, but to ensure they are able to participate effectively in the 21st century knowledge era.

Over the past decade, the South Australian Government, the Australian Federal Government, businesses and the community as a whole have embraced education and understand its importance for individuals, particularly in the critical developmental years of early childhood. However, it is clear that the quality and quantity of educational opportunities remain very different for children around Australia, with those living in disadvantaged communities having access to far fewer resources or support for their learning. Without appropriate interventions, these children are likely to grow up facing the same barriers to their participation that their parents faced in the past, and that their own children will face in the future.

The key to successfully breaking this cycle of disadvantage is to ensure that children in all communities have the same chance to realise their potential through education as any other, regardless of their background. To achieve this, we need quality contemporary data that clearly identify where extra support is required to improve the educational outcomes of individuals, families and communities as a whole.

Understanding Educational Outcomes and Opportunities: An Atlas of South Australia is an initiative of The Smith Family and PHIDU (the Public Health Information Development Unit) with funding from the Department of Education and Children's Services. It is designed to meet this need by providing a resource to help schools, community organisations and government at all levels engage in evidence-based planning and policy development, as well as effective cross-sector partnerships to support better educational opportunities for children across the life course. It also establishes benchmarks against which subsequent performance of our early childhood and education sectors may be measured as required under the National Education Agreement and the Schooling/ Early Childhood Education National Partnerships. The Atlas also provides important information about the social and economic contexts in which children and young people develop and learn, and schools and teachers go about their work. Unless we take account of these differing contexts, performance cannot be assessed.

Focusing primarily on indicators of access and participation, the Atlas also includes data sourced from the National Assessment Program in Literacy and Numeracy (NAPLAN) and the Australian Early Development Index (AEDI), providing detailed information on children across a range of indicators associated with their literacy and numeracy, as well as providing a picture of early childhood outcomes. All the data in the Atlas is also available on the PHIDU website (www.publichealth.gov.au) in addition to interactive mapping and graphics packages that can be used to analyse the findings in different ways.

The Atlas is a powerful tool in collaboratively working towards the future education and wellbeing of South Australians. In particular, it will assist policymakers, teachers and practitioners in identifying and addressing inequalities in education, which is an important aim of South Australia's Strategic Plan, the Department of Education and Children's Services Strategic Plan and the COAG Melbourne Declaration more broadly.

If other states and territories in Australia follow the example of South Australia in producing and maintaining this kind of resource, we will be able to take a great step forward in creating a more caring and cohesive community for our children.



Elaine Henry

CEO, The Smith Family

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Section 1

Context and purpose

In this section ...

- Introduction
- Background
- Overview
- Aims
- Action following on from this report
- Sources of information

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Introduction

Over the last fifteen years, numerous reports and studies have highlighted substantial variations in the wellbeing of the South Australian population, and the gap between those who are 'well off' and those who are not ⁽¹⁾. These differences are readily apparent within the metropolitan area of Adelaide and across the rest of the State.

There is mounting evidence of the significant impact of both economic and social inequalities on various groups in society, and government and community concern about the need to address them. In this atlas, the term 'socioeconomic' refers to the social and economic aspects of a population, where 'social' includes information about the community and its level of education, welfare, housing, transport and so forth. It is not used in the context of 'social' as in 'social skills', 'social capital', 'social ability' or 'social behaviour' of community members. Therefore, an area described as having 'a high level of socioeconomic disadvantage' does not imply that the area has low cohesion or lacks strength as a community; rather it identifies a relative lack of resources or opportunities that are available to a greater extent in more advantaged communities.

The South Australian Government has identified addressing inequality as a state priority. This atlas highlights the extent and significance of inequalities in learning and development across the community, particularly those associated with wider social and economic influences.

The Smith Family, as an independent non-profit organisation, works in partnership with others to assist disadvantaged Australian children and their families. Their work supporting children's learning is one of the most effective means of breaking the cycle of disadvantage and ensuring all children have the same opportunity to develop and learn, and to be all that they can be.

This atlas is a joint project between The Smith Family and PHIDU, University of Adelaide, supported by the SA Department of Education and Children's Services (DECS). It focuses on learning and development, and the avoidable differences in these outcomes across communities in South Australia. It is hoped that the atlas will highlight communities and groups within the population where further effort is needed to improve outcomes in learning and development, both for individuals and for populations.

Background to this report

Recent international research on wellbeing, human development and learning highlights the importance of investing in the earliest time of life and the years

of childhood and beyond, for lifelong learning ^(2, 3). The quality of a child's earliest environments and the availability of appropriate experiences at the right stages of development are crucial in determining the strengths or weakness of the brain's architecture. Supporting optimal early childhood development greatly increases children's chances of better learning outcomes, greater employment opportunities and good health ^(3, 4). A lack of vital emotional, social and economic resources during critical periods of development can lead to significant disadvantage and poorer life outcomes for those who are adversely affected ^(4,5).

The South Australian Government has invested in bringing together different sectors of government and the community to find solutions to address economic, social and environmental issues facing South Australia at the present time, and into the future.

To this end, a number of initiatives have been set up across government, and in partnership with local government, the non-government sector and private enterprise. For example, in March 2002, the Premier established the Government's Social Inclusion Initiative and appointed the Social Inclusion Board with the objective of 'recapturing South Australia's confidence and self esteem by tackling some of the most pressing social issues facing the State' ⁽⁶⁾.

In November 2002, the newly formed Economic Development Board presented the *State of the State Report* ⁽⁷⁾. This was a comprehensive examination of South Australia's current economic performance relative to other Australian States and Territories, and it identified that South Australia lagged the nation in most key economic indicators.

The follow up report, *A Framework for Economic Development in South Australia*, identified that South Australia needed robust economic growth to 'deliver the social outcomes that we all want: for example, protection of our natural environment and appropriate investment in schools, hospitals, police and key infrastructure that will maintain our high quality of life and well-being' ⁽⁸⁾.

In order to flourish, South Australia must maintain a workforce which has the skills, knowledge and creativity to support a community that is inclusive of all its members. With respect to learning and development, the Government has a significant reform program, which includes legislative change in a number of areas; retaining young people in school, work or training to the age of 17 years; setting up a new South Australian Certificate of Education (SACE); extending formal regulation in a new *Education and Care Act* to all services that cater for the learning and development of children from birth

to the end of schooling; improving student outcomes on literacy and numeracy; requiring all services to be registered and meet standards of operation to ensure children are safe and provided with high quality services; government, providers and families having a shared responsibility for outcomes for children; and making preschool and school governance arrangements more flexible to meet the needs of local communities.

Other programs recognise the importance of early childhood as an influence on human development, learning and overall wellbeing. An inquiry into Early Childhood Services led to a state-wide plan for early childhood services, including the establishment of Children's Centres, in-home family support programs and Aboriginal family centres; and the provision of scholarships for more Aboriginal people to study to become early childhood teachers⁽⁹⁾. The *Keeping Them Safe* strategy for child protection also focused on early intervention and prevention in cases of child abuse and neglect, and aimed to minimise the longer term, adverse consequences for these children and their families⁽¹⁰⁾.

The SA Strategic Plan also contains a range of targets for education and learning and the influences on them⁽¹¹⁾. Making progress towards these targets is a major focus for government action and policy direction, and the atlas contains a number of the Plan's indicators.

The pursuit at state level of equity in education and early childhood has received additional support at the national level with two recent developments. In December 2008, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) endorsed the *Melbourne Declaration on Educational Goals for Young Australians*⁽²⁴⁾. The Declaration's first goal is "Australian schooling promotes equity and excellence" and sets out a more detailed commitment to action that reinforces the key reforms underway in South Australia.

In addition, the Council of Australian Governments' (COAG) *National Reform Agenda* includes similar priority areas, especially for children and young people: child protection, early childhood learning, preschool and schools, the gap in wellbeing between Aboriginal peoples and other Australians, social inclusion, health and hospital services, health promotion and illness prevention, housing, productivity, and vocational education and training.

The National Education Agreement contains the following outcomes of schooling⁽¹²⁾:

- All children are engaged in and benefiting from schooling;
- Young people are meeting basic literacy and numeracy standards, and overall levels of literacy and numeracy achievements are improving;

- Australian students excel by international standards;
- Schooling promotes social inclusion and reduces the educational disadvantage of children, especially Indigenous children; and
- Young people make a successful transition from school to work and further study.

These reflect a commitment to addressing the issue of social inclusion, together with responding to Indigenous disadvantage, and are underpinning principles for the other outcomes in the Agreement. In committing to the Agreement, governments recognised that the collection, provision and publication of data on student outcomes and school performance were essential for public accountability and would provide data information to help to improve students, schools and education systems over time.

To provide communities with information about the early development of their children before they start school, the Australian Government has funded the use of the *Australian Early Development Index* (AEDI)⁽¹³⁾. The AEDI has also been adapted to ensure its relevance and sensitivity to the needs of Aboriginal children. The AEDI is aimed at helping communities understand how their children are doing developmentally, and compared to children nationally and in other communities. It identifies the strengths of community resources and services, as well as areas where improvement may be needed⁽¹³⁾.

The AEDI checklist consists of questions across five developmental areas: Physical Health and Wellbeing; Social Competence; Emotional Maturity; Language and Cognitive Skills; and Communication Skills and General Knowledge⁽¹³⁾. These are used by teachers to assess children on entry to school. The AEDI results are then mapped to provide communities with a picture of the early childhood development strengths and vulnerabilities in each community and on each of the developmental areas. By understanding children's development as they start school, communities can consider the resources and services which may be affecting children's development, and their effects⁽¹³⁾.

Therefore, the AEDI provides communities with an opportunity to strengthen collaborations between schools, early childhood services, and local agencies to support children and families. Along with a range of other community indicators, the AEDI can be used by policy makers to plan and evaluate place-based initiatives for children. Communities can use the AEDI to develop and evaluate their efforts to improve children's outcomes⁽¹³⁾.

The Australian Government Department of Education, Employment and Workplace Relations has invested \$20.4 million to 30 June

2011 to implement the AEDI nationally, and South Australia participated in the first round of national data collection in 2009 ⁽¹⁴⁾.

Another major initiative under this Agreement is the National Partnership Agreement on Literacy and Numeracy, which aims to deliver improvements in literacy and numeracy for all students, with a particular target on cohorts of students at risk, by focusing on the key areas of teaching, leadership and the effective use of student performance data.

The literacy and numeracy focus saw the introduction of the National Assessment Program - Literacy and Numeracy (NAPLAN) with all Australian students in Years 3, 5, 7 and 9 being assessed using national tests in 2008 in the areas of reading, writing, language conventions (spelling, grammar and punctuation) and numeracy: the Program was repeated in 2009. Students who achieve at or above the national minimum standard are deemed to have demonstrated the basic elements of literacy and numeracy required for that year level. Results are provided to schools, providing teachers and systems with data to review their programs, their teaching strategies and the need for additional support. Results are also provided to parents.

These policy directions highlight the importance of linking social and economic policy solutions, and these initiatives, and others like them, set the context for this report.

Overview

Learning, development and wellbeing are the product of many different factors. Some of these include individual characteristics such as the genes that we inherit from our parents, and aspects of our own beliefs, behaviours and coping abilities. Other significant influences come from our families, neighbourhoods, communities, culture or kinship groups, and society as a whole. The social and economic environment is a major determinant of the population's learning, development and wellbeing in South Australia ⁽¹⁵⁾.

The purpose of the atlas is to deepen our understanding of the impact that social, physical and economic factors have on learning, development and wellbeing, and to describe the distribution of these factors across the South Australian population.

Over the last two decades, there have been major social and economic changes in South Australia, especially in the areas of work, learning and communication, resources for families, community supports and the balance between them ⁽¹⁾. These changes are not unique to South Australia, occurring in other Australian States and Territories

as well as in other countries. Some examples of these are:

- Marked alterations in the nature and amount of available work and in opportunities for the employment of young people, with globalisation and technological advances, placing greater demands on education and skills development ⁽¹⁶⁾;
- Rapid technological change bringing new ways of learning, communicating and interacting across communities ⁽¹⁷⁾;
- Greater challenges in balancing work and family responsibilities ⁽¹⁸⁾;
- Pressures on affordable housing, particularly public housing ⁽²³⁾;
- Significant economic hardship and joblessness for many households ⁽¹⁹⁾;
- Changes in rural and remote communities, and the dramatic impact of climate and water issues;
- A rise in those affected by addictions to alcohol, drugs and gambling ⁽²⁰⁾;
- A greater awareness of the effects of stress on children and young people as a result of serious family problems ⁽⁵⁾; and
- The persistence of significant disparities in learning, development, health, and other aspects of wellbeing across the population ⁽¹⁾.

These changes in society have been widespread and the ensuing disruptions experienced by individuals, families and communities, substantial. The rate of change has been rapid and without precedent in its scope and impact on different segments of the population ⁽²¹⁾. We are witnessing greater disparities in economic and social outcomes, as individuals, families and communities attempt to adapt. The transitions appear to be continuing, and the long-term impact of such a rapidly changing society is not known ⁽²⁾.

Such serious economic and social changes have heightened the need for up-to-date skills and knowledge ⁽¹⁷⁾. The complexities of modern societies require people to be open to new ideas and adept at doing things differently. Those who are not able to anticipate and adapt to change – to continue learning throughout their lives – are likely to become increasingly marginalised in economic and social life ⁽²²⁾.

Thus, we need to understand better the complex interactions between individuals and their families, the pressures exerted by their environments and social structures over a lifetime, and how these factors influence the learning, development and

ultimately, the wellbeing of current and future generations of South Australians.

One way of doing this is to choose a number of indicators to describe the levels of different aspects of wellbeing of the population at the present time and, by using them, to highlight the extent of existing inequalities in learning and development.

Indicators are useful for:

- Informing people about social issues, including access to and outcomes in education
- Monitoring these issues to identify change, both between groups in the population, and over time; and
- Assessing progress toward goals and targets, or achievement of policy objectives.

These purposes suggest that indicators need to:

- reflect the values and goals of those who will use and apply them;
- be accessible and reliably measured in all of the populations of interest;
- be easily understood, particularly by those who are expected to act in response to the information;
- be measures over which we have some control, individually or collectively, and are able to change; and
- move governments and communities to action.

The indicators presented in this report and on the World Wide Web were selected because they describe the extent of inequality in educational access, participation and outcomes, in the context of the demographic and socioeconomic composition of South Australia. They are also those for which reliable data are available which can be mapped to show variations by area, across Adelaide and country South Australia.

The indicators represent areas where considerable inequalities exist and some are measures from the SA Strategic Plan. They provide only a partial picture of the existing social and economic inequalities in learning and development in South Australia. However, it is hoped that this report will raise awareness of the extent of these inequalities and their impact on different sections of the population.

Aims

The report has a number of specific aims:

- to describe some of the factors that have important influences on learning and development for the South Australian community;

- to identify significant differences (or inequalities) in learning and development across the South Australian community, and to assess possible trends in such inequalities over time;
- to map and describe changes in a selection of indicators chosen for this report;
- to provide information in a form that will support discussion and action by communities and organisations at local, regional and state levels; and
- to raise awareness in the wider community about the extent to which South Australia is an unequal society, and the impact of this on the wellbeing of the whole population.

It has been prepared for the use of all those wishing to know the extent of inequalities in learning and development in South Australia, and wanting to do something about them.

It is hoped that people will draw on the report:

- to understand the extent of inequalities across South Australia;
- to identify trends over time;
- to develop activities that will reduce these inequalities; and
- to track emerging issues of concern to particular communities or groups in South Australia.

Action following on from this report

The report will be distributed widely to South Australian organisations and communities to assist in the development of an understanding of the extent and impact of socioeconomic inequalities in learning and development across the State; and to encourage the direction of greater efforts to reduce these inequalities for children, young people and other groups with identified learning needs.

The Smith Family and DECS will use this document to engage with families, communities, local service organisations, business leaders, education providers, teachers and others towards this end. The findings of the report will also be useful to DECS in their policy development and strategic planning processes.

For further information, contact:

The Smith Family

97 Pirie Street,

Adelaide, South Australia.

Phone: (08) 8244 1400.

Or go to www.thesmithfamily.com.au

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Section 2

A focus on the determinants of learning and development

In this section ...

- Understanding learning and development for individuals and communities
- What factors determine our learning and development across the life span?
- Linking aspects of wellbeing, learning and development
- Addressing avoidable differences in learning and development outcomes
- Sources of information

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Understanding learning and development for individuals and communities

There are many factors which influence the learning and development of individuals and contribute to effective, inclusive communities. Knowledge of these factors has shaped the ways we deliver services to children, young people, families and communities, and the nature of our preschool programs, schools and adult re-entry colleges, universities and training centres, childcare, welfare agencies, workplaces and health care services.

For over fifty years, the work of Bowlby, Gesell, Piaget, Bronfenbrenner and others has provided important insights into human development by identifying the critical events occurring in infancy and childhood, including parent-child attachment, emotional regulation, and language acquisition ^(1,2). Much of this knowledge focuses upon the idea of consecutive stages of development in an individual, each building upon the former, with competencies being established in a hierarchical fashion over time. Learning and development pathways, from infancy to adulthood, have been described for language, cognitive, socio-emotional, moral and the physical domains of learning, growth and development ⁽³⁾.

However, there is a growing body of new research about the determinants of human learning and development. In particular, knowledge from a range of disciplines about the impact of early learning experiences on brain and behavioural development is proving influential in Australia, and internationally.

It is now evident that there is a critical inter-relationship between children's brain development and biology, and their early learning experiences and environments ^(4,5). The physical, social, emotional, cognitive, behavioural and language development of a child is integrally connected to that child's life experiences and environment. How a child learns and develops across each domain influences wellbeing and competence for life; and the 'nurturing' qualities of the environments where children grow, learn and live - parents, caregivers, family and community - have the most significant impacts on their development ⁽⁶⁾.

However, our ability to apply this knowledge has been constrained by a number of transformations in the social and economic circumstances under which families with children are living ^(7,8). Over the last two decades, there have been marked changes in the nature and amount of employment engaged in by parents of children, and greater challenges in balancing work and family responsibilities; rapid technological change with implications for skills development and employment requirements; significant economic hardship for many families

despite overall increases in rates of adult employment; growing numbers of young children spending time in childcare settings, starting in infancy; a greater awareness of the effects of stress on children and young people as a result of serious family problems and the presence of adverse environmental conditions that are detrimental to their wellbeing; and the persistence of significant disparities in developmental, health and learning outcomes across the population, especially for Aboriginal peoples and others who are socially and economically disadvantaged ⁽⁹⁾.

Parents and other caregivers cannot provide strong, nurturing environments without knowledge and support from their wider families, kinship and cultural groups, and local communities, and resources from regional, state and national arenas. Ultimately, the social and economic milieu exerts a powerful influence upon these environments, which, in turn, strongly affect learning, school success, economic participation, social citizenry, and wellbeing and development throughout life ^(10,11).

In the light of new knowledge and changing social circumstances, there is a need to assess differences in learning and development across the population which can be avoided. Where effective means of preventing poor outcomes have been developed, then they are almost certainly more cost effective than attempts to ameliorate problems once they are established. The proven effectiveness of many programs suggests there is much that can be done to strengthen opportunities for those who are socially and economically disadvantaged to participate more fully in society, by focusing on policies that promote human flourishing ⁽¹²⁾.

Core concepts of human development

The use of the term 'development' throughout the atlas refers to human development, learning and capability - giving people the opportunities to live lives they value, and enabling them to become effective actors in their own destinies ⁽¹³⁾. A capability approach to learning 'focuses on the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have' ⁽¹³⁾.

The idea of human capabilities is a more expansive notion than human capital, because learning encourages aspects of human flourishing that are wider than those associated with merely increasing productivity or economic growth, and underpins what makes a 'good society' ⁽¹⁴⁾. The capability approach emphasises what kinds of learning are valuable, and is particularly concerned with inequalities and developing capabilities through education. It does not dismiss human capital concerns about the economy, skills and growth but seeks to add to these, a wider remit for education and social justice ⁽¹⁴⁾.

As knowledge from different disciplines has evolved and been integrated with lessons from program evaluation and practice experience, a number of core concepts have emerged that enhance our understanding of human development, learning and capability.

- Human learning and development are shaped by a dynamic and continuous interaction between biology and experience from birth; and human relationships are the building blocks of healthy development.
- Culture influences every aspect of learning and development and is reflected in child-rearing beliefs and practices designed to promote healthy adaptation and survival within the culture.
- Children are active participants in their own learning and development, reflecting the intrinsic human drive to explore and master one's environment. The growth of identity, cognitive ability, physical and emotional regulation and self-control are central to childhood learning and development.
- Development and learning unfold along individual pathways, whose trajectories are shaped by the ongoing interplay between sources of vulnerability, competence and resilience.
- The timing of early learning experiences is important, but the developing individual remains vulnerable to risks and open to protective influences throughout the early years of life and into adolescence and adulthood.
- The course of learning and development can be altered in childhood by effective interventions, thereby shifting the odds in favour of more adaptive outcomes ⁽⁸⁾.

In summary, humans are born ready to learn and develop. Early environments are vital, but are not deterministic, and nurturing relationships remain essential for human learning and development throughout life.

New knowledge about brain development

The brain is the major organ of learning, and neuroscience, the study of the brain, has the potential to make important contributions to educational research, policy and practice ^(15, 16). These could include new understandings of the biological and environmental processes that underpin learning through life; the discovery of neural markers for educational risk; and the evaluation of debates in education that have not been resolved on the basis of behavioural data, by showing how the brain actually learns what is being taught ⁽¹⁷⁾. However, all of these contributions are still to emerge.

In work undertaken for the World Health Organization's *Commission into the Social Determinants of Health*, some of the main findings from this new brain research are summarised; and they apply universally to early brain development, irrespective of the society and a child and family's place within that society ⁽¹¹⁾.

- The early years of life are marked by the most rapid development, especially of the brain and other parts of the central nervous system.
- There are a number of sensitive or 'critical' periods in the development of the human brain that occur almost exclusively during this time. For each of these critical periods, specific regions (and therefore specific functions) of the brain undergo essential growth and formation.
- The environments of the infant and child determine the learning experiences which shape or 'sculpt' the networks and patterns within the developing brain ⁽¹⁸⁾. The more nurturing the physical, social, and economic environments of children during these early years, the greater the chances for their successful growth and development.
- The brain development occurring during this time provides many of the essential building blocks across many domains, including economic, social, cognitive and physical wellbeing. Although individuals continue to develop and learn beyond their childhoods, the environmental conditions to which children are exposed in the early years of development can have consequences for the rest of their lives ^(19, 20).
- The pervasive socioeconomic differences, or 'inequalities', in adult learning outcomes (and many other markers of wellbeing) have their roots in socioeconomic inequalities in early development. That is, during the earliest years of life, differences in the extent of benefit provided by children's environmental conditions lead to differences in early developmental outcomes; and the effects of these early inequalities translate into inequalities in learning, development and wellbeing in later childhood, adolescence, and adulthood ⁽²⁰⁾.

Therefore, infancy and childhood represent sensitive periods in brain development. By the time that children begin school, they have already developed key communication, learning and thinking skills; learned to build and maintain relationships; and formed a strong sense of their own identity ⁽¹³⁹⁾. By middle childhood, a child's brain development and functioning have been profoundly shaped by the nature of earlier learning and experiences. However, emerging research findings indicate that the crucial

brain developments in the first years of childhood now extend well into middle childhood, and beyond.

There are at least two aspects of brain development of particular interest in the period of middle childhood (up to the end of primary school). The first is that brain synapses (connections between cells in the nervous system) that are initially present as children enter this developmental phase may be gradually eliminated if they are not used. A pattern of *synaptogenesis*, or the creation and fine-tuning of brain synapses in the human cerebral cortex during early childhood, is followed by a gradual pruning process of unused connections, which eventually reduces the overall number of synapses to their adult levels. These waves of intense branching and connecting, followed by a reduction in neurons through pruning, occur before birth through to about the age of 3 years, and again at the age of 11 or 12 years⁽²²⁾.

Synaptic pruning brings an improvement in the speed of information processing and a greater ability to undertake complex problem-solving⁽²¹⁾. However, the loss of synapses also explains why it is more difficult for an adult to learn a new language without a foreign accent, or to become a concert pianist, without having first acquired a degree of skill before puberty⁽²³⁾. For example, the areas of the brain that specialise in language grow rapidly until about the age of thirteen and then stop, with no further enlargement.

The second finding from research is that the regions of the brain appear to develop according to different time lines. Children grow cognitively at different rates and may not achieve the same stage at the same time. Thus, it is difficult and may even be unhelpful to limit interventions up to a specified biological age⁽²⁴⁾. Variations in brain development and functioning also appear to play a critical role in learning abilities and disabilities as well as patterns of behaviour⁽²⁵⁾. During middle childhood, identification and potential diagnosis of special needs, including issues such as Attention Deficit Hyperactivity Disorder and autism spectrum disorders, typically peak. Gender or sex-based differences in brain functioning and, possibly learning styles, also become apparent; and there is evidence that boys are at higher risk than girls for poor literacy performance, special education placement, and school drop-out⁽²⁶⁾.

In early adolescence, further development of brain structure and function takes place, and there are effects from hormonal influences⁽²⁷⁾. During this time, behaviour and emotion are less adequately controlled due to a lack of synchrony between the development of the areas for novelty and sensation-seeking (both of which increase dramatically at puberty), and the development of self-regulatory competence⁽²⁸⁾. As a result, young people are more likely to engage in risky behaviours, and to be

impulsive and react emotionally. At these ages, the brain tends to learn best when appropriately challenged in an environment that encourages taking risks, but where it is not subjected to high levels of stress or of negative emotional reactions⁽²³⁾. The frontal lobes of the brain, which are responsible for high-level reasoning and decision-making, do not fully mature until early adulthood, after the age of 20 years⁽²⁹⁾.

Despite this, many adolescents are able to get along with their parents and teachers most of the time, complete their schooling, have positive relationships with peers, do not become addicted to drugs or alcohol, and emerge as productive and competent adults⁽³⁰⁾. However, there is also evidence that a significant proportion of adolescents experience great stress, struggle, and emotional turmoil^(31, 32).

While our brains show the greatest degree of plasticity during the early years of childhood, a certain level of flexibility and adaptability remains throughout life. The structure of the brain at any time is a product of interactions between inherited and environmental factors, including both the outside environment and the internal physiological milieu. Stresses placed on the developing individual, by a mismatch between existing capacities and demands placed by the environment, results in compensatory physiological responses and behaviours that, in time, may affect brain structures. This can be part of a normal learning process, or, if the mismatch is too severe, can result in pathology⁽³³⁾.

Between the microscopic components of the brain and the elements of psychology lie the means by which familial and educational experiences also intersect with developmental biology to shape our cognitive abilities, learning capacities, behaviours and wellbeing⁽³⁴⁾. All of these are patterned by the social and economic influences on the nature of the experiences which shape learning and development. In other words, 'one's experience become embedded in one's biology'⁽³⁵⁾. This interactive process is highly complex and yet to be fully described.

As outlined above, neuroscientific findings can help to delineate underlying developmental processes in ways that can inform more effective interventions and social policies to promote better learning and development across the population. However, we now know that complex cognitive, behavioural and social factors are so intertwined with biological development as to make simplistic goals unhelpful. An understanding of brain development does not imply any diminished role for the social, cultural, and familial influences on these developing biological systems. Rather, it emphasises how an understanding of biological processes can enhance the importance of learning or social policy interventions⁽²³⁾.

As the socioeconomic environment is a key determinant of early development, in turn, early development is a determinant of learning and wellbeing across the rest of life ⁽¹¹⁾. This new research offers the most robust evidence for understanding (and therefore, acting upon) the social and economic determinants of development, learning and wellbeing at an individual, and a population level ⁽¹¹⁾.

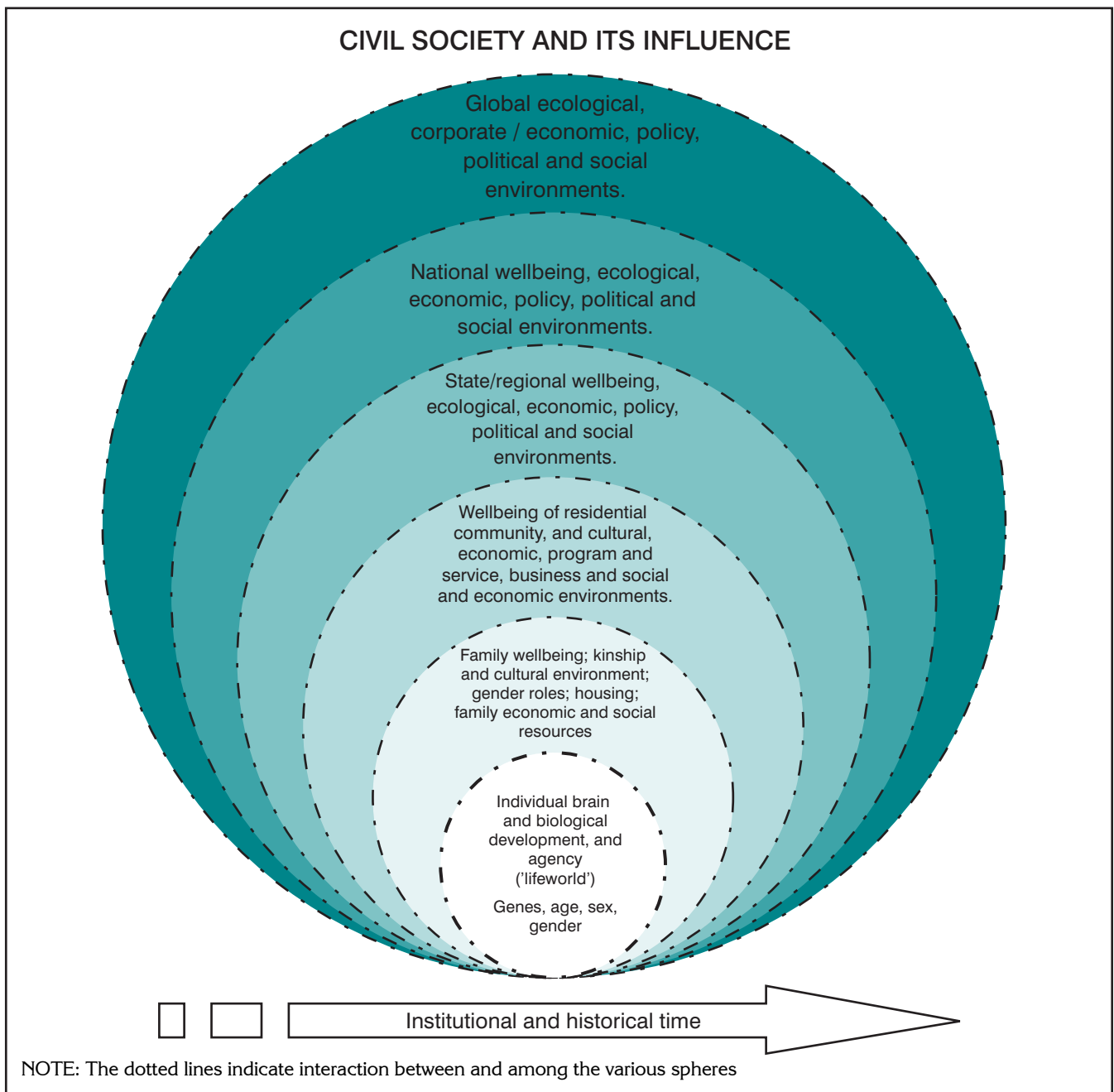
What factors determine our learning and development across the life span?

While there are many theoretical models which aim to describe the determinants of learning and development, each has its limitations because of the

difficulty in accurately depicting the complex web of interactions, which are known to contribute to outcomes in learning and development over the life course. There is also much that is still to be understood about the multiple influences on learning and development and their significance. However, models can be useful by simplifying the myriad of different factors and explaining what we know of their relationships to each other.

The model used in this report (Figure 1) draws on the work of Siddiqi and colleagues (2007) on early childhood learning and development, and that of a number of leading authors of bio-ecological development and population health models ^(36, 37, 38).

Figure 1: The key influences on learning and development across the life span (adapted from Bronfenbrenner 1986; Dahlgren & Whitehead 1991; Siddiqi et al. 2007; Kelly et al. 2009)



Interacting and interdependent environmental 'spheres of influence' are used to illustrate those factors which are universally important in providing enriching experiences and determining learning and development outcomes from conception, through early childhood and into adulthood⁽¹¹⁾. These influences also operate according to the nature of the culture and/or society in which they occur.

The environments are not strictly hierarchical, but overlap, interact and interconnect, and represent social as well as physical and geographical milieus⁽¹¹⁾. The developing individual lies at the centre. At the most intimate level is the family environment, which includes extended family and kinship groups who are children's first and most important educators⁽¹³⁹⁾. At the next level are residential communities (such as local neighbourhoods), 'relational' communities (such as those based on religious, cultural or other social bonds), and the program and services' environment, which includes early childhood programs, childcare, schools, training centres and adult educational institutions, as well as other key services such as health, welfare and housing⁽¹¹⁾.

Each of these environments is situated in a broader socioeconomic context that is shaped by factors at the regional, national, and global levels⁽¹⁰⁾. Each can be described according to the physical, social, cultural, and economic aspects, which seek to optimise learning and development, and maximise the equity of enriching learning experiences. Underlying the framework is the role played by civil society groups that may act at every level (i.e. on every sphere of influence), and traverse all environments⁽¹¹⁾.

All of these influences are time-related, both in terms of a person's life course and in the changes that occur over time in the policies, knowledge, research, institutions and structures that affect learning and development positively and negatively⁽¹⁰⁾. The path that leads to a particular outcome may be very different for different individuals and populations; for example, children achieve learning and development outcomes in many ways, and at varying rates and times. The timing and sequence of biological, cognitive, psychological, emotional, cultural and historical events and experiences all influence the development, learning and wellbeing of both individuals and populations.

1. Influences at the level of the individual

At the most fundamental level, learning and development are the result of the interplay between the environment and an individual's inherent predispositions (e.g., genes, gender, temperament and so forth), both before and after birth. We are now discovering that, far from being purely deterministic, the activation of genetic information is

stimulated by environmental influences, which affect the ways in which genes are expressed during life⁽³⁹⁾.

From conception and through pregnancy, many biological and physical factors influence the developing fetus before birth, with lifelong effects on learning and development. Maternal nutrition, *in utero* exposure to tobacco, alcohol and other substances, infective agents, physical growth, and maternal exposure to toxic stress and violence are all significant.

Nutrition from the mother provides the essential building blocks for intra-uterine growth, and deficiencies transmitted to the fetus can impair learning and development. For example, a diet that is very poor in fatty acids and iodine will not be able to provide the fetus with the elements essential for physical and brain development, resulting in reduced visual function, behavioural abnormalities, cognitive, intellectual and other disabilities^(40, 41, 42). In fact, nutritional deficiencies at all stages of childhood can have long-term damaging effects on intellectual, physical and psychological development^(41, 11).

Intra-uterine growth restriction leading to a low birth weight can affect postnatal health and neurological development in childhood and later life⁽⁴³⁾. Very low birth weight infants born prematurely are at higher risk for developing cognitive, neuromotor and neurosensory disabilities, including blindness and hearing loss. These disabilities in turn may lead to other deficits in speech, language and learning and behaviour problems affecting later school performance⁽⁴⁴⁾.

During the first year of life, breastfeeding plays an important role in infant nutrition, and is associated with healthier physical, brain and social development, and increased resistance to infection. It also encourages attachment and bonding to the mother, another requirement for optimal child development and learning⁽⁴⁵⁾.

While genetic predisposition and biological characteristics at the individual level partly explain how environment and experience shape early learning and development, other research highlights the significance of regulatory and control systems for competent individuals⁽⁴⁶⁾. For example, emotion regulation, cognition, attachment and emotional security, and internal thought processing and appraisal systems are anchored in the developing brain and its operation. Environmental influences, particularly the quality of the interpersonal relationships experienced in infancy and early childhood, can both foster and hinder the development of these systems, which are essential for competent emotional, social and cognitive functioning^(35, 47).

The relationships children have with their caregivers play critical roles in regulating stress hormone

production during the early years of life⁽³³⁾. Parents and other caregivers help to modulate emotional arousal by attending to an infant's needs. Inhibitory biological mechanisms also develop to influence the way children adapt positively to stressful situations. These include diminished stress hormone release in response to stress, and less neuronal loss in the relevant area of the brain as children age⁽⁴⁸⁾. The appropriate development of emotion regulation predicts better social and cognitive competence and behaviour; and self-regulation in childhood affects coping strategies in adolescence and adulthood⁽⁴⁹⁾.

Attachment, the formation of secure relationships, is another area which has long-term implications for learning and developmental pathways^(50, 51). The young child is a social agent who shapes, and is in turn shaped by the environment^(10, 38). Secure attachment to a trusted caregiver, with consistent caring, support and affection early in life, provides a basis for a child to learn about her or his environment, and to become competent and self-confident⁽⁵²⁾. Secure attachments in early childhood are central to emotional wellbeing, and predict fewer behaviour problems and healthier relationships in childhood, adolescence and adulthood^(53, 54).

Mechanisms involved in cognitive processing are a further area of development which is critical for longer term adjustment and behaviour. Young children integrate their observations and experiences into internal working models of human interaction, cultural rules and expectations of behaviour, regarding themselves and others^(55, 56). These inner beliefs and appraisal systems (or 'lifeworld') play a large part in learning, social competence, wellbeing and functioning in later childhood, adolescence and adulthood⁽³⁸⁾.

How a child develops across each domain influences learning, wellbeing and competence for life, and there are many avenues for these to evolve⁽⁶⁾. The role of play, for example, is universal to all cultures, and is essential for children's social, physical and cognitive development. Play fosters important social skills, and is an arena for learning, physical activity and the expression of children's feelings. Play processes influence synaptic formation in the brain, and are linked to secure attachments with caregivers and relationships with other children⁽⁵⁷⁾. In older children, play contributes to positive peer relationships, emotional regulation and motor skill development and coordination.

Competence in these developmental domains as a result of nurturing relationships and experiences has become a better predictor of learning and wellbeing outcomes than relying solely upon the socioeconomic conditions in which children live and learn⁽¹¹⁾. This is because many children from disadvantaged backgrounds are able to learn and develop well, despite adverse circumstances^(58, 59).

Such resilience is predicted by attributes of a child's disposition (e.g., temperament, self-belief, cognitive abilities), family characteristics (such as warmth and closeness), and the availability and use of external support systems by family members⁽⁶⁰⁾. The presence of one or more of these protective factors is associated with better child and adolescent outcomes in the context of adversity^(46, 61).

The early childhood period is crucially important in developmental terms, representing untapped learning potential which, if nurtured and nourished, can transform an individual child's outcomes^(62, 63). While scientific research increases our knowledge of the child's neural pathways and critical periods for learning and development, it cannot tell us how to produce the best outcomes with certainty for all young children, because children's learning and development is complicated and influenced by many environmental factors; and children help to form their environments through their own actions⁽⁶⁴⁾. Social and economic determinants shape brain and biological development through their influences on the qualities of stimulation, support, and nurturing available to the child through their families and communities, and the resources available from regional, national and global contexts⁽¹¹⁾. These influences also remain critically important to wellbeing through adolescence and adulthood.

2. *The influence of family*

To become productive and competent adults, children need to live in environments that provide some order and meet their learning and development requirements, as well as their physical, emotional and material needs⁽¹⁾. The immediate family environment is most often the context which first structures a child's early learning experiences with others. Public discussion often focuses heavily on the form of family, but what matters for children is how family members interact and are able to meet their children's fundamental needs. Critical to the family environment are its social and economic resources⁽¹⁰⁾.

A family's social resources include parenting skills and education, cultural practices and approaches, the health of family members and the nature of intra-familial relationships. Responsiveness, cohesion, organisation, consistency, warmth and safety are all essential qualities of a family that will promote optimal learning and development for a child^(65, 46).

Families are also responsible for mediating a child's exposure to the wider community, and for the degree to which a child is appropriately protected from negative influences. Research findings about children who manage to thrive in spite of adversity indicate the critical importance of a consistent, caring adult who is able to engage the child in an

ongoing relationship ⁽⁵⁹⁾. Other studies show that children require adults in their immediate environment who are capable of instilling a positive sense of responsibility and passing on social and moral expectations ⁽⁴⁾. In addition to sound relationships with adults in their communities, children need freedom from discrimination, opportunities to build self-reliance and confidence, and a sense of justice in their world ⁽⁵⁹⁾.

Looking at the function of families leads to the question of whether a family is supported or hindered to fulfil its roles and responsibilities. To be the good parents that most want and hope to be, adults also need meaningful employment and learning opportunities. To ensure wellbeing for all family members, there must be adequate health care, housing, safety, transport and access to quality childcare. For optimal child development and learning, families need support from neighbours, schools, community agencies and governments, and opportunities to develop relationships and pursue their interests ⁽⁶⁶⁾.

A lack of any of these resources decreases a family's ability to fulfil its purpose. Without adequate income, the likelihood of having good health, safe housing, education, satisfying work or other life expectations diminishes substantially ⁽⁷⁾. Family economic circumstances may also determine the ability to access high quality childcare and other programs which can enhance children's learning and development. The resulting tension increases the likelihood of instability and stress in relationships among family members, further decreasing the family's ability to maintain a supportive environment for the development of its children ⁽⁶⁷⁾.

The effect of differences in the social and economic resources of families is the most powerful explanation for inequalities in children's learning and development across societies; and these resources profoundly affect all other aspects of the family environment ⁽¹⁰⁾. The association between socioeconomic status and a wide range of outcomes over the life span is consistently strong in population-based research across many different fields, including learning and development. For example, there is a demonstrated association between socioeconomic circumstances and language and cognitive development in young children, largely based on the richness of the language environment available to the child ⁽⁶⁸⁾. Family socioeconomic status also has an association with other outcomes for children such as low birthweight, risk of child abuse and neglect, poorer cognitive test scores, risk of disengagement from school, difficulties with behaviour and socialisation, and adult education, health and employment ^(69, 47).

3. The influence of relational communities, residential communities, and programs and services

3.1 Relational communities

Children's learning and development are also shaped by the nature of the relational communities (social ties to those with a common identity) which surround their families ⁽¹⁰⁾. Relational communities help to form an individual's social identity, which is a critical factor for wellbeing over the lifespan. It may be based on tribal, ethnic, religious, spiritual, language and cultural attributes ⁽¹⁰⁾. Relational communities are a primary support for many families, and are often the means by which child-rearing practices and information about child learning and development are transmitted across generations ⁽¹⁰⁾. As such, they influence how children identify themselves and others, help build self-worth and a sense of belonging, and can be a source of social inclusion, and also of exclusion ⁽⁷⁰⁾.

Membership of such a community may engender discrimination, racism, and other forms of injustice from an intolerant wider society, with deleterious consequences for learning, development and wellbeing in the short and longer terms ⁽⁷¹⁾.

3.2 Residential communities

Learning and development of children and young people are also influenced by the nature of the residential communities where they and their families live. These communities can benefit families in many different ways - from services that assist with parenting and other roles, to support networks which offer learning opportunities and build social cohesion – all of which are important for child and family wellbeing ^(67, 72). Volunteer programs, play groups, non-government agencies, service organisations, small businesses and governments provide many necessary services to families at a local community level.

Key to maintaining the wellbeing of a community are available resources to support learning and development, starting before birth, followed by coordinated, comprehensive, local services to deal with the small and large crises that inevitably occur in the normal life of any family ⁽¹¹⁾. These resources may come from outside the community itself, from the larger system of institutions created to provide support for all families, and services when children or families need them ⁽¹⁰⁾. However, differences remain in the extent to which families' needs are being met, and may be seen in the inequalities in the learning and developmental attributes of their members.

The socioeconomic environment of residential communities can be described in many ways: for example, by the average or median income level, the

proportion of jobless families with children or those who are dependent on income support, or the percentage of people who have completed Year 12, or its equivalent, of secondary school ⁽⁷³⁾. Research has shown that more advantaged neighbourhoods are associated with better disposition to learn and school achievement (including verbal and reading ability) in their children and adolescents ^(74, 75). These effects may operate indirectly via parental behaviour, quality of the home environment and family functioning; and are also influenced by attributes of the neighbourhood such as its collective efficacy, developmental health, and demographic, ethnic and economic diversity ^(76, 77).

As children reach school age, their interactions and experiences within various contexts such as school, peers and the neighbourhood increase and exert more structured influences on learning. For example, in a Canadian study, children from poor families living in economically mixed neighbourhoods appeared to do better in assessments of their learning ability (i.e., maths and verbal achievement) than similar children living in uniformly disadvantaged neighbourhoods ⁽⁷⁸⁾. Behaviour problem scores were higher when children lived in neighbourhoods with low cohesion, fewer affluent residents and high unemployment rates, after controlling for family socioeconomic factors ⁽⁷⁸⁾. Children's sense of self and belonging in their environment are integral to their social and emotional development, and help them develop a stronger connection to their community ⁽⁷⁹⁾.

Children's learning and development are also directly influenced by physical aspects of their residential communities. The socioeconomic status of a community is inversely associated with the risk of exposure to pollutants, poor air and water quality, excessive noise, residential crowding and other hazards for children's learning and development ⁽⁸⁰⁾. Restricted space, polluted soils and unsafe environments may reduce opportunities for play, physical activity and other forms of recreation, and social and emotional development can also be hampered in communities marked by high levels of interpersonal violence and trauma. Many Aboriginal children living in remote communities have experienced unacceptably high levels of exposure to all or some of these hazards, with consequences for their learning and development ⁽⁸¹⁾.

3.3 Programs and services

There is a wide range of services and programs which influence learning and development across the life span. Many of these sit within the education sector, but health, welfare, local government, community, business and a myriad of other sectors also contribute.

Early child development programs are an effective way to address avoidable inequalities in learning and development across a population ⁽⁸²⁾. There is good evidence that investment in effective programs that enhance all aspects of children's learning and development – physical, emotional, cognitive, language, social, cultural, spiritual – will reap benefits many times over for children, families, communities and nations, if they start early and are continued throughout childhood ^(63, 83, 115). Quality programs have been shown to foster and promote human capital, that is, individuals' competence and skills for participating in society and the work force as adults ⁽⁸⁴⁾. Programs which also link to preventive health services and incorporate health-promoting measures, are more likely to bring sustained improvements in physical, social, emotional, language and cognitive development as well as reducing the future burden of disease and poor health, especially for those who are the most disadvantaged ^(82, 85).

The quality and appropriateness of these programs and services is critical to achieving good outcomes, especially for children from disadvantaged families ^(86, 87). Principles for sustainable programs include cultural sensitivity and appropriateness; community ownership; a common purpose and consensus about outcomes related to the needs of the community; partnerships among community and service providers, parents and caregivers; enhanced community capacity through active involvement of families and other stakeholders; and an appropriate management plan (including users) which facilitates the monitoring of quality and evaluation of effectiveness ^(10, 88).

Successful programs build on existing resources and local networks, and create and maintain collaborative relationships with parents, elders and cultural leaders, other family caregivers and older siblings ⁽⁸⁹⁾. Programs should be universally offered, but tailored to the specific needs of children and their families, such as for Aboriginal families, children with disabilities or those who are recent arrivals as refugees. Programs can include parent education, play and parent support groups, in-home support with early stimulation and care, community-based childcare, and health and community development programs, intensively offered according to need. To be effective, programs must converge at the level of the family and the local community in a way that puts children and their interests at their centre ⁽¹⁰⁾.

Research on targeted early childhood programs in the USA has consistently shown short-term cognitive improvements as well as long-term gains in terms of academic achievement and reduction in special education placement, employment, earnings and crime ^(2, 92). Parents also received positive benefits in

terms of maternal employment and increased parental involvement in their child's school^(90, 91, 93). In the UK, research has also demonstrated positive long-lasting effects from early education on cognitive skills in adolescence, and on the likelihood of obtaining qualifications and to be employed at the age of 33 years⁽⁹⁴⁾.

By the time that children start school, they are already proficient learners who bring into their new learning environment, knowledge about the world and their interactions within it. They also may reflect the different experiences and the impact of social and economic disparities of their family and community in their skill sets and behaviours^(95, 96).

The process of learning and development that occurs within the school system is complex, and outcomes for students may be attributed to many different factors. Much research has been undertaken to elucidate the impacts of its numerous dimensions (teacher attributes, class size, curricula, institutional milieu, disciplinary approaches, philosophy and so forth) on individual students of all ages who are the recipients. All children bring with them both vulnerabilities and strengths. The role of the education system is to create contexts that address the vulnerabilities and enrich competence and support further learning and development of all its students⁽⁹⁷⁾.

There are a wide range of factors that influence school outcomes for students, from the relatively stable influences of family background, school sector, type and size of school, to the more dynamic or contextual influences of leadership, school organisation (related to curriculum, teacher development and school climate) and student characteristics (related to students' self-concept, mobility, attitudes to school, learning and involvement)⁽⁹⁸⁾.

The impact of socioeconomic disadvantage on student achievement is substantial, as risk factors for adverse outcomes often occur together, and can have cumulative effects over time on children's learning and development⁽⁹⁹⁾. Ongoing family adversity is a risk factor for attention difficulties, poor cognitive performance, delinquency, and greater absenteeism from school due to ill health^(100, 101). The cumulative effect of familial stressors such as low income, poor parental education, young maternal age at birth, large family size and family instability can have a pervasive effect on the wellbeing of children and young people at school^(67, 102). However, it is also apparent that for any characteristic or group of characteristics predicting low achievement, some children possessing them will achieve at higher levels than those risks alone might predict.

There are socioeconomic differences evident in student learning outcomes as measured by indicators such as scores in literacy, numeracy and reading ability tests, and in rates of school completion and engagement, and entry into post-school qualifications^(103, 104). Determining the relative importance of what a student brings to the task, the curricula, education policy, the principal, the school climate, peers, the teacher, the various teaching strategies, the family and the home environment is challenging⁽¹⁰⁵⁾. There is much debate in the research literature about whether the differences, on average, in the achievement levels of disadvantaged and privileged students are more a function of the quality of schooling they receive; background characteristics (family, community, social, and economic) that influence achievement after controlling for instructional quality; or school quality and background characteristics acting together; and the size of the contribution of each^(106, 107).

In Australia, it has been estimated that the largest differences in performance are related to differences between individual students (about 80%) rather than differences between schools (about 20%)⁽¹⁰⁸⁾. A review of research into factors explaining differences in performance between students and schools showed consistent and large effects of factors such as socioeconomic status, ethnicity, gender or school type that were not easily influenced⁽¹⁰⁸⁾. However, factors between students that can be affected included self-efficacy, aspirations, interest, and homework effort. Between schools, emphasis on academic achievement, homework policies and some resource variables (e.g. specialised science facility, library) tended to explain differences in performance⁽¹⁰⁸⁾.

Teaching is a powerful influence on learning outcomes. When all other sources of variation are taken into account, including gender, social backgrounds of students and differences between schools, the largest differences in student achievement are between classes, and the most important source of the variation is teacher quality^(108, 109). Other research has suggested the teacher is responsible for an estimated 30% of the variance in student achievement, highlighting excellence in teaching and 'expert teachers' as another important focus of attention^(110, 111).

It is also evident that the ways in which systems such as education, health, housing and welfare are delivered and structured can increase existing inequality. For example, schooling can be a way of addressing inequality and also a way of reproducing it. It has been suggested that there are two goals for a social justice program in education: to work to eliminate the contribution that the education system makes to the production over time of social inequality in general; and to maximise the positive

contributions that the education system makes to reducing social inequality⁽¹¹²⁾.

Explaining differences in achievement between students within schools and between schools is important for determining the level at which resources should be allocated, in order to maximise their effect on improving learning outcomes for students; that is, whether it is more effective to direct resources to schools, their staff and infrastructure or to students and their families⁽¹⁰⁸⁾. Research suggests that strategies to improve disadvantaged children's performance will be more effective if they combine school improvement efforts with policies to narrow social and economic inequalities⁽¹⁰⁶⁾. In Australia, educational programs have been designed to ameliorate the effects of socioeconomic disadvantage using both whole-school approaches and individualised remedial interventions⁽¹¹³⁾. Further research is required to examine whether student achievement would be improved more through programs that target schools with high concentrations of students from lower socioeconomic groups than those that distribute resources to individual students, regardless of the schools they attend⁽¹¹³⁾.

Learning is marked by a series of developmental stages and transitions between stages. Successful completion of the learning and developmental tasks at each stage is dependent upon successful completion of tasks at previous stages⁽¹¹⁴⁾. While early childhood is an important period, pathways are not immutable and transitions occur throughout life. It is important to intervene early in a pathway, not only early in life; and to intervene at times of transition, when an individual is open to learning new things that are relevant to achieving the transition^(115, 116, 117). Supports for learning and development and safety nets are needed throughout the life course.

4. *The influence of regional, state, national and global environments*

An ecological understanding of the relationship of children to their families and families to their communities is incomplete without recognising the important influence of regional, state and national agencies, policies and practices. The impact of these environments is fundamental in determining the quality and accessibility of services and resources to families and communities. They are also important to understanding where inequalities in opportunity and outcome exist and the levels of society at which restorative action can be implemented⁽¹⁰⁾.

Changing environments at the state or national level can influence outcomes across multiple determinants of learning and development for far larger numbers of children and their families, through wealth creation and redistribution,

employment, public investment in social support services (such as education, early childhood, welfare, disability and health), child- and family-friendly policies, income safety nets, legislation and the protection of children's rights⁽¹⁰⁾.

The global environment is, increasingly, a powerful influence on national economic and social outcomes, and ultimately, on a nation's citizens⁽¹¹⁾. It is also characterised by important international conventions such as the United Nations' *Convention on the Rights of the Child*, which offer opportunities to gauge a nation's efforts with respect to the learning, development and wellbeing of its children. In this regard, civil society groups also play a pivotal role. When civil society is enabled, there are many ways in which advocates for children, young people and families can work to improve the life outcomes of those who are disadvantaged, both within a country and internationally⁽¹¹⁾.

Linking aspects of wellbeing, learning and development across the life span

Human learning and development are inextricably related to wellbeing at an individual, family, community and population level, and these influences interact and change with time and stage of life. Increasingly, there is interest in ways in which individuals can acquire new skills, capacities and knowledge throughout life, with learning and development being seen as lifelong pursuits that are also associated with adult wellbeing⁽¹¹⁸⁾.

Early childhood learning provides the base for learning throughout life, and family and neighbourhood influences at this time are particularly significant. As discussed, there is considerable evidence that factors such as income, housing, parenting and trauma impact on children's learning. However, not all children in low income households will experience negative outcomes: the impact of income can be moderated by the effect of other protective factors, such as parents' education, cultural knowledge, relationship with a mentor, or access to other social resources. What matters is the configuration of circumstances experienced by the child and family, and how the child responds. In this regard, high-quality programs during the early years are critical, because of their role in supporting the development of competencies and the capacity to engage effectively in learning throughout life^(119, 120).

'Learning through life' plays an important role in delivering a wide range of benefits, both for the individual, their families and communities, and for society as a whole⁽¹¹⁸⁾. Such benefits are diverse in nature, and provide substantial and lasting outcomes. These positive effects of learning can be generally described as good functioning and wellbeing, but the meaning of this varies, according

to the level at which the benefits are realised ⁽¹²¹⁾. For individuals, economic benefits include improved earning and employment prospects and social mobility, and, at a state and national level, contribution to economic growth, equality of opportunity and a 'good society'.

Lifelong learning has also been linked to other aspects of individual and collective wellbeing, such as physical and mental health, reduction in criminal behaviour, and the promotion of social cohesion and tolerance ^(122, 123). Through the strengthening of self-identity, learning helps individuals to develop a sense of direction and to take greater responsibility for their life choices, and to contribute to the social and cultural spheres in which they live ^(124, 125). Programs that build in 'learning to be, growth in wellbeing and self-awareness' as a desired outcome, recognise the influence that learning has on personal and social identity ⁽¹²⁶⁾. In an ageing community, successful participation in adult learning is important not only in enabling workers to adapt and adjust to the rapidly changing requirements of their jobs, but also in helping older people lead active and satisfying lives ⁽¹²¹⁾.

Critical to lifelong learning is an individual's disposition to learn, which also has consequences for families, communities, businesses, society and the wider economy. The disposition to learn is influenced by experiences early in life, at school, access to technology and life events at the personal level, and more broadly, by the contexts within which people live and work ⁽¹²¹⁾. Low skill and educational attainment, unemployment and inadequate income are associated with very low participation in lifelong learning, and also with poorer wellbeing ⁽¹²⁷⁾. Relativities in income influence people's sense of identity and where they sit in the social hierarchy; low self-image can lead to health inequalities through stress, risk-taking, low health literacy and poorer wellbeing, as well as to criminal and anti-social behaviour, disengagement from learning and social exclusion ^(128, 129).

Research shows that the learning trajectory an individual takes may be predicted on the basis of characteristics (age, sex, family background, initial schooling, early adult life factors and present circumstances) which are largely known by school-leaving age ⁽¹³⁰⁾. People still make choices, and life crises can intervene, but these also occur within a framework of opportunities, influences and expectations that are socially patterned. Other evidence confirms the stability of economic, practical and psychological constraints to learning, and their substantial role in maintaining intergenerational patterns of inequality ⁽¹²¹⁾.

While Australia has reasonable patterns of participation in adult education and training when compared internationally, considerable

socioeconomic differences across the population exist. Those who are unemployed or not in the labour force, have low incomes and low educational attainment at school are less likely to participate in adult learning ⁽¹³¹⁾. Social and economic contexts are powerful in moderating the effects of learning and development in adults, but indicate areas for attention by policy makers ⁽¹²²⁾. Socioeconomic inequalities in educational access and attainment need to be addressed, both to improve social cohesion and to broaden and deepen the range of capabilities and innovation within the population ⁽¹²¹⁾.

Addressing avoidable differences in learning and development outcomes

Overall, levels of learning, development and wellbeing of the South Australian population are high when compared to the populations of many overseas countries.

However, there are substantial differences in learning, development and wellbeing of specific groups within our population. For example, compared with other South Australians, Aboriginal peoples are disadvantaged across a broad range of social and economic factors, including education, employment, income, health and housing. This is the result of many underlying causes, including the intergenerational effects of forced separations from family, land and culture, and the lasting impacts of colonisation and discrimination. This has placed them at greater risk of poorer life outcomes compared to the non-Aboriginal population ⁽⁸¹⁾.

These and other disparities are referred to as 'inequalities', reflecting the fact that such differences exist. The notion of 'inequality' implies a sense of two things being different, not the same. Numerous inequalities exist across the population and they tend to divide the community into different groupings.

There are many types of inequality – age, sex, ethnicity, social and economic position, disability, geographical area, remoteness, and so on. Some dimensions of inequality are unavoidable and not amenable to change, such as age. Other inequalities occur as a result of differences in access to learning opportunities, material resources, safe working conditions, effective services, living conditions in childhood, the experience of racism and discrimination, and so on. Such inequalities can also alter expectations of what life offers in the future.

Many inequalities are potentially avoidable and therefore, the fact that they occur implies a degree of unfairness, or inequity. Such inequities occur as a consequence of unjustifiable differences in opportunity, which result in unequal access to those

resources and influences that will optimise learning and development and overall wellbeing ⁽¹³²⁾.

The impact of social and economic inequalities

Economic inequality is evident in the uneven distribution of wealth in society. It implies an unequal distribution of the ability to purchase 'goods' such as housing, education, recreation, health care and other resources, and the choice to do so ⁽¹³³⁾.

Social inequality is the expression of the lack of access to these opportunities and represents a degree of exclusion of people from full and equal participation in what we believe is worthwhile, valued and socially desirable ⁽¹³³⁾.

Thus, economic and social inequalities are inevitably linked, and their combined impact results in limited opportunities and life chances for many who are affected by them ⁽¹³⁴⁾. Such inequalities tend to stratify the community into hierarchies, with those who have the most resources, opportunities and power to choose, at the top; and those with increasingly less, in layers below them. The effect of these hierarchies is to entrench differences in wellbeing across the population.

As discussed earlier, learning and development are not simply the result of genetic inheritance and environmental influences on each person. They are as much a population phenomenon as a purely individual one ⁽⁵⁾. For example, there is a strong association between the wellbeing of a population and the size of the social difference between members of the population. This has come to be known as the 'gradient effect' ⁽¹³⁵⁾. In societies that have sharp social and economic differences between individuals in the population, the overall level of wellbeing is lower than in societies where these differences are less pronounced ⁽¹³⁶⁾.

Furthermore, this gradient effect exists for a wide range of learning and developmental outcomes – from behavioural adjustment and social skills, literacy and reading ability, to mathematics achievement and participation in adult learning ⁽¹³⁵⁾. The gradient effect also seems to hold equally well whether one looks at differences in current socioeconomic position or in that of the family of origin. These effects appear to persist, from birth, through childhood and into adulthood and old age ⁽⁵⁾. Evidence is now linking these findings together, one on individual brain development, learning and behaviour and the other on life span gradient effects in the wellbeing of populations. Most significant is the finding that for all areas of learning and development, steep gradients are associated with overall poorer outcomes ⁽⁵⁾.

Thus, the underlying factors that determine learning and development are deeply embedded in social circumstances ⁽⁷⁾. These patterns of population gradients, especially their longitudinal nature, suggest a potentially important role for early learning experience in shaping coping skills, resiliency and the neuro-biologic responses at the individual level, which can then show up later as population effects ⁽⁵⁾. It also strengthens the role of effective services and early programs in learning and development and their intervention across the life span.

Inequality in learning and development is a matter for significant community concern because it tends to unravel the social fabric of society, through its adverse effects on individuals' life chances and their ability to participate as active citizens in all areas of community life. These effects may also be handed down from generation to generation. The 'hidden damage' from social and economic inequalities shapes every aspect of life: from the ability to learn and the foundations of wellbeing laid down in childhood and adolescence, the safety of neighbourhoods and the productivity of our enterprises, to our collective identity as a community.

In summary, there is now substantial evidence that wellbeing is the result of complex interactions of the social, biological and ecological environments in which people live ⁽¹³⁷⁾. If these environments are supportive, they provide a foundation for the development of competence, capacity and skills that underpin learning, behaviour and wellbeing throughout life ⁽¹³⁷⁾. However, a lack of enabling social and environmental conditions results in poorer life outcomes for people ⁽⁵⁾.

This situation, however, is not inevitable. There is a growing body of knowledge that can provide direction for developing policies to reduce such inequities in modern societies. The socioeconomic environment is a powerful and potentially modifiable factor and public policy is a key instrument to improve this environment, particularly in areas such as early childhood development, educational achievement, taxation and social security, work environments, urban design, housing and pollution control ⁽¹³⁸⁾.

Therefore, different approaches and mixes of policies and programs must be mounted to address avoidable inequalities. These approaches may include more precise targeting within a universal service framework, but also greater attention to community-based dimensions of 'interdependence' between individual behaviours, key determinants of learning and development, and community and institutional resources.

A focus on the environmental context of life in no way implies that other factors such as genetics,

individual choices or use of services do not figure in determining wellbeing, learning and development; rather, this highlights a greater understanding in recent years of the social and economic factors that underpin differences in the likelihood of having a fulfilling life. There are a number of benefits that investing in a population approach offers: increased prosperity, because a well-functioning, skilled population is a major contributor to a vibrant economy; reduced expenditures on education, health and social problems; and overall community stability and wellbeing for South Australians.

Sources of information

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Section 3

Aboriginal wellbeing and learning for life

In this section ...

- Introduction
- Understanding Aboriginal wellbeing and learning for life
- Supportive pathways to Aboriginal wellbeing and learning for life wellbeing
- Towards hope: principles and actions to support Aboriginal learning and development
- Sources of information

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Introduction

In South Australia, the substantial disadvantage experienced by Aboriginal peoples is well documented ⁽¹⁾. Key social and economic indicators such as poverty, employment, housing, education, justice and health show that Aboriginal peoples are at significantly higher risk of poorer wellbeing and social exclusion compared with non-Aboriginal South Australians, and represent the most disadvantaged population groups in our community.

In order to understand Aboriginal learning, development and wellbeing today, the impact of dispossession of lands, colonisation, genocide, lost and stolen generations of families and the attempted decimation of the innumerable cultures of the peoples inhabiting Australia before 1770, must be acknowledged ^(2,3). Therefore, from a social and political perspective, for there to be a start to improving Aboriginal wellbeing, a process of true reconciliation, that acknowledges the past in the light of the present, needs to be embraced across all the sectors of society, and will require a substantial change in attitudes, practices and the sharing of power ^(4,5).

Access to education for Aboriginal peoples is a basic human right enshrined in the *Universal Declaration of Human Rights*, and strengthened in the *United Nations Declaration on the Rights of Indigenous Peoples*. Education is a key to improving life chances and life choices. However, many young Aboriginal people are disadvantaged in terms of their access to appropriate and high quality education, and, as a consequence, are not reaching formal educational milestones, thus perpetuating intergenerational cycles of social and economic disadvantage ⁽⁶⁾. The extent of this disadvantage, and the challenges and opportunities to overcome it, are well documented ⁽⁶⁾.

While there has been improvement in educational outcomes for Aboriginal students over the last decade in Australia - participation in education has increased across all education levels (schools, universities, and vocational education and training) as well as the number of students graduating from Year 12 and attaining post-school qualifications - progress has been slow, and significant inequalities between the educational outcomes of Aboriginal and non-Aboriginal students continue to exist ⁽¹⁾. These outcomes are linked to the historical exclusion of Aboriginal peoples from the Australian education system, both formally through past government policies and informally through the failure to deliver educational services that meet their needs ⁽⁷⁾. There has also been tacit acceptance over many years of the non-achievement of educational

standards by Aboriginal children and young people by those with the power to remedy it ⁽⁸⁾.

In order to improve educational outcomes further, there is a need to address all the factors that impact on the ability of Aboriginal students to access and to engage successfully in education. There is much ground to be made up if the following objective in the *Melbourne Declaration on Educational Goals for Young Australians* is to be achieved: '[That] all young Australians become successful learners, confident and creative individuals, and active and informed citizens ...[and] working with all school sectors to 'close the gap' for young Indigenous Australians' ⁽⁹⁾.

Commonwealth, State and Territory government policies have sought to improve and strengthen:

- 'preschool access and attendance as a precondition of 'school readiness';
- school attendance;
- the quality of school leadership and teaching;
- the design and delivery of culturally relevant and capability appropriate curriculum and teaching approaches;
- literacy and numeracy outcomes;
- post-school transitions into employment through the delivery of improved school and non-school based vocational and employment pathways; and
- school, family and community partnerships to support improved school attendance, engagement, retention and attainment' ⁽¹⁰⁾.

The extent of disadvantage experienced by Aboriginal peoples has also framed a number of approaches in South Australia. *Doing it right* is the South Australian Government's policy framework for action: the Government's commitment to Aboriginal families and communities in South Australia ⁽¹¹⁾.

The *Doing it right* policy framework:

- *recognises and respects Indigenous people as the original owners of this land with continuing rights and responsibilities associated with traditional ownership and connection to land and waters;*
- *acknowledges the impact on Indigenous people of dispossession from the land and traditional culture and the need for this to be understood by all South Australians as a basis for genuine reconciliation;*
- *respects the unique culture and customs of the traditional owners of the land and supports efforts to protect and promote cultural heritage as a cornerstone of family and community life;*

- recognises that Aboriginal people represent the most disadvantaged group in our community;
- acknowledges that the high levels of poverty, unemployment and poor physical and mental health experienced by Aboriginal Australians are unacceptable and must be redressed if Aboriginal families and communities are to participate fully in the life of our state; and
- respects the cultural, social, political and economic rights of Indigenous peoples and affirms equity with other South Australians in citizenship entitlements and participation ⁽¹¹⁾.

Within this framework, the following goals are outlined:

- That Aboriginal South Australians will have the same choices as other South Australians and the same opportunities to share in the social and economic advantages of living in our state.
- That all South Australians will continue to be enriched by Indigenous culture and values, with respect by the wider community based on a new understanding and mutual esteem.
- That engagement and partnership with Aboriginal communities will be the platform for sustained improvement in the well being of Aboriginal families ⁽¹¹⁾.

To this end, South Australia's Strategic Plan has a number of targets aimed at improving the wellbeing and opportunities for Aboriginal peoples in all areas of life. It also reflects the positive contribution that Aboriginal communities make to the State, by including targets for attaining sustainability and fostering creativity ⁽¹²⁾. The *DECS Aboriginal Strategy 2005–2010* is the South Australian Government's plan to strengthen relationships between the South Australian educational system setting and Aboriginal peoples across South Australia ⁽¹³⁾.

Understanding Aboriginal wellbeing and learning for life

Most social indicators of Aboriginal wellbeing, such as the ones included later in this report, tend to reflect a 'deficit' model, highlighting problems and the extent of disadvantage experienced over a lifetime, and between generations. While there is an imperative to illustrate the unmet need for appropriate resources and services, this approach overlooks the strengths, capabilities and passion that the majority of Aboriginal peoples demonstrate in caring for their family, community, their environment, and their lands; and fails to represent the holistic nature of Aboriginal cultures and histories ^(14, 15).

In this report, an understanding of Aboriginal wellbeing is drawn from the definition proposed by the National Aboriginal Health Strategy (NAHS) Working Party in 1989:

Not just the physical wellbeing of the individual but the social, emotional and cultural wellbeing of the whole community. This is the whole-of-life view and it also includes the cyclical concept of life-death-life ⁽¹⁶⁾.

The NAHS definition notes that achieving wellbeing is an attribute of communities as well as of the individuals within a community; and it identifies cultural wellbeing, along with physical, social, spiritual and emotional wellbeing, as equally important ⁽¹⁶⁾. Culture and identity are central to Aboriginal perceptions of wellbeing ⁽¹⁷⁾. Aboriginal cultures are numerous and heterogeneous, made up of many different kinship and language groups that have adapted to diverse living conditions throughout Australia over thousands of years. These cultures are dynamic and evolving ⁽¹⁷⁾. For example, over fifty per cent of Aboriginal peoples identify with a cultural grouping, and at least eleven per cent speak an Indigenous language at home ⁽¹⁸⁾.

The NAHS definition emphasises a holistic approach, and highlights the importance of many of the determinants of learning and development identified in the previous section of the atlas. However, an understanding of Aboriginal wellbeing encompasses a far broader interpretation of 'community', which has family and kin relationships at its centre; and the family relationship or kinship system is not necessarily confined to a geographic area, and the connections are not weakened by distance ⁽¹⁹⁾.

With respect to the way community functions, Chong and colleagues (2009) have observed that:

Our definition of what is meant by Aboriginal and Torres Strait Islander community functioning hinges on the understanding of the primacy of family relationships, roles and responsibilities, and connection to land in social and business life. However, people from family and language groups are usually living in disparate places. It is rarely the case that an Indigenous 'community' consists only of people from the one family or language group. The implications of this are that an Indigenous person may be part of many communities. For example, a person may be part of a culture community because of family relationships and connection to land. There may also be membership of a 'historical community' in the place where the person grew up and there is a shared history. Then there is membership of the community in the place where the person currently lives ⁽¹⁴⁾.

Thus, an Aboriginal community's social capabilities are fundamental to enhancing individual and collective knowledge and wellbeing, engaging in social and economic development, and in resolving local issues ⁽¹⁴⁾.

These attributes are affirmed in the United Nations' *Declaration on the Rights of Indigenous Peoples*, to which Australia is a signatory. There are implications for the provision of learning, development and education and training services by government and other providers. In particular, the *Declaration* recognises "the right of indigenous families and communities to retain shared responsibility for the upbringing, training, education and well-being of their children, consistent with the rights of the child", "the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning" and "the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons" ⁽²⁰⁾. States have responsibilities for ensuring that these and other rights outlined are protected and supported, and that mechanisms to enable these rights are implemented.

In order to uphold these rights, Aboriginal cultures and histories need to underpin policy, planning and service delivery in the sectors responsible for Aboriginal wellbeing, learning and development, and Aboriginal peoples must be 'included to do business' ⁽²¹⁾. Culture is not something that can be easily understood by non-Aboriginal people, and it must be respected, acknowledged and included appropriately ⁽²¹⁾.

Supportive pathways to Aboriginal wellbeing and learning for life

The three priority outcomes in the Council of Australian Governments' framework for overcoming Indigenous disadvantage offer a vision for a better life for Aboriginal peoples ⁽²²⁾. They are not isolated outcomes, but interdependent upon each other. The first, 'Positive child development and prevention of violence, crime and self harm' are key determinants in the achievement of the second one, 'Safe, healthy and supportive family environments with strong communities and cultural identity'. Without these conditions in place, the potential to achieve the third, 'Improved wealth creation and economic sustainability' is impaired.

A range of determinants of Aboriginal wellbeing, learning and development are included here. Each is embedded in the overall social structure, in political, economic and educational systems, in diverse cultural requirements, and in local community and Aboriginal and non-Aboriginal peoples' actions ^(3, 23, 24). There is a strong thread of interdependence between them, and the nature of the inter-relationships is complex. For example,

post-secondary educational attainment is linked to year 10 and 12 retention and attainment ⁽²⁵⁾. These, in turn, are related to household income, education and employment, and so forth. None of these policy areas in isolation will achieve the priority outcomes mentioned above, but they have the capacity to address the existing intergenerational cycle of disadvantage for Aboriginal peoples.

1. Health and cultural wellbeing

Health status and learning and development are closely inter-related and this relationship is critically important for Aboriginal wellbeing ⁽²⁶⁾. Education plays a central role in the creation of health, and can be understood both as a determinant of health and as an intervention to address health inequalities ^(26, 27). However, it should be remembered that, for Aboriginal peoples, the attempted erosion of their pre-colonisation knowledge and practices about life skills, health and survival, which were integrally bound up with land, its ownership, custodianship and use for economic and cultural purposes, has contributed to the current inequalities ⁽²⁶⁾. Other consequences of colonisation and its aftermath have included the pervasiveness of loss and grief, and the impact of racism and discrimination, which significantly affect wellbeing, learning and development ^(28, 29).

Maternal health, nutrition, early attachment, cultural identity, and good physical and emotional health in childhood are important for early learning and development, readiness to learn, education participation and achievement, and participation in the work force ⁽¹⁸⁾. For example, high rates of malnutrition, hepatitis B, anaemia, and vision and hearing disabilities disproportionately affect young Aboriginal children and impact upon their learning and development outcomes ⁽³⁰⁾.

The health of Aboriginal South Australians is also more likely to be affected by exposure to environmental factors such as poor housing and inadequate infrastructure ⁽¹⁾. Many Aboriginal peoples living in remote communities do not yet have access to affordable healthy food, quality housing, reliable supplies of water and electricity or adequate sewerage and drainage systems, all of which are essential for health, wellbeing, learning and development ⁽¹⁾.

Both health status and educational experiences, and the interactions between them, have effects that reverberate throughout an individual's life-course and on to subsequent generations. For example, the falling Aboriginal infant mortality rate in the 1970s resulted in an increased demand on the education and health systems in subsequent decades; but, at the same time, the premature mortality of adults reduced the number of senior education and health

leaders in communities who could advise and lead their peoples ⁽²⁷⁾.

Quality of health and control of traditional lands also affect community wellbeing and the capacity of Aboriginal communities to develop strong governance structures. Community-controlled primary health care services, for example, play an important role in health promotion and education and in improving community strength, health and hope through self-determination; and strong involvement by parents in schools can influence educational outcomes ^(31, 32). The National Enquiry into Rural and Remote Education observed that 'where parents and community members play an active and decision-making role in the school, students enjoy their schooling and feel optimistic about their current and future prospects' ⁽³⁰⁾.

2. Early life factors

Early life factors and experiences influence growth, the ability to learn, physical and mental health, and resilience in later life, and may have effects across generations. The extent of disadvantage experienced by Aboriginal communities and by individual families impacts significantly on their youngest and most vulnerable members. Factors such as low birthweight, failure to thrive and the effects of trauma can have serious consequences for children's development and wellbeing ⁽³³⁾. Parents in communities experiencing such adversity may suffer high rates of emotional distress that also affect their children, especially they are left without healing and resolution ⁽³³⁾.

The imposition of mainstream culture and services has not delivered the necessary improvements in wellbeing to Aboriginal families and communities; and there is a recognition that a 'both ways' approach to service design and delivery is required, which places value and respect on practices from both Aboriginal and non-Aboriginal cultures ^(34, 35). In order to enable a 'both ways' approach, cultural knowledge from the diversity of Aboriginal communities needs to be respected and sit alongside mainstream early childhood services. This includes knowledge about conception and birth, family roles and responsibilities, language, land, discipline, emotional development, dreaming, play and exploration, and physical development. In this way, the importance of the early years of life for subsequent health, development and learning in childhood, adolescence and adult life can be strengthened by the incorporation of Aboriginal child-rearing, parenting and cultural practices ⁽³⁶⁾. Many of these practices also have positive lessons for non-Aboriginal child rearing and early child development practices.

3. Housing

As a population, Aboriginal peoples are more likely than non-Aboriginal people to live in multiple family households, particularly in rural areas and in those communities where the properties are owned or managed by the community. Consequently, and particularly in these areas, Aboriginal households are more likely to contain a greater number of people, and households will vary in size as community members come and go.

Aboriginal people are more likely to access accommodation in the public rental sector, while non-Aboriginal people are more likely to own or be purchasing their home. This again reflects their greater economic disadvantage, and also highlights the presence of racial discrimination in sections of the private rental market ⁽³⁷⁾. A significant proportion of Aboriginal people rely on the South Australian Housing Trust, the Aboriginal Housing Authority and Aboriginal community or cooperative housing groups for their accommodation. However, there is much heterogeneity within the Aboriginal population, and not all families are reliant on public housing.

Access to safe, clean shelter, which allows formal and informal learning to take place, is important for wellbeing and development of all children, young people and adults.

4. Income, employment and socioeconomic position

Aboriginal peoples, as a group, are widely recognised as being financially disadvantaged. Low levels of income are a strong indicator of relative disadvantage in areas such as educational attainment, labour force activity, housing and health. The lack of formal education has been identified by some researchers as the largest single factor associated with poor outcomes for Aboriginal employment ⁽³⁸⁾.

As a group, the levels of income of Aboriginal peoples tend to be lower than those of non-Aboriginal people in comparable circumstances. Those who live in remote areas often have limited access to services taken for granted by people living in urban areas. Many have to rely on government allowances as their major source of income, in the absence of employment and training opportunities ⁽³⁹⁾.

Research shows that the more control a person has over their work and life, the better their health outcomes ⁽⁴⁰⁾. A lack of control over one's life can be replicated in biological responses to stress that can be pathways to poor physical and mental health and further disadvantage ^(28, 41). Health-harming levels of stress can occur as a result of the lived experiences of Aboriginal peoples in a dominant culture in which

they are socially, culturally and economically disadvantaged, and where racism and discrimination are endemic^(42, 43). Aboriginal peoples and communities must have control over their lives and lands to progress self-determination, and enhance their wellbeing; but they must be supported to do so, in an environment of harmony and mutual respect⁽⁴²⁾.

Opportunities for the further establishment of Aboriginal-run enterprises and the employment of young Aboriginal people following their participation in education and training are important areas for improving income and socioeconomic position. Aboriginal peoples can experience high levels of control over local governance arrangements, providing the opportunity to develop sound, stable, culturally appropriate governing arrangements to meet the needs of their communities. Effective governance training is a key ingredient in supporting this control⁽⁴⁴⁾.

5. Learning, education and training

Young Aboriginal children learn through their culture and the cultures of others, and their participation in those cultures shapes their identity⁽³¹⁾. They come to formal educational settings as experienced, active learners with skills and capacities which need to be appropriately recognised and acknowledged in mainstream settings. They may also have need of extra support (for example, if they have a disability such as hearing loss). The presence of an Aboriginal preschool worker significantly increases preschool participation rates, as do programs that encourage and support parents' involvement.

Factors linked to Aboriginal students' individual life experiences have a direct impact on their capacity to engage with school and learn, and these interact in complex ways⁽⁴⁵⁾. They include having basic material and personal support needs met; their experience of the formal learning environment; their foundation skills such as communication, English language skills and social interaction; personal and cultural identity; Aboriginal role models; social behaviour and engagement with school; learning support needs; and life and vocational goals and aspirations⁽²⁶⁾.

Many of these are influenced by family, community, cultural and social contexts. For example, past negative experiences of school, and those of their parents and other family members, can impact on school attendance and retention⁽⁴⁵⁾. Issues which may affect school experience include institutional, peer and teacher racism in school environments; ineffective racial harassment policies; ineffective grievance procedures; lack of respect and value for all cultures; poor communication processes with individuals, peers, parents and communities; confusion about the roles of Aboriginal education

workers; the need for cultural awareness training of teachers and counsellors; the need for support structures such as dedicated spaces for Aboriginal students' homework and tutoring assistance; population mobility; and poverty⁽⁴⁶⁾. Others have described a mindset within schools that accepts absenteeism and poor educational outcomes from Aboriginal students as 'normal'⁽⁴⁷⁾. In contrast, schools with high Aboriginal attendance levels attribute their success to well-trained, culturally sensitive teachers who can build a rapport with Aboriginal students and their families, offer additional support and develop individualised learning plans⁽³¹⁾.

Educational institutions, such as schools, are based around systems that include political, cultural, community, home, school, year-level, classroom, and peer groups⁽²⁷⁾. These can interact with each other in supportive and non-supportive ways, and should be institutions that build wellbeing and give students a sense of belonging, participating and being valued. Non-racist, inclusive environments are essential starting points in classrooms⁽²⁴⁾.

Sensitivity to cultural difference and attaining a cultural fit, by aligning curriculum, delivery and teaching with local Aboriginal cultural assumptions, perceptions, values and needs are essential for education and training to succeed^(48, 49). This can be achieved through programs and approaches that recognise Aboriginal culture and values within a learning environment that preserves and reinforces identity, and provides a range of culturally appropriate mechanisms for support^(17, 50, 51). Cultural diversity and knowledge need to be valued highly and made explicit in all educational settings. This will encourage greater involvement of Aboriginal parents, caregivers and community members in the education of their children. In addition, cultural fit will be enhanced by programs that support wider Aboriginal community goals, as opposed to those which may directly or indirectly work against them^(14, 52). For example, breakfast programs in schools might be better replaced by effective services which enable families to feed their children themselves and prevent the likelihood of service dependency.

While a drop in retention persists as Aboriginal students move toward the post-compulsory years of schooling, they are over-represented in vocationally-oriented school courses⁽⁴⁹⁾. Many young Aboriginal people are intentionally pursuing the practical, hands-on learning that VET-in-School courses can provide⁽⁵³⁾. Increasing numbers of Aboriginal students are also undertaking and completing courses at the Bachelor degree and above levels in the tertiary education sector⁽⁵⁴⁾. However, VET participation is not yet providing remote and desert

peoples with pathways from learning to work or into higher level education ⁽⁵⁵⁾.

A range of similar issues affect participation in post-school education and training by Aboriginal South Australians, including access to educational institutions, socioeconomic factors, racism and discrimination, and community expectations. Government policies have been developed to address some of these issues. It is recognised that, while there has been considerable progress to date to improve Aboriginal educational achievements in South Australia, the level of educational disadvantage that Aboriginal people continue to experience is still too high ⁽⁵⁶⁾. The ongoing nature of this disadvantage is exemplified by the disparities in results achieved by young Aboriginal students under NAPLAN ⁽⁵⁶⁾.

Towards hope: principles and actions to support Aboriginal learning and development

Aboriginal value systems, including values relating to education and learning, often differ to the values held by mainstream society ⁽⁵⁷⁾. Mainstream society values education for its ability to develop individual skills and competencies and facilitate economic prosperity. Aboriginal peoples generally value education and learning for its ability to develop community capability ⁽¹⁴⁾. Learning is valued if it is part of the social and cultural goals of the community, and as a means of developing an individual's capacity which resides in the relationships of the community ⁽⁵⁸⁾.

Modern concepts of learning recognise that knowledge is culturally constructed, that students bring with them diverse experiences and bodies of knowledge, a broad range of skills and understanding of language and concepts, and have different ways of learning ⁽⁵⁹⁾. All students need educational experiences which are meaningful for the learner and which reflect the learner's background and history. Aboriginal learners are no exception ⁽⁵⁷⁾.

Effective learning depends on the sensitive recognition of the broad life situation of the learner, which includes:

- the learner's beliefs about self, society and about schooling;
- current family and community situations;
- goals and expectations for participation in school and beyond;
- current knowledge and skills about how to learn;
- current curriculum-related knowledge and skills; and
- the nature of the educational environment that supports learning ⁽²⁶⁾.

For Aboriginal students, teacher-student relationships can be significantly enhanced where teachers develop their knowledge, understanding and appreciation of their students' backgrounds, and are inclusive of local communities and cultures in developing their teaching programs ⁽⁵⁹⁾. Many of the curriculum programs which have been reported to be effective for Aboriginal learners are those which have been developed in true partnership with local Aboriginal educators and communities ⁽⁵⁾.

Seven key factors have been identified, which lead to positive learning outcomes for Aboriginal Australians in VET programs when continuously present ⁽⁶⁰⁾.

These are:

- community involvement and ownership;
- Aboriginal identities, cultures, knowledge and values;
- working in true partnerships;
- flexibility in course design, content and delivery;
- quality staff and committed advocacy;
- extensive student support services; and
- appropriate funding that allows for sustainability.

The fact that significant problems continue to exist in Aboriginal peoples' education and wellbeing points the existence of powerful and static forces ⁽²⁷⁾. Conceptual change and determined action will be required at multiple levels and sustained for more than a generation, to remedy this situation and build on the progress that has been achieved for Aboriginal students, families and communities ⁽²⁶⁾. The responsibility for making improvements in educational outcomes should be a shared one ⁽⁶¹⁾. That will only happen when preschools, schools and other educational bodies become more knowledgeable about, engaged with and respectful of the backgrounds, lives and aspirations of their Aboriginal students and their families, and when, in turn, Aboriginal families become more familiar with, confident about and engaged in the work of schools and other learning places ⁽⁶¹⁾.

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Section 4

Lifelong learning for priority populations

In this section ...

- Introduction
- Supporting priority populations:
 - Low income and jobless households
 - Homelessness
 - Refugees and recently arrived migrant groups
 - Young people in the care and protection system
 - People with disabilities and their families
- Sources of information

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Introduction

There are a number of groups within society (in addition to Aboriginal peoples) who are vulnerable, and/or have special needs with respect to learning and development, and who can be considered as priority populations. Many of them are also significantly disadvantaged.

Socioeconomic disadvantage takes many forms. For some, it is the inability to obtain the essentials of life such as shelter and adequate food; for others, it is a matter of low income; for others, a problem of discrimination and exclusion from opportunities in society ⁽¹⁾. Defining disadvantage only in terms of poverty or low income minimises the importance of access to appropriate services, safe environments, and the quality of housing or level of education that is available ⁽²⁾. A complete definition needs to extend beyond a lack of economic resources to encompass many of the serious environmental, structural and social issues faced by individuals, their families and their communities ^(3, 4). Examples of these can include under- and unemployment, homelessness or transience, discrimination and racism, unsupported lone parenthood, educational under-achievement, admission into state care, violence and abuse, and behavioural and mental health problems.

For many disadvantaged groups within the population, the impact of social inequality limits their capacity to influence change, and makes them more vulnerable to experience poorer wellbeing and fewer opportunities for educational achievement and secure employment. Some of these groups include people with disabilities and their families; young people with experience of the care and protection system; young people caring for family members with disabilities; and migrants and refugees from a range of different cultures and ethnic backgrounds and for whom English is not their first language. Many disadvantaged Australians have not only interrupted learning experiences but have also been excluded from education ⁽⁵⁾.

Supporting priority populations

In order to meet the needs of priority populations in South Australia, they must be identified as a priority and the extent and nature of their special needs described. For some of these groups, there may only be population-level data available rather than data at a small area level; for others, they may, in effect, be 'hidden' if their locations, needs and challenges are undescribed. A lack of quantitative and qualitative information about these priority populations can make it difficult to plan and deliver services and specific interventions which may improve their life opportunities, and their wellbeing, learning and development needs.

However, a discussion of their situations, drawn from available practice, policy and research, can be a useful starting point to identifying the resources required to meet their diverse needs, especially with respect to learning, education and development.

Education and knowledge help to empower individuals and allow them greater decision-making, agency and autonomy with respect to their own lives ⁽⁶⁾. Educational achievement also relates to many other aspects of life such as employment, wellbeing and health, and participation in social, cultural and civic activities in the community ⁽⁷⁾.

Low income and jobless households

The material standard of living enjoyed by individuals and households depends primarily on their command of economic resources, both in the immediate and longer terms. Income varies across the life span and does not alone determine material quality of life ⁽⁷⁾. Other factors are the extent of unfulfilled financial commitments (financial stress), and the level of accumulated wealth, which can buffer the income of an individual or household.

It has been estimated that a full-time job is needed to produce sufficient income to raise people above the poverty line in Australia ⁽⁸⁾. Un- and underemployment continue to be major causes of poverty in Australia, and employment only provides an escape when it comes in the form of a full-time job ⁽¹⁰⁾. As many of the new jobs created over the last two decades have been either part-time or casual, they have not been sufficient, by themselves, to protect workers and their families from poverty ⁽⁸⁾.

Jobless families include not only those who are unemployed but also those not participating in the paid labour market. Around two-thirds of these families are lone parents, and more than 80% of lone parents are women ⁽⁹⁾. In Australia, jobless families are about six times more likely to be in poverty than working families; and 70% of all poor children live in jobless households, the highest level in the OECD ⁽⁹⁾.

Thus, households with low incomes and/or no adult in employment or education and training face disadvantage across many domains of life. There are reduced opportunities to engage in a range of activities, including formal and informal avenues of learning and education, for all members of these households. For the adults, there may be limited prospects of increasing skills and competencies; and the stress generated as a result of having low income and no employment can have adverse effects on family cohesion and wellbeing and physical and mental health ⁽¹¹⁾.

For children and young people, living in a jobless household can have many unfavourable consequences, and may lead to the intergenerational transmission of economic disadvantage. Unemployment has been linked to truancy and non-completion of schooling, family break up, spouse abuse, substance use, illness and premature death ⁽¹²⁾. Furthermore, a child's learning and development depends on access to economic resources during the first fifteen years of life, and future income, socioeconomic position and relative economic success can suffer ⁽¹⁰⁾. Children and young people also need role models to follow if they are to proceed to education and training opportunities beyond school ⁽¹³⁾. This is made more difficult if such models are not evident in the home. The transmission of joblessness across generations undermines both equality of outcomes and equality of opportunity ⁽⁹⁾.

Joblessness can generate tension and conflict in families, with resulting poor health, family disruption, housing instability and social exclusion, resulting from the loss of social and professional contacts in the workplace ⁽¹⁴⁾. However, while poor health and disability are more prevalent among jobless families and are significant additional barriers for some households, many jobless lone parents have good health and do not experience severe disability ⁽⁹⁾.

It has been argued that the main policy factor contributing to high family joblessness in Australia has been that of requiring lone parents to actively look for work ⁽⁹⁾. A number of policy initiatives have been proffered, with one alternative for families with preschool children being the (re)introduction of a Jobs, Education, Training (JET) type scheme, using a facilitative approach designed to encourage sole parents into the work force either directly, or through education and training ⁽⁹⁾. Policy initiatives in this area should be assessed for their likely impacts on children's learning, development and wellbeing ⁽¹⁵⁾.

Homelessness

People experiencing homelessness have a diverse range of circumstances and needs, but are among Australia's most socially and economically disadvantaged ⁽⁷⁾. They are a heterogeneous group, with complex needs requiring a wide range of service responses, in addition to the provision of shelter ⁽¹⁶⁾.

Children, young people and adults are likely to experience adverse educational, social and health consequences as a result of being homeless. Homeless children and young people may suffer emotional and behavioural problems such as depression, low self-esteem, anger and aggression and are likely to have disrupted schooling ⁽¹⁷⁾. Their parents are also at risk of depression and stress and

may be unable to provide their children with the care and support they need. Family violence and relationship breakdown are also common reasons for parents with children seeking assistance from welfare and other agencies ⁽⁷⁾.

In addition to physical and mental health problems, homeless people are also at risk of other negative outcomes. Homeless individuals often live within hostile environments, and are therefore more likely to be subjected to acts of violence, crime and abuse ^(18, 19). Furthermore, homeless persons are highly marginalised, alienated, and stigmatised. This often leads to degraded social skills, and deprives these people of adequate emotional or cognitive stimulation ⁽¹⁸⁾.

On Census night in 2006, there were 105,000 persons who were homeless in Australia ⁽²⁰⁾. In 2006, 58% of the homeless were in the younger age groups (under 35 years) and 42% were aged 35 or older. Twelve per cent of the homeless were children under 12 years accompanying their parent(s), and a further 21% were teenagers aged 12 to 18 (mainly on their own) with 10% being young adults aged 19 to 24 years. With respect to education and learning, it has been estimated that only about a third of homeless teenagers have retained some connection with school, with the rest not in any employment, education or training ⁽²¹⁾. Aboriginal peoples are more likely to experience homelessness than other Australians, and were over-represented in all age groups.

Since the last Census in 2001, there has been a decline of 21% in the number of homeless youth aged 12 to 18 (living on their own), as a result of effective early intervention services targeting homeless and at risk youth. Cross-program service delivery with a single point of contact for employment, housing, educational and personal support is a recent innovation for young homeless people ⁽⁷⁾. However, there has been minimal early intervention to assist homeless families with children who have been badly affected by the declining supply of affordable housing, and their numbers have increased by 17% ⁽²⁰⁾.

As part of efforts to address homelessness, education is sometimes provided to homeless people, usually for the purpose of making the homeless recipients better able to find and maintain employment or housing by focusing on vocational or life skills ⁽²²⁾. However, a recent and innovative approach for assisting homeless adults to reengage with society relies on the provision of tertiary-level education in the humanities, offering education from an academic rather than a welfare framework ⁽²³⁾. Early results show that Catalyst-Clemente is a practical educational solution that has resulted in enhanced life opportunities and choices for disadvantaged Australians ⁽²⁴⁾.

Refugee and recently arrived migrant groups

Refugees are defined by the United Nations' 1951 *Convention relating to the Status of Refugees* as people who 'are outside their country of nationality or their usual country of residence and are unable or unwilling to return or to seek the protection of that country due to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion'. In addition to those people who enter Australia under visa categories that identify them specifically as refugees, there are others of the same ages and backgrounds who have been through similar experiences in those countries, and whose profile is therefore like that of a refugee ⁽²⁵⁾. They face the same challenges as refugees within the education and training system.

While many students from refugee backgrounds achieve educational success, there is a growing body of evidence to suggest that numerous people arriving in Australia under the refugee and humanitarian program are also failing to attain a level of education that will ultimately allow for their successful integration into the Australian community ⁽²⁶⁾. Severe disruption to, or an absence of formal education and learning and development, and poor proficiency in English before arriving in Australia along with significant emotional, developmental and physical traumas are major barriers for many in attaining outcomes within the mainstream education system. Their impact depends on a number of factors such as the inner resources of the individual, the access to and the quality of family and community support and the societal environment of the host country. When these fail, disengagement and unemployment can lead to marginalisation and social exclusion, welfare dependency, and ultimately, considerable difficulty in participating fully in the new society ⁽²⁶⁾.

The significant issues that new arrivals must contend with can be overwhelming, from trying to find affordable accommodation, enrolling children in school, looking for work and/or getting overseas qualifications recognised, finding family members and negotiating a whole new system and culture, and all the time trying to work through the traumas they have left behind. Both newly arrived adults and children are coming to terms with loss of self-identity, uncertainty about the future, and loss of family. In most cases, they have not had any control over the events that forced them to leave. Research indicates that the quality of support provided in the early period of settlement and beyond has a significant bearing on how well refugees are able to face the practical and emotional challenges of establishing new lives in a new country ⁽²⁶⁾.

The physical and emotional health effects from refugee life experiences are likely to affect individuals' education and learning ⁽²⁷⁾. During resettlement, these experiences may lead to individuals to display post traumatic stress disorder (PTSD) symptoms ⁽²⁸⁾. Therefore, students from refugee backgrounds attending educational courses are likely to be affected by the mental health-related burdens resulting from their refugee life experiences, in addition to the consequences of disrupted educational histories.

Therefore, in contrast to many learning and development theories that advocate for the use of past experiences, the previous experiences of students from refugee backgrounds may actively work against the process of participating in learning ⁽²⁹⁾. However, such education experiences may serve as a basis from which individuals can transform their lives through securing new learning and capabilities to engage more productively in social and economic life ⁽³⁰⁾. Therefore, the issue of readiness to learn for students from refugee backgrounds is not simply one of possessing the capacities to participate in the experiences, but also includes both physical and psychological dissonance that the students might encounter during learning. Other barriers, including English proficiency, style of Australian education, and family obligations and expectations, may prevent young refugees from progressing through the education system ⁽³¹⁾.

Education and training institutions have a unique role in providing an environment which can nurture resilience and reduce the vulnerability of these students ⁽³²⁾. The provision of a 'transformative' education (where expectations are made explicit and relationships between teachers and their students are crucial to effective teaching) requires a clear understanding of how both the students' socio-cultural heritage and refugee life experiences may affect their learning activities, and how learning experiences can productively assist these students to reach particular learning goals ⁽³¹⁾.

Similarly, educational and learning institutions need to develop ways of engaging refugee and migrant families, as families are often eager to be involved but face barriers such as not understanding the system or language difficulties ⁽³²⁾. Connection to family and community is the basis of social cohesion, and of a strong identity. There is a clear need to consider complex and diverse needs of family, to see young people within the context of their family and community, and to focus on building the strengths and resilience of families and communities. There is also an imperative to encourage social connections between refugee and migrant young people and other young people to enhance their support networks.

In general, young people from migrant and refugee backgrounds demonstrate high levels of strength, resilience, resourcefulness and understanding⁽³³⁾. At the same time, they regularly experience marginalisation in relation to housing, health, education, employment and access to social and recreational opportunities as they resettle in Australia. These result when community structures do not take account of their needs. This undermines the basic human rights of these young people as well as their capacity as individuals to be fulfilled. This, in turn, negatively impacts on the capacity of Australian society to be the best that it can be⁽⁷⁾.

For refugee and migrant young people, a socially cohesive society includes a welcoming environment where they can form trusting relationships; participate fully in community activities; and feel supported by peers and family⁽³³⁾. It also allows them to formulate achievable goals in their lives. They are able to retain their cultural heritage while also feeling connected to the broader society. Finally, they have full and equal access to the various institutions (such as education and employment) and the benefits of society (material benefits such as housing and income, and social benefits such as decision-making and community participation and support)⁽³³⁾.

Children and young people in the care and protection system

For children with experience of the care and protection system, their learning and development are influenced not only by their family circumstances, and the efforts of foster and relative carers, and child welfare agencies, but also by the support provided by other agencies, such as the mental health and school systems⁽³⁴⁾. Education makes a significant contribution to the development and wellbeing of children and young people, and is an important gateway to future employment and life opportunities. For many children and young people in the care of the state, school is their safest and most stable environment and can provide social connectedness, development of capabilities and relationships and friendship^(35, 36).

Children under guardianship have ability and can succeed⁽³⁷⁾. However, a history of interrupted school attendance due to relocation and unstable placements, in addition to disabilities, learning difficulties, disrupted relationships and attachments, emotional and behavioural problems, and poverty, can mean that the educational needs of children and young people in the care of the state are not met⁽³⁸⁾. Furthermore, lost educational opportunities have a cumulative effect on children in care as they move through the various stages of learning and development⁽³⁷⁾. These factors have consequences for their prospects for future employment and

wellbeing. There is also a link between poor academic achievement and higher than average rates of homelessness, criminality, drug abuse, and unemployment amongst care leavers. Education remains a significant gateway through which young people can pass from care to adulthood, to employment and to effectively participating in community life⁽³⁸⁾.

Unfortunately, the majority of students in out-of-home care currently achieve lower learning outcomes, particularly in literacy and numeracy; suffer from educational gaps and learning and other disabilities; have specific issues relating to development at key stages of schooling; and exhibit a range of problematic behaviours. They are less likely to continue within mainstream education beyond the period of compulsion; are more likely to be older than other children and young people in their grade level; on average attend a larger number of primary and high schools than other students; and missed substantial periods of school through changes of placement⁽³⁸⁾. Factors underpinning non-attendance relate to instability and a lack of continuity in placements, and poor relationships within the school, with some teachers (e.g., low expectations and lack of understanding) and peers (e.g., exclusion, bullying and being older than peers).

In 2003, children in the care and protection system in years 3, 5 and 7 at Australian government schools who participated in department-based reading and numeracy tests had lower mean scores than other children on both reading and numeracy tests across each year level. Data also indicated a decline in the proportion of children on orders who achieved national benchmarks from Year 3 to Year 7, particularly in numeracy. Indigenous children on orders recorded 'significantly lower test scores' than other children on orders⁽⁷⁾. The frequency and timing of placement and school moves play a crucial part in preventing children in care from achieving the levels predicted by their earlier test scores⁽³⁹⁾.

There are significant educational and other systemic barriers which impact on the learning and developmental outcomes of children and young people in care⁽⁴³⁾. Both the child welfare system and the education system can contribute to poor educational outcomes for children in care⁽⁴¹⁾. Issues such as frequently changing staff, lost or incomplete records or no individual education plan, minimal monitoring of educational progress, a paucity of specialised and remedial services, lack of engagement, and frequent changes in schools all contribute, as do higher rates of being kept back a year and of absenteeism, tardiness, truancy and school dropout^(38, 41). These students may also have greater needs for extra help, as the prevalence of disabilities is high. In 2008, it was reported that the

prevalence of disability was 39% for children in care in the DECS system (27% with language and communication disabilities and 12% with an intellectual, physical or sensory disability) ⁽³⁷⁾.

Evidence indicates that one-on-one assistance both for students (mentors, tutors and school support officers), and for carers of children with special needs as and when required, are important predictors of the educational progress for these students. There is also evidence that students who participate in activities such as subject-focused study support, sports, music, art, dance or drama improve in academic attainment, attitudes and school attendance. Other studies found that these forms of spare time experience were important in increasing the resilience of children in care ⁽⁴²⁾. Lack of access to support services and lost opportunities for funding extracurricular activities have a cumulative impact on children as they move through the various stages of education and development, from preschool, primary school and secondary school, through to vocational and tertiary education.

Learning occurs and needs to be encouraged in all settings. Access to preschool and, to some extent, formal childcare, also offers opportunities for learning and development for younger children, and for some carers, provides additional support. Help may also be needed to sustain developmentally enriched environments at home.

Children and young people in care have a right to participate in education and realise their potential. They must have access to a range of educational options in the public and non-government sectors that are responsive to their needs, if they are to progress successfully into vocational and higher education opportunities ⁽⁴⁴⁾. There is much that can also be done to overcome the significant obstacles they face with recovering from trauma, changing schools, and early neglect.

People with disabilities and their families

Disability can take many forms – physical, intellectual, emotional, learning, sensory and so forth – and clearly has a significant impact on development, learning and wellbeing of the individuals so affected, their siblings and families. People with disability include those who were born with disability and those who acquire disability through accident, ageing or illness during their life. Their carers and families can experience high rates of mental health problems, poorer physical health, employment restrictions, financial hardship and relationship breakdown ⁽⁴⁵⁾. Compared to Australians without disability, people with disability are more likely to live in poverty, to have fewer educational qualifications, to be out of work and experience inequality ⁽⁴⁶⁾. Around 20% of the general population reports some form of disability ⁽⁴⁶⁾. The prevalence of

disability among Aboriginal Australians is higher than for other Australians at all ages, and rates of severe disability are at least twice as high ⁽⁷⁾.

The *UN Convention on the Rights of Persons with Disabilities* includes Article 24 which recognises the right to education and requires measures to ensure equal access to education. People with disabilities and special needs need be considered in the provision of all education, development and learning programs, including preschool, childcare and early childhood education, and access to before school and after school care. They may require assistance with or access to assistive technologies in relation to education and training, and their family members may require other respite and support services.

Students with disabilities are often at risk of being labelled, abused, exploited, neglected or rejected; and educators may attempt to provide for their needs in specialised places away from other students and with different cultural and social norms ⁽⁴⁷⁾. The educational needs of children with disabilities can be met through their inclusion in mainstream classes, specialised services co-located with mainstream services, or in separate facilities, according to the needs of each child. A lack of support for inclusion, however, may drive parents into choosing specialist settings despite their desire for their child to attend local schools. Greater resources are also required to ensure a child's full participation not only in the classroom but in all aspects of school life, including excursions and sporting and cultural activities ⁽⁴⁷⁾. Support is particularly critical in transitional stages of schooling, such as when a student is moving from primary school to high school or from a more supported special education setting into a mainstream school ⁽⁴⁸⁾.

Most students with disabilities are able to develop and learn and should be encouraged and given the required support to do so. They enrich school communities and teach us about the strengths of diversity. Students with disabilities need educators with positive attitudes to counteract society's prejudices, and with specialised training to maximise opportunities for learning and development, so they are able to achieve their rights and entitlements as students and as valued citizens, and are prepared for post-school life. Failing to provide them with an appropriate education limits their potential to lead productive, independent adult lives. In 2003, only 30% of people with a disability reported having completed year 12 compared to 49% of those without a disability; and 16% had left school at Year 8 or earlier, as opposed to 5% with no disability ⁽⁴⁶⁾.

Post-school educational inequalities for those with disability are also present, with only 14% completing a diploma or higher qualification (compared to 28% for those without a disability). Furthermore,

educational achievements and outcomes from VET programs are relatively poor for students reporting a disability, although there is considerable variability between types of disability⁽⁴⁹⁾. In 2003, VET students reporting a disability had generally low educational attainment levels, with almost half having only completed Year 10 or lower⁽⁵⁰⁾. The poor educational performance of students reporting a disability may have been due to their educationally disadvantaged position, rather than their disability. With disabilities such as hearing/deaf, intellectual, acquired brain impairment and vision, the actual disability explained little, once other student characteristics such as age, sex, educational background and course studied were taken into account⁽⁵⁰⁾. By contrast, both student characteristics and the disability itself directly impacted on the low completion rates of those with a physical or mental illness or a medical condition. Overall, it is not helpful to treat students with a disability as one group, as the direct effect of the disability on academic performance differs between groups.

There is also a need for education authorities to recognise children and young people caring for family members with a disability, and seek adequate supports for the whole family to prevent children having to take on inappropriate caring roles. This includes recognising children who are both primary and secondary carers. Children and young people with caring roles face significant challenges maintaining school attendance, completing their schooling and participating in the social and sporting activities of their peers⁽⁵¹⁾.

Similarly, children with a sibling with a disability can miss out on opportunities through the demands on parental time, and emotional and economic resources; and may need support to cope with the perceived stigma or attitudinal issues from their peers at school or in the community. As a result, they can feel isolated and become 'at risk' for a range of emotional, learning and physical health problems, which can continue into adulthood. Siblings are regularly overlooked both within their family and by agencies, even though they are likely to have the longest relationship of anyone with the person with special needs⁽⁵¹⁾. Appropriate and timely support from teachers and other educational staff will help them to feel less isolated, to build resilience, and to be more likely to develop, learn and complete their education.

Addressing the needs of priority populations

Populations with special needs should be provided with additional supports so they can reach their educational, development and learning goals. This

may mean resources from within educational systems as well as those from other government and community sectors. Staff who work with members of these groups need specialised training, ongoing professional development, cultural sensitivity and understanding, values and attitudes that are inclusive and non-judgmental, and a commitment to working with individuals, their families and communities to improve learning and development outcomes.

When all these elements are in place and our society has become more accepting of difference and supportive of rights and interests, we may see the educational and learning outcomes for these disadvantaged population groups move closer to those of our most advantaged citizens, and South Australia will be a more socially inclusive community.

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Section 5

Indicators of learning and development

In this section ...

- Introduction
- The value of indicators
- Quality and availability of indicators
- List of indicators
- How to use the maps and charts in this section
- Indicators – in detail

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Introduction

Information is presented in this section to describe, at a geographic level, key educational and developmental outcomes for children, young people and adults in South Australia. In particular, the aim is to identify inequalities that exist in these outcomes between different population groups, within the State, and between regions.

The information, presented as a series of indicators, highlights these inequalities and draws attention to the influence of social, economic and environmental factors on educational participation and outcomes, and the influence of these factors on wellbeing, learning and development. The ensuing picture is one of significant differences across the population.

While most of the data are presented for children and young people, some indicators are also provided for the whole population, to provide additional contextual information.

Summary information is also presented for selected indicators for South Australia and the other States and the Territories, as well as the Australian average (Table 1, page 63).

In addition to the information presented in this section as maps, charts and tables (and listed on page 65), information for a larger number of indicators is available on the PHIDU website at www.publichealth.gov.au. It is important to be aware of the absolute numbers in an area (as shown in the spreadsheets, online), and to not just use the percentages and rates shown in the maps.

The value of indicators

One way to gauge the impact of social, economic and environmental factors on educational outcomes and on the wellbeing of the population is through the use of indicators, both at a point in time, and by tracking their movement over time.

Indicators are summary measures of chosen events (for example, the proportion of the population completing Year 12) derived from data collections that record all cases, or a representative sample, of the events in a population.

Describing the geographic variation in indicators of inequality provides information which can be used to support progress towards reducing inequalities.

The indicators are therefore important for:

- informing people about social issues, including access to and outcomes in education;
- monitoring these issues to identify change, both between groups in the population, and over time; and
- assessing progress toward goals or achievement of policy objectives.

Terminology

Information is presented in maps, charts and tables to describe inequalities in key educational outcomes.

The charts use the terminology highest and lowest socioeconomic status areas, which refers to the way areas have been grouped, using the Australian Bureau of Statistics' Index of Relative Socio-economic Disadvantage (IRSD).

The term 'socioeconomic' refers to the social and economic aspects of the population, where 'social' includes information about the population and their education, welfare, housing, transport etc.

It is not used in the context of 'social' as in 'social skills', 'social capital', 'social ability' or 'social behaviour' of community members. Therefore, an area described as having 'a high level of socioeconomic disadvantage' does not imply that the area has low cohesion or lacks strength as a community; rather it identifies a relative lack of resources or opportunities that are available to a greater extent in more advantaged communities.

These purposes suggest that indicators need to:

- reflect the values and goals of those who will use and apply them;
- be accessible and reliably measured in all of the populations of interest;
- be easily understood, particularly by those who are expected to act in response to the information;
- be measures over which we have some control, individually or collectively, and are able to change; and
- move government and communities to action.

Quality and availability of indicators

The indicators presented in this report and on the World Wide Web were selected because they describe the extent of inequality in educational access, participation and outcomes, in the context of the demographic and socioeconomic composition in South Australia.

They are also those for which reliable data are available, in particular data which can be mapped to show variations by area, across Adelaide and country South Australia.

The smaller numbers presented in this section of the atlas were chosen as they highlight the considerable inequalities that exist within the State.

In some cases, data are not available to show variations between population groups for some aspects of the social, economic and environmental

factors that we wish to show. In others, the data are not what we would choose to present, but are the best available.

For example, the report includes estimates of the number of children and young people in preschool, primary and secondary education, and the percentage of their age group attending school. Ideally, these data would be based on enrolment data from the three school systems (enrolments in government schools, through the Department of Education and Children's Services (DECS); and in non-government schools, both in the Catholic schools sector and in other non-government (independent) schools). However, such data are not available in a form suitable for showing variations between population groups, for which we need geographic data (by Statistical Local Area (SLA)) – see the notes in the Appendix. As this is important information, data from the 2006 Population Census have been used as a proxy for enrolments: the limitations of this approach are described in the notes in the Appendix.

Despite these limitations, the student data that are available provide a useful and reliable guide to variations between groups in the population. This is the case for many data items that have limitations when used as measures for individuals, but prove to be reliable indicators when aggregated for groups in the population.

In one instance, data have been included that relate only to students in government schools, and not to all schools. That is the information describing the results of the 2008 National Assessment Program – Literacy and Numeracy (NAPLAN). Under this program, students in Years 3, 5, 7 and 9 are assessed using national tests in the aspects (referred to in this report as areas) of reading, writing, language conventions (spelling, grammar and punctuation) and numeracy. These data were available for government schools by the usual address, at the SLA level, of the school and of the student. In this atlas, the data by student residence have been used.

Although data for students in the other (non-government) systems location were not available, a decision was taken to map the data for government schools.

There are other topics for which we would have liked data, but which were not available at the small area level. Examples include homelessness, refugees, different forms of disability, children in the care and protection system, and young carers. In the education sector, in addition to enrolment data mentioned above, data for NAPLAN scores (see below) and students with a disability that included the non-government sectors would have increased the value of the analysis.

How to use the maps and charts in this section

For each indicator listed on page 65, there is an introductory statement as to the relevance of the indicators presented in describing educational opportunities and outcomes. This is followed by a discussion under the following headings, as the data allow:

- Key points
- Geographic variations
- Regional totals
- Socioeconomic status
- Remoteness
- Correlations

The introductory statement for each indicator is necessarily brief, because of the space limitations; however, the notes appended to each indicator in the online mapping software are sometimes more extensive, as is the information presented in the earlier sections of the report.

The following notes give an overview as to how the atlas may be used. Additional detail as to the indicators, including definitions and data sources, are on the pages describing each indicator, and in the Appendix: these have not been included with the indicator descriptions because of the limited space available.

It is important to use not only the maps and graphs in the atlas, but to access the online maps and datasheets which show, as well as the percentages and rates in the maps, the number of events, or people represented by the rates.

Geographic variation

Two maps are shown for most variables in the atlas. The first is a map at the Statistical Local Area (SLA) level for metropolitan Adelaide, represented by the metropolitan State Regions: in brief, SLAs represent whole or parts of Local Government Areas (LGAs), as well as covering areas of the State not incorporated into LGAs.

The second map is of the whole State, by SLA, but with metropolitan Adelaide mapped as one area. This enables comparisons to be made of the percentages, ratios etc. in Adelaide with those in the non-metropolitan areas, referred to as country South Australia. Urban centres (towns) with a population of 1,500 or more which are separate SLAs, and for which a range of data is available, are shown as circles on the map.

Readers should note that the maps reflect the distribution of the population for whom the particular event is recorded (e.g., number of

students; children and young people admitted to hospital) showing location (at the SLA level) of their usual residence, as coded from the address information in the various statistical data collections. That is, the maps are not of the location of the school, or of the hospital.

In many cases, the ranges mapped in the metropolitan and country maps will vary, as they do between maps. This should be taken into account when using the maps. In addition, readers should refer to the spreadsheets available on the PHIDU website, as some areas with relatively high percentages or rates may have a relatively small number of cases.

Cautions

The comparisons made in the report are between SLAs. Readers should note that there are also variations, and sometimes substantial variations, within SLAs, both in metropolitan Adelaide and country South Australia. As such, the figures for an SLA represent the average of the different groups within the SLA.

How best to read the data and maps

How can I best find out about the population in the area where I live/ work?

Some readers will want to identify a particular area, where they live or work, to see how it compares with other areas across the indicators. The key map at the end of the report folds out to allow one to find a geographic area of interest. Although the maps are small, the areas are large enough to follow from page to page, noting the location and size of the variations.

What are the predominant patterns in the data across Adelaide or in country South Australia?

Other readers will want to get an overview of the distribution of the population across all indicators, or across a particular range of indicators.

The distribution of the population in Adelaide is such that this is relatively easy to follow, with many of the maps showing a distinctive pattern (**Map 1** and **Map 2**). For country areas, it may be helpful to identify the names of the towns mapped as circles to assist in understanding the overall patterns (**Map 3** and **Map 4**): these towns are the only urban centres which are SLAs, and for which data are available at the SLA level. Again, the key map at the end of the report will be useful.

The geographic distribution at the SLA level in metropolitan Adelaide of the populations described in **Map 1** and **Map 2** are clearly similar. **Map 1** shows the distribution of jobless families (that is, families where no parent is employed) and **Map 2** shows the percentage of children living in each SLA who were in Year 3 in a government school in

2008, who had scores in the NAPLAN test for reading which were below the national minimum standard.

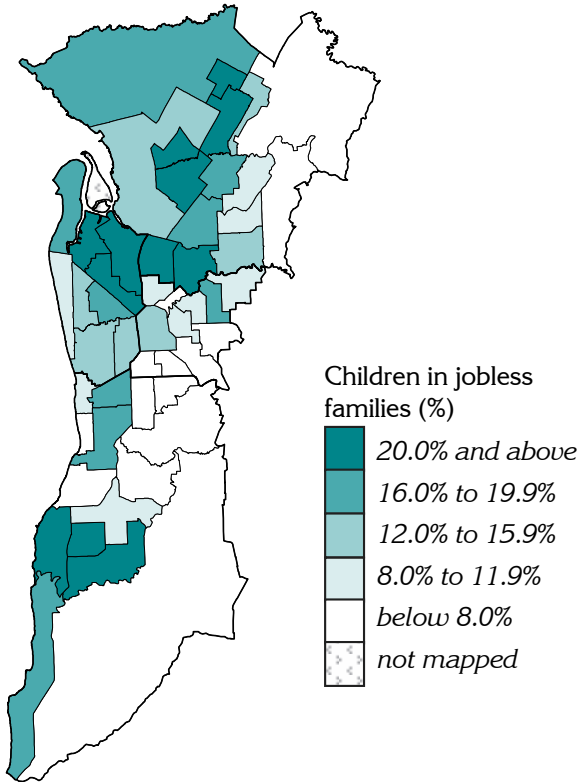
The pattern is one replicated in many of the maps, and highlights, in the darker shades, areas with socioeconomically disadvantaged populations.

Mapping data for country South Australia poses a number of challenges, mainly arising from the relatively small population and large numbers of large and sparsely settled SLAs. For example, areas in country South Australia are often mapped in a grey shade, referred to in the legend as 'not mapped'. In the majority of cases, this refers to there being fewer than five events (students, hospital admissions) of children or young people living in the area; these areas have not been mapped as the data are likely to be unreliable. A small number of areas are not mapped because they have a population below 100 children and young people: Maralinga Tjarutja and Torrens Island are examples.

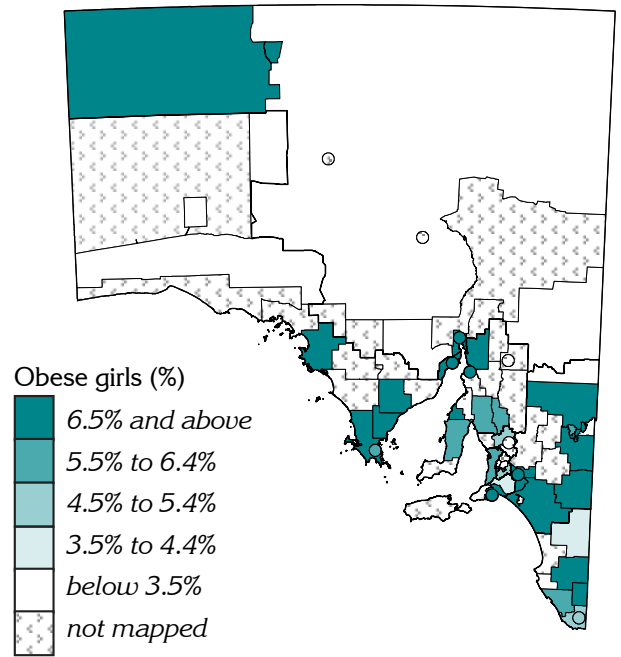
In addition, the large size of some SLAs in the far north of the State can distort the message the map is presenting. This is particularly so where an area is mapped in the darkest shade, thereby dominating the map – even though the number of events might be relatively small.

Some of these issues can be seen in **Map 3** (four year old girls assessed as being obese) and, to a lesser extent, in **Map 4** (reading scores under NAPLAN, as described above for **Map 2**).

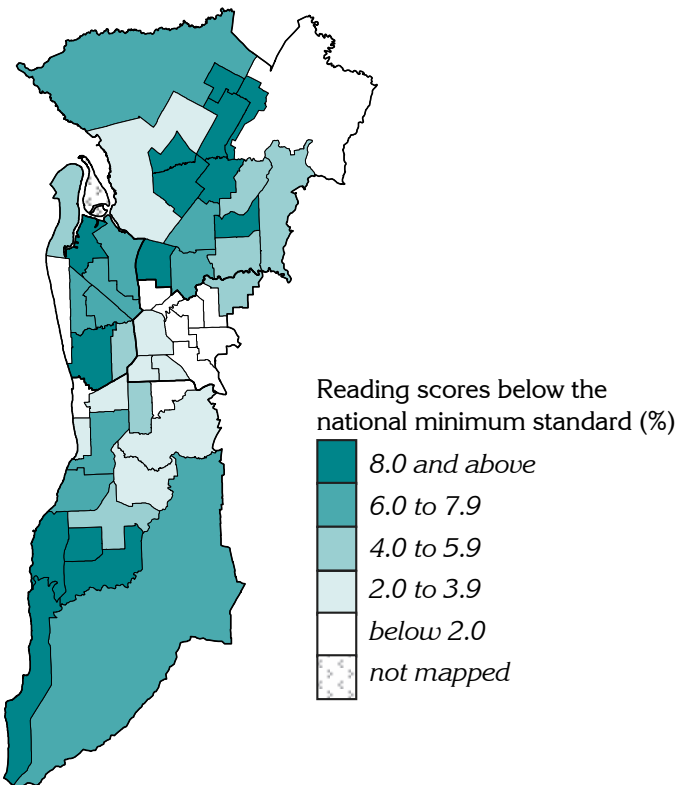
Map 1: Children living in jobless families, Adelaide, 2006



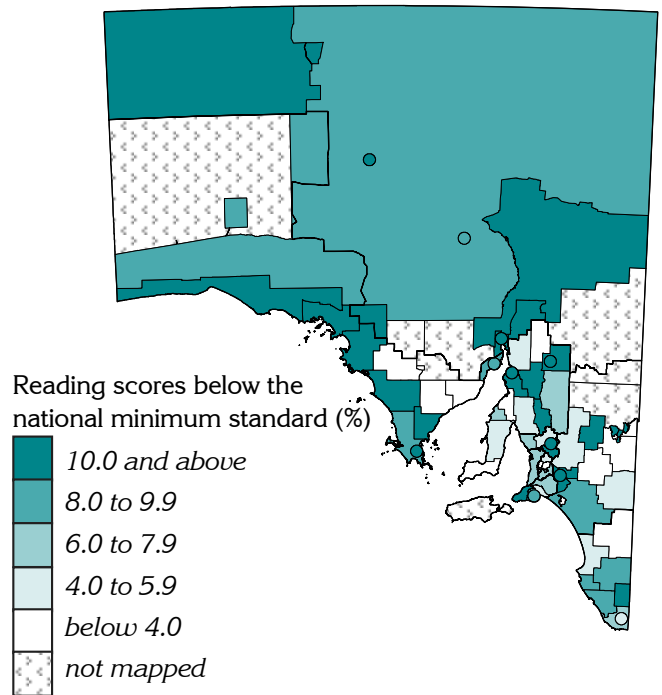
Map 3: Obese four year old girls, South Australia, 2004 to 2007



Map 2: Children in Year 3 at government schools with below-average reading scores, Adelaide, 2008



Map 4: Children in Year 3 at government schools with below-average reading scores, South Australia, 2008



Regional totals

For each indicator, the data are shown in a table by State Region, with sub-totals for metropolitan Adelaide and country South Australia.

Socioeconomic status

The data for each indicator have also been presented to show the extent of variation within metropolitan Adelaide (and, separately, within country South Australia) by socioeconomic status. This is achieved by grouping SLAs into five groups based on socioeconomic status, using the Index of Relative Socio-economic Disadvantage (IRSD) score for the population in each SLA, as calculated by the Australian Bureau of Statistics (ABS) from data collected at the 2006 Population Census. Group 1 comprises the SLAs with the highest IRSD scores (highest socioeconomic status, or most advantaged areas) and group 5 comprises the SLAs with the lowest IRSD scores (lowest socioeconomic status, or most disadvantaged areas). Each group comprises approximately 20% of the total population in the area under analysis (e.g., metropolitan Adelaide or country South Australia). Rates are then calculated for each indicator for each of the groups.

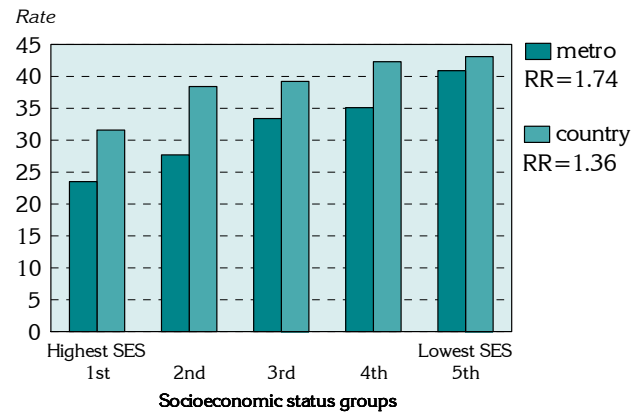
The graphs also include a 'rate ratio' (RR), which shows the difference between the average percentage or standardised rate for that indicator (e.g., early school leavers) in the most disadvantaged areas (group 5) and the most advantaged areas (group 1). It is a measure of the extent of inequality between the highest and lowest SES groups.

In the example below (**Figure 2**), the percentage of the population whose highest completed level of schooling was Year 10 was 74% higher for the population in the most disadvantaged areas in metropolitan Adelaide, compared with the highest socioeconomic status (SES) areas – this is an RR of 1.74. In country South Australia, although the differential between the lowest and highest SES areas is smaller (36%), the rates are higher in each SES group, and range from 31.6% to 43.1%. Those who did not attend school are counted in this group.

The increment in rates across the SES groups, where each successive group has a higher rate, is referred to as 'the socioeconomic gradient'.

The 'rate' referred to is the age standardised rate per 100,000 population, which allows comparisons between the populations in the SLAs mapped, or the SES groups, regardless of differences in the age structure of the populations of the areas. Had the data not been age standardised, comparisons could be affected to the extent that areas have, for example, older populations, who may have had fewer opportunities to remain at school beyond Year 10, or to go to school, in comparison with later generations.

Figure 2: Highest level of schooling completed: Year 10 or below, by socioeconomic status, South Australia, 2006

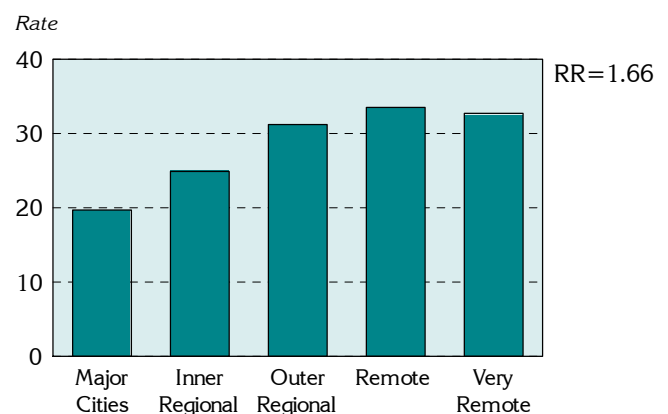


For all of the domains of the AEDI there were a relatively large number of SLAs in country South Australia with no children assessed as being developmentally vulnerable: it is unclear whether the results reflect the true situation, or whether there are no children, or too few teachers or completed checklists, to meet the AEDI criteria for release. As such these data should be used with caution: the addition of data from the second round of collection in 2010 may assist in clarifying this situation.

Remoteness

For each variable in the atlas, details were calculated of the average percentage or rate, for each of the five ASGC Remoteness classes. For example, for participation in vocational education and training, the average percentage of the population in SLAs in remoteness class 1 (Major Cities) was calculated and shown in a graph with the average percentage in each of the other four classes (**Figure 3**). The rate ratio (RR) shows the overall differential between the Very Remote and Major Cities areas to be 66%, a rate ratio (RR) of 1.66. The remoteness classification thereby provides a summary measure of the characteristics of the population, for each variable, categorised by accessibility to the largest populated centres.

Figure 3: Participation in vocational education and training, by remoteness, South Australia, 2008



As noted, above, for the socioeconomic status groups, there are a relatively large number of SLAs in country South Australia with no children assessed as being developmentally vulnerable: it is unclear whether the results reflect the true situation, or whether there are no children, or too few teachers or completed checklists to meet the AEDI criteria for release. As such the data for the Outer Regional, Remote and Very Remote areas should be used with caution.

Correlations

Correlation coefficients have been produced to indicate interdependence between the indicators in the atlas and a number of other variables included in the online edition. The correlation analysis was undertaken for metropolitan SLAs and non-metropolitan SLAs.

Correlation is the degree to which one variable is statistically associated with another. The correlation coefficient is a measure of the strength of this association. When high values for one variable are matched by high values for the other (or when low values are matched by low values), then they are positively correlated. Where the interdependence is inverse (i.e., high values for one are matched by low values for another), the two variables are negatively correlated.

The Pearson product-moment correlation coefficient (r) has been used in the analysis to indicate the degree of correlation between pairs of variables. Pearson correlation coefficients range from +1 (complete positive correlation) through 0 (complete lack of correlation) to -1 (complete negative correlation). As a general rule, correlations of plus or minus 0.30 to 0.49 are considered to be moderate; plus or minus 0.50 to 0.79 are strong; and plus or minus 0.71 or above are very strong.

A comment is made for a majority of the indicators as to the correlation between that indicator and other indicators. Due to the limited space, the statement is limited to the correlations in metropolitan Adelaide. Correlation coefficients for country South Australia for the indicators in this report and for both metropolitan Adelaide and country South Australia for a much larger number of indicators are available in spreadsheets on the PHIDU website.

Comparisons between jurisdictions

The following table (**Table 1**) provides information for a selection of indicators in the report to allow comparisons between South Australia and the other States and Territories, as well as with the Australian average.

Table 1: Comparative statistics for selected education and population indicators

Indicator	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
<u>AEDI: percentage of five year old children developmentally 'on track', by domain of the AEDI, 2009</u>									
Physical health and wellbeing: Between the 25 th and 50 th percentile	21.3	20.8	24.0	20.1	21.2	22.5	20.4	22.8	21.7
Physical health and wellbeing: Above the 50 th percentile	57.2	59.9	50.8	55.2	56.5	54.0	45.8	53.6	56.0
Social competence: Between the 25 th and 50 th percentile	23.0	22.2	22.6	22.9	23.5	23.2	20.5	24.2	22.8
Social competence: Above the 50 th percentile	54.2	55.4	48.2	50.7	52.8	51.9	43.9	50.7	52.6
Emotional maturity: Between the 25 th and 50 th percentile	24.7	24.5	26.8	24.7	28.0	24.7	21.9	25.7	25.4
Emotional maturity: Above the 50 th percentile	53.5	52.8	44.7	49.6	45.9	51.2	43.9	49.8	50.2
Language and cognitive skills: Between the 25 th and 50 th percentile	19.4	18.5	35.9	20.6	38.9	18.9	27.7	19.5	24.9
Language and cognitive skills: Above the 50 th percentile	65.2	65.5	25.1	62.5	28.3	61.7	32.4	64.3	52.3
Communication skills and general knowledge: Between the 25 th and 50 th percentile	19.2	17.5	23.5	19.4	23.7	18.6	20.0	21.2	20.2
Communication skills and general knowledge: Above the 50 th percentile	55.9	59.2	49.2	56.0	53.2	57.4	45.0	54.0	54.8
<u>AEDI: percentage of five year old children 'developmentally vulnerable', by domain of the AEDI, 2009</u>									
Physical health and wellbeing	8.7	7.7	11.0	10.0	10.1	10.0	18.8	9.4	9.3
Social competence	8.8	8.4	12.1	10.0	7.7	8.6	18.1	8.9	9.5
Emotional maturity	7.4	8.3	11.0	10.3	8.8	8.5	15.4	9.0	8.9
Language and cognitive skills	5.9	6.1	15.5	6.1	12.0	7.7	22.4	5.7	8.9
Communication skills and general knowledge	9.1	8.3	10.4	8.0	8.9	7.0	17.5	8.9	9.2
Vulnerable on one or more domain of the AEDI	21.3	20.2	29.5	22.7	24.6	21.8	38.5	22.1	23.4
<u>NAPLAN: percentage of students below the national minimum standard, 2008</u>									
Year 3									
Grammar & punctuation	3.9	2.0	11.7	6.1	11.2	7.4	38.2	4.2	6.5
Spelling	3.0	1.9	10.7	5.8	9.6	6.7	37.0	4.1	5.8
Reading	4.0	2.1	11.0	5.4	9.6	6.2	35.6	3.6	6.1
Writing	1.5	1.1	5.7	1.9	3.9	1.9	24.6	1.6	2.9
Numeracy	2.2	0.8	6.2	3.1	4.6	2.3	21.4	1.5	3.3
Year 5									
Grammar & punctuation	5.3	2.8	9.5	6.2	9.9	7.7	37.0	3.0	6.5
Spelling	4.6	3.4	10.1	7.3	9.6	9.3	36.4	5.7	6.7
Reading	5.7	3.9	11.5	7.4	10.1	9.4	36.1	3.8	7.5
Writing	4.0	3.6	8.9	5.7	8.2	6.4	32.3	3.6	5.9
Numeracy	4.8	3.0	8.1	6.9	8.1	7.0	29.4	3.6	5.9
Year 7									
Grammar & punctuation	6.1	4.7	8.3	6.8	10.8	8.0	38.5	5.0	7.2
Spelling	5.2	4.2	8.1	5.6	8.3	7.9	35.1	4.2	6.3
Reading	4.0	2.6	5.5	4.6	6.3	5.3	31.6	2.8	4.6

Comparative statistics for selected education and population indicators ...cont

Indicator	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Year 7 ...cont (%)									
Writing	5.9	4.9	8.5	5.6	8.9	9.3	35.1	5.6	6.9
Numeracy	3.4	1.8	3.6	3.5	4.3	4.1	22.8	1.9	3.4
Year 9									
Grammar & punctuation	8.0	6.5	10.5	9.0	12.0	11.7	34.9	5.1	9.0
Spelling	7.3	7.3	11.1	9.6	11.7	12.1	33.5	5.6	9.1
Reading	5.1	3.6	8.2	6.1	7.6	6.4	28.2	3.1	5.9
Writing	10.6	8.1	14.9	10.5	13.9	15.3	34.7	10.8	11.6
Numeracy	4.8	3.1	6.4	5.8	7.1	7.1	24.0	3.1	5.2
Secondary education (%)									
Full-time participation in secondary school education at age 16, 2006	73.7	79.9	73.6	78.3	69.0	67.6	52.1	81.8	74.8
Apparent retention rates, 2008									
- Year 7/8 to 10	97.3	98.8	101.5	101.6	102.2	100.4	86.3	98.9	99.3
- Year 7/8 to 11	81.1	93.1	91.4	97.0	94.3	74.5	77.9	97.6	88.8
- Year 7/8 to 12	69.6	79.4	78.0	74.4	73.6	64.8	60.1	85.2	74.5
Post-secondary education (%)									
Participation in vocational education and training, 15 to 24 years, 2008	8.3	8.6	6.9	8.0	6.5	8.8	9.8	5.6	7.9
Learning or earning (%)									
Young people at ages 15 to 19 earning or learning, 2006	79.1	82.6	77.0	78.4	77.8	77.8	58.6	84.4	79.1
Child health and wellbeing indicators (% , other than Infant mortality (rate per 1,000 live births))									
Birthweight: low birthweight babies, early to mid-2000's	6.3	7.1	n.y.a.	7.0	7.1	6.7	9.9	6.8	n.a.
Smoking: Young mothers smoking in pregnancy, early to mid-2000's	14.2	n.a.	n.y.a.	19.7	17.2	26.4	29.9	14.5	n.a.
Infant mortality: deaths before one year of age, 2002-06	4.7	4.8	5.2	4.0	4.4	4.8	9.7	5.4	4.8
Immunisation: children fully immunised at 12 months, 2008	91.4	91.7	90.8	91.8	89.9	92.0	90.3	93.7	91.3
Child abuse or neglect (0 to 18 years): notifications, 2007/08	8.2	5.1	7.1	5.2	2.7	7.9	11.4	7.1	6.3
Disability: profound or severe core activity restrictions (0 to 24 years) living in the community, 2006	1.4	1.5	1.6	1.8	1.4	1.6	1.0	1.4	1.5
Population indicators (% , other than IRSD – score with base of 1000)									
Summary measure of disadvantage: IRSD score, 2006	1000	1010	1000	979	1007	961	878	1066	1000
Children in welfare-dependent and other low income families, 2006	22.5	20.7	21.6	23.3	20.4	25.6	26.6	13.1	21.7
Welfare-dependent population: Females receiving the Parenting Payment, 2009	5.5	5.0	5.9	5.9	5.2	7.0	6.4	3.1	5.4
Welfare-dependent population: people receiving an unemployment benefit, including CDEP, 2009	4.4	3.9	4.6	4.7	3.8	5.6	11.7	1.9	4.3
Welfare-dependent population: people 15 to 24 years receiving an unemployment benefit, 2009	5.5	4.6	6.0	6.2	4.3	7.9	8.6	2.5	5.4
Educational attainment, whole of population: proportion left school before Year 11, 2006	41.4	32.6	40.6	34.0	36.0	51.0	39.3	25.4	37.9

Note: See Appendix for definitions and data sources

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Distribution of children and young people – current and projected

Knowing the geographic distribution of children and young people is important for the planning and provision of current and future early childhood, education, health, disability and welfare services.

Indicator definition: children and young people (0 to 24 years), current estimated resident population and projected population.

Key points

- The outer (Northern and Southern) regions have the highest percentages of the metropolitan population in the age groups under 20 years, with a more even distribution of the population aged 20 to 24 years, other than the Eastern Region, with a higher percentage in this age group. The distribution in 2025 is projected to be similar, although the overall share of Adelaide's population at these ages is projected to be lower, and the share of the 20 to 24 year age group in Southern Adelaide to have declined the most.
- A similar situation occurs in country South Australia, although the declines are expected to be larger.

Background

In 2008, almost one third (31.7%) of South Australia's population was estimated to be aged 0 to 24 years (Table 2). Although the percentage of the population at these ages is projected to decline, in 2025 it is still projected to be 29.1%. Of the 508,391 children and young people aged 0 to 24 years in 2008, 72.2% were residents of Adelaide: this is in line with the percentage of the total population living in Adelaide. The percentage of the population in each of the five-year age groups living in the metropolitan area is projected to decline by the year 2025, with larger declines in the two oldest age groups. In country South Australia, the percentage of the population aged 0 to 24 years is higher than in Adelaide at ages under 19 years, and lower in the 20 to 24 year age group. The population in all of the age groups is projected to decrease through to 2025, and at a greater rate than in the metropolitan area.

Table 2: Population distribution, current and projected, by age, South Australia, 2008 and 2025

Area	2008		2025	
	No.	%	No.	%
Metropolitan Adelaide				
0 to 4 years	65,096	5.8	74,813	5.7
5 to 9 years	63,608	5.6	75,347	5.7
10 to 14 years	67,401	6.0	75,047	5.7
15 to 19 years	75,768	6.7	80,990	6.1
20 to 24 years	86,212	7.6	86,562	6.6
0 to 24 years	358,085	31.7	392,759	29.8
Country South Australia				
0 to 4 years	29,188	6.1	30,886	5.6
5 to 9 years	31,130	6.6	33,097	6.0
10 to 14 years	33,497	7.1	34,189	6.2
15 to 19 years	31,498	6.6	29,796	5.4
20 to 24 years	24,993	5.3	23,252	4.2
0 to 24 years	150,306	31.6	151,220	27.4
SA (0-24 yrs)	508,391	31.7	543,979	29.1

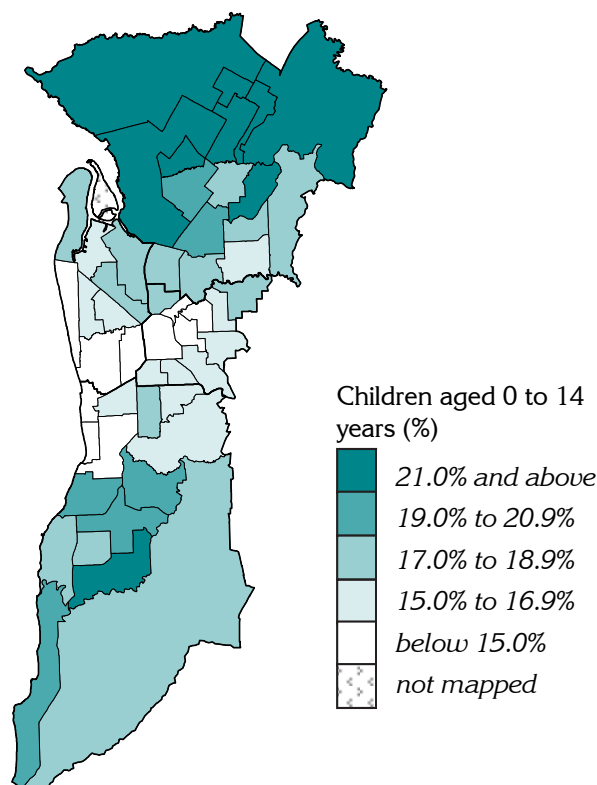
Table 2, below, provides details of the number of children and young people by age group in each State Region, and data are available, on the Internet, of the numbers and percentages in each SLA – see www.publichealth.gov.au.

Geographic variation - current

Adelaide

The outer northern areas generally have the highest percentages of children and young people aged 0 to 14 years, with the highest being in Playford - West Central, - East Central, - West and Salisbury - Inner North (Map 5).

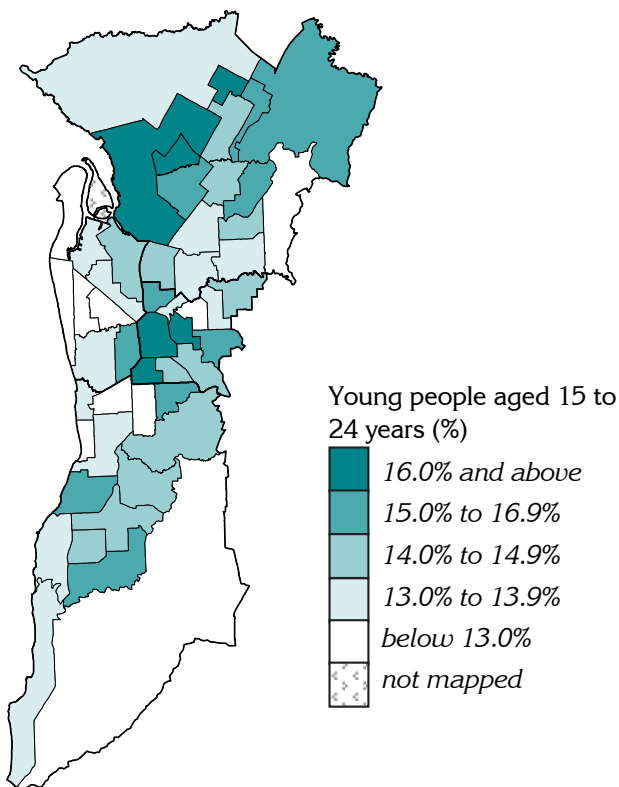
Map 5: Children aged 0 to 14 years, Adelaide, 2008



The lowest percentages in this age group were located in and around the city, in a number of inner eastern and inner and middle western SLAs, including Adelaide, Holdfast Bay - North and - South, and Norwood Payneham St Peters - West.

In contrast to the distribution of the younger population, those aged 15 to 24 years tend to be located closer to the city (in Adelaide, Norwood Payneham St Peters - West and Unley - West), although there are still high percentages in some parts of the outer north (in Playford - West Central, - East Central and - Hills; and Salisbury - Inner North, - Balance and - Central) (**Map 6**). The lowest percentages were found in pockets throughout Adelaide, most notably in the north-west, inner south and south-west (in Holdfast - South, Charles Sturt - Coastal, - Inner East and - Inner West, Marion - North, Mitcham - West, Tea Tree Gully - Hills, Norwood Payneham St Peters - West and Port Adelaide Enfield - Coast).

Map 6: Young people aged 15 to 24 years, Adelaide, 2008

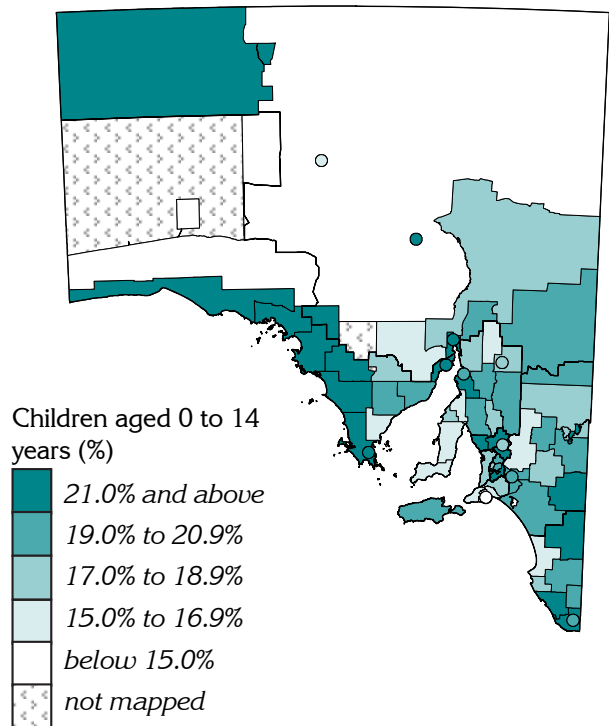


Country South Australia

In country South Australia, the highest percentages of the population aged 0 to 14 years were found in SLAs located mainly in the remote north-west (in Anangu Pitjantjatjara) and west coast of the Eyre Peninsula (in Unincorporated West Coast, Ceduna, Le Hunte and Elliston); in the towns of Roxby Downs, Port Augusta and Whyalla; and close to the metropolitan area (in Mount Barker - Central, Mallala, Barossa) (**Map 7**).

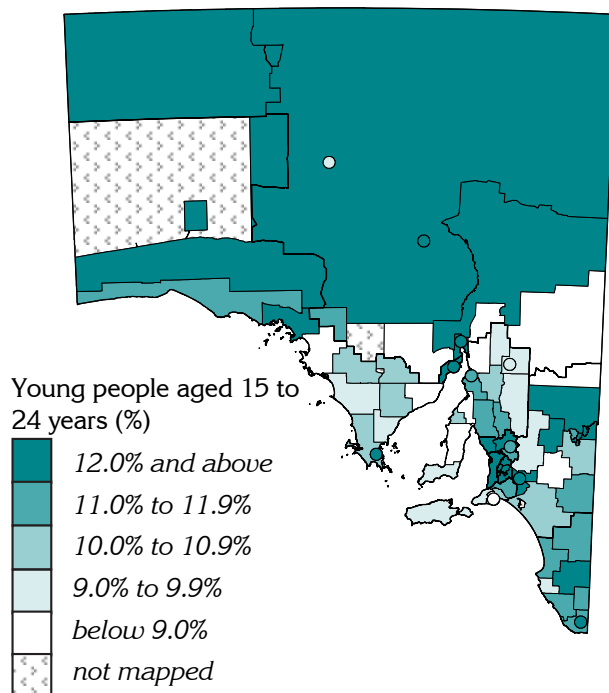
Relatively low percentages were recorded in the northern SLAs of Unincorporated Far North and Coober Pedy, as well as in Victor Harbor.

Map 7: Children aged 0 to 14 years, South Australia, 2008



High percentages of the population aged from 15 to 24 years were found in Unincorporated Riverland, and across much of the Far North, including Anangu Pitjantjatjara, Whyalla and Port Augusta (**Map 8**).

Map 8: Young people aged 15 to 24 years, South Australia, 2008



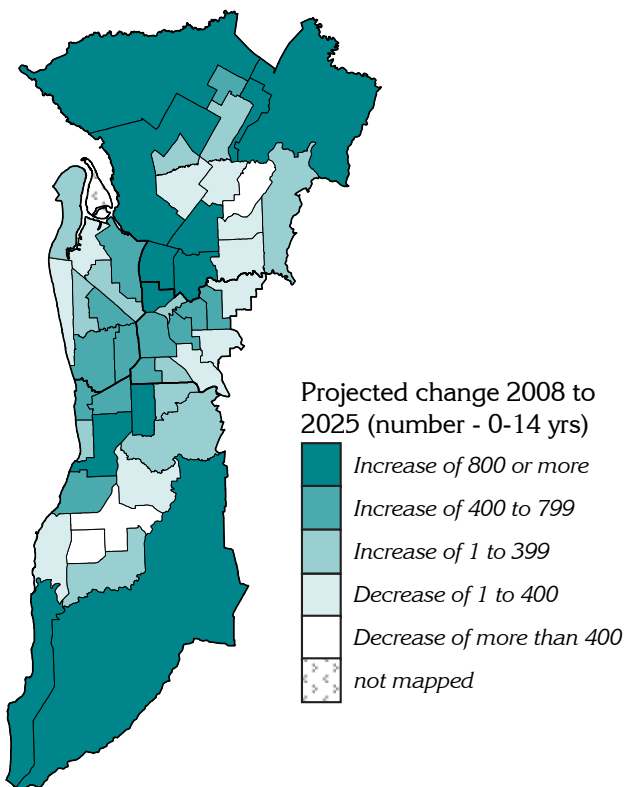
SLAs with low percentages of the population in this age group were spread across the State, with the lowest in Yorke Peninsula - North, Franklin Harbour, Victor Harbor, Barunga West and Karoonda East Murray.

Geographic variation - projected

Adelaide

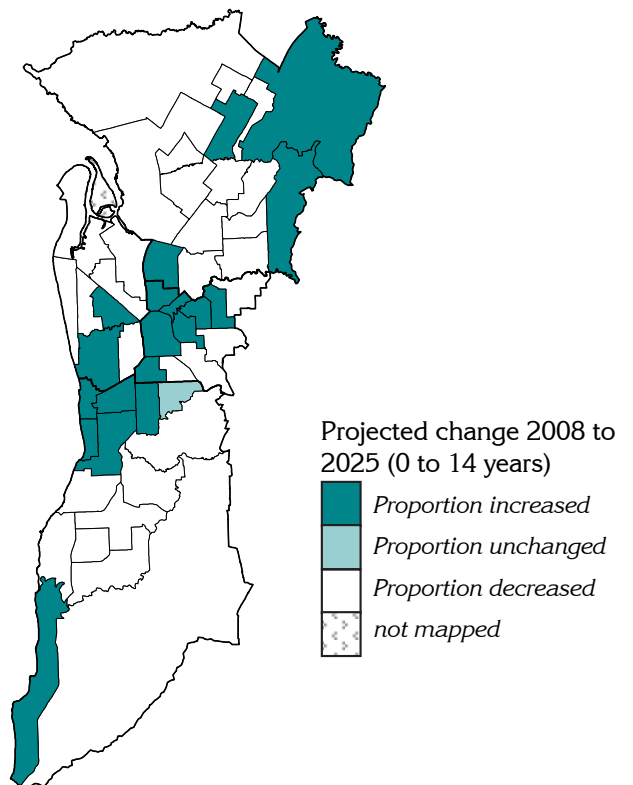
The number of children and young people aged 0 to 14 years is projected to increase over the 17 years to 2025 by more than 800 in a number of northern and outer northern, and south-western and outer southern, SLAs (**Map 9**). These areas include Salisbury Balance and - South-East, Onkaparinga - South Coast, Playford - West, Port Adelaide Enfield - East and - Inner and Marion - Central. Decreases in the number of people in this age category are expected in the SLAs of Onkaparinga - Woodcroft and - Morphett, Tea Tree Gully - North and - South and Salisbury - Central.

Map 9: Projected change in the number of children aged 0 to 14 years, Adelaide, 2008 to 2025



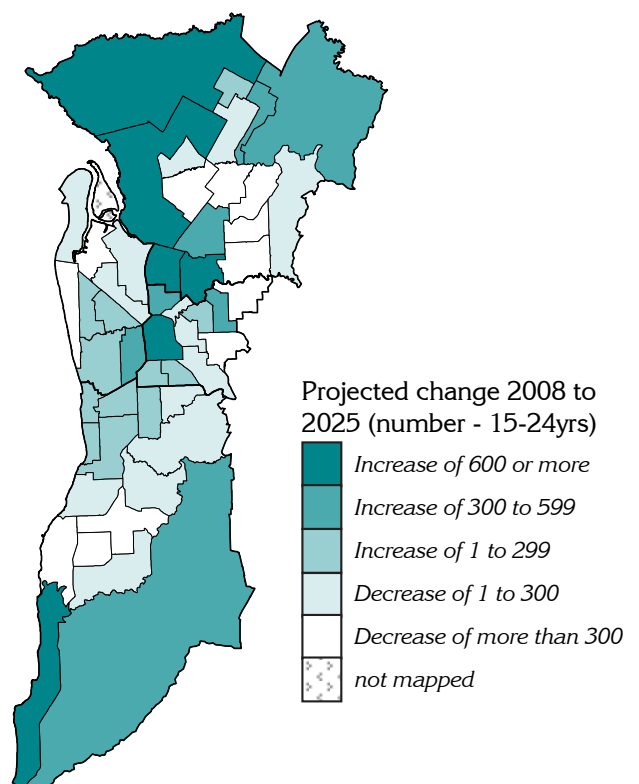
Increases between 2008 and 2025 in the percentage of the population aged 0 to 14 years are projected to occur primarily in the city centre and in selected inner and middle suburbs to the immediate north and north-east, and south-west and west, of the city, as well as in Onkaparinga - South Coast (**Map 10**).

Map 10: Projected change in the percentage of children aged 0 to 14 years, Adelaide, 2008 to 2025



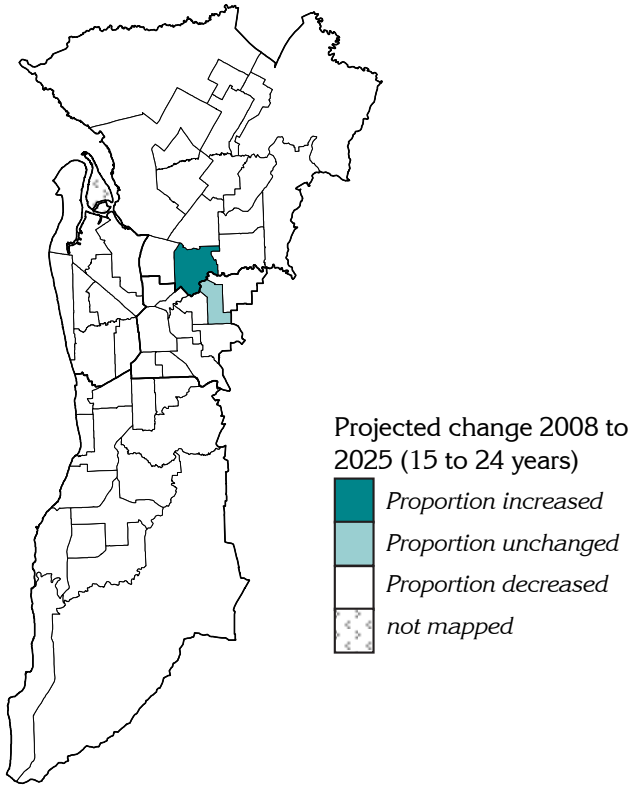
Increases of 600 or more young people aged 15 to 24 years are projected to occur by 2025 in the SLAs of Salisbury Balance, Port Adelaide Enfield - Inner and - East, Adelaide, Onkaparinga - South Coast and Playford - West, (**Map 11**).

Map 11: Projected change in the number of young people aged 15 to 24 years, Adelaide, 2008 to 2025



In contrast to the projected increases at 0 to 14 years (Map 10), the percentage of the population aged 15 to 24 years is projected to decrease in all but two SLAs between 2008 and 2025; these are Port Adelaide Enfield - East and Campbelltown - West (Map 12).

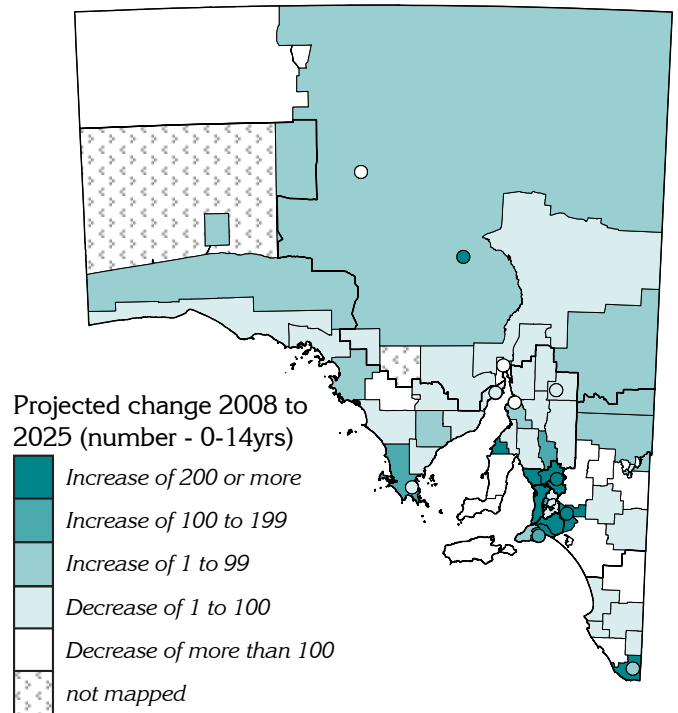
Map 12: Projected change in the percentage of young people aged 15 to 24 years, Adelaide, 2008 to 2025



Country South Australia

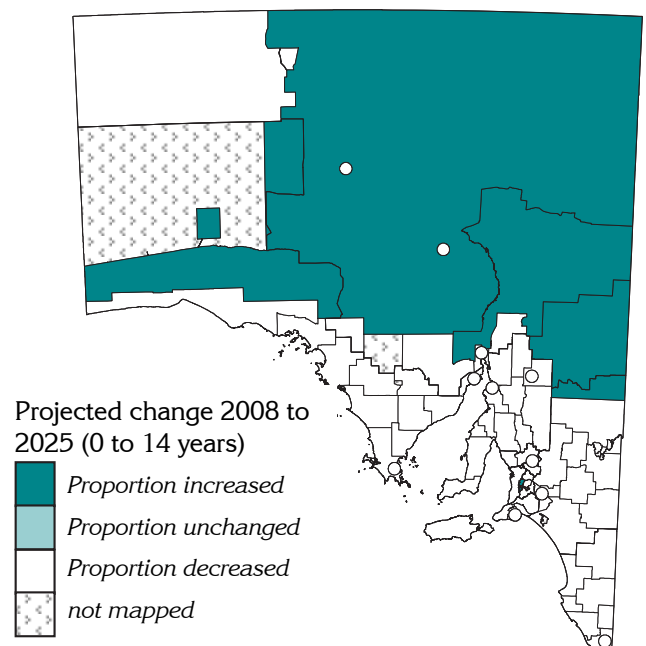
The small increases that are projected in the number of children aged 0 to 14 years over the 17 years to 2025 are largely limited to SLAs located close to metropolitan Adelaide, to the north and north east, and to the south east (Map 13). The only other SLAs with increases of 200 or more are Roxby Downs in the far north, and Grant in the south east.

Map 13: Projected change in the number of children aged 0 to 14 years, South Australia, 2008 to 2025



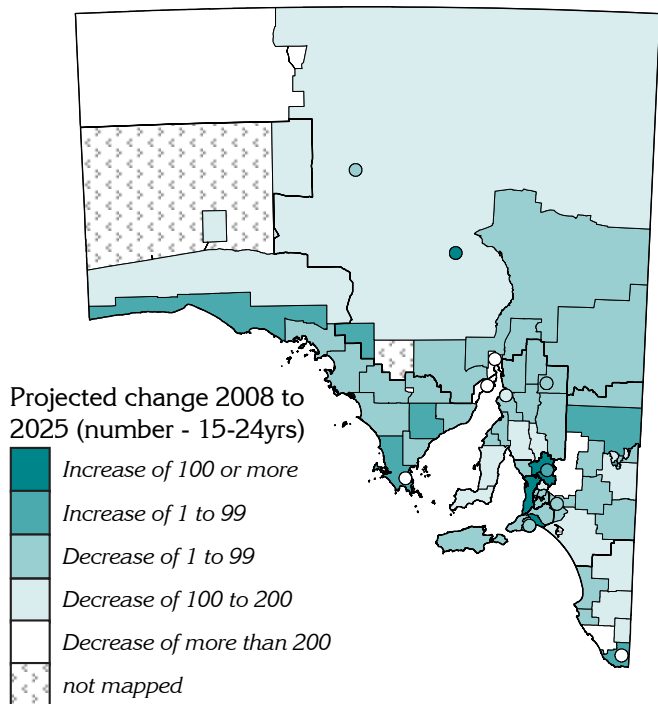
There is a clear geographic demarcation in the projected population change in country South Australia, with expected increases over much of the sparsely-settled far north and west of the State, and decreases elsewhere, other than in Adelaide Hills - Ranges (Map 14).

Map 14: Projected change in the percentage of children aged 0 to 14 years, South Australia, 2008 to 2025



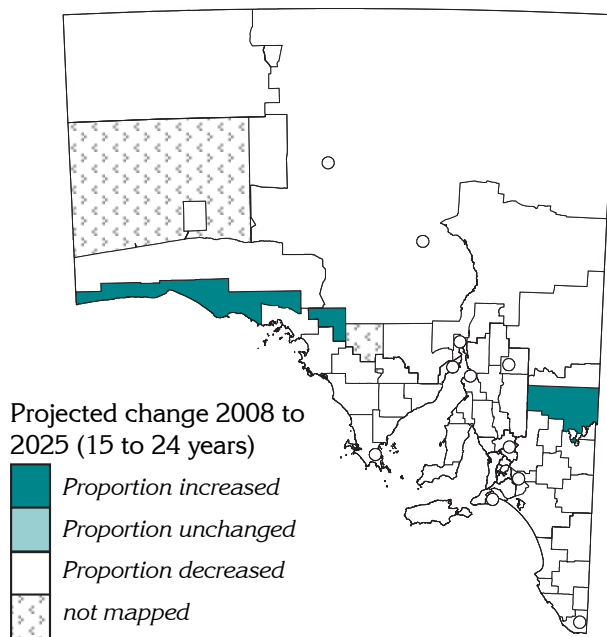
The geographic location of SLAs projected to experience growth, albeit marginal, in the 15 to 24 year age group over the 17 years to 2025 (Map 15), is similar to that for the 0 to 14 year age group (Map 13), although the ranges are half those of the younger age group. In addition, there are fewer areas where the population is projected to decline.

Map 15: Projected change in the number of young people aged 15 to 24 years, South Australia, 2008 to 2025



As seen for young people in metropolitan Adelaide (Map 12), the percentage of the population aged 15 to 24 years in country areas of South Australia is also projected to decrease in almost all areas (Map 16).

Map 16: Projected change in the percentage of young people aged 15 to 24 years, South Australia, 2008 to 2025



Regional totals

Table 3 shows the population in 2008, with projections for 2025, by region, together with percentage of each region's population in the five-year age groups from 0 to 4 to 20 to 24 years.

The number of children and young people is projected to increase in all of the age groups in metropolitan Adelaide, although the projected increase in the 20 to 24 year age group is marginal, at 0.4% (Table 3). At the regional level within metropolitan Adelaide there is, however, considerable variation, with the strongest growth in Northern Adelaide and the least growth in Western Adelaide (Table 4).

In country South Australia, growth is marginal (0.6%) in the 0 to 24 year age group, compared with an increase of 9.7% projected in metropolitan Adelaide, with overall falls projected in the 15 to 19 and 20 to 24 year age groups, and falls in the population across the age groups in a number of regions (Table 4). However, Barossa, Fleurieu and Kangaroo Island, and Adelaide Hills are projected to see increases. The largest decreases were projected to occur for the older age groups, with decreases of approximately 25% in both the 15 to 19 and 20 to 24 age groups in the Far North, Yorke and Mid North, Murray and Mallee, and Eyre and Western regions.

Table 3: Population distribution, current and projected, by Region and age, South Australia, 2008 and 2025

Region	0-4 years		5-9 years		10-14 years		15-19 years		20-24 years	
	No.	%	No.	%	No.	%	No.	%	No.	%
2008										
Northern Adelaide	23,934	6.7	23,013	6.4	24,116	6.8	25,126	7.0	26,934	7.5
Western Adelaide	11,534	5.3	11,018	5.1	11,572	5.4	12,839	5.9	15,668	7.2
Eastern Adelaide	10,364	4.9	10,077	4.7	10,799	5.1	14,411	6.7	19,373	9.1
Southern Adelaide	19,264	5.6	19,500	5.7	20,914	6.1	23,392	6.9	24,237	7.1
Metropolitan regions	65,096	5.8	63,608	5.6	67,401	6.0	75,768	6.7	86,212	7.6
Adelaide Hills	4,359	6.3	4,697	6.8	4,991	7.2	5,268	7.7	3,876	5.6
Murray and Mallee	4,215	6.0	4,492	6.4	5,004	7.1	4,585	6.5	3,544	5.1
Fleurieu and Kangaroo Island	2,235	5.0	2,457	5.5	2,595	5.8	2,604	5.8	1,774	4.0
Limestone Coast	4,242	6.5	4,467	6.8	4,695	7.2	4,279	6.5	3,763	5.8
Barossa	3,907	6.1	4,334	6.8	4,796	7.5	4,615	7.2	3,526	5.5
Yorke and Mid North	4,126	5.5	4,654	6.2	5,283	7.0	4,567	6.1	3,151	4.2
Eyre and Western [#]	3,998	6.9	4,058	7.0	4,153	7.1	3,813	6.6	3,386	5.8
Far North [#]	2,106	7.4	1,971	7.0	1,980	7.0	1,767	6.2	1,973	7.0
Country SA	29,188	6.1	31,130	6.6	33,497	7.1	31,498	6.6	24,993	5.3
South Australia	94,284	5.9	94,738	5.9	100,898	6.3	107,266	6.7	111,205	6.9
2025										
Northern Adelaide	29,148	6.6	28,765	6.5	27,963	6.3	28,279	6.4	28,194	6.3
Western Adelaide	12,387	5.3	12,123	5.2	11,990	5.1	13,026	5.5	14,969	6.4
Eastern Adelaide	11,375	4.6	11,447	4.6	11,744	4.8	15,304	6.2	20,443	8.3
Southern Adelaide	21,903	5.5	23,012	5.8	23,350	5.9	24,381	6.2	22,956	5.8
Metropolitan regions	74,813	5.7	75,347	5.7	75,047	5.7	80,990	6.1	86,562	6.6
Adelaide Hills	4,864	5.9	5,281	6.4	5,473	6.6	5,199	6.3	3,940	4.8
Murray and Mallee	4,044	5.5	4,213	5.8	4,432	6.1	3,909	5.4	3,012	4.1
Fleurieu and Kangaroo Island	2,715	4.4	3,007	4.9	3,069	5.0	2,638	4.3	1,855	3.0
Limestone Coast	4,223	6.0	4,426	6.3	4,496	6.3	3,898	5.5	3,259	4.6
Barossa	5,046	5.7	5,675	6.4	5,992	6.8	5,589	6.3	4,041	4.6
Yorke and Mid North	4,104	5.1	4,463	5.6	4,857	6.0	3,824	4.8	2,633	3.3
Eyre and Western [#]	3,851	6.2	3,998	6.4	3,973	6.4	3,298	5.3	2,926	4.7
Far North [#]	2,039	6.7	2,034	6.7	1,897	6.2	1,441	4.7	1,586	5.2
Country SA	30,886	5.6	33,097	6.0	34,189	6.2	29,796	5.4	23,252	4.2
South Australia	105,699	5.7	108,444	5.8	109,236	5.8	110,786	5.9	109,814	5.9

See footnotes in the Appendix

Table 4: Change in population between 2008 and 2025, by Region and age, South Australia
Per cent

Region	Age (years)					
	0-4	5-9	10-14	15-19	20-24	0-24
Northern Adelaide	21.8	25.0	16.0	12.5	4.7	15.6
Western Adelaide	7.4	10.0	3.6	1.5	-4.5	3.0
Eastern Adelaide	9.8	13.6	8.8	6.2	5.5	8.1
Southern Adelaide	13.7	18.0	11.6	4.2	-5.3	7.7
Metropolitan regions	14.9	18.5	11.3	6.9	0.4	9.7
Adelaide Hills	11.6	12.4	9.7	-1.3	1.7	6.8
Murray and Mallee	-4.1	-6.2	-11.4	-14.7	-15.0	-10.2
Fleurieu and Kangaroo Island	21.5	22.4	18.3	1.3	4.6	13.9
Limestone Coast	-0.4	-0.9	-4.2	-8.9	-13.4	-5.3
Barossa	29.2	30.9	24.9	21.1	14.6	24.4
Yorke and Mid North	-0.5	-4.1	-8.1	-16.3	-16.4	-8.7
Eyre and Western [#]	-3.7	-1.5	-4.3	-13.5	-13.6	-7.0
Far North [#]	-3.2	3.2	-4.2	-18.4	-19.6	-8.2
Country SA	5.8	6.3	2.1	-5.4	-7.0	0.6
South Australia	12.1	14.5	8.3	3.3	-1.3	7.0

Aboriginal children and young people

The Aboriginal population has a different age structure to the non-Aboriginal population, with much greater percentages of the Aboriginal population found at ages less than 20 years, compared with corresponding percentages in the non-Aboriginal population.

Indicator definition: Aboriginal people aged 0 to 24 years, by age group (0 to 14 years and 15 to 24 years): referred to as Aboriginal people.

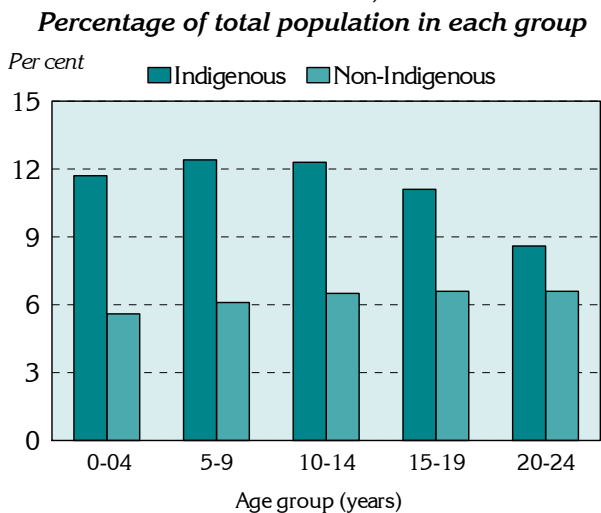
Key points

- The geographic distribution of Aboriginal children aged 0 to 14 years is highly clustered in a relatively small number of SLAs. This is less evident for the 15 to 24 year age group.

Indigenous status by age

The Aboriginal population in each of the five-year age groups less than 15 years represents around 11% to 12% of the total Aboriginal population: for the non-Aboriginal population, the percentages are around half those levels (Figure 4). The differential in the 15 to 19 and (in particular) the 20 to 24 year age group is smaller. Note that, unlike this chart, the following maps and charts show the Aboriginal population as a percentage of the total population.

Figure 4: Aboriginal and non-Aboriginal children and young people, by age, South Australia, 2006

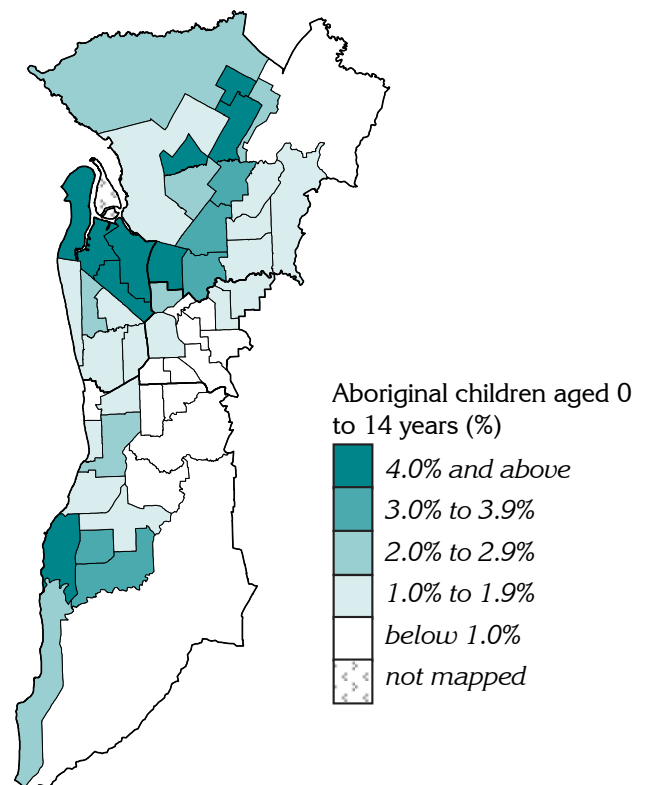


Geographic variation

Adelaide

The distribution of Aboriginal children aged 0 to 14 years, as a percentage of all children at this age, shows a clear spatial pattern (Map 17). The highest rates are in the inner north, north-west, outer north and outer south, with rates above four per cent recorded in Playford - Elizabeth and - West Central, Salisbury - Inner North; Onkaparinga - North Coast; and Port Adelaide Enfield - Port, - Coast, - Park and - Inner. Playford - Elizabeth, with 8.3%, has 55% more Aboriginal children in its population than the next highest area, Port Adelaide Enfield - Port, with 5.4%.

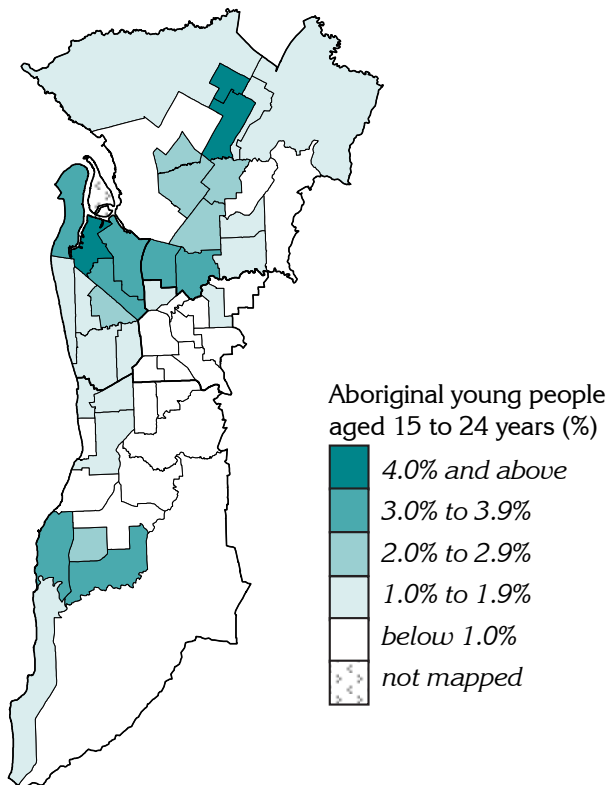
Map 17: Aboriginal children aged 0 to 14 years, Adelaide, 2006



In contrast, areas with low percentages of the population who were Aboriginal were located across much of metropolitan Adelaide, in the city centre and to the east, south, south-east and north-east, as well as in a small number of other SLAs. Those with the very lowest percentages included Mitcham - North-East, Walkerville, Burnside - South-West, and Holdfast Bay - North.

The geographic distribution of Aboriginal people aged 15 to 24 years is similar to that seen among those aged 0 to 14 years, with the highest concentrations in the inner north, north-west and outer south (Map 18). Again, the highest percentages were recorded in Playford - West Central and Elizabeth, and Port Adelaide Enfield - Port.

Map 18: Aboriginal young people aged 15 to 24 years, Adelaide, 2006

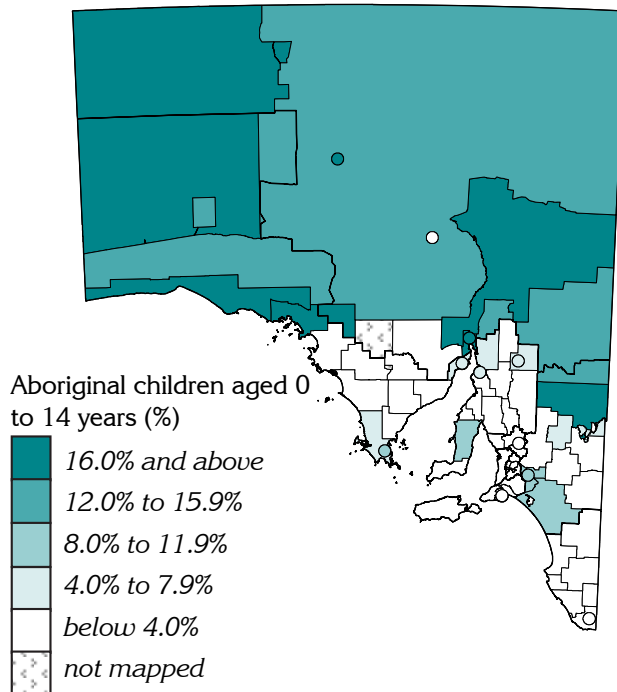


Again, as for the younger age group, areas with low percentages of the population aged 15 to 24 years who were Aboriginal were located across much of metropolitan Adelaide, in the city centre and to the east, south, south-east and north-east, as well as in a small number of other SLAs. Areas with the very lowest percentages include Burnside - North-East, Burnside - South-West, Campbelltown - East, Unley - West and Mitcham - Hills.

Country South Australia

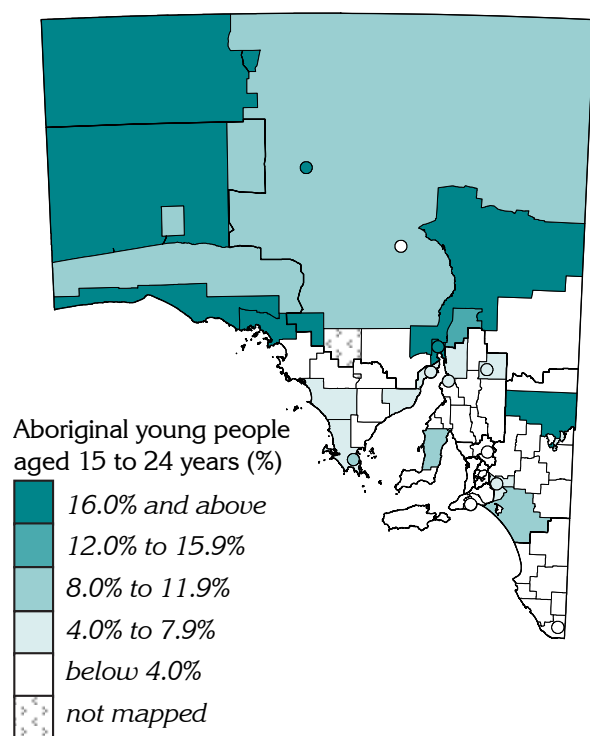
SLAs where Aboriginal children comprised the highest percentage of the population aged 0 to 14 years were found in the remote areas of the State, ranging from 92.4% in Anangu Pitjantjatjara, 86.4% in Unincorporated Riverland, and 60.6% in Unincorporated West Coast, to 37.8% in Ceduna, 26.3% in Coober Pedy and 21.8% in Unincorporated Flinders Ranges (Map 19). The majority of SLAs had comparatively low percentages of children at these ages, including those on Eyre Peninsula, and all SLAs below a line from Port Augusta to the Riverland.

Map 19: Aboriginal children aged 0 to 14 years, South Australia, 2006



Areas in the more remote parts of the State also had the highest percentages of the population at 15 to 24 years of age, with more than 30 per cent of the population identifying as Aboriginal in the SLAs of Anangu Pitjantjatjara, Unincorporated Riverland, Unincorporated West Coast and Ceduna (Map 20). No Aboriginal people at these ages were living in the SLAs of Barossa - Barossa - Tanunda, Goyder, Karoonda East Murray, Kimba, Le Hunte, Orroroo/Carrieton, Unincorporated Whyalla and Unincorporated Pirie.

Map 20: Aboriginal young people aged 15 to 24 years, South Australia, 2006



Regional totals

There were 4,769 children aged 0 to 14 years who identified as being of Aboriginal descent living in country South Australia, representing 5.2% of the population at these ages (Table 5). This was more than twice the corresponding metropolitan figure, of 2.4%. At the regional level, the distribution of Aboriginal children varies considerably, from a very low 0.9% of the population in Eastern Adelaide to 27.6% in Far North.

Table 5: Aboriginal children aged 0 to 14 years, by State Region, 2006

Region	No.	%
Northern Adelaide	2,261	3.3
Western Adelaide	957	2.9
Eastern Adelaide	270	0.9
Southern Adelaide	1,027	1.8
Metropolitan regions	4,515	2.4
Adelaide Hills	140	1.0
Murray and Mallee	800	5.9
Fleurieu and Kangaroo Island	147	2.1
Limestone Coast	292	2.2
Barossa	236	1.9
Yorke and Mid North	468	3.4
Eyre and Western [#]	1,040	8.8
Far North [#]	1,646	27.6
Country SA	4,769	5.2
South Australia	9,290	3.3

[#] See 'Notes on the data' in the Appendix

The distribution at the regional level of Aboriginal people aged 15 to 24 years is similar to that shown for the 0 to 14 year age group, with percentages ranging from 0.6% in Eastern Adelaide to 28.3% in Far North (Table 6). Again, the percentage in country South Australia (4.9%) is substantially (2.9 times) greater than that for metropolitan Adelaide (1.7%).

Table 6: Aboriginal young people aged 15 to 24 years, by State Region, 2006

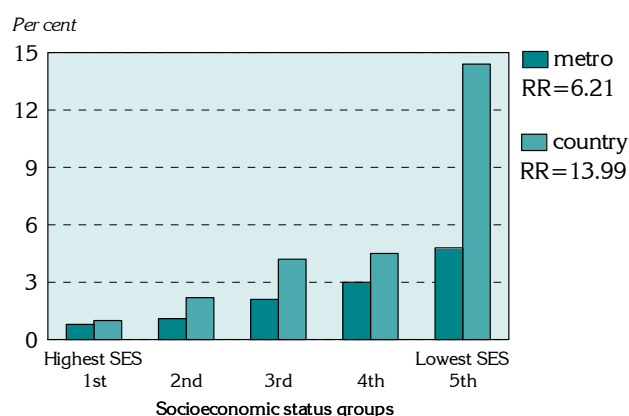
Region	No.	%
Northern Adelaide	1,144	2.4
Western Adelaide	623	2.4
Eastern Adelaide	194	0.6
Southern Adelaide	537	1.2
Metropolitan regions	2,498	1.7
Adelaide Hills	89	1.1
Murray and Mallee	336	4.6
Fleurieu and Kangaroo Island	75	2.0
Limestone Coast	151	2.0
Barossa	98	1.3
Yorke and Mid North	228	3.3
Eyre and Western [#]	531	8.0
Far North [#]	996	28.3
Country SA	2,504	4.9
South Australia	5,030	2.5

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

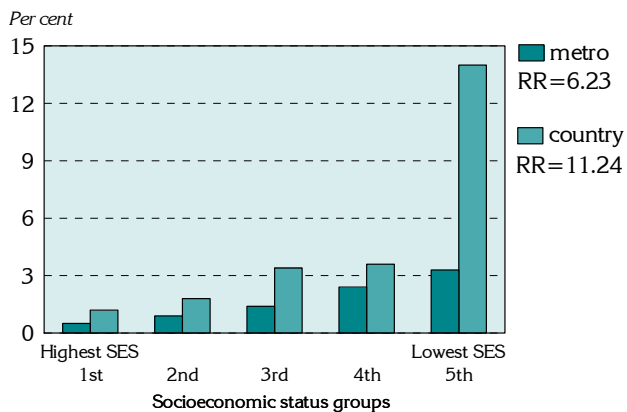
Aboriginal children represent substantially higher percentages of the population in lower socioeconomic status areas, in country South Australia almost 14 (13.99) times the percentage in the highest compared with the lowest SES areas; and in metropolitan Adelaide, over six (6.21) times (Figure 5).

Figure 5: Aboriginal children aged 0 to 14 years, by socioeconomic status, 2006



A similar situation exists in country South Australia, with differentials in the share of young people who identify as being Aboriginal varying from 6.23 times higher in the lowest SES areas in metropolitan Adelaide (compared to the highest SES areas), to 11.24 in country South Australia (Figure 6).

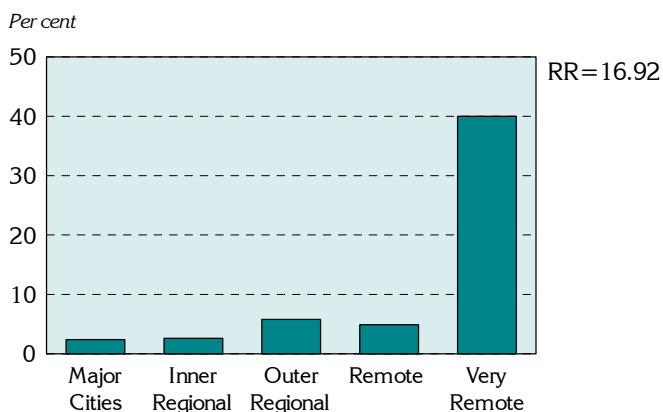
Figure 6: Aboriginal young people aged 15 to 24 years, by socioeconomic status, 2006



Remoteness

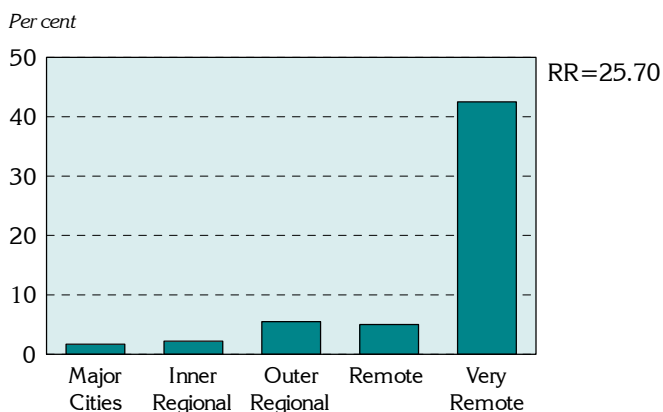
As seen in the maps and the regional tables, the percentage of the 0 to 14 year old population identifying as being Aboriginal is substantially higher in the most remote areas (40.0%) than their share of the total State population (3.3%), and also substantially (17 times) higher than the percentage in the Major Cities areas (2.4%) (Figure 7).

Figure 7: Aboriginal children aged 0 to 14 years, by remoteness, 2006



The differential in rates for the 15 to 24 year age group is even larger (Figure 8).

Figure 8: Aboriginal young people aged 15 to 24 years, by remoteness, 2006



Children living in jobless families

Families with no employed parent (“jobless families”) not only experience substantial economic disadvantage but may also have reduced social opportunities that affect their wellbeing, learning and development. Children who live in jobless families may be at higher risk of experiencing financial hardship and other disadvantage in the short to medium term. They may not have a role model of employment to follow, and the joblessness of the parent(s) may mean that such children are more likely to be welfare-dependent in the long-term. The majority of children living without an employed parent live in lone-parent households with limited resources ⁽¹⁾.

Indicator definition: children under 15 years of age in families where no parent is in employment as a percentage of all families with children under 15 years of age.

Key points

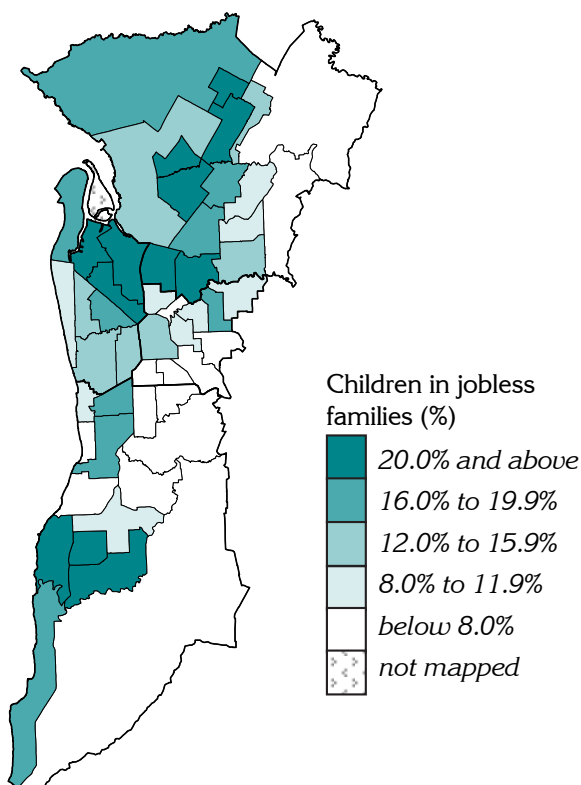
- In 2006, 15.9% of children in South Australia below 15 years of age were living in jobless families, with a higher percentage in Adelaide than in country areas.
- Their highly clustered distribution across Adelaide and in towns in country areas provides a clear picture of socioeconomic disadvantage within the State, and of the major challenges faced to provide services.

Geographic variation

Adelaide

The geographic distribution of children below 15 years of age living in jobless families highlights the divide in metropolitan Adelaide between high and low socioeconomic status areas (**Map 21**). The highest percentages of children in this group are found in the northern SLAs of Playford - Elizabeth and - West Central; in the north-west in Port Adelaide Enfield - Park and - Inner; and in the southern SLA of Onkaparinga - North Coast.

Map 21: Children living in jobless families, Adelaide, 2006

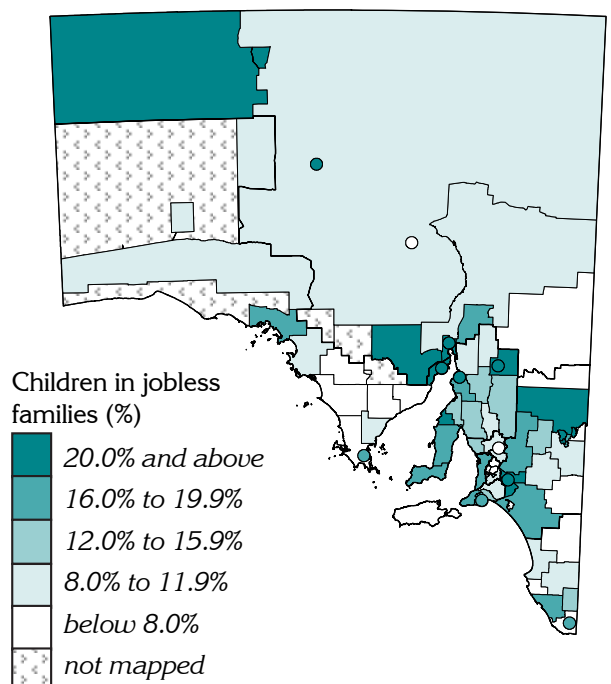


Country South Australia

Outside of Adelaide, Anangu Pitjantjatjara and all of the larger towns other than Tanunda and Roxby Downs had above average rates of children in jobless families, with the highest being in Peterborough, Port August, Murray Bridge, Whyalla, Coober Pedy and Barmera.

Of the many areas with low percentages of children under 15 years of age living in jobless families, the lowest were generally located in the south-east (in Robe, 4.9%) or in the north and west (in Roxby Downs (2.5%), Cleve (3.6%) and Elliston (4.9%)) (**Map 22**).

Map 22: Children living in jobless families, South Australia, 2006



Regional totals

The highest percentages of children living in jobless families in metropolitan Adelaide in 2006 were in Northern Adelaide (21.6%) and Western Adelaide (18.5%). Far North (19.0%), Yorke and Mid North (18.7%) and Murray and Mallee (18.2%) regions had the highest levels in country South Australia (Table 7).

Table 7: Children living in jobless families, by State Region, 2006

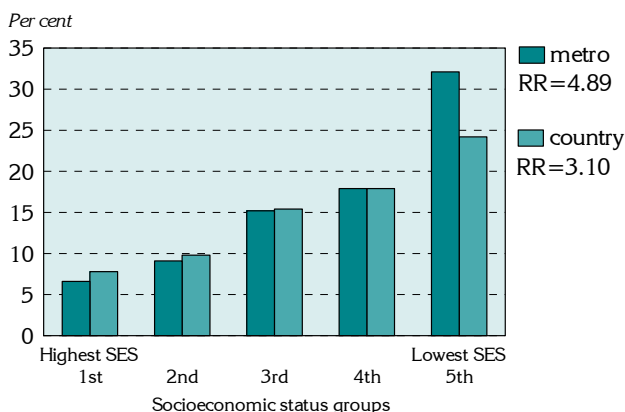
Region	No.	%
Northern Adelaide	13,931	21.6
Western Adelaide	5,778	18.5
Eastern Adelaide	2,521	8.9
Southern Adelaide	7,304	13.2
Metropolitan regions	29,534	16.5
Adelaide Hills	1,028	8.0
Murray and Mallee	2,348	18.2
Fleurieu and Kangaroo Island	879	13.9
Limestone Coast	1,656	13.2
Barossa	1,402	11.8
Yorke and Mid North	2,423	18.7
Eyre and Western [#]	1,850	16.8
Far North [#]	1,017	19.0
Country SA	12,603	14.7
South Australia	42,137	15.9

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In 2006, there were almost five (4.89) times more children below 15 years of age in jobless families in the most disadvantaged (lowest socioeconomic status (SES)) areas in metropolitan Adelaide (32.1% of all families with children under 15 years of age) than in the most advantaged (highest SES) areas (6.6%), with rates increasing with each increase in socioeconomic status, in particular between the fourth and fifth socioeconomic status groups (Figure 9). This substantial differential, and the continuous gradient, supports the comment, above, as to the geographic divide in metropolitan Adelaide.

Figure 9: Children living in jobless families, by socioeconomic status, South Australia, 2006

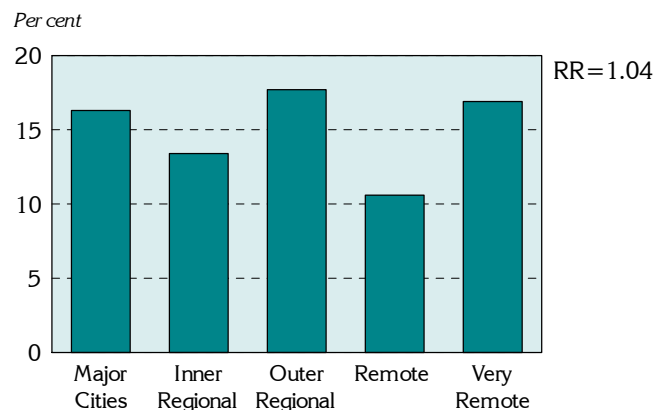


There are also substantial differences evident of children in the lowest and highest SES areas in country South Australia living in jobless families, although the differential (3.1) is smaller than that in Adelaide. Again, there is a step-wise gradient, as rates increase with each increase in socioeconomic status, from 7.8% in the highest SES areas to 24.2% in the lowest SES areas (Figure 9).

Remoteness

There is no particular association with remoteness, with relatively high percentages of children in jobless families in the Major Cities (16.3%), Outer Regional (17.7%) and Very Remote (16.9%) areas. The lowest percentage was recorded in the Remote areas, with 10.6% of children below 15 years of age living in jobless families (Figure 10).

Figure 10: Children living in jobless families, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of jobless families with young children and many other indicators of socioeconomic disadvantage, including high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong to very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Children living in welfare-dependent and other low income families

Children living in families either solely or largely dependent on government for their income have the lowest incomes and the least access to other resources, and may face lower achievement in education and have poorer wellbeing than their more advantaged peers.

Indicator definition: children under 16 years of age in families with incomes under \$23,740 p.a. and in receipt of the Family Tax Benefit (A) (whether receiving income support payments or not), as a percentage of the population aged under 16 years. These families would all receive the Family Tax Benefit (A) at the maximum level.

Key points

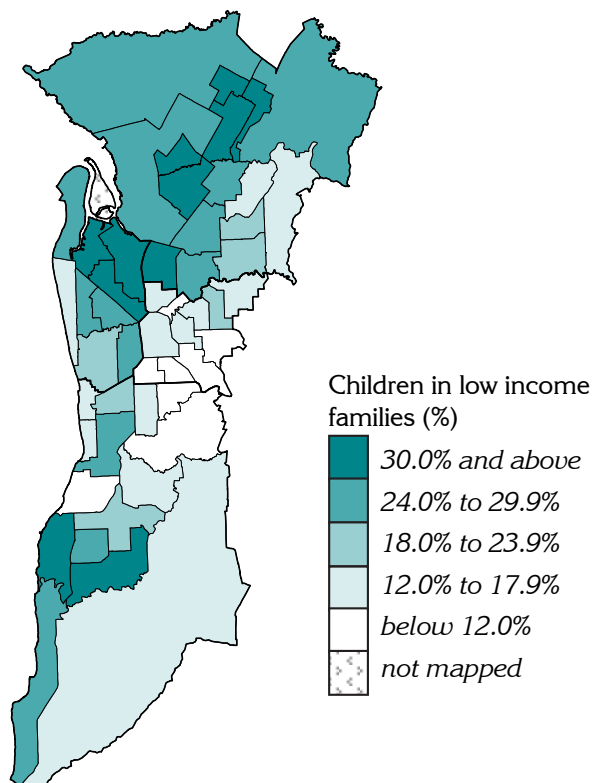
- In 2006, almost one quarter (23.3%) of the children in South Australia aged less than 16 years were living in low income families, with a higher percentage in metropolitan Adelaide (23.8%) than in country areas (21.5%).
- As noted for the previous indicator, meeting the educational and other needs of children in these families poses many challenges, in particular for those living in areas with limited access to specialist education, health and welfare services.

Geographic variation

Adelaide

The highest concentrations of children aged less than 16 years living in low income families are in areas located in the outer north and outer south of Adelaide, as well as in the inner northern and north-western suburbs (**Map 23**). The highest percentages are in the outer northern SLAs of Playford - Elizabeth and - West Central and Salisbury - Central; in the north-west in Port Adelaide Enfield - Park, - Inner and - Port; and in the southern areas of Onkaparinga - North Coast and - Hackham.

Map 23: Children living in low income families, Adelaide, 2006

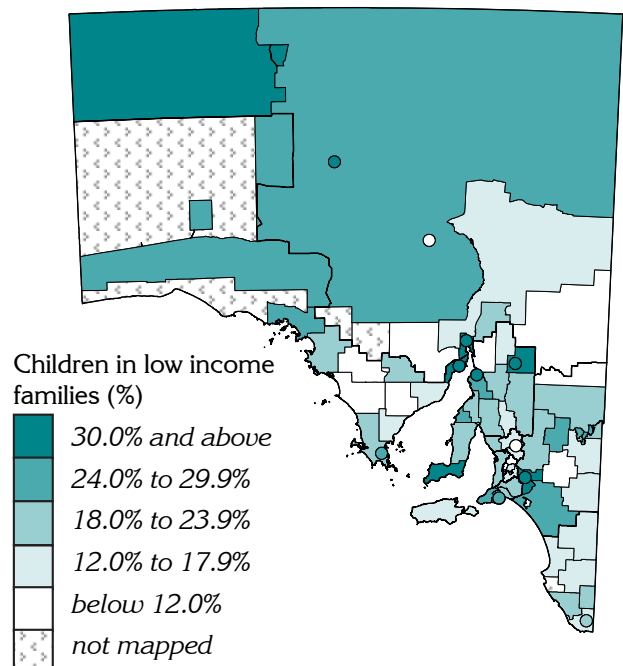


Country South Australia

In country South Australia, the highest percentages of children in families with incomes under \$23,740 were living in Anangu Pitjantjatjara and Unincorporated West Coast, and in the towns of Peterborough, Coober Pedy, Port Augusta, Murray Bridge, Whyalla and Port Pirie. In these areas, as in many areas in metropolitan Adelaide, more than 30% of all children below 16 years of age were in families with very low incomes, indicating particularly high levels of disadvantage in these communities.

The lowest rates were found in the towns of Roxby Downs and Tanunda, in the Adelaide Hills and Barossa, and in a number of SLAs on Eyre Peninsula (**Map 24**).

Map 24: Children living in low income families, South Australia, 2006



Regional totals

Relatively more children below 16 years of age living in metropolitan Adelaide (23.3%) than in country (21.5%) South Australia live in low income families, with the highest percentages in Northern Adelaide (30.2%) and Western Adelaide (27.1%), and in the country regions of Far North (27.9%), Eyre and Western (26.3%) and Murray and Mallee (25.9%) (Table 8).

Table 8: Children living in low income families, by State Region, 2006

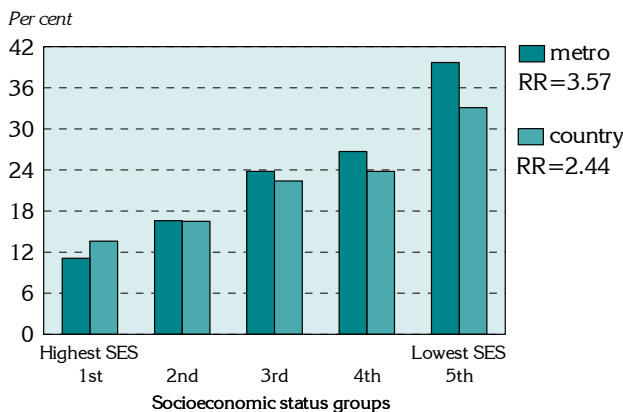
Region	No.	%
Northern Adelaide	22,389	30.2
Western Adelaide	9,772	27.1
Eastern Adelaide	4,332	13.0
Southern Adelaide	12,831	20.1
Metropolitan regions	49,324	23.8
Adelaide Hills	2,130	14.1
Murray and Mallee	3,854	25.9
Fleurieu and Kangaroo Island	1,684	21.9
Limestone Coast	2,707	18.6
Barossa	2,502	18.2
Yorke and Mid North	3,609	23.6
Eyre and Western [#]	3,427	26.3
Far North [#]	1,789	27.9
Country SA	21,702	21.5
South Australia	71,675	23.3

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a very strong, continuous socioeconomic gradient in rates of children living in low income families in metropolitan Adelaide, from a low of 11.1% in the most advantaged (highest SES) areas to 39.7% in the most disadvantaged (lowest SES) areas, a substantial differential of 3.57 (Figure 11).

Figure 11: Children living in low income families, by socioeconomic status, South Australia, 2006

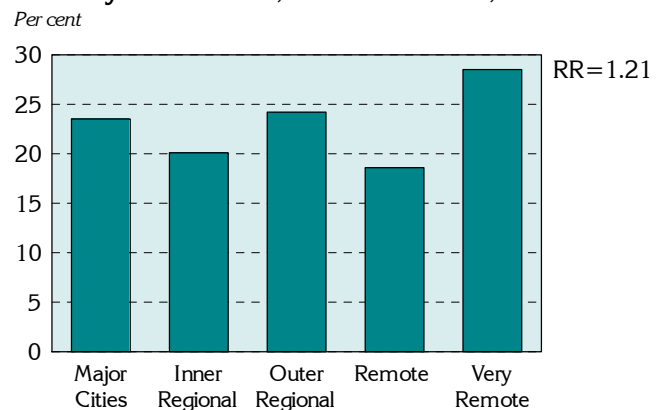


A strong, continuous socioeconomic gradient is also evident across country South Australia, from a rate of 13.6% in the highest SES areas to 33.1% in the lowest SES areas (Figure 11), a differential of almost two and a half times (2.44).

Remoteness

The highest percentages of children in low income families are in the Very Remote (28.5%) and Outer Regional (24.2%) areas, with the lowest in the Remote (18.6%) and Inner Regional (20.1%) areas (Figure 12). The overall differential in rates between the most remote and least remote areas is 21%.

Figure 12: Children living in low income families, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of welfare-dependent and other low income families with young children and many other indicators of socioeconomic disadvantage, including families where no parent has a job (jobless families), low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong to very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Summary measure of socioeconomic status

The ABS Index of Relative Socio-economic Disadvantage (IRSD) is a powerful indicator of the socioeconomic disadvantage faced by population groups across the State. Although it is based on the whole population, and not specifically calculated for children, it is a useful summary measure, reflecting the patterns of disadvantage for children and their families seen in many of the individual indicators of social inequality which appear in this section of the report.

Indicator definition: The IRSD is one of four socioeconomic indexes compiled by the Australian Bureau of Statistics using data from the 2006 Census about the population and their characteristics. The index has a base of 1000 for Australia: scores above 1000 indicate relative advantage and those below, relative disadvantage. The index score for South Australia is 984, indicating the relative disadvantage of South Australia compared to Australia.

Key points

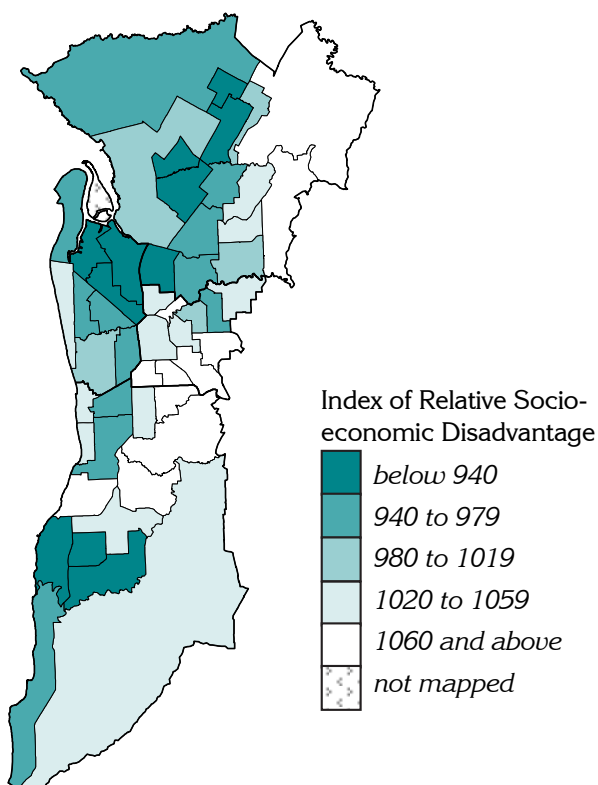
- The map of IRSD scores clearly shows the marked geographic divide between areas in Adelaide under this measure of relative socioeconomic disadvantage: this geographic divide, noted above, arises from a number of factors, in particular the historical development of Adelaide and the location of industry and State government housing in areas considered to be less desirable for residential development.
- The index values also show the relatively high levels of socioeconomic disadvantage across much of country South Australia, in many towns and areas with relatively large Aboriginal populations.

Geographic variation

Adelaide

The distribution of index scores in Adelaide shows the least disadvantaged areas to be situated to the east, north-east and south of the city, and the most disadvantaged areas to the north-west, inner north and in the outer north and outer south (**Map 25**). The lowest scores were recorded for the Playford SLAs of - Elizabeth (788) and - West Central (800), and in Port Adelaide Enfield - Park (810).

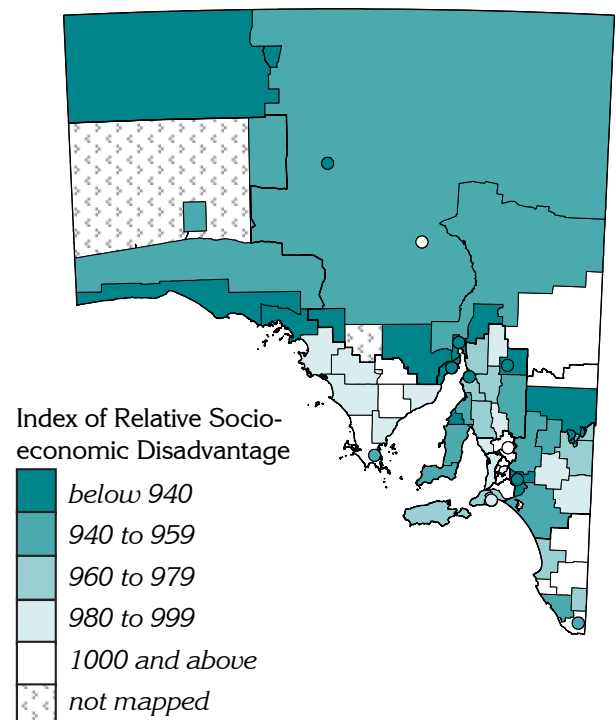
Map 25: IRSD, Adelaide, 2006



Country South Australia

Outside of Adelaide, the most disadvantaged areas are located in the north and west of the State (**Map 26**), with scores of below 900 recorded in the SLAs of Anangu Pitjantjatjara (a very low score of 527), Unincorporated Riverland (688), Unincorporated Whyalla (790), Peterborough (840), Coober Pedy (870), Port Pirie (884), Whyalla (887), Unincorporated West Coast (889) and Port Augusta (897). The least disadvantaged areas (highest index scores) are located on the urban fringe, in the Adelaide Hills SLAs of - Central, - Ranges and - North, and for Mount Barker Balance.

Map 26: IRSD, South Australia, 2006



Regional totals

The index scores show that there are relatively greater levels of disadvantage in country South Australia than in Adelaide (**Table 9**). Above average scores were recorded in Adelaide Hills, Eastern Adelaide and Southern Adelaide, while scores well below were recorded in Far North, Eyre and Western, Murray and Mallee, and Yorke and Mid North.

Table 9: IRSD, by State Region, 2006

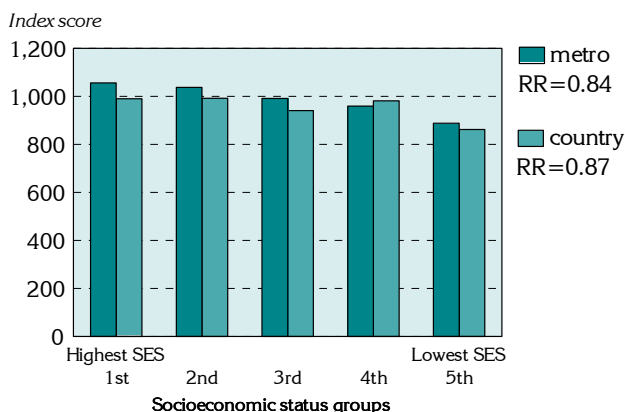
Region	Index score
Northern Adelaide	955.3
Western Adelaide	955.0
Eastern Adelaide	1043.9
Southern Adelaide	1011.2
Metropolitan regions	989.0
Adelaide Hills	1058.7
Murray and Mallee	936.7
Fleurieu and Kangaroo Island	981.2
Limestone Coast	972.6
Barossa	999.4
Yorke and Mid North	940.2
Eyre and Western [#]	935.4
Far North [#]	900.4
Country SA	969.9
South Australia	983.6

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The average score in 2006 for the most advantaged (highest SES) areas was 1056, decreasing in each socioeconomic status group to a score of 888 in the most disadvantaged (lowest SES) areas; this is an overall decline of 16% (**Figure 13**).

Figure 13: IRSD, by socioeconomic status, South Australia, 2006

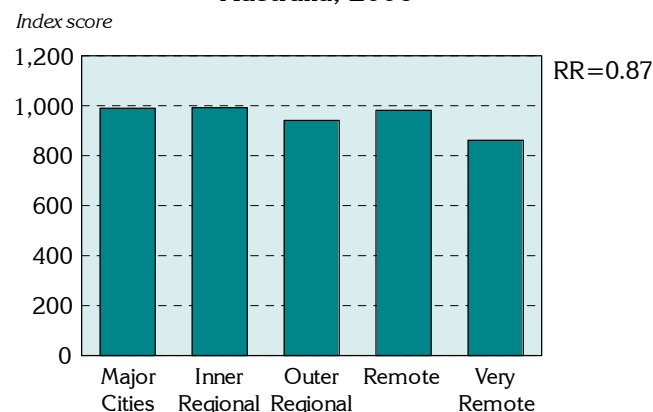


When grouped in this way, IRSD scores in country South Australia are at a similar level to those in metropolitan Adelaide, and show less variation, ranging from a score of 1049 in the highest SES areas to 887 in the lowest SES areas, a decline of 15% (**Figure 13**).

Remoteness

The highest index scores (indicating the most advantaged areas) were recorded in the more accessible areas (a score of 992.6), with the lowest in the Very Remote areas (861.9) (**Figure 14**). While the scores for smaller geographic areas show more variation than these broad groups (e.g., as described for SLAs, above), it is likely that the IRSD understates the extent of socioeconomic disadvantage faced by Aboriginal people¹. Any such understatement would impact on the score in the remote areas (as well as on the socioeconomic status groups, above, in particular in country areas).

Figure 14: IRSD, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between socioeconomic disadvantage (as measured under this index) and children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, higher proportions of children and use of public health services (admissions to a public acute hospital and clients of CAMHS).

Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong to very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

¹ This is likely to be the case because the Population Census, on which the IRSD is calculated, does not include measures that capture the particular disadvantage faced by Aboriginal people, or its extent.

Preschool children

Preschools are also known as kindergartens, child parent centres or children's services centres. Preschool programs aim to enhance children's social, emotional, physical and intellectual development. Children can attend up to four preschool sessions (usually half day sessions) a week or two full day sessions for up to four terms prior to their entry in school. Aboriginal children can attend preschool from the age of three years.

Indicator definition: preschool children (aged three to four years) as a percentage of all children at those ages.

Key points

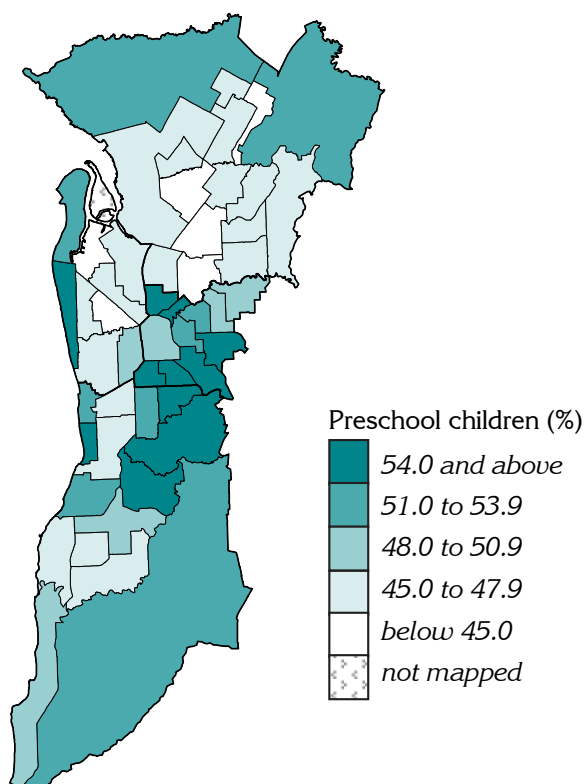
- Participation of children aged three to four years in preschool is generally uniform across the State Regions, other than in Northern Adelaide and the Far North.
- Variation in participation between areas is related to socioeconomic status.

Geographic variation

Adelaide

The geographic distribution of children in preschool (as recorded in the 2006 Census) highlights higher rates of participation among children living in the higher socioeconomic status suburbs adjacent to the city centre, and to the east and south-east (Map 27). These areas include the SLAs of Unley - East, Burnside - North-East and - South-West, Mitcham - Hills and - North-East, Walkerville and Prospect. The lowest rates were recorded in the inner northern and north-western SLAs of Salisbury - Central and - South-East, Playford - East Central, Port Adelaide Enfield - Port and - East, and Charles Sturt - Inner East and - Inner West.

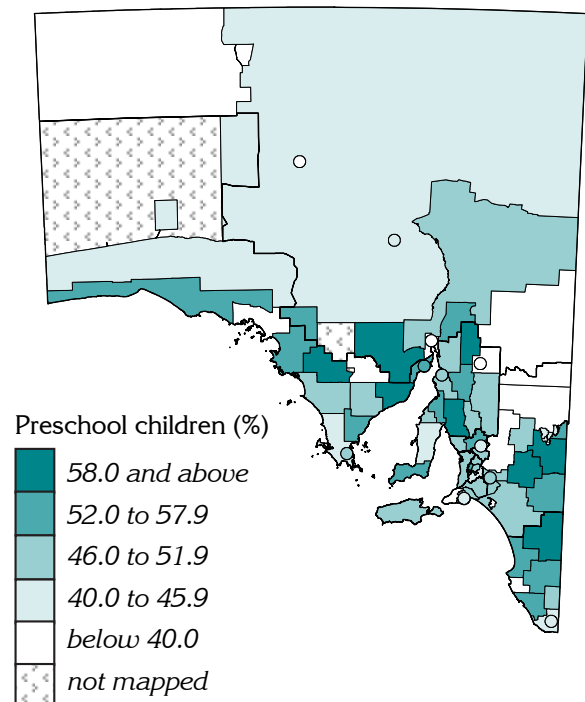
Map 27: Preschool participation, Adelaide, 2006



Country South Australia

Fewer than 40% of children aged three to four years in the SLAs of Unincorporated Riverland, Coober Pedy, Anangu Pitjantjatjara, Yankalilla, Barossa - Barossa - Angaston, Unincorporated Pirie, Peterborough, Mid Murray, Kimba, Ceduna, Robe and Port Augusta were attending preschool (Map 28). The highest percentages at these ages attending preschool were in SLAs scattered throughout the State, including in Unincorporated Whyalla, Orroroo/ Carrieton, Karoonda East Murray, Loxton Waikerie - East, Le Hunte, Tatiara, Franklin Harbour and Wakefield.

Map 28: Preschool participation, South Australia, 2006



Note: ABS Census data have been used as data covering the non-government education sectors are not available by SLA.

Regional totals

There was little variation across the regions in either metropolitan Adelaide or country South Australia in the proportion of three to four year old children attending preschool, and little difference in overall participation (Table 10). In the metropolitan regions, the percentages ranged from 45.6% in Northern Adelaide to 55.8% in Eastern Adelaide, and in country regions from 40.2% in Far North to 51.3% in Yorke and Mid North.

Table 10: Preschool participation, by State Region, 2006

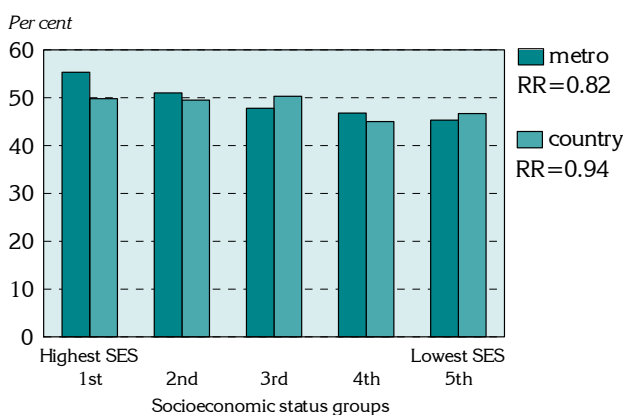
Region	No.	%
Northern Adelaide	3,954	45.6
Western Adelaide	1,986	47.9
Eastern Adelaide	2,151	55.8
Southern Adelaide	3,678	50.7
Metropolitan regions	11,769	49.2
Adelaide Hills	841	50.9
Murray and Mallee	792	48.9
Fleurieu and Kangaroo Island	376	45.6
Limestone Coast	817	47.6
Barossa	726	47.5
Yorke and Mid North	826	51.3
Eyre and Western [#]	729	49.3
Far North [#]	320	40.2
Country SA	5,427	48.3
South Australia	17,210	48.9

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

A continuous gradient is evident in metropolitan Adelaide in the participation of children aged 3 to 4 years in preschool (Figure 15), with the highest rates in the most advantaged (highest SES) areas (55.3%) and the lowest in the most disadvantaged (lowest SES) areas (45.3%), some 18% lower.

Figure 15: Preschool participation, by socioeconomic status, South Australia, 2006

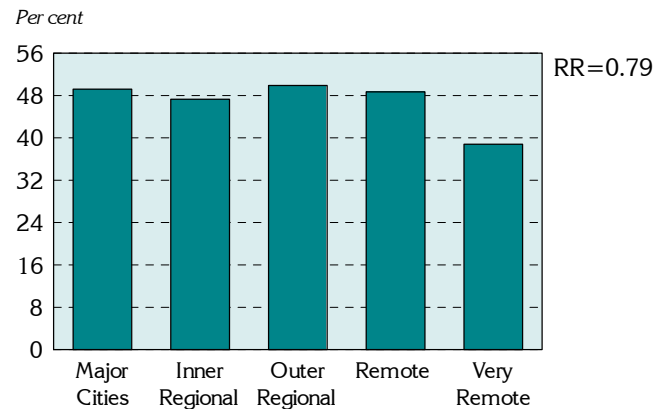


There is a small socioeconomic gradient in country South Australia, with rates ranging from 49.8% in the highest SES areas to 46.7% in the lowest SES areas, a differential of 6% (Figure 15).

Remoteness

By far the lowest participation rate of preschool students was recorded in the Very Remote areas (38.8%), with percentages of approximately 40% in each of the other remoteness classes (Figure 16).

Figure 16: Preschool participation, by remoteness, South Australia, 2006



Correlations

There are strong to very strong correlations at the SLA level in metropolitan Adelaide between areas with low rates of preschool participation and many other indicators, including low rates of participation in secondary schooling, children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, lack of access to the Internet at home (in particular to a high-speed connection) and use of public health services (admissions to a public acute hospital and clients of CAMHS).

Correlations with high proportions of four year old children who were obese were also strong. Of note is the strong positive correlation between participation in preschool and participation in secondary school: the correlation with participation in primary school is of moderate strength.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Primary school students

In South Australia, primary schools are provided by DECS, and the Catholic and other independent schools' sectors. Junior Primary covers Reception to Year 2, for children aged 5 to about 8 years. The primary years, 3 to 7, cater for students up to 12 years of age (including some aged 13 years).

Indicator definition: estimated number of primary school students (aged 5 to 12 years) as a percentage of all children aged 5 to 12 years.

Key points

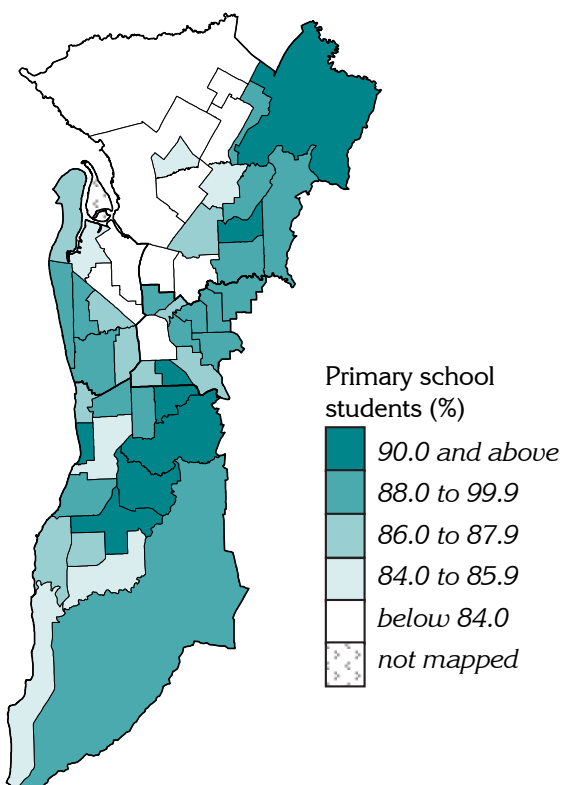
- There is relatively little variation in the participation of children aged 5 to 12 years in primary school, other than in the Far North.
- Variation in participation between areas is related to socioeconomic status.

Geographic variation

Adelaide

Data from the 2006 Census show that children (aged 5 to 12 years) living in SLAs in a band from the north-east to south-east of metropolitan Adelaide had the highest rates of participation in primary school (**Map 29**); the lowest rates were recorded in an area extending from the city centre, through a number of north-western and inner northern SLAs, to the outer north. More than 90% of children at these ages from Mitcham - North-East and - Hills, Onkaparinga - Reservoir and - Woodcroft, Tea Tree Gully - Central, Unley - East, Playford - Hills and Holdfast Bay - South were participating in primary school.

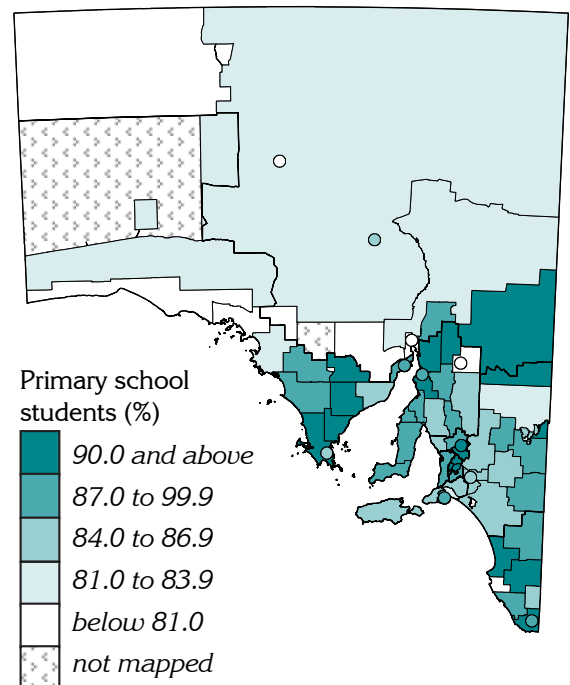
Map 29: Primary school participation, Adelaide, 2006



Country South Australia

Areas in the far north of the State generally had the lowest rates of participation in primary school (**Map 30**), with rates below 81% in Unincorporated Whyalla, Robe, Coober Pedy, Anangu Pitjantjatjara, Unincorporated West Coast, Ceduna, Peterborough and Port Augusta. The highest rates of primary school participation were recorded in the SLAs of Orroroo/ Carrieton, Unincorporated Pirie, Kimba, Barossa - Barossa - Angaston and Adelaide Hills - North.

Map 30: Primary school participation, South Australia, 2006



Note: ABS Census data have been used as data covering the non-government education sectors are not available by SLA.

Regional totals

Participation was relatively even across all regions, with similar rates in metropolitan Adelaide and country South Australia (Table 11). In the metropolitan regions, the percentage of the population aged 5 to 12 years attending primary school ranged from 85.5% in Northern Adelaide to 88.7% in Southern Adelaide; and, in country South Australia, from 79.4% in Far North to 89.8% in Adelaide Hills.

Table 11: Primary school participation, by State Region, 2006

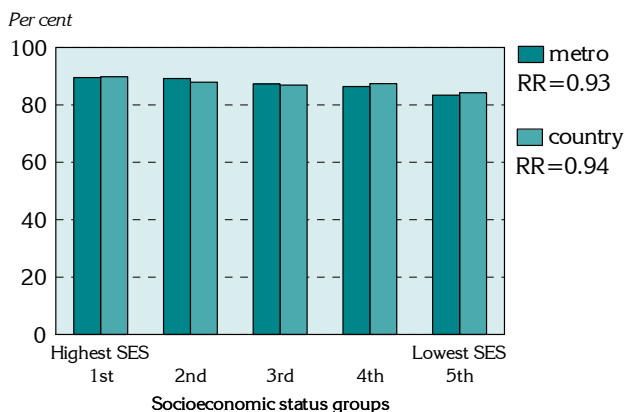
Region	No.	%
Northern Adelaide	31,491	85.5
Western Adelaide	15,372	86.4
Eastern Adelaide	14,206	88.3
Southern Adelaide	28,108	88.7
Metropolitan regions	89,177	87.1
Adelaide Hills	6,739	89.8
Murray and Mallee	6,470	86.4
Fleurieu and Kangaroo Island	3,264	84.9
Limestone Coast	6,420	88.4
Barossa	6,169	89.0
Yorke and Mid North	6,897	88.2
Eyre and Western [#]	5,625	86.7
Far North [#]	2,523	79.4
Country SA	44,107	87.3
South Australia	133,359	87.1

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a slight gradient in participation of primary school students when viewed by socioeconomic status group, with percentages in metropolitan Adelaide decreasing by seven per cent, from 89.5% in the most advantaged areas (highest SES) to 83.4% in the most disadvantaged areas (lowest SES) (Figure 17).

Figure 17: Primary school participation, by socioeconomic status, South Australia, 2006

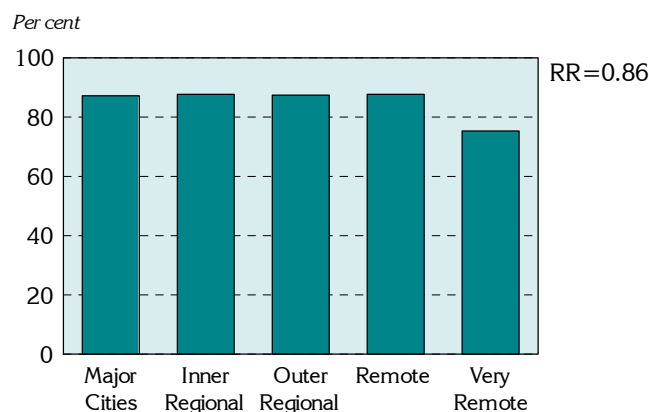


In country South Australia, there were 6% fewer primary school participants in the lowest SES areas (84.2%) compared with the highest SES areas (89.8%) (Figure 17).

Remoteness

There is little variation across the first four remoteness classes, with participation rates around 87% in each class (Figure 18). The lowest rate was recorded in the Very Remote class, with 75.3% of children aged 5 to 12 years attending primary school, some 14% below the level in the Major Cities class.

Figure 18: Primary school participation, by remoteness, South Australia, 2006



Correlations

There are strong to very strong correlations at the SLA level in metropolitan Adelaide between areas with low rates of primary school participation with many of the indicators of socioeconomic disadvantage, including welfare-dependent and other low income families with young children, families where no parent has a job (jobless families), children developmentally vulnerable on two or more domains under the AEDI, lack of access to the Internet at home (in particular to a high-speed connection) and admissions to a public acute hospital. Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) were moderate to strong. Of note is the very strong positive correlation between participation in primary school and participation in secondary school.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Secondary school students

Secondary schooling provides core study areas and extension courses to assist in the development of skills, knowledge and values, and to prepare students for adult life. In South Australia, all 16 year olds are required to be in full time education or training until they achieve a qualification or turn 17, reflecting research which shows that young people who leave school too early are often unemployed by their 20s and then find it difficult to find work and careers of their choice ⁽²⁾.

Indicator definition: secondary school students (aged 13 to 17 years) as a percentage of all children aged 13 to 17 years.

Key points

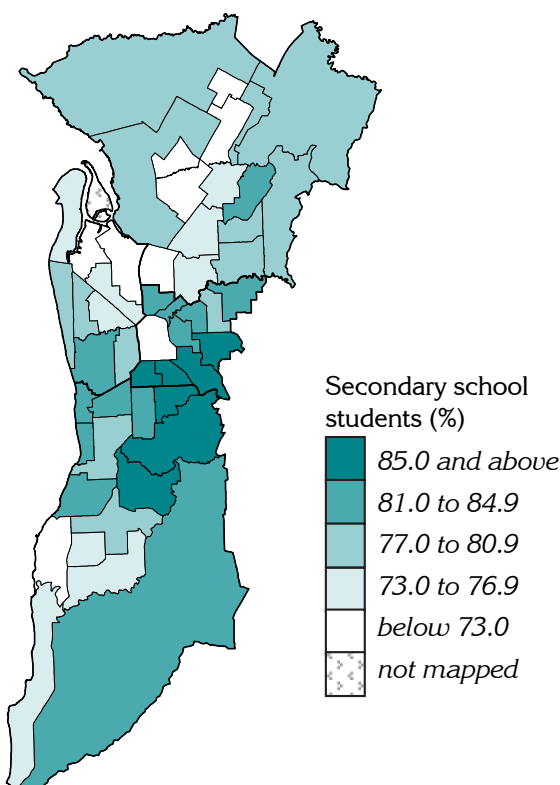
- There is relatively greater variation in participation rates for secondary students than seen for primary school students, with a markedly lower rate in the Far North.
- Variation in participation in secondary school between areas is strongly related to socioeconomic status.

Geographic variation

Adelaide

The highest concentrations of secondary school students aged 13 to 17 years are in areas located to the east and south of the city centre (**Map 31**), with the lowest rates in the northern, north-western and outer southern regions. The highest participation rates were recorded in the Mitcham, Unley and Burnside SLAs, and in Onkaparinga - Reservoir. The lowest rates were in Playford - Elizabeth and - West Central, Adelaide, Port Adelaide Enfield - Inner, - Park and - Port, Onkaparinga - North Coast, and Salisbury - Central and - Inner North.

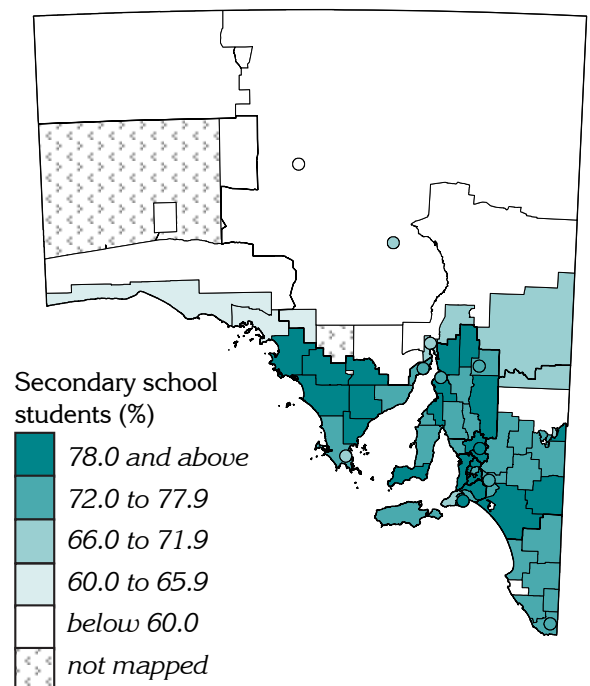
Map 31: Secondary school participation, Adelaide, 2006



Country South Australia

The highest percentages of 13 to 17 year olds attending secondary school were recorded in areas surrounding the metropolitan region extending to the east of the State, in the mid north and on the Eyre Peninsula (**Map 32**). These areas included Orroroo/ Carrieton, Cleve, Le Hunte, Tumby Bay, Adelaide Hills - Ranges and - Central, Barossa, Kimba and Alexandrina - Strathalbyn. The lowest percentages were recorded in Unincorporated areas of Riverland, Flinders Ranges, Whyalla and Far North and also in the far northern SLA of Anangu Pitjantjatjara.

Map 32: Secondary school participation, South Australia, 2006



Note: ABS Census data have been used as data covering the non-government education sectors are not available by SLA

Regional totals

Secondary school participation among young people aged 13 to 17 years was lower in country South Australia (76.0%) than in metropolitan Adelaide (78.6%) (Table 12). Participation rates above the State average were recorded in Eastern Adelaide, Adelaide Hills, Southern Adelaide, Barossa, and Fleurieu and Kangaroo Island.

Table 12: Secondary school participation, by State Region, 2006

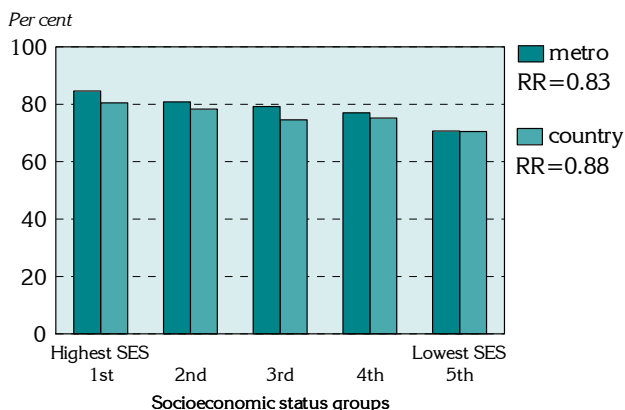
Region	No.	%
Northern Adelaide	17,775	75.3
Western Adelaide	8,889	76.7
Eastern Adelaide	9,838	83.4
Southern Adelaide	17,660	80.8
Metropolitan regions	54,162	78.6
Adelaide Hills	4,212	81.0
Murray and Mallee	3,611	74.5
Fleurieu and Kangaroo Island	2,061	78.6
Limestone Coast	3,373	75.1
Barossa	3,606	79.1
Yorke and Mid North	3,795	76.2
Eyre and Western [#]	2,961	73.8
Far North [#]	1,142	61.7
Country SA	24,761	76.0
South Australia	78,968	77.8

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The highest rates of secondary school participation were recorded in the most advantaged (highest SES) areas of Adelaide (84.6%) and the lowest in the most disadvantaged (lowest SES) areas (70.7%) (Figure 19). The effect of these differences is that there are 17% fewer secondary school students in the lowest SES areas compared to the highest SES areas.

Figure 19: Secondary school participation, by socioeconomic status, South Australia, 2006

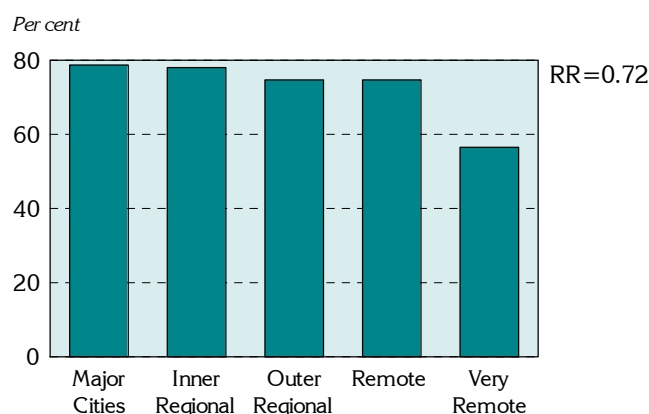


Secondary school participation in country South Australia was also lowest in the lowest SES areas (70.5%) and highest in the highest SES areas (80.5%), with a differential of 12%.

Remoteness

There were 28% fewer secondary school students aged 13 to 17 years in the Very Remote category (56.5%) than in the Major Cities class (78.7%) (Figure 20). The percentages in the remaining three categories ranged from 78.0% in the Inner Regional areas to 74.7% in the Remote regions.

Figure 20: Secondary school participation, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with low rates of secondary school participation and many of the indicators of socioeconomic disadvantage, including welfare-dependent and other low income families with young children, families where no parent has a job (jobless families), lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and admissions to a public acute hospital. Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

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The Australian Early Development Index (AEDI)

In 2009, the Australian Early Development Index (AEDI), which provides a picture of early childhood development outcomes for Australia, was undertaken nationwide⁽³⁾. Information was collected on Australian children in their first year of full-time school between 1 May and 31 July, using a teacher-completed checklist. The initial results from the AEDI provide communities and schools 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.

Indicator definition: AEDI results are presented in this report as proportions of children who are considered to be 'on track' and those 'developmentally vulnerable'. Children who score in the lowest 10 per cent of the AEDI population are classified as 'developmentally vulnerable'. Children who score above the 25th percentile (in the top 75 per cent) of the AEDI population are classified as 'on track'. Full details are in the Appendix.

AEDI results

The AEDI provides information for five developmental domains which are closely linked to the predictors of good adult health, education and social outcomes. The AEDI domains and sub-domains are:

- physical health and wellbeing – Physical readiness for the day; Physical independence; Gross and fine motor skills
- social competence – Overall social competence; Responsibility and respect
- emotional maturity – Pro-social and helping behaviour; Anxious and fearful behaviour; Aggressive behaviour; Hyperactivity and inattention
- language and cognitive skills (school-based) – Basic literacy; Interest in literacy, numeracy and memory; Advanced literacy; Basic numeracy;
- communication skills and general knowledge.

Details of children assessed as being developmentally on track and those developmentally vulnerable are reported below by SLA, State region, socioeconomic status and remoteness, for the physical health and wellbeing domain; for the other domains, only the measure for children developmentally vulnerable is reported: this approach has been taken because the detailed AEDI files were only available in the final stages of this project.

The complete range of categories (including children assessed as being developmentally at risk, in addition to those developmentally vulnerable on one or more, or two or more, domains) are available on the PHIDU website at www.publichealth.gov.au.

The data were allocated to SLAs from a unit record file at the suburb level (the file was confidentialised, in that names were not included), provided to PHIDU by DECS. A small number of suburbs lie across SLA boundaries: the data for these suburbs have been included in the counts in each of the

SLAs in which they lie. An alternative approach, to split the children into SLAs based on ABS estimates of the proportion of the population in the suburb in each SLA was not used, as it is unlikely to produce a more accurate result. The numbers of children in these suburbs are also small enough to not noticeably affect the result for the whole SLA. The data were also allocated to the same socioeconomic status and remoteness areas used elsewhere in the report. The maps, charts and data presented online include a more extensive range of information for each domain, as presented in the AEDI report.

Checklists were completed for 97.5% of the estimated five year old population in Australia: the comparable figure for South Australia was 87.8%. The AEDI report notes that the lower proportion in South Australia may relate to the four school intakes, which result in there being insufficient time for the teacher to have sufficient knowledge of the child to complete the AEDI data.

DECS have advised that the data should be treated as preliminary at this stage, as they are subject to ongoing quality checks and validation. As noted above (page 61), the addition of data from the second round of collection in 2010 may assist in clarifying this situation in relation to SLAs in country South Australia with no children assessed as being developmentally vulnerable. In those cases it is unclear whether the results reflect the true situation, or whether there are no children, or too few teachers or completed checklists, to meet the AEDI criteria for release.

Physical health and wellbeing domain (AEDI)

Indicator definition: Proportion of children assessed as being developmentally on track and those assessed as being developmentally vulnerable: additional details are available on the PHIDU website at www.publichealth.gov.au.

Key points

- There is a clear distinction in metropolitan Adelaide between areas with the highest and those with the lowest proportions of children assessed as being developmentally on track under this AEDI domain.
- While there are notable variations by socioeconomic status in both metropolitan Adelaide and country South Australia for children assessed as being on track, the greatest differential is by remoteness.
- The socioeconomic and remoteness differentials in the data for children assessed as being developmentally vulnerable are substantially larger than those for children assessed as being on track.

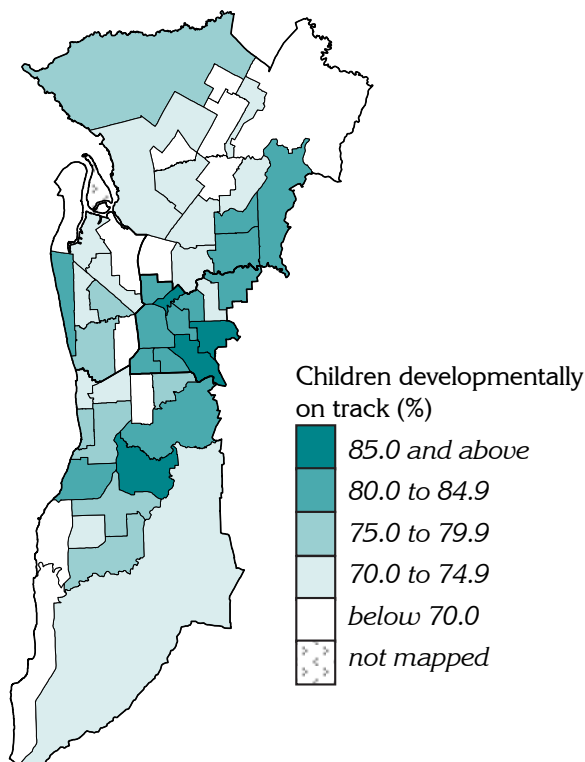
Developmentally on track

Geographic variation

Adelaide

The map of children developmentally on track under this domain – those with scores in the top 75% of children for which data were available – describes a pattern consistent with that seen for the distribution of the socioeconomically advantaged population of metropolitan Adelaide (Map 33). High rates predominate in the north-east, east and south-east of the city. The distinction between areas with the highest and those with the lowest proportions of children in this category is very clear.

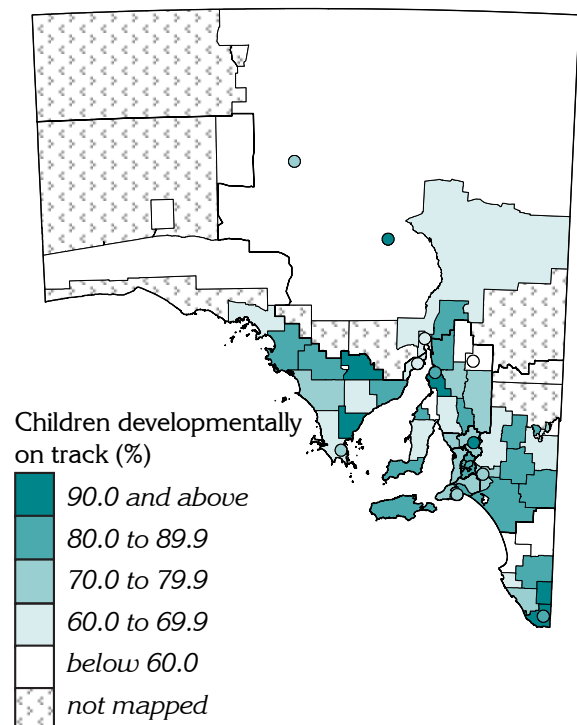
Map 33: Physical health and wellbeing domain, children developmentally on track, Adelaide, 2009



South Australia

A number of SLAs in the remote areas of the State have fewer than five children who are categorised as being developmentally on track; these SLAs have not been mapped (Map 34). Areas not mapped include those with small populations, as well as those with larger populations but few children meeting the AEDI criteria; the spreadsheets available on the PHIDU website should be referred to when using these data. SLAs with fewer than 60 per cent of children in this category are also mainly located in the north and west of the State, including in a number, although by no means all, of the towns. Other than Roxby Downs, areas with the highest proportions of children assessed as being developmentally on track for physical health and wellbeing lie further to the south.

Map 34: Physical health and wellbeing domain, children developmentally on track, South Australia, 2009



Regional totals

Proportions of children assessed as being on track under this domain in metropolitan Adelaide and country South Australia are similar, and there is a similar variation between regions, other than for the notably higher proportion in the Far North (Table 13).

Table 13: Physical health and wellbeing domain, children developmentally on track, by State Region, 2009

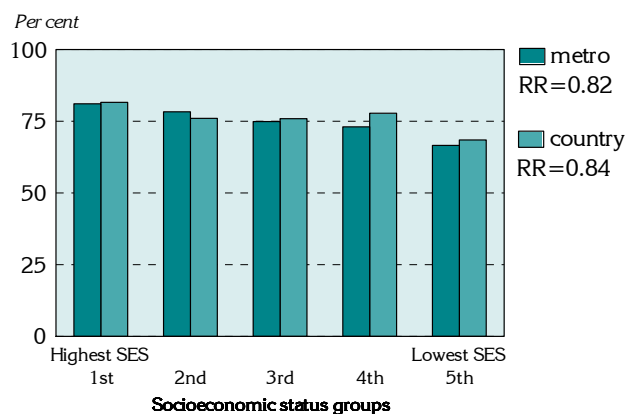
Region	No.	%
Northern Adelaide	2,650	71.1
Western Adelaide	1,195	73.4
Eastern Adelaide	1,424	82.6
Southern Adelaide	2,312	75.4
Metropolitan regions	7,581	74.7
Adelaide Hills	644	81.0
Murray and Mallee	456	73.4
Fleurieu and Kangaroo Island	294	80.1
Limestone Coast	565	79.6
Barossa	576	78.0
Yorke and Mid North	480	76.7
Eyre and Western [#]	428	70.2
Far North [#]	196	65.3
Country SA	3,639	76.3
South Australia	11,220	75.2

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There are notable differentials in the proportion of children developmentally on track under this domain when viewed by socioeconomic status (Figure 21). In metropolitan Adelaide, the proportions ranged from 81.1% in the most advantaged (highest SES) areas to 66.6% in the most disadvantaged (lowest SES) areas, a differential of 18% (a rate ratio of 0.82).

Figure 21: Physical health and wellbeing domain, children developmentally on track, South Australia, 2009

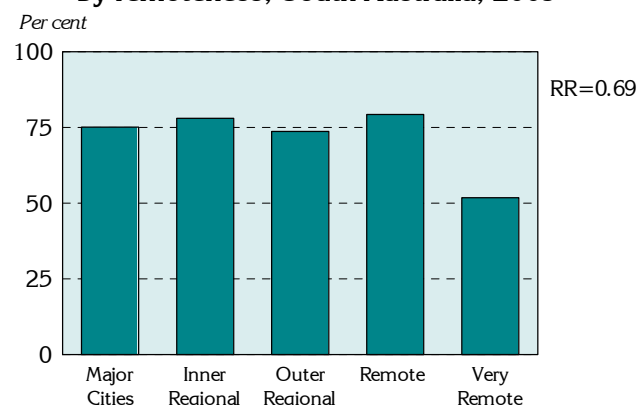


In country South Australia, the proportions of children assessed as being developmentally on track for the physical health and wellbeing domain ranged from 81.6% in the most advantaged (highest SES) areas to 68.5% in the most disadvantaged (lowest SES) areas, a differential of 16% (a rate ratio of 0.84).

Remoteness

There is little variation across the first four remoteness classes; however, there are 31% fewer children in the Very Remote areas assessed as being developmentally on track compared with the Major Cities areas (Figure 22).

Figure 22: Physical health and wellbeing domain, children developmentally on track, by remoteness, South Australia, 2009



Correlations

There is a strong correlation at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally on track under this domain and high scores under the IRSD. There are also strong correlations with participation in formal education, enrolment of school leavers in a university and access at home to the Internet. And there are strong to very strong inverse correlations with use of public health services (admissions to a public acute hospital and clients of CAMHS), smoking during pregnancy, youth pregnancy, notifications and substantiations of child abuse or neglect and poor dental health.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

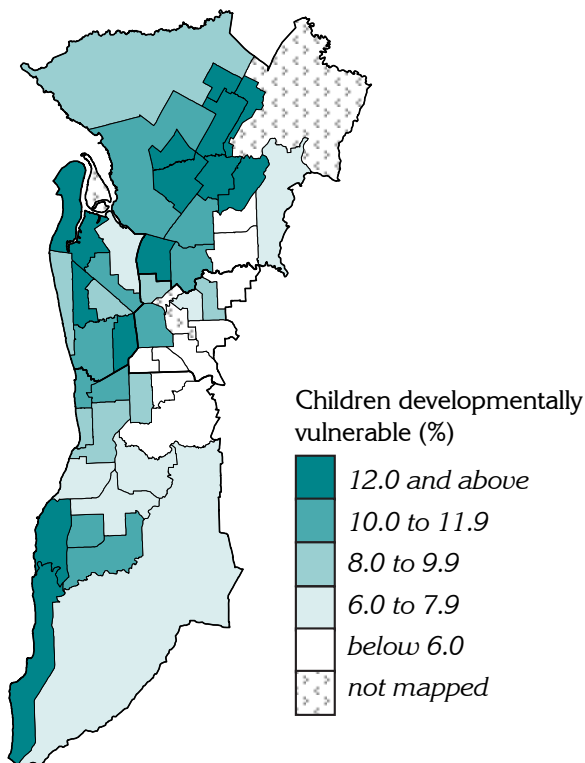
Developmentally vulnerable

Adelaide

As would be expected, the distribution of children assessed as being developmentally vulnerable under this domain – those with scores in the lowest 10% of the children for whom data were available – (Map 35) is the opposite of that seen for children who are developmentally on track. It also shows a distribution closely aligned to that in the map of socioeconomic disadvantage as depicted by the IRSD (above).

The poorest outcomes for children assessed as being developmentally vulnerable for physical health and wellbeing are seen in some outer northern SLAs in Playford and Salisbury; in the north-west and west in parts of Port Adelaide Enfield, Charles Sturt West Torrens; and in the outer south, in parts of Onkaparinga.

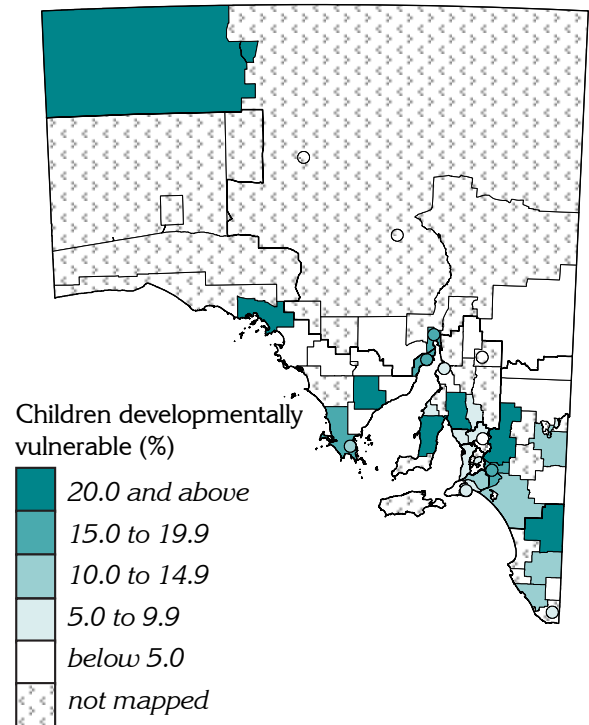
Map 35: Physical health and wellbeing domain, children developmentally vulnerable, Adelaide, 2009



South Australia

Although relatively few SLAs have sufficient data to map, the geographic distribution of those that are mapped is somewhat mixed, with high and low rates in adjacent SLAs (Map 36). This is also the case for the towns mapped, with relatively high proportions of children in this category in Port Augusta and Whyalla, and relatively low proportions in Port Pirie.

Map 36: Physical health and wellbeing domain, children developmentally vulnerable, South Australia, 2009



Regional totals

Although proportions in metropolitan Adelaide and country South Australia are similar, the variation between regions (Table 14) is greater than seen for the data for children on track under this domain. For example, the rate in Northern Adelaide is more than twice that in Eastern Adelaide (and in Western Adelaide, it is double); in country South Australia, rates vary by 3.6 times between Far North and Adelaide Hills, with Eyre and Western also having a very high rate.

Table 14: Physical health and wellbeing domain, children developmentally vulnerable, by State Region, 2009

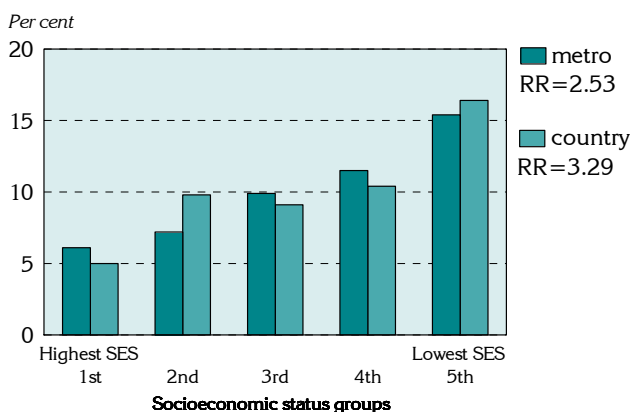
Region	No.	%
Northern Adelaide	475	12.7
Western Adelaide	180	11.0
Eastern Adelaide	95	5.5
Southern Adelaide	272	8.9
Metropolitan regions	1,022	10.1
Adelaide Hills	39	4.9
Murray and Mallee	77	12.4
Fleurieu and Kangaroo Island	29	7.9
Limestone Coast	65	9.2
Barossa	49	6.6
Yorke and Mid North	66	10.5
Eyre and Western [#]	89	14.6
Far North [#]	53	17.7
Country SA	467	9.8
South Australia	1,489	10.0

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a very strong socioeconomic gradient in the proportion of children in metropolitan Adelaide assessed as being developmentally vulnerable under this domain, from a low of 6.1% in the most advantaged (highest SES) areas to 15.4% in the most disadvantaged (lowest SES) areas, a substantial differential of 2.53 (Figure 23).

Figure 23: Physical health and wellbeing domain, children developmentally vulnerable, South Australia, 2009

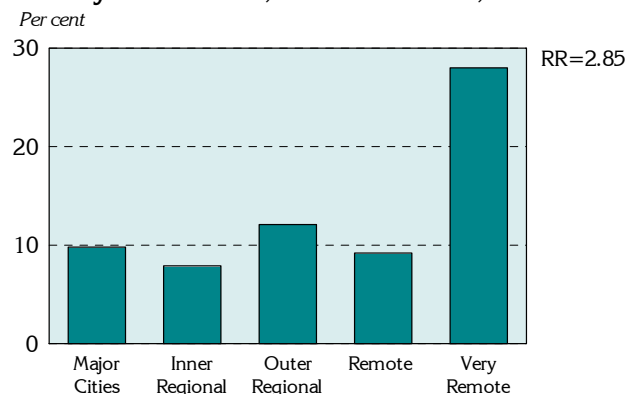


For children living in country South Australia, the differential in rates is even greater, with a gap of over three times in the proportion in the lowest SES (16.4%) areas to that in the highest SES (5.0%) areas.

Remoteness

Although there is some variation across the first four remoteness areas (from 9.2% in Remote to 12.1% in Outer Regional), by far the highest proportion of children who are developmentally vulnerable on this measure is in the Very Remote areas (28.0%) (Figure 24).

Figure 24: Physical health and wellbeing domain, children developmentally vulnerable, by remoteness, South Australia, 2009



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally vulnerable under this domain and many other indicators, including Aboriginal children and young people, welfare dependency, families where no parent has a job (jobless families), low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance in secondary school, notifications of child abuse or neglect and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor educational performance under NAPLAN and with poor health outcomes (poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Social competence domain (AEDI)

Indicator definition: Proportion of children assessed as being developmentally vulnerable: additional details, including of children developmentally on track, are available on the PHIDI website at www.publichealth.gov.au.

Key points

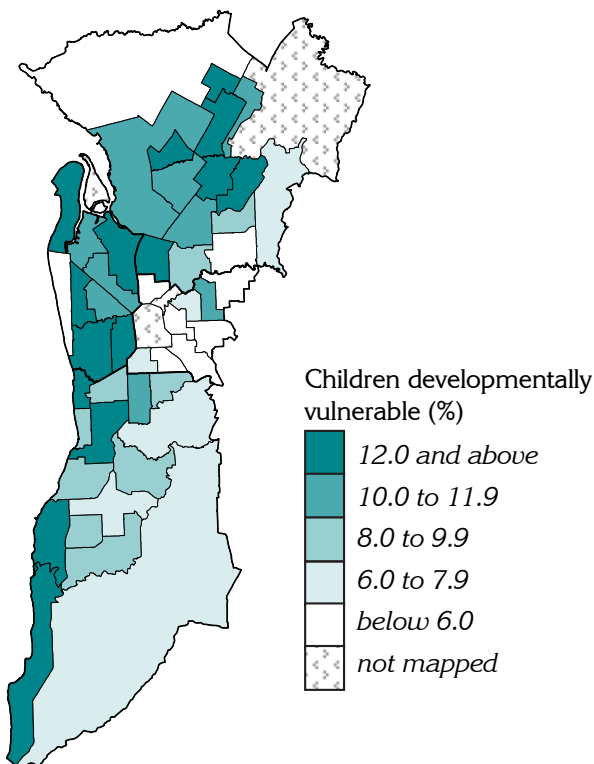
- Children assessed as being developmentally vulnerable under the social competence domain predominate in areas of greater socioeconomic disadvantage.
- In addition to the very strong socioeconomic differentials in the level of developmental vulnerability under this domain, there is a very strong differential in rates between the Very Remote and Major Cities areas.

Geographic variation

Adelaide

The geographic distribution of children assessed as being developmentally vulnerable under this domain (**Map 37**) is similar to that shown by the IRSD, although the association is not as strong as seen in the map for the physical health and wellbeing domain (above).

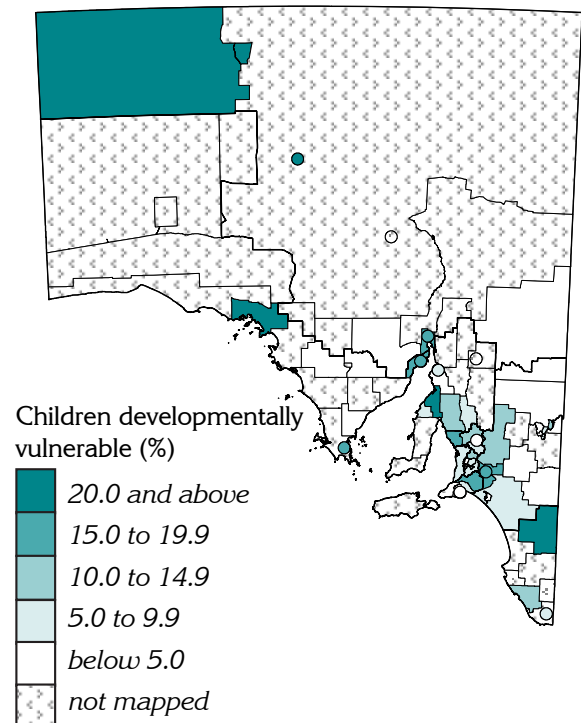
Map 37: Social competence domain, children developmentally vulnerable, Adelaide, 2009



South Australia

Relatively few SLAs with high proportions of children assessed as being developmentally vulnerable under the social competence domain could be mapped (**Map 38**). Of those that were, Anangu Pitjantjatjara (42.1% of children) and Ceduna (20.0%) had the highest proportions, with the next highest in the northern towns of Coober Pedy, Whyalla and Port Augusta. Tatiara in the south-east of the State had the second highest proportion, with 28.8% of children assessed as being developmentally vulnerable under the social competence domain. The proportion in Murray Bridge was 16.2%.

Map 38: Social competence domain, children developmentally vulnerable, South Australia, 2009



Regional totals

Apart from the lower rate in the Adelaide Hills Region, the variation within regions in metropolitan Adelaide and country South Australia was similar (**Table 15**).

In metropolitan Adelaide just over twice as many children in Western Adelaide were assessed as being developmentally vulnerable under this domain as in Eastern Adelaide: the proportion in Northern Adelaide was almost as high. In country South Australia the highest proportions were recorded in Far North and Eyre and Western.

Table 15: Social competence domain, children developmentally vulnerable, by State Region, 2009

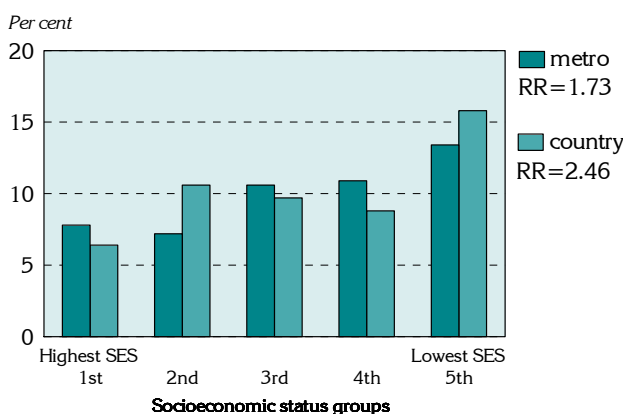
Region	No.	%
Northern Adelaide	430	11.5
Western Adelaide	196	12.0
Eastern Adelaide	101	5.9
Southern Adelaide	294	9.6
Metropolitan regions	1,021	10.1
Adelaide Hills	47	5.9
Murray and Mallee	63	10.1
Fleurieu and Kangaroo Island	26	7.1
Limestone Coast	69	9.7
Barossa	75	10.2
Yorke and Mid North	52	8.3
Eyre and Western [#]	97	15.9
Far North [#]	48	16.1
Country SA	477	10.0
South Australia	1,498	10.0

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a step-wise gradient in the proportion of children in metropolitan Adelaide assessed as being developmentally vulnerable under this domain, with proportions in the first and second socioeconomic status groups being similar, as are those in the third and fourth groups, but with a higher proportion in the fifth group (Figure 25). The overall differential in proportions between the most disadvantaged (lowest SES) areas and the most advantaged (highest SES) areas is 73% (a rate ratio of 1.73).

Figure 25: Social competence domain, children developmentally vulnerable, South Australia, 2009

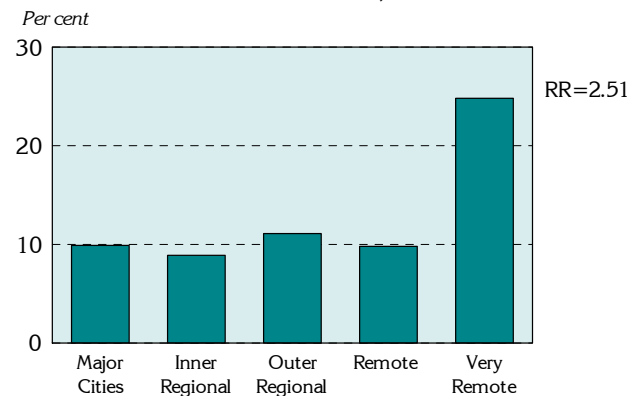


The pattern in country South Australia is different. While the highest and lowest proportions again occur in the lowest and highest SES areas, respectively, proportions in the middle three socioeconomic groups are at a similar level. The overall differential is substantial, with a rate ratio of 2.46.

Remoteness

There is little variation across the first four remoteness classes in the proportion of children assessed as being developmentally vulnerable under this domain, with by far the highest proportion in the Very Remote areas (24.8%): this is some two and a half times the level in the Major Cities areas (Figure 26)

Figure 26: Social competence domain, children developmentally vulnerable, by remoteness, South Australia, 2009



Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally vulnerable under this domain and many other indicators, including Aboriginal children and young people, welfare dependency, families where no parent has a job (jobless families), low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and in secondary school, notifications of child abuse or neglect and use of public health services (admissions to a public acute hospital and clients of CAMHS).

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Emotional maturity domain (AEDI)

Indicator definition: Proportion of children assessed as being developmentally vulnerable: additional details, including of children developmentally on track, are available on the PHIDU website at www.publichealth.gov.au.

Key points

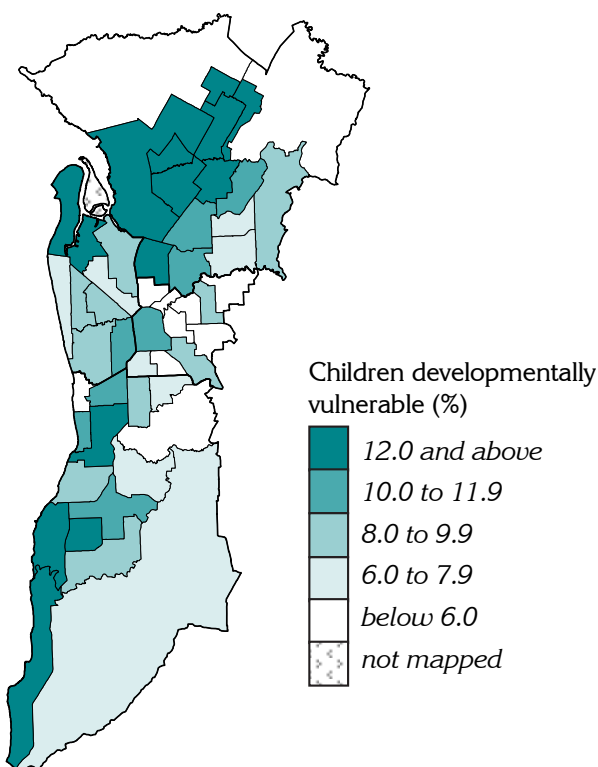
- Children assessed as being developmentally vulnerable under the emotional maturity domain predominate in areas of greater socioeconomic disadvantage.
- In addition to the very strong socioeconomic differentials in the level of developmental vulnerability under this domain, there is a very strong differential in rates between the Very Remote and Major Cities areas.

Geographic variation

Adelaide

The map of this domain is similar to those for the earlier domains mapped, but with more areas in the outer north, and fewer in the west and north-west, mapped in the higher ranges: however, the association with socioeconomic disadvantage remains strong (Map 39).

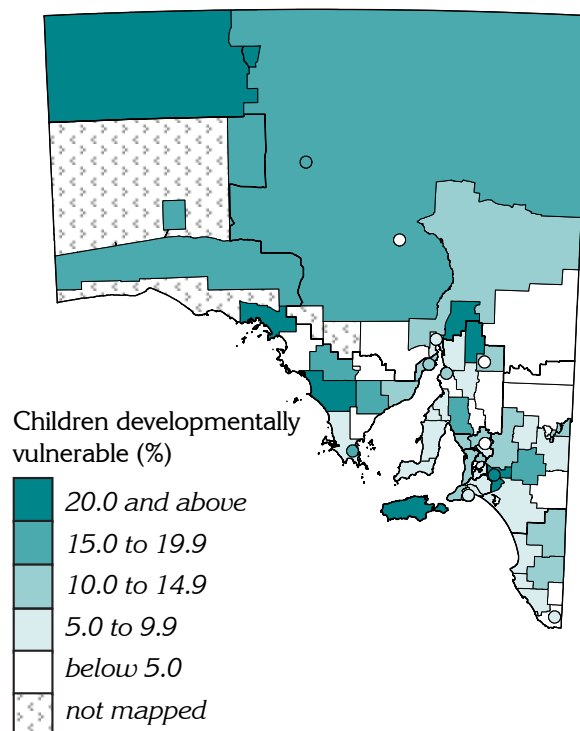
Map 39: Emotional maturity domain, children developmentally vulnerable, Adelaide, 2009



South Australia

There are clearly more completed records available for this domain (in comparison with those mapped above), with almost all areas mapped (Map 40). And, apart from Anangu Pitjantjatjara, Ceduna and Murray Bridge, the geographic distribution of children assessed as being developmentally vulnerable is different, with lower rates in Port Augusta and Whyalla, and higher rates in a number of other country SLAs.

Map 40: Emotional maturity domain, children developmentally vulnerable, South Australia, 2009



Regional totals

In metropolitan Adelaide around half as many children in Eastern Adelaide were assessed as being developmentally vulnerable under this domain as in the other Regions. In country South Australia the gap was smaller, with lower proportions recorded in Far North than seen for the other domains (above) (Table 16).

Table 16: Emotional maturity domain, children developmentally vulnerable, by State Region, 2009

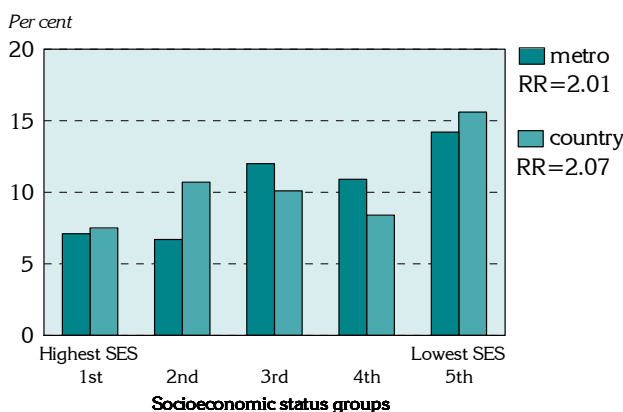
Region	No.	%
Northern Adelaide	463	12.5
Western Adelaide	162	10.0
Eastern Adelaide	94	5.5
Southern Adelaide	317	10.4
Metropolitan regions	1,036	10.3
Adelaide Hills	65	8.2
Murray and Mallee	78	12.6
Fleurieu and Kangaroo Island	36	9.8
Limestone Coast	58	8.2
Barossa	67	9.2
Yorke and Mid North	58	9.3
Eyre and Western [#]	85	14.0
Far North [#]	40	13.5
Country SA	487	10.3
South Australia	1,523	10.3

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a step-wise gradient in the proportions of children in metropolitan Adelaide assessed as being developmentally vulnerable under this domain, with proportions in the first and second socioeconomic status groups being similar, as are those in the third and fourth groups, but with a higher proportion in the fifth group (Figure 27).

Figure 27: Emotional maturity domain, children developmentally vulnerable, South Australia, 2009



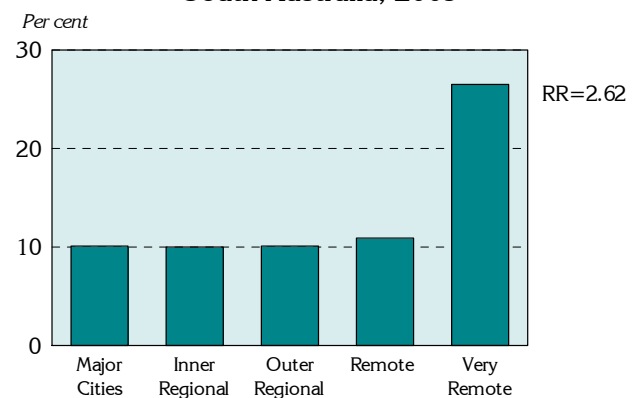
The proportion in the most disadvantaged (lowest SES) areas is twice that in the most advantaged (highest SES) areas (a rate ratio of 2.01).

The differential in rates between the lowest and highest SES areas in country South Australia is similar (a rate ratio of 2.07), although the pattern across the quintiles varies.

Remoteness

Again, as noted for the social competence domain, there is little variation across the first four remoteness classes in the proportion of children assessed as being developmentally vulnerable under this domain, with by far the highest proportion in the Very Remote areas (26.5%): this is over two and a half times the level in the Major Cities areas (Figure 28).

Figure 28: Emotional maturity domain, children developmentally vulnerable, by remoteness, South Australia, 2009



Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally vulnerable under this domain and many other indicators, including Aboriginal children and young people, welfare dependency, families where no parent has a job (jobless families), low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and in secondary school, notifications of child abuse or neglect and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au

Language and cognitive skills domain (AEDI)

Indicator definition: Proportion of children assessed as being developmentally vulnerable: additional details, including of children developmentally on track, are available on the PHIDI website at www.publichealth.gov.au.

Key points

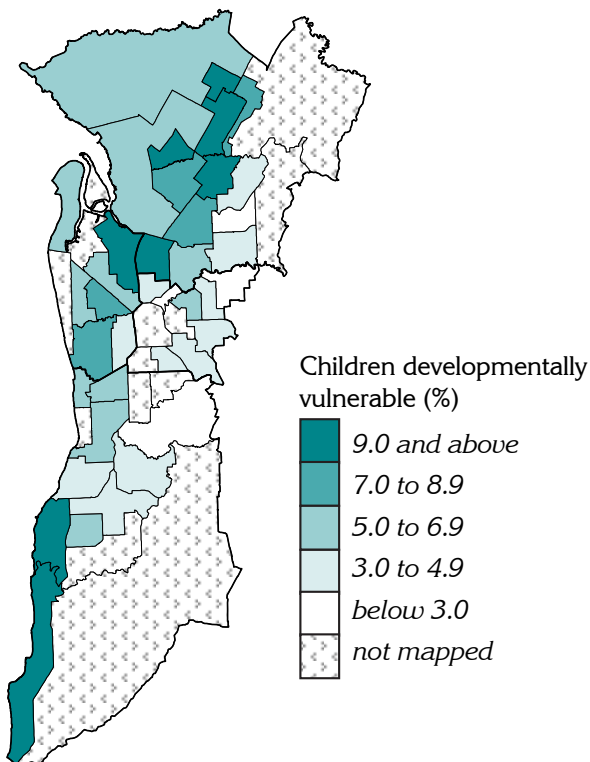
- Despite the smaller number of areas for which data could be analysed, it can be seen that children assessed as being developmentally vulnerable under the language and cognitive skills domain predominate in areas of greater socioeconomic disadvantage.
- In addition to the substantial socioeconomic differentials in the level of developmental vulnerability under this domain, there is a substantial differential in rates between the Very Remote and Major Cities areas.

Geographic variation

Adelaide

Although there are a number of SLAs for which sufficient data were not available to map, there is a very strong socioeconomic pattern evident in the geographic distribution of children assessed as being developmentally vulnerable under the language and cognitive skills domain (Map 41).

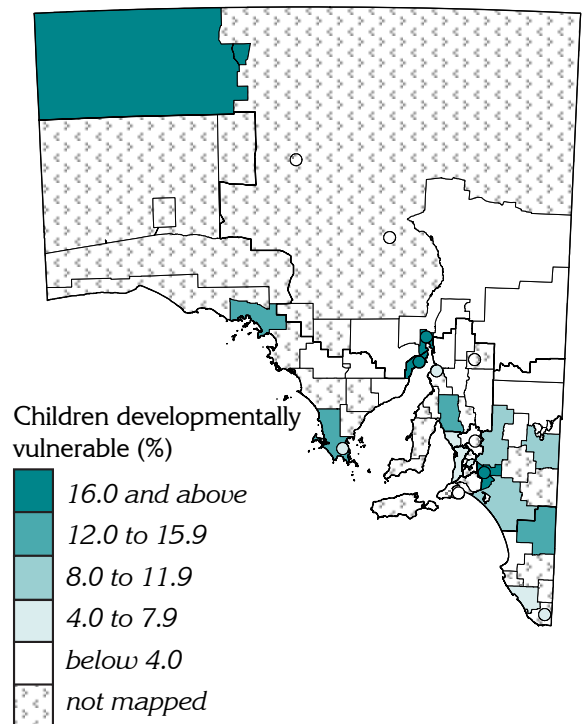
Map 41: Language and cognitive skills domain, children developmentally vulnerable, Adelaide, 2009



South Australia

Although the map is dominated by areas with too little data to map, the high rates in the SLAs of Anangu Pitjantjatjara, Port Augusta, Whyalla and Murray Bridge stand out against the low rates in a number of northern SLAs (Map 42).

Map 42: Language and cognitive skills domain, children developmentally vulnerable, South Australia, 2009



Regional totals

As for the other domains reported above, there is little overall difference in the proportions for metropolitan Adelaide and country South Australia, but considerable variation within these areas (Table 17).

Table 17: Language and cognitive skills domain, children developmentally vulnerable, by State Region, 2009

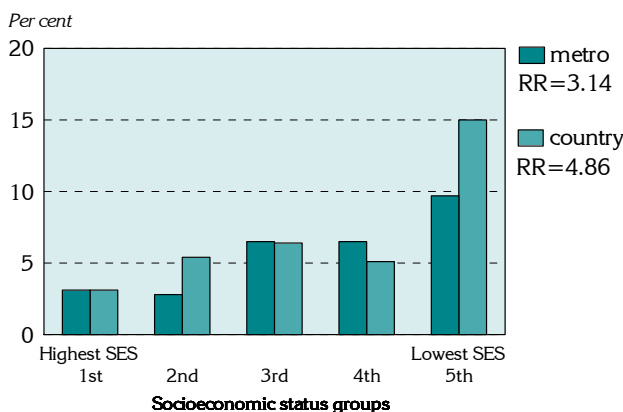
Region	No.	%
Northern Adelaide	295	7.9
Western Adelaide	99	6.1
Eastern Adelaide	50	2.9
Southern Adelaide	145	4.7
Metropolitan regions	589	5.8
Adelaide Hills	25	3.1
Murray and Mallee	52	8.4
Fleurieu and Kangaroo Island	14	3.8
Limestone Coast	36	5.1
Barossa	34	4.6
Yorke and Mid North	35	5.6
Eyre and Western [#]	80	13.1
Far North [#]	46	15.4
Country SA	322	6.8
South Australia	911	6.1

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

Bearing in mind the small number of SLAs for which data are available, the differentials between the socioeconomic status groups in the proportions of children assessed as being developmentally vulnerable under this domain are substantial (Figure 29). In metropolitan Adelaide, the proportion in the most disadvantaged (lowest SES) areas is just over three times that in the most advantaged (highest SES) areas (a rate ratio of 3.14).

Figure 29: Language and cognitive skills domain, children developmentally vulnerable, South Australia, 2009

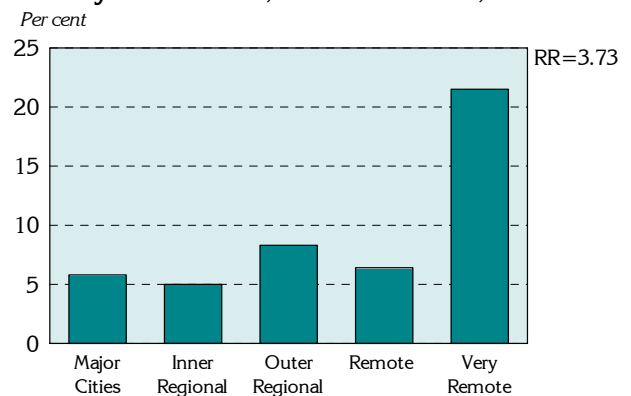


In country South Australia the differential in proportions between the lowest and highest SES areas is almost five times (a rate ratio of 4.86).

Remoteness

The Major Cities, Inner Regional and Remote remoteness classes have similar proportions, with a higher proportion in the Outer Regional (8.3%) and a substantially higher proportion in the Very Remote areas (21.5%): this is over three and a half times the level in the Major Cities areas (Figure 30).

Figure 30: Language and cognitive skills domain, children developmentally vulnerable, by remoteness, South Australia, 2009



Correlations

There are strong to very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally vulnerable under this domain and many other indicators, including Aboriginal children and young people, welfare dependency, families where no parent has a job (jobless families), low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and in secondary school, notifications of child abuse or neglect and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au

Communication skills and general knowledge domain (AEDI)

Indicator definition: Proportion of children assessed as being developmentally vulnerable: additional details, including of children developmentally on track, are available on the PHIDI website at www.publichealth.gov.au.

Key points

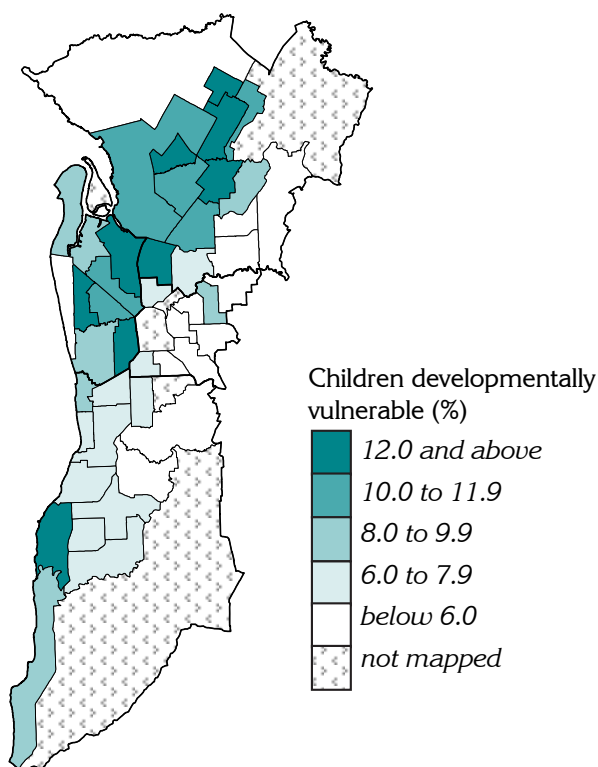
- Children assessed as being developmentally vulnerable under the communication skills and general knowledge domain predominate in areas of greater socioeconomic disadvantage in metropolitan Adelaide.
- In addition to the substantial socioeconomic differentials in the level of developmental vulnerability under this domain, there is a substantial differential in rates between the Very Remote and Major Cities areas.

Geographic variation

Adelaide

As seen for the other AEDI domains, there is a very strong socioeconomic pattern evident in the geographic distribution of children assessed as being developmentally vulnerable, and the delineation between areas with high and those with low rates is also clearly evident (**Map 43**).

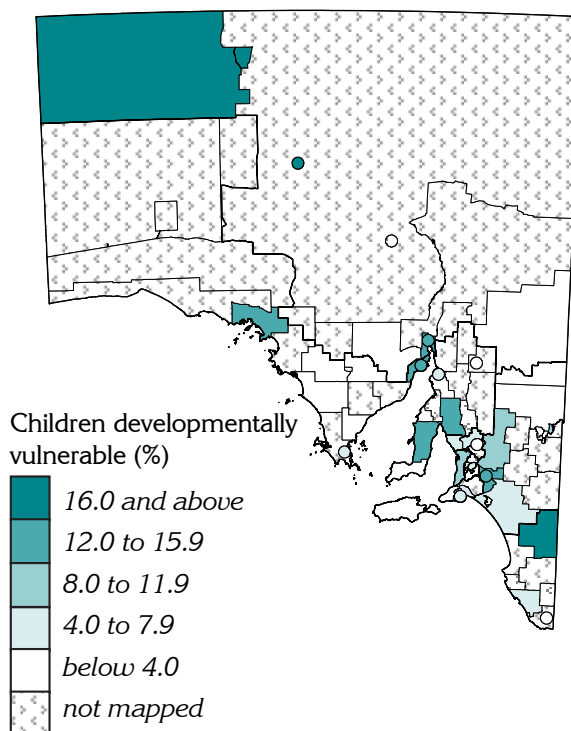
Map 43: Communication skills and general knowledge domain, children developmentally vulnerable, Adelaide, 2009



South Australia

As noted for the social competence and language and cognitive skills domains, relatively few SLAs could be mapped (**Map 44**). Of those that were mapped, Anangu Pitjantjatjara (60.5% of children), Coober Pedy (20.8%) and Tatiara (18.8%) had the highest proportions of children assessed as being developmentally vulnerable.

Map 44: Communication skills and general knowledge domain, children developmentally vulnerable, South Australia, 2009



Regional totals

There was notably higher proportion of children assessed as being developmentally vulnerable under the communication skills and general knowledge domain in metropolitan Adelaide than in country South Australia (Table 18). The lowest proportions in metropolitan Adelaide were in Eastern Adelaide and Southern Adelaide. Five of the eight country regions had proportions below the country average, with the highest proportions recorded in Far North (16.7%) and Eyre and Western (10.8%).

Table 18: Communication skills and general knowledge domain, children developmentally vulnerable, by State Region, 2009

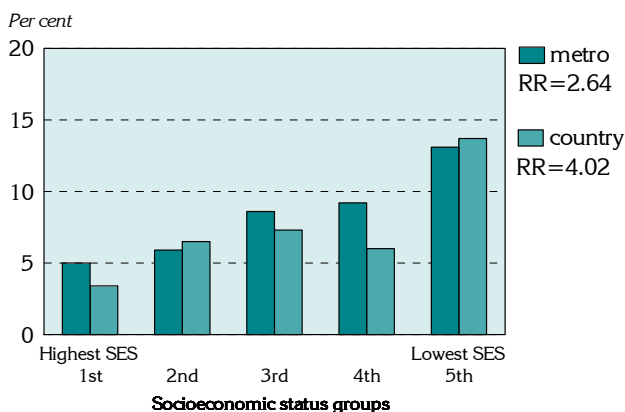
Region	No.	%
Northern Adelaide	379	10.2
Western Adelaide	174	10.7
Eastern Adelaide	93	5.4
Southern Adelaide	206	6.7
Metropolitan regions	852	8.4
Adelaide Hills	26	3.3
Murray and Mallee	55	8.9
Fleurieu and Kangaroo Island	18	4.9
Limestone Coast	42	5.9
Barossa	39	5.3
Yorke and Mid North	43	6.9
Eyre and Western [#]	66	10.8
Far North [#]	50	16.7
Country SA	339	7.1
South Australia	1,191	8.0

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The differentials between the socioeconomic status groups in the proportions of children assessed as being developmentally vulnerable under this domain are substantial (Figure 31).

Figure 31: Communication skills and general knowledge domain, children developmentally vulnerable, South Australia, 2009



In metropolitan Adelaide, there are over two and a half times the number of children in the most

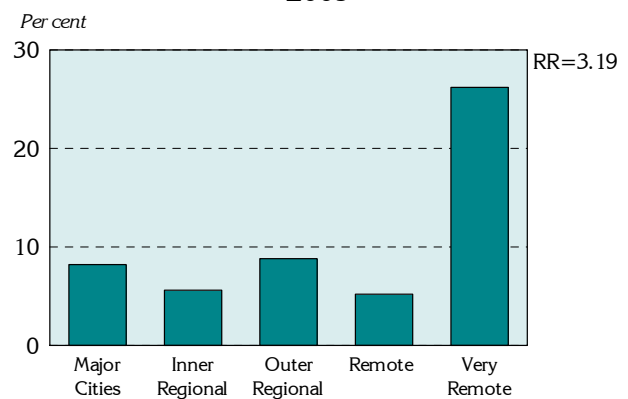
disadvantaged (lowest SES) areas assessed as being developmentally vulnerable under the communication skills and general knowledge domain than in the most advantaged (highest SES) areas (a rate ratio of 2.64).

In country South Australia the differential in proportions between the lowest and highest SES areas is more substantial, at just over four times (a rate ratio of 4.02).

Remoteness

There is relatively little variation across the first four remoteness classes in the proportion of children assessed as being developmentally vulnerable under this domain, with by far the highest proportion in the Very Remote areas (26.2%): this is over three times the level in the Major Cities areas (Figure 32).

Figure 32: Communication skills and general knowledge domain, children developmentally vulnerable, by remoteness, South Australia, 2009



Correlations

There are strong to very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children assessed as being developmentally vulnerable under this domain and many other indicators, including Aboriginal children and young people, welfare dependency, jobless families, low rates of participation in formal schooling, lack of access to the Internet at home, poor educational performance under NAPLAN and in secondary school, notifications of child abuse or neglect and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are moderate to strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

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National Assessment Program – Literacy and Numeracy (NAPLAN)

Children’s school performance results from many factors. A major influence is the socioeconomic environment in which they live. In many cases, the environment of the school they attend may be similar to that in which they live and, as such, can also be an important determinant of their educational outcomes. The Council of Australian Governments (COAG) has developed a National Education Agreement. One of the outcomes for schooling under this Agreement is, that ‘young people are meeting basic literacy and numeracy standards, and overall levels of literacy and numeracy achievements are improving’⁽⁴⁾. To this end, the National Partnership Agreement on Literacy and Numeracy aims to deliver improvements in literacy and numeracy for all students, with a particular target on cohorts of students at risk, by focusing on the key areas of teaching, leadership and the effective use of student performance data.

Indicator definition: children in government schools in 2008 with reading or numeracy scores below the national minimum standard, by SLA of their address.

Note: these data, by SLA of the student’s address, were not available for the Catholic and other independent school systems.

Background

The literacy and numeracy focus of the National Partnership Agreement on Literacy and Numeracy saw the introduction of the National Assessment Program - Literacy and Numeracy (NAPLAN) with all Australian students in Years 3, 5, 7 and 9 being assessed using national tests in 2008 in the areas of reading, writing, language conventions (spelling, grammar and punctuation) and numeracy: the Program was repeated in 2009. Students who achieve at or above the national minimum standard are deemed to have demonstrated the basic elements of literacy and numeracy required for that year level. Results are provided to schools, providing teachers and systems with data to review their programs, their teaching strategies and the need for additional support. Results are also provided to parents.

In this report, the data are presented for students by the location of their usual home address (provided to PHIDU at the SLA level). In this way, student outcomes in Years 3, 5, 7 and 9 for these measures can be compared with the characteristics (e.g., socioeconomic status, health status and educational outcomes) of people, in particular children and their families, living in the same or similar areas.

At the present time, the only NAPLAN data available for publication by student address are for students in government schools. These data were provided by DECS, for each SLA in South Australia.

Results of the 2009 NAPLAN were released in December 2009.

NAPLAN results

The NAPLAN results are reported using five scales, one for each of the following: reading, writing, numeracy, spelling and grammar and punctuation.

These reporting scales each span Years 3, 5, 7 and 9 and describe the development of student achievement from Year 3 through to Year 9, along a scale with scores that range from 0 to 1000. The 0 to 1000 scale is divided into 10 bands for reporting.

For each year level, a national minimum standard is defined: for Year 3, Band 2 is the national minimum standard; for Year 5, it is Band 4; for Year 7, it is Band 5; and for Year 9, it is Band 6.

These standards represent increasingly challenging skills, and so require increasingly higher scores on the NAPLAN scale.

Reporting performance

Reporting against the standard

The data presented in this report are limited to the areas of reading and writing. Data for the other areas tested are available on the PHIDU website.

The data are presented as the percentage of students whose scores were below the national minimum standard – for Year 3, the standard is Band 2. Students with a language background other than English, who arrived from overseas less than a year before the tests, and students with significant intellectual disabilities may be exempted from testing. In addition to these exemptions, a school principal may, on written application by a parent, allow a student to withdraw; and some children will be absent on the day of the test.

The performance measure shown in this report is calculated as the number of Year 3 students who undertook the test (excluding those exempt, absent or withdrawn) and whose results were below the national minimum standard (in reading, or in writing), as a percentage of all Year 3 students assessed. This is a different approach to that adopted in national reporting, where exempt

students are included among those below the national minimum standard.

In some instances, the text refers to children with, for example, 'below-average reading scores': this is done because of the limited space available, and is a substitute for the more complete description of children with 'reading scores below the national minimum standard'. The same approach is used in describing performance for the aspect of numeracy.

Participation rates

In addition to this outcome measure, an estimate is also provided of the participation rate by SLA and by socioeconomic status group of the students attending government schools (**Table 19**).

Participation rates are calculated as the number of students present plus exemptions (the numerator) as a percentage of the number of students (enrolments), as reported by schools (the denominator); the denominator includes those students who were absent or withdrawn, in addition to those present and exempt. The rates were calculated for each year level, as the average of student numbers for each aspect within the year level (rather than separately for each aspect).

Those not participating are largely students who were absent; in addition, there are a very small number of students classified as 'withdrawn', where a parent does not want the child to participate on philosophical or other grounds.

Participation rates are higher in country South Australia, both for those present and those exempted, and the percentage absent is lower, other than in Year 5, where it is the same.

Rates increase slightly from Year 3 to Year 7, then decline in Year 9, largely as a result of a higher percentage of children absent on the day of the tests. The percentage who withdrew is stable, at around one half of one percent, across all years and area of residence, and has minimal influence on geographic variations in the results.

The correlation analysis provides additional information of interest with regard to variations in participation rates. Participation in the NAPLAN in Years 3 and 5 is weakly correlated with high socioeconomic status (coefficients of 0.17 and 0.13, respectively); in Year 5, the correlation is of moderate strength (0.40); and in Year 9, it is very strong (0.74). This increase in participation with increasing socioeconomic status is likely to be related to the (albeit small) increase in absenteeism.

Table 19: Participation rates of children in government schools, by year level¹, NAPLAN, 2008

Year	Present	Exempted	Participation rate	Absent/Withdrawn	Total
Metropolitan Adelaide					
Year 3	90.8	5.2	96.0	4.0	100.0
Year 5	91.8	4.4	96.2	3.8	100.0
Year 7	92.3	3.7	96.0	4.0	100.0
Year 9	86.6	4.1	90.6	9.4	100.0
Country South Australia					
Year 3	92.6	3.6	96.2	3.8	100.0
Year 5	93.8	2.3	96.2	3.8	100.0
Year 7	94.1	2.5	96.5	3.5	100.0
Year 9	89.7	2.2	91.9	8.1	100.0
South Australia					
Year 3	91.4	4.7	96.1	3.9	100.0
Year 5	92.5	3.7	96.2	3.8	100.0
Year 7	92.9	3.2	96.2	3.8	100.0
Year 9	87.7	3.4	91.1	8.9	100.0

¹Participation rates have been calculated on the average of student numbers per aspect within the year level

Aboriginal students in NAPLAN

As a group, Aboriginal children have the poorest educational outcomes ⁽²¹⁾. As such, their performance in the NAPLAN tests, and variations across the State, geographically and between population groups, are important.

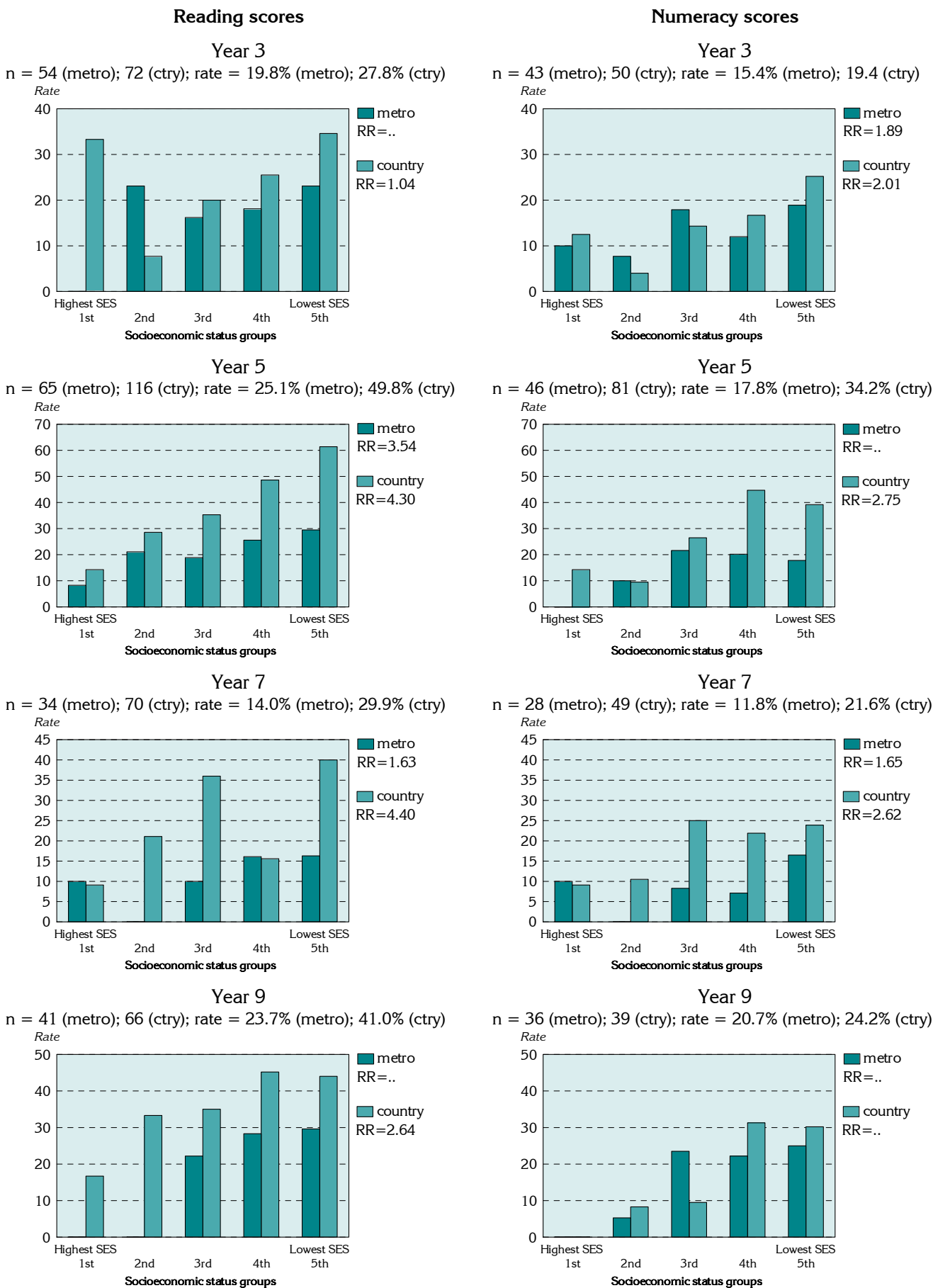
Although the numbers of Aboriginal children are too small to map (at the SLA level), details have been analysed by socioeconomic status group for Aboriginal children in Years 3, 5, 7 and 9.

Participation rates are relatively uniform across Years 3, 5 and 7 (78.5, 77.1% and 77.0%), with a lower rate in Year 9 (62.2%).

In some instances, there are no (or fewer than five) Aboriginal children in one of the socioeconomic status groups presented in **Figure 33**, in which case, the data are not shown. If this occurs in relation to the first (highest SES) group then the rate ratio cannot be calculated and is replaced by the not applicable symbol (..).

Despite the missing data, and occasional high rates in the highest or second highest SES areas, the overall impression from the charts in **Figure 33** is that the percentage of Aboriginal children with reading scores below the national minimum standard is generally higher in the most disadvantaged areas in each of the year levels for which data have been collected. A similar situation applies to numeracy.

Figure 33: Aboriginal children in government schools with scores below the national minimum standard under NAPLAN, by socioeconomic status, South Australia, 2008



Note: 'metro' refers to Metropolitan Adelaide; 'ctry', to country South Australia

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Reading outcomes for Year 3 students in government schools

Indicator definition: children in Year 3 in government schools in 2008 with reading scores below the national minimum standard, by SLA of the student's address.

Key points

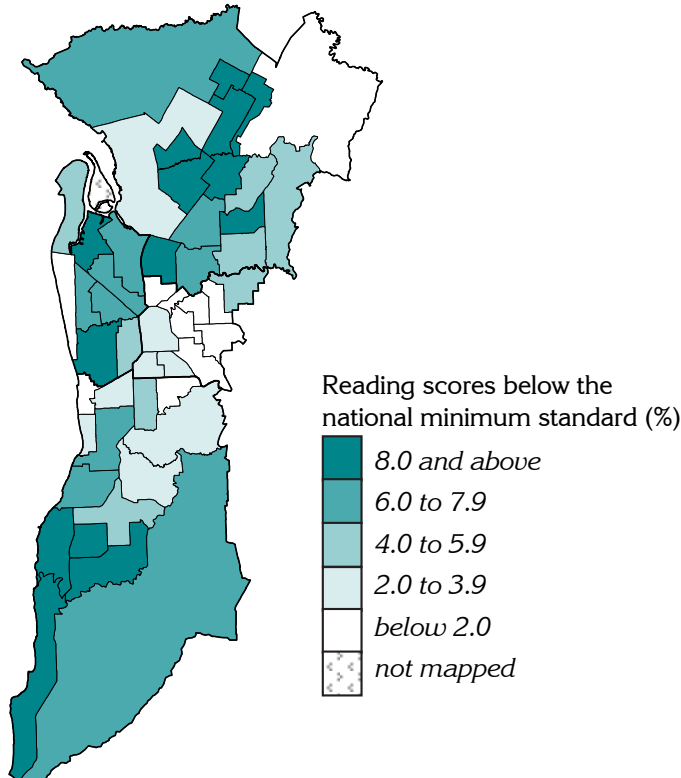
- Children in Year 3 (in government schools) with the poorest outcomes for reading generally, although not exclusively, live in areas of greatest socioeconomic disadvantage.
- The percentage of children with reading scores below the national minimum standard is markedly higher in country South Australia (9.2%) than in metropolitan Adelaide (6.9%).

Geographic variation

Adelaide

The distribution of children in Year 3 in government schools with reading scores below the national minimum standard forms a distinctive spatial pattern across Adelaide. The poorest outcomes are most evident in many of the SLAs of greatest socioeconomic disadvantage, as well as in some of moderate disadvantage. The best outcomes for children are in SLAs adjacent to Adelaide, and to the east and south-east, as well as in a number of beachside SLAs (**Map 45**). More than 12% of children living in the Playford - West Central, - Elizabeth and - East Central; Onkaparinga - Hackham and - South Coast; and Salisbury - Central were reading at levels below the national minimum standard.

Map 45: Children in Year 3 at government schools with below-average reading scores, Adelaide, 2008

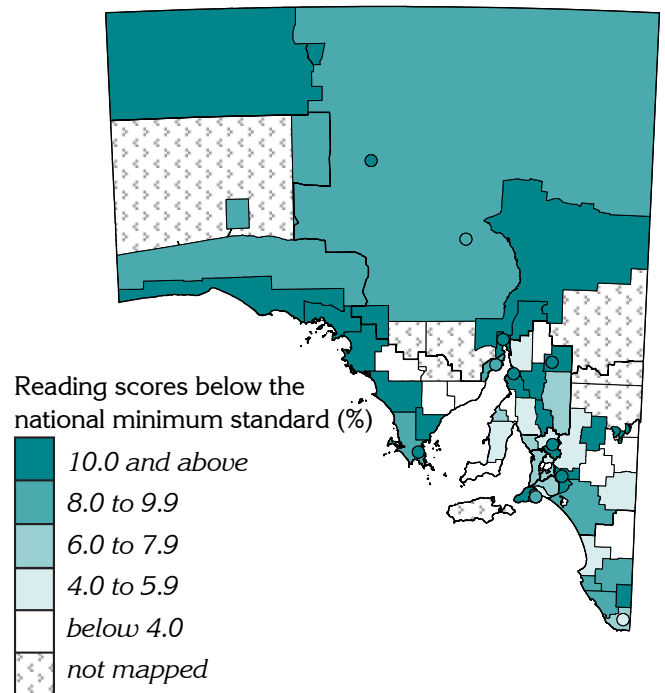


Mitcham - North-East, Burnside - North-East, Campbelltown - West and Unley - West had the fewest government school students with below-average reading scores.

Country South Australia

Reading scores for Year 3 children (in government schools) living in country South Australia were well below average in all of the larger towns (other than Mt Gambier), as well as in areas throughout much of the far north and west of the State (**Map 46**). Among the towns, the poorest outcomes were recorded in Ceduna, Port Augusta, Port Pirie, Port Lincoln and Murray Bridge. In a number of areas, no children were recorded as reading at levels below the national minimum standard: excluding areas with fewer than five children in the population, these were the SLAs of Barunga West, Elliston, Franklin Harbour, Kimba, Le Hunte, Orroroo/Carrieton and Renmark Paringa - Paringa.

Map 46: Children in Year 3 at government schools with below-average reading scores, South Australia, 2008



Regional totals

Of children attending Year 3 in a government school, those living in Eastern Adelaide had the best reading outcomes (with just 2.2% reading at a level below the national minimum standard); the poorest outcomes were in Northern Adelaide (9.3%). In country South Australia, rates ranged from a low of 3.6% in Adelaide Hills and 6.2% in Limestone Coast, to rates of over 10% in Far North (20.1%), Eyre and Western (12.0%) and Yorke and Mid North (10.4%).

Table 20: Children in Year 3 at government schools with below-average reading scores, by State Region, 2008

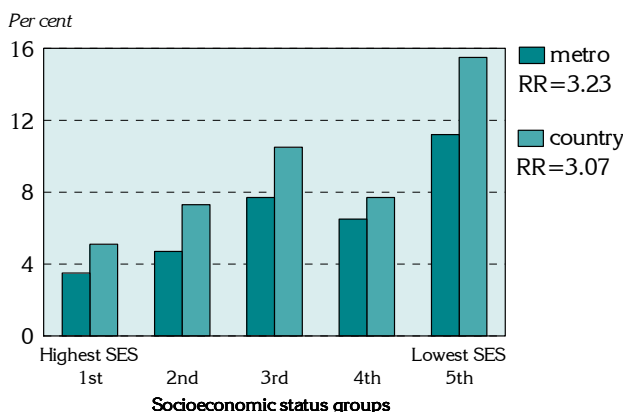
Region	No.	%
Northern Adelaide	270	9.3
Western Adelaide	81	6.4
Eastern Adelaide	24	2.2
Southern Adelaide	171	6.5
Metropolitan regions	546	6.9
Adelaide Hills	20	3.6
Murray and Mallee	49	9.7
Fleurieu and Kangaroo Island	20	7.6
Limestone Coast	40	6.2
Barossa	47	9.5
Yorke and Mid North	59	10.4
Eyre and Western [#]	65	12.0
Far North [#]	55	20.1
Country SA	355	9.2
South Australia	966	7.7

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

For Year 3 students living in Adelaide and attending a government school, the percentage with below-average reading scores increases, although not consistently, with increasing socioeconomic disadvantage (Figure 34). The rate in the most disadvantaged (lowest SES) areas (11.2%) was more than three times that in the least disadvantaged (highest SES) areas (3.5%).

Figure 34: Children in Year 3 at government schools with below-average reading scores, by socioeconomic status, South Australia, 2008



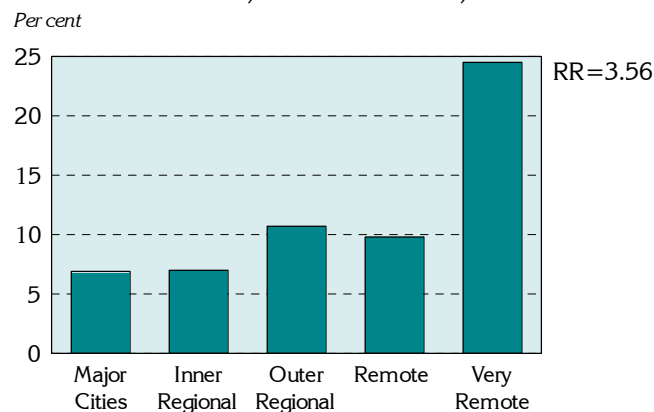
In addition to the higher overall percentage of students with below-average reading levels, the differential in rates in country South Australia is also more than three times, from 5.1% in the lowest SES areas to 15.5% in the highest SES areas (Figure 34).

It is not clear why the rates in the second-lowest socioeconomic status group are so low, relative to the adjacent groups: this occurs only for this and the following NAPLAN indicator (for writing).

Remoteness

The most accessible areas had the lowest percentages of children with below-average reading scores, with 6.9% in the Major Cities and 7.0% in the Inner Regional areas (Figure 35). By far the highest percentage was that recorded in the Very Remote areas, with one quarter (24.5%) of children in this category, some three and a half times the level in the Major Cities areas.

Figure 35: Children in Year 3 at government schools with below-average reading scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 3 with reading scores below the national minimum standard and welfare-dependent and other low income families, jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance in secondary school, and clients of CAMHS. The correlation with children developmentally vulnerable on two or more domains under the AEDI was strong. Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) were generally of moderate strength.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Numeracy outcomes for Year 3 students in government schools

Indicator definition: children in Year 3 in government schools in 2008 with numeracy scores below the national minimum standard, by SLA of the student's address.

Key points

- Children in Year 3 (in government schools) with the poorest outcomes for numeracy generally, although not exclusively, live in areas of greatest socioeconomic disadvantage.
- The percentage of children in Year 3 with numeracy scores at a level below the national minimum standard was 6.2% in country South Australia, above the level of 5.3% in metropolitan Adelaide.

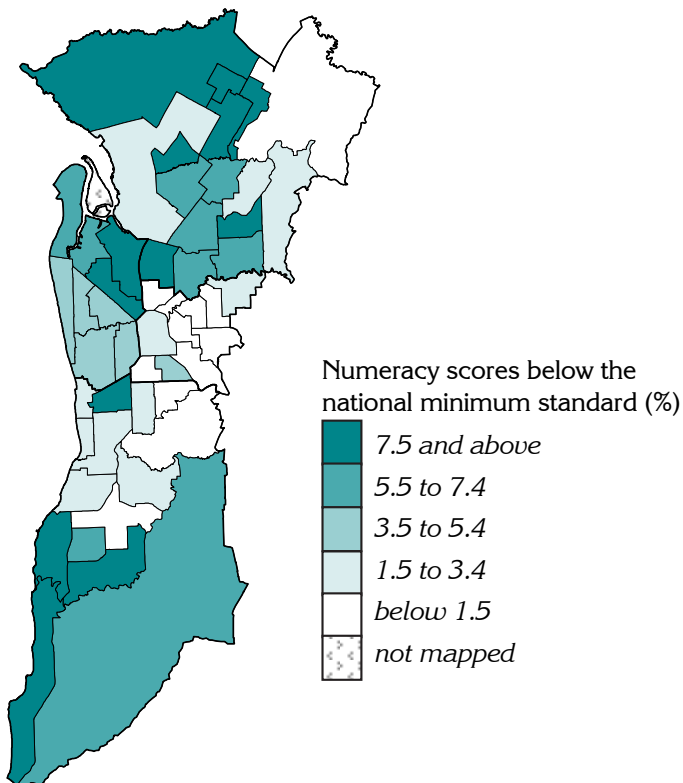
Geographic variation

Adelaide

As seen for reading scores for children in Year 3 in government schools (above), the highest percentages of children with numeracy scores below the national minimum standard are found in many of the SLAs of greatest socioeconomic disadvantage, as well as some of moderate disadvantage: they are located in the outer north and outer south of Adelaide, as well as in a number of inner northern SLAs (**Map 47**).

The best outcomes were achieved by children attending government schools and living in higher socioeconomic status SLAs adjacent to Adelaide, and to the east and south-east, as well as in some beachside SLAs.

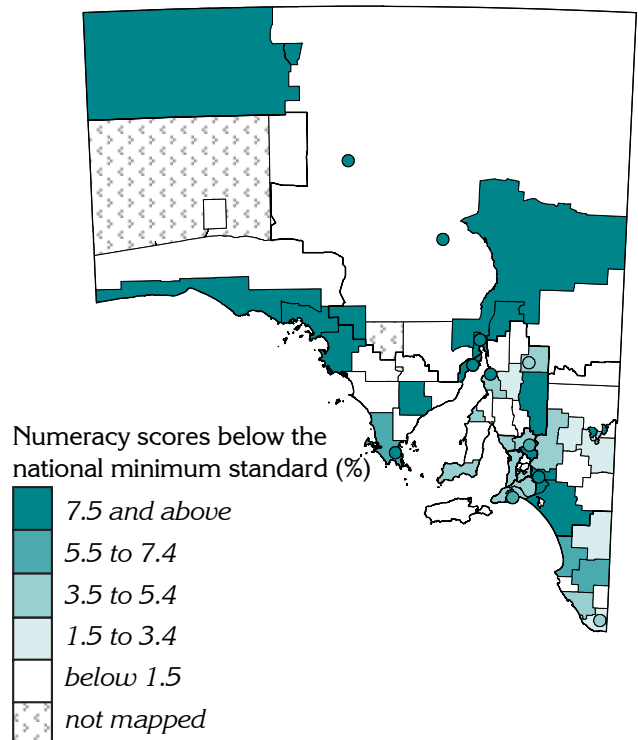
Map 47: Children in Year 3 at government schools with below-average numeracy scores, Adelaide, 2008



Country South Australia

There is no clear pattern in the distribution of areas in country South Australia with high percentages of children in Year 3 with numeracy scores below the national minimum standard (**Map 48**). SLAs mapped in the highest range include Anangu Pitjantjatjara, Ceduna, Unincorporated Flinders Ranges, Goyder and Cleve as well as the towns of Coober Pedy, Port Augusta, Port Pirie and Roxby Downs. Low scores were recorded for children living in Adelaide Hills - Ranges and Balance, Clare and Gilbert Valleys, Loxton Waikerie - West and East, and Tatiara. Many SLAs had no children with numeracy scores below the national minimum standard, with the near-metropolitan SLAs of Adelaide Hills - Central and - North, and the far northern SLAs of Unincorporated Whyalla and Far North, in this group.

Map 48: Children in Year 3 at government schools with below-average numeracy scores, South Australia, 2008



Regional totals

In the metropolitan regions, the percentage of children in Year 3 with numeracy scores below the national minimum standard varied widely, from 0.9% in Eastern Adelaide to 7.5% in Northern Adelaide. A similar variation is evident in country South Australia, with percentages ranging from 2.0% in Adelaide Hills to 15.5% in Far North, which had by far the highest rate (Table 21).

Table 21: Children in Year 3 at government schools with below-average numeracy scores, by State Region, 2008

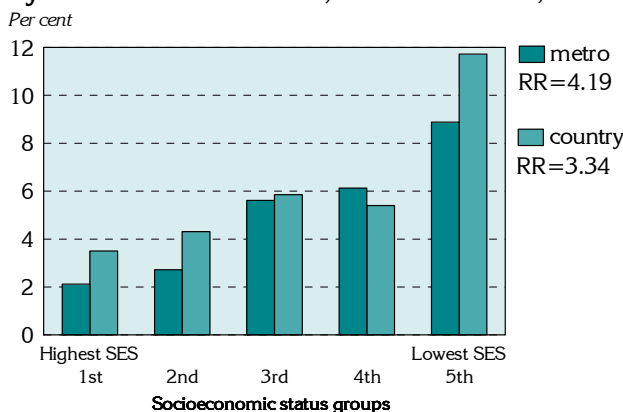
Region	No.	%
Northern Adelaide	219	7.5
Western Adelaide	71	5.6
Eastern Adelaide	10	0.9
Southern Adelaide	115	4.4
Metropolitan regions	415	5.3
Adelaide Hills	11	2.0
Murray and Mallee	32	6.3
Fleurieu and Kangaroo Island	11	4.3
Limestone Coast	28	4.3
Barossa	32	6.5
Yorke and Mid North	32	5.7
Eyre and Western [#]	51	9.4
Far North [#]	43	15.5
Country SA	240	6.2
South Australia	701	5.6

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There is a very strong socioeconomic gradient in numeracy outcomes for children in Year 3 in government schools (Figure 36). In metropolitan Adelaide, 8.9% of students in the most disadvantaged (lowest SES) areas had scores that were below the national minimum standard, more than four times (4.19) times the rate in the least disadvantaged (highest SES) areas (2.1%).

Figure 36: Children in Year 3 at government schools with below-average numeracy scores, by socioeconomic status, South Australia, 2008

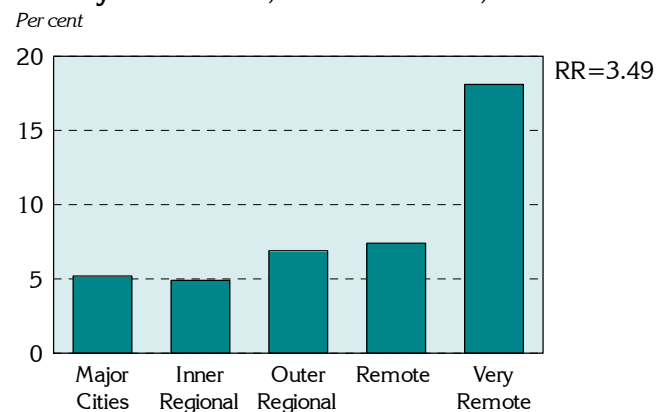


The rates in the highest and lowest SES areas in country South Australia are substantially higher than those in metropolitan Adelaide, and although the differential in rates is smaller it is still substantial, at 3.34 (Figure 36). Rates range from 3.5% in the highest SES areas to 11.7% in the lowest SES areas. As noted for numeracy scores, it is not clear why the rates in the second-lowest socioeconomic status group are low, relative to the adjacent groups.

Remoteness

The percentage of children in Year 3 in government schools with numeracy scores below the national minimum standard is lowest in the Inner Regional areas (4.9%), and increases to 7.4% in the Remote areas, before increasing substantially to 18.1% in the Very Remote areas (Figure 37). This represents a substantial overall differential across the remoteness classes of 3.49.

Figure 37: Children in Year 3 at government schools with below-average numeracy scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 3 with numeracy scores below the national minimum standard and welfare-dependent and other low income families, jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance in secondary school and clients of CAMHS. The correlation with children developmentally vulnerable on two or more domains under the AEDI was strong. Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) were generally of moderate strength.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Reading outcomes for Year 5 students in government schools

Indicator definition: children in Year 5 in government schools in 2008 with reading scores below the national minimum standard, by SLA of the student's address.

Key points

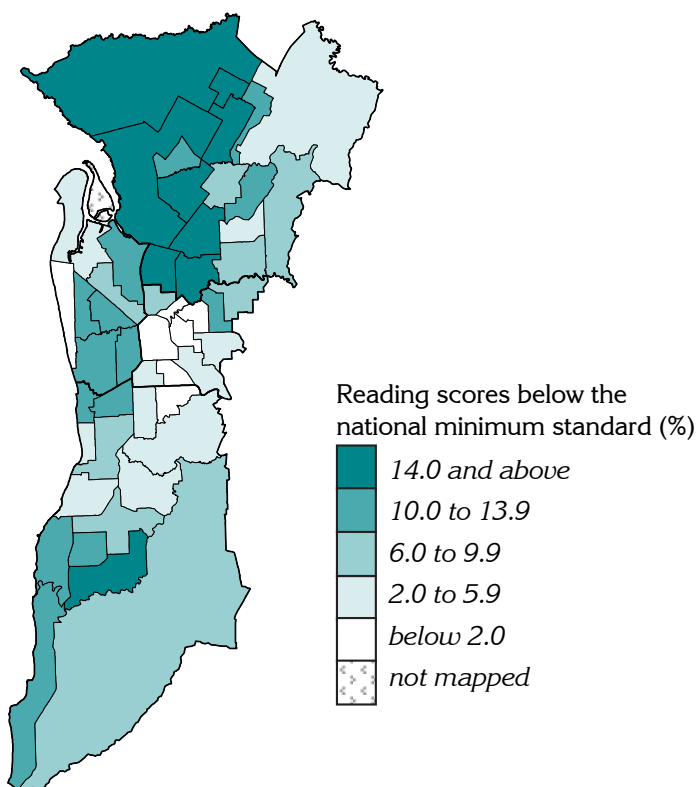
- There were markedly more children in Year 5 reading at levels below the national minimum standard in country South Australia (13.5%), than in metropolitan Adelaide (10.2%).
- There is a strong association with children in Year 5 reading at levels below the national standard and socioeconomic disadvantage.

Geographic variation

Adelaide

The highest percentages of children in Year 5 with reading scores below the national minimum standard live in a band of SLAs that extends from north of the city centre to the outer northern parts of metropolitan Adelaide (**Map 49**); this distribution is strongly associated with socioeconomic disadvantage. Children in Playford - Elizabeth, - West Central, and - West; in Salisbury - Central, Balance and - South-East; in Onkaparinga - Hackham; and in Port Adelaide Enfield - Inner and - East had the highest percentages. In contrast, percentages were relatively low in the city centre and adjacent SLAs, including Walkerville, Mitcham - North-East, and Norwood Payneham St Peters - East and - West.

Map 49: Children in Year 5 at government schools with below-average reading scores, Adelaide, 2008

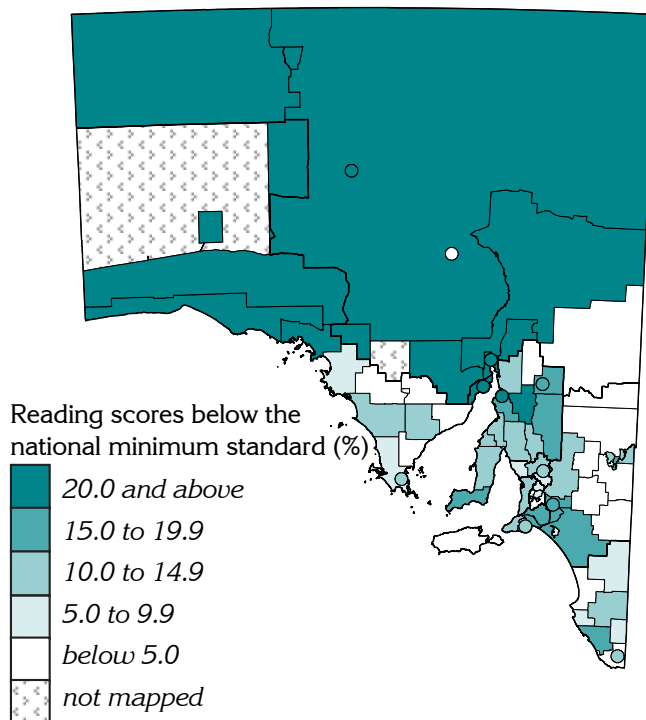


Country South Australia

There are very high rates of children in Year 5 reading at levels below the national minimum standard in the State's far north and west (**Map 50**). More than half of the children in Year 5 had below average reading scores in the SLAs of Anangu Pitjantjatjara, and Unincorporated Far North, Whyalla and West Coast, with rates of 20% and higher in the towns of Port Augusta, Coober Pedy, Whyalla and Port Pirie, as well as a number of rural SLAs.

Among the larger towns, Roxby Downs had the lowest percentage. There were no Year 5 children with below standard reading scores in Karoonda East Murray, Unincorporated Riverland, Kangaroo Island, Orroroo/ Carrieton, Franklin Harbour, Kimba, Le Hunte and Unincorporated Pirie.

Map 50: Children in Year 5 at government schools with below-average reading scores, South Australia, 2008



Regional totals

The rate of reading scores below the national minimum standard varied widely across the State (Table 22), with the rate almost one third (32.3%) higher in country South Australia than in metropolitan Adelaide. In the metropolitan regions, the percentages ranged from 4.9% in Eastern Adelaide to 14.5% in Northern Adelaide, while in country South Australia, the range was from 5.6% in Adelaide Hills to a very high 34.5% in Far North.

Table 22: Children in Year 5 at government schools with below-average reading scores, by State Region, 2008

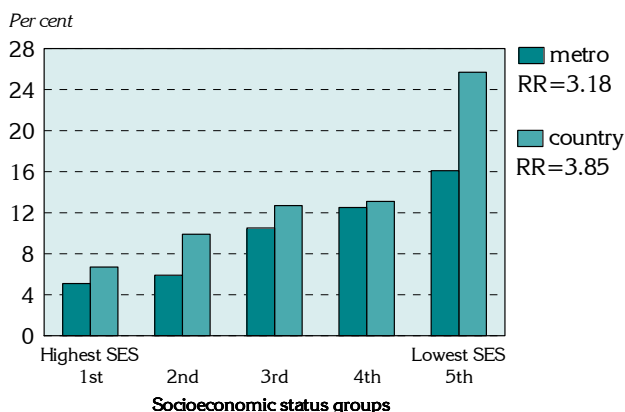
Region	No.	%
Northern Adelaide	432	14.5
Western Adelaide	112	8.7
Eastern Adelaide	50	4.9
Southern Adelaide	208	8.2
Metropolitan regions	802	10.2
Adelaide Hills	31	5.6
Murray and Mallee	57	10.6
Fleurieu and Kangaroo Island	39	14.9
Limestone Coast	64	10.8
Barossa	54	10.5
Yorke and Mid North	99	16.4
Eyre and Western [#]	83	16.1
Far North [#]	92	34.5
Country SA	519	13.5
South Australia	1,449	11.6

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In metropolitan Adelaide, 5.1% of children in Year 5 were reading at levels below the national minimum standard in the least disadvantaged (highest SES) areas, compared to 16.1% in the most disadvantaged (lowest SES) areas, a differential of 3.18 (Figure 38).

Figure 38: Children in Year 5 at government schools with below-average reading scores, by socioeconomic status, South Australia, 2008

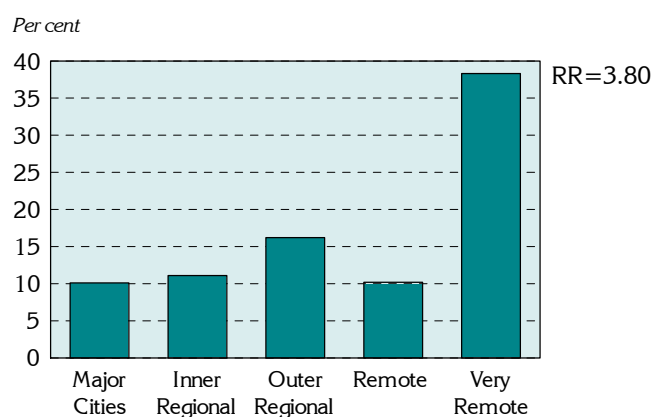


In the country areas of South Australia, the percentages of Year 5 students in this category were higher in all socioeconomic status groups. The range was from 25.7% in the lowest SES areas to 6.7% in the highest SES areas (Figure 38), a differential of 3.85.

Remoteness

The lowest rates of reading scores below the national minimum standard were for children in Year 5 living in the Major Cities (10.1%) and Remote (10.2%) areas; the rate in the Very Remote class was almost four times higher than the Major Cities' rate, at 38.3% (Figure 39).

Figure 39: Children in Year 5 at government schools with below-average reading scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 5 with reading scores below the national minimum standard and welfare-dependent and other low income families, jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance in secondary school and use of public health services (admissions to a public acute hospital – for clients of CAMHS, the correlation was strong). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) were generally of moderate strength.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Numeracy outcomes for Year 5 students in government schools

Indicator definition: children in Year 5 in government schools in 2008 with numeracy scores below the national minimum standard, by SLA of the student's address.

Key points

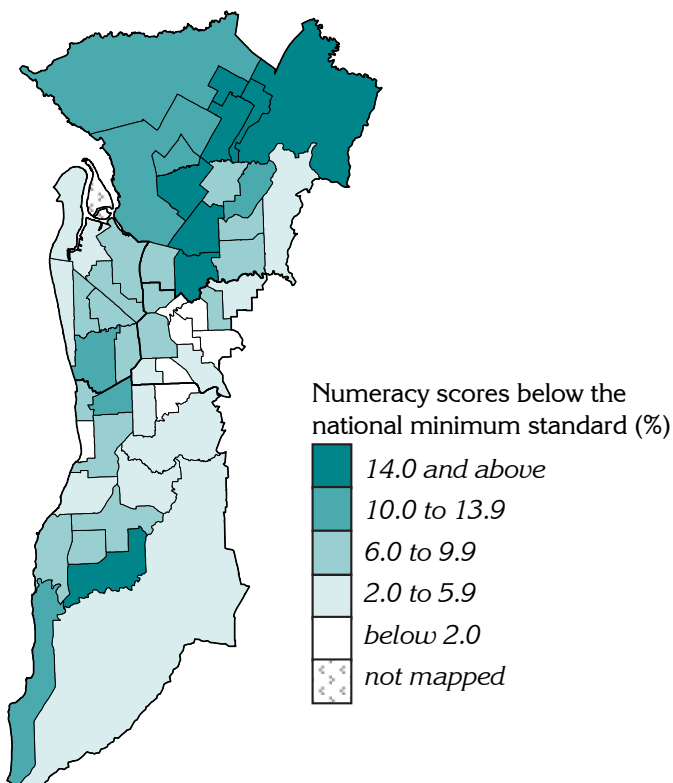
- Children in Year 5 (in government schools) with the poorest outcomes for numeracy generally, although not exclusively, live in areas of greatest socioeconomic disadvantage.
- The percentage of children in Year 5 with numeracy scores at a level below the national minimum standard in country South Australia was 10.9%, almost 25% above the level in metropolitan Adelaide.

Geographic variation

Adelaide

The highest percentages of children in Year 5 in a government school with numeracy scores below the national minimum standard were living in a group of SLAs covering an area from Enfield to Playford, as well as in the outer south, in Onkaparinga - Hackham (**Map 51**). SLAs with the highest percentages for this variable included Playford - Elizabeth, - West Central, - Hills and - East Central; Salisbury - Central and - South-East; and Onkaparinga - Hackham. No children in Year 5 living in Burnside - North-East, Norwood Payneham St Peters - West, Unley - East and Walkerville had below average score. Other low rates were recorded in Mitcham - West, - Hills and - North-East, Holdfast Bay - South, and Norwood Payneham St Peters - East.

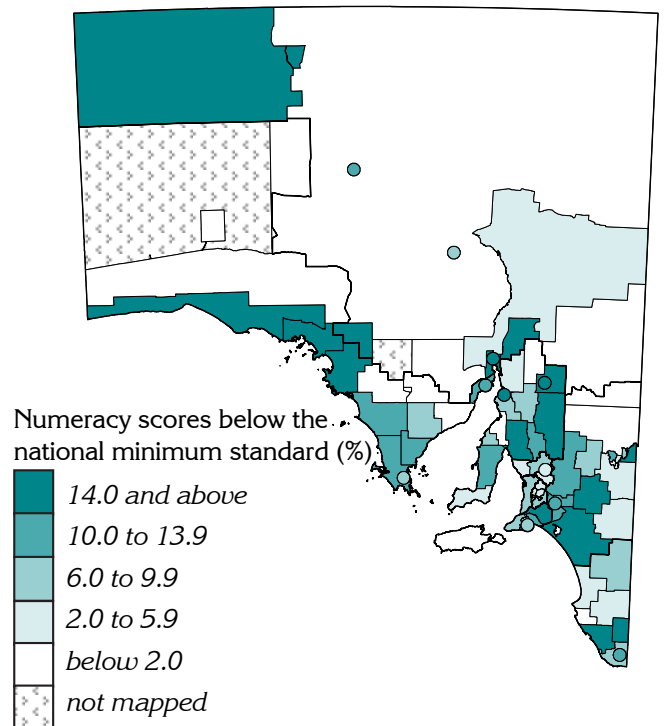
Map 51: Children in Year 5 at government schools with below-average numeracy scores, Adelaide, 2008



Country South Australia

High percentages of Year 5 children with numeracy scores below the national minimum standard were found in SLAs distributed widely throughout the State, although in no notable pattern, with low percentages recorded in the far north, on the Eyre Peninsula and in the mid north (**Map 52**). More than one quarter of Year 5 children had numeracy scores below the average in the SLAs of Anangu Pitjantjatjara, Unincorporated West Coast, Renmark Paringa - Paringa, Ceduna, Port Augusta and Flinders Ranges, while no children had numeracy scores below the average in Barunga West, Unincorporated Riverland, Robe, Franklin Harbour, Kimba, Le Hunte, Unincorporated Whyalla, Orroroo/ Carrieton, and Unincorporated Far North.

Map 52: Children in Year 5 at government schools with below-average numeracy scores, South Australia, 2008



Regional totals

In metropolitan Adelaide, 8.8% of all children in Year 5 had scores below the national minimum standard. In country South Australia, the percentage was 23.9% higher, at 10.9%.

Far North had the highest percentage of Year 5 children in this category (24.4%), followed by Northern Adelaide with 13.0%. The lowest percentages were recorded in Eastern Adelaide (3.1%) and Adelaide Hills (3.8%).

Table 23: Children in Year 5 at government schools with below-average numeracy scores, by State Region, 2008

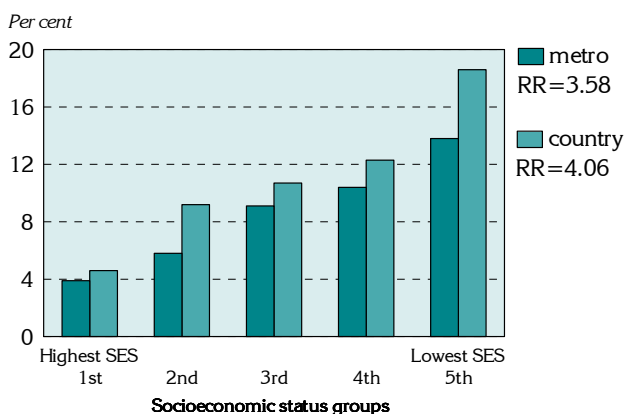
Region	No.	%
Northern Adelaide	385	13.0
Western Adelaide	91	7.1
Eastern Adelaide	32	3.1
Southern Adelaide	180	7.1
Metropolitan regions	688	8.8
Adelaide Hills	21	3.8
Murray and Mallee	57	10.7
Fleurieu and Kangaroo Island	29	11.2
Limestone Coast	62	10.6
Barossa	48	9.4
Yorke and Mid North	74	12.3
Eyre and Western [#]	62	12.0
Far North [#]	66	24.4
Country SA	419	10.9
South Australia	1,184	9.5

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

A clear, step-wise gradient is evident across the socioeconomic status groups in metropolitan Adelaide (**Figure 40**), with over three and a half times the number of children in Year 5 with numeracy scores below the national minimum standard in the most disadvantaged (lowest SES) areas (13.8%), compared with the least disadvantaged (highest SES) areas (3.9%).

Figure 40: Children in Year 5 at government schools with below-average numeracy scores, by socioeconomic status, South Australia, 2008

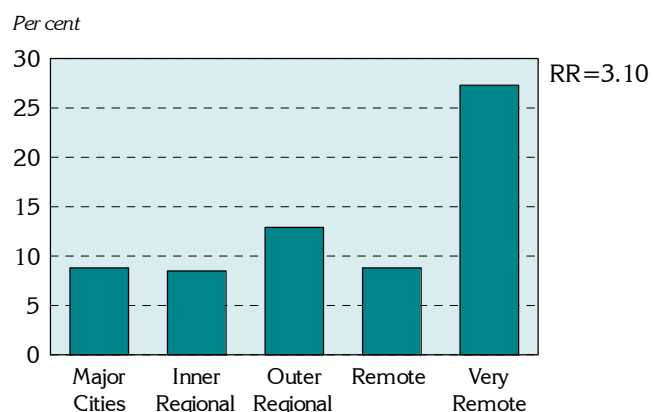


The gradient is even stronger in country South Australia, with more than four times the number of Year 5 children with below average numeracy scores in the lowest SES areas (18.6%) compared to those in the highest SES areas (4.6%) (**Figure 40**).

Remoteness

By far the highest percentage of children in Year 5 with numeracy scores below the national minimum standard was recorded in the Very Remote areas (27.3%) (**Figure 41**). The other remoteness classes had fairly similar percentages, ranging from 8.5% in Inner Regional to 12.9% in Outer Regional.

Figure 41: Children in Year 5 at government schools with below-average numeracy scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 5 with numeracy scores below the national minimum standard and welfare-dependent and other low income families, jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance in secondary school and use of public health services (admissions to a public acute hospital – for clients of CAMHS, the correlation was strong). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) were moderate to strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Reading outcomes for Year 7 students in government schools

Indicator definition: children in Year 7 in government schools in 2008 with reading scores below the national minimum standard, by SLA of the student's address.

Key points

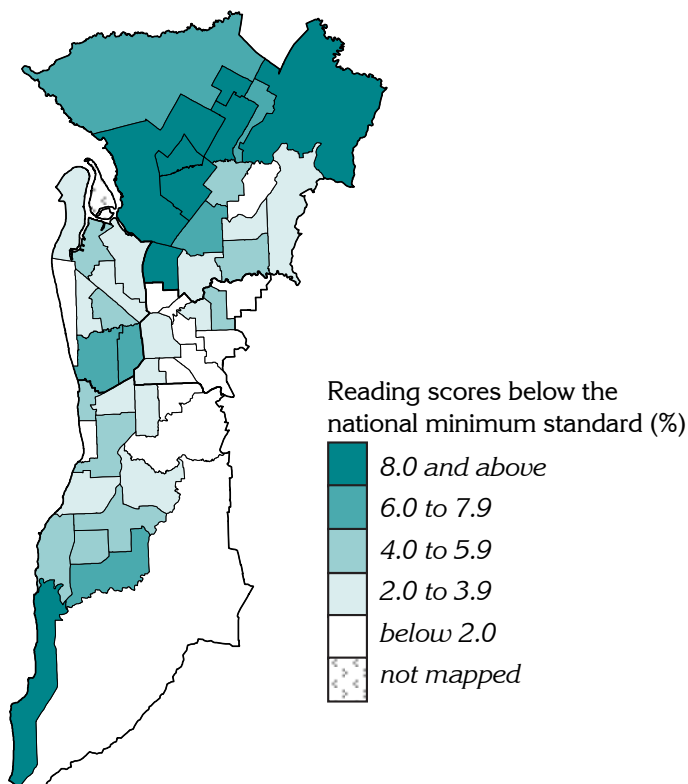
- There are strong socioeconomic gradients in the percentage of Year 7 students in government schools reading at levels below the national minimum standard in both metropolitan Adelaide and country South Australia.
- The percentage of children in Year 7 with reading scores at a level below the national minimum standard in country South Australia was 7.2%, some 44% above the level in metropolitan Adelaide (5.0%).

Geographic variation

Adelaide

SLAs with high percentages of children in Year 7 reading at levels below the national minimum standard were largely located in the northern suburbs, with low rates in a number of inner, eastern, and south-eastern SLAs (Map 53), consistent with the pattern of socioeconomic disadvantage. The highest percentages were recorded in Playford - Hills, - Elizabeth, and - West Central, Salisbury Balance and - Inner North, and Port Adelaide Enfield - Inner, while the lowest were recorded in Onkaparinga - Hills, Holdfast Bay - South, Walkerville, Mitcham - Hills and - North-East, Unley - East, Charles Sturt - Coastal and Prospect.

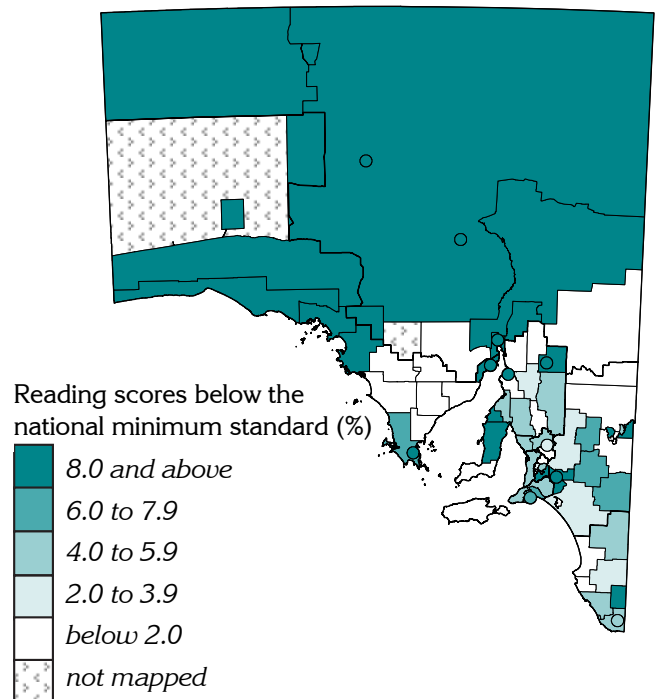
Map 53: Children in Year 7 at government schools with below-average reading scores, Adelaide, 2008



Country South Australia

High percentages of children in Year 7 with reading scores below the national minimum standard were found in SLAs located across the far north and west of the State, and in a majority of the larger towns (Map 54), with low percentages on the Eyre Peninsula and in a small number of other SLAs. The highest rates were recorded in the far northern SLAs of Unincorporated West Coast, Anangu Pitjantjatjara, Ceduna, and Unincorporated Flinders Ranges, and in the towns of Coober Pedy, Roxby Downs and Port Augusta. A number of SLAs had no children in Year 7 with below average reading scores; these included Adelaide Hills - North, Yorke Peninsula - South, Kingston, Robe, Cleve, Elliston and Franklin Harbour.

Map 54: Children in Year 7 at government schools with below-average reading scores, South Australia, 2008



Regional totals

The percentage of children in Year 7 in country South Australia reading at levels below the national minimum standard was 44.0% above the level in metropolitan Adelaide. The rates in the metropolitan regions ranged from 2.1% in Eastern Adelaide to 7.0% in Northern Adelaide (Table 24). There was even greater variation across the regions in country South Australia, with rates ranging from 3.4% in Adelaide Hills to 23.0% in the Far North.

Table 24: Children in Year 7 at government schools with below-average reading scores, by State Region, 2008

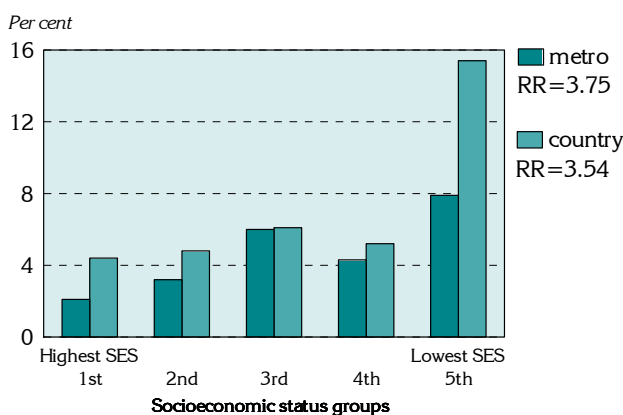
Region	No.	%
Northern Adelaide	209	7.0
Western Adelaide	45	3.6
Eastern Adelaide	21	2.1
Southern Adelaide	116	4.4
Metropolitan regions	391	5.0
Adelaide Hills	19	3.4
Murray and Mallee	34	5.6
Fleurieu and Kangaroo Island	17	6.3
Limestone Coast	29	4.6
Barossa	30	5.3
Yorke and Mid North	46	7.4
Eyre and Western [#]	57	10.5
Far North [#]	63	23.0
Country SA	295	7.2
South Australia	754	5.9

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The percentage of Year 7 children reading at levels below the national minimum standard increases, although not consistently, with increasing socioeconomic disadvantage (Figure 42).

Figure 42: Children in Year 7 at government schools with below-average reading scores, by socioeconomic status, South Australia, 2008



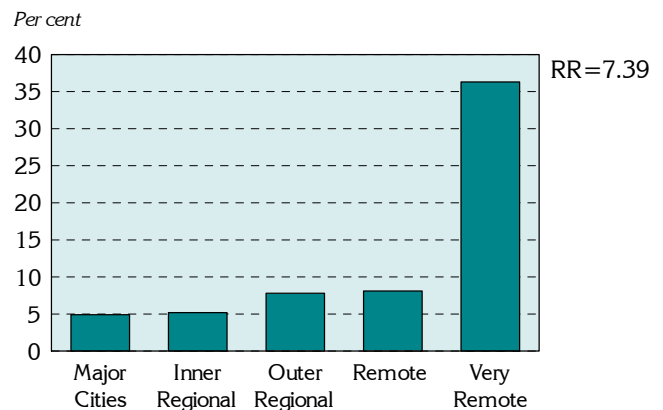
In metropolitan Adelaide, there were more than three and a half times the number of children reading at levels below the national minimum standard in the most disadvantaged (lowest SES) areas (7.9%) compared with the least disadvantaged (highest SES) areas (2.1%).

In country South Australia, the rates were higher in each socioeconomic status group, ranging from 4.4% in the highest SES areas to 15.4% in the lowest SES areas (Figure 42).

Remoteness

The percentage of children in Year 7 reading at levels below the national minimum standard is more than seven times higher in the Very Remote areas (36.3%) than in the Major Cities (4.9%) (Figure 43).

Figure 43: Children in Year 7 at government schools with below-average reading scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 7 with reading scores below the national minimum standard and welfare-dependent and other low income families, jobless families, poor educational performance in secondary school and children developmentally vulnerable on two or more domains under the AEDI. Correlations are strong with the clients of CAMHS and lack of access to the Internet at home (in particular to a high-speed connection); and moderate to strong with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy).

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Numeracy outcomes for Year 7 students in government schools

Indicator definition: children in Year 7 in government schools in 2008 with numeracy scores below the national minimum standard, by SLA of the student's address.

Key points

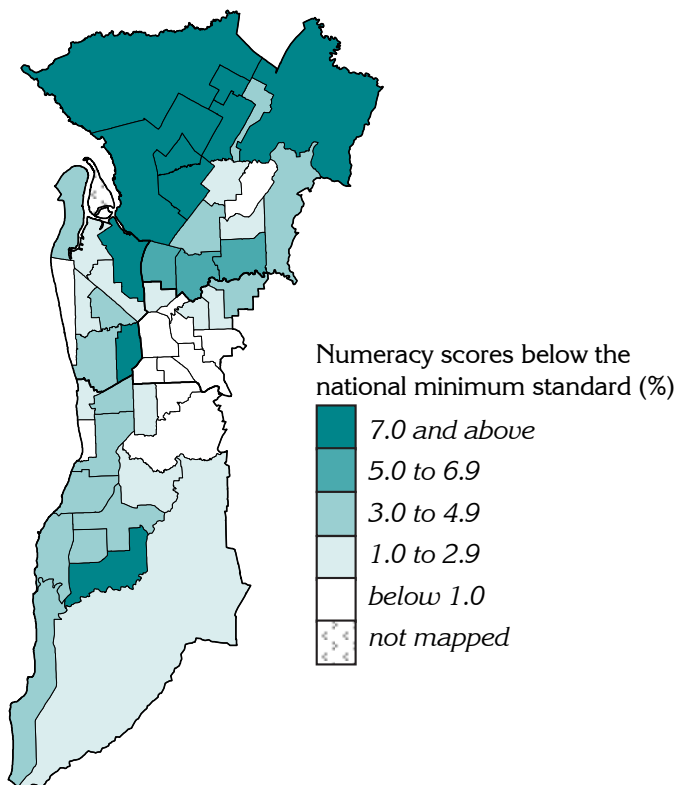
- There are strong socioeconomic gradients in the percentage of Year 7 students in government schools with numeracy scores below the national minimum standard in both metropolitan Adelaide and country South Australia.
- Although rates for metropolitan Adelaide and country South Australia are similar, there is considerable variation between State Regions.

Geographic variation

Adelaide

Children in Year 7 with numeracy scores below the national minimum standard were living in a number of SLAs in the outer north, including Playford - Hills, - Elizabeth, - West Central and - West and Salisbury Balance and Salisbury - Inner North (Map 55); in the north-west, in West Torrens - East and Port Adelaide Enfield - Park; and in the outer south, in Onkaparinga - Hackham. No children had below average numeracy scores in the inner city areas of Adelaide, Burnside - North-East, Unley - East and - West, and Walkerville.

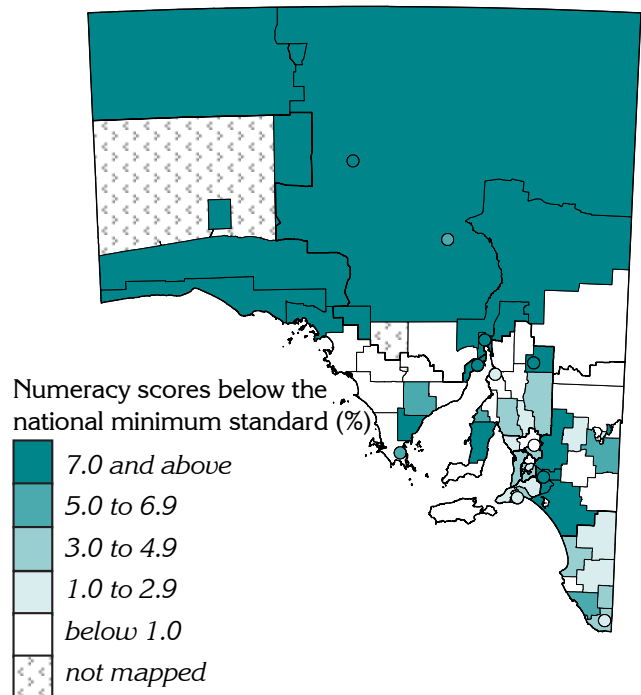
Map 55: Children in Year 7 at government schools with below-average numeracy scores, Adelaide, 2008



Country South Australia

High percentages of children in Year 7 with numeracy scores below the national minimum standard were found in SLAs located across the far north and west of the State, as well as in a number of the larger towns and in SLAs to the east of the metropolitan area (Map 56). The highest percentages were recorded in Unincorporated West Coast, Anangu Pitjantjatjara, Ceduna, Unincorporated Flinders Ranges, Port Augusta and Flinders Ranges. Year 7 children living in Karoonda East Murray, Renmark Paringa - Paringa, Barmera, Yorke Peninsula - South, Barunga West, Adelaide Hills - North and Tanunda were among several SLAs to record no children with numeracy scores below the national minimum standard.

Map 56: Children in Year 7 at government schools with below-average numeracy scores, South Australia, 2008



Regional totals

There were relatively low percentages of children in Year 7 in government schools with numeracy scores below the national minimum standard in all of the State Regions other than Far North, which had a percentage of 16.7% (Table 25). The percentages in the remaining regions ranged from 1.2% in Eastern Adelaide to 7.2% in Eyre and Western.

Table 25: Children in Year 7 at government schools with below-average numeracy scores, by State Region, 2008

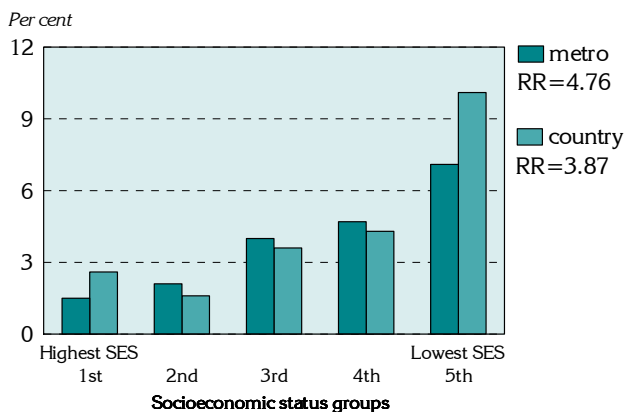
Region	No.	%
Northern Adelaide	177	6.0
Western Adelaide	44	3.5
Eastern Adelaide	12	1.2
Southern Adelaide	85	3.2
Metropolitan regions	318	4.0
Adelaide Hills	14	2.5
Murray and Mallee	33	5.4
Fleurieu and Kangaroo Island	6	2.2
Limestone Coast	18	2.9
Barossa	9	1.6
Yorke and Mid North	19	3.1
Eyre and Western [#]	39	7.2
Far North [#]	45	16.7
Country SA	183	4.5
South Australia	535	4.2

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In metropolitan Adelaide, the percentage of children in Year 7 with below average numeracy scores increases substantially with increasing socioeconomic disadvantage (Figure 44). The difference in rates for children in the most disadvantaged areas to the most advantaged areas is greater in metropolitan Adelaide (4.76) than in country South Australia (3.87).

Figure 44: Children in Year 7 at government schools with below-average numeracy scores, by socioeconomic status, South Australia, 2008

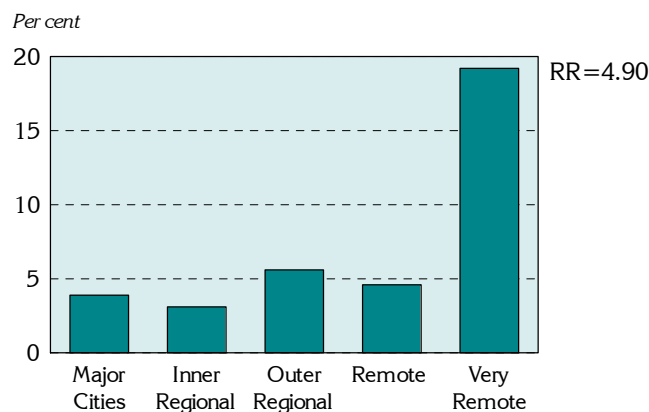


In country South Australia, the percentage of Year 7 children with below average numeracy scores was lowest in the second socioeconomic status group (1.6%), increasing to 10.1% in the most disadvantaged areas (Figure 44).

Remoteness

The lowest percentage of Year 7 children with numeracy scores below the national minimum standard is in the Inner Regional category (3.1%) and the highest in the Very Remote category (19.2%). There are relatively low percentages in the remaining categories, ranging from 3.9% in the Major Cities areas to 5.6% in the Outer Regional areas (Figure 45).

Figure 45: Children in Year 7 at government schools with below-average numeracy scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 7 with numeracy scores below the national minimum standard and welfare-dependent and other low income families, jobless families, poor educational performance in secondary school and children developmentally vulnerable on two or more domains under the AEDI. Correlations are strong with the clients of CAMHS and lack of access to the Internet at home (in particular to a high-speed connection); and moderate to strong with low rates of participation in formal schooling, poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy).

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Reading outcomes for Year 9 students in government schools

Indicator definition: children in Year 9 in government schools in 2008 with reading scores below the national minimum standard, by SLA of the student's address.

Note: The movement of children from government to non-government schools is likely to impact on the results for Year 9 (in particular), in comparison with the earlier years presented, as such movement affects the make-up of the student population (the denominator) on which these rates have been calculated.

Key points

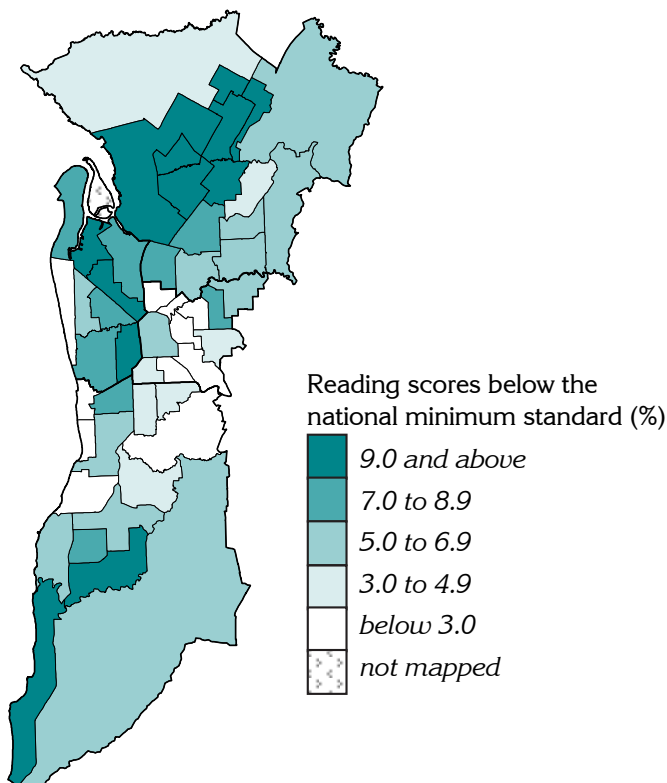
- The percentage of children in Year 9 reading at a level below the national minimum standard in country South Australia was 9.5%, some 28% above the level in metropolitan Adelaide (7.4%).
- There are very strong socioeconomic and remoteness gradients in these data, with particularly poor outcomes for students in the most disadvantaged and most remote areas.

Geographic variation

Adelaide

The distribution of children in Year 9 reading at levels below the national minimum standard has a distinctive geographic pattern, with high percentages in the outer north, north-west and outer south, and low percentages in SLAs adjacent to the city centre and along the coast (Map 57). The SLAs of Playford - West Central and - Elizabeth, Salisbury Balance and - Central, Onkaparinga - Hackham, Port Adelaide Enfield - Port and West Torrens - East had the highest percentages. The lowest rates were recorded in Holdfast Bay - North and - South, Walkerville and Mitcham - Hills.

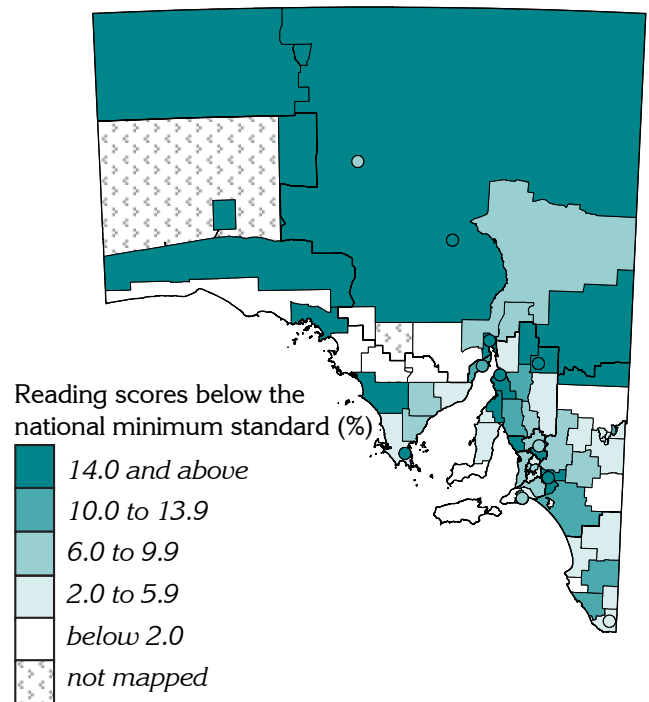
Map 57: Children in Year 9 at government schools with below-average reading scores, Adelaide, 2008



Country South Australia

High percentages of children in Year 9 with reading scores below the national minimum standard were found in many SLAs, including a number of the larger towns (Map 58). More than 20% of Year 9 children in the SLAs of Unincorporated Pirie, Anangu Pitjantjatjara, Port Augusta, Orroroo/ Carrieton and Ceduna were reading at levels below the national minimum standard. At the other end of the scale, there were no children reading at levels below the national minimum standard in Yankalilla, Yorke Peninsula - South, Unincorporated Riverland, Southern Mallee, Robe, Kimba, Le Hunte, Streaky Bay and Unincorporated West Coast.

Map 58: Children in Year 9 at government schools with below-average reading scores, South Australia, 2008



Regional totals

The percentage of Children in Year 9 in country South Australia with reading scores below the national minimum standard (9.5%) is markedly higher than that in metropolitan Adelaide (7.4%) (Table 26). Percentages in the metropolitan regions ranged from 4.1% in Eastern Adelaide to 9.5% in Northern Adelaide, while in the country regions, the range was greater, from 5.6% in Adelaide Hills to 25.2% in Far North.

Table 26: Children in Year 9 at government schools with below-average reading scores, by State Region, 2008

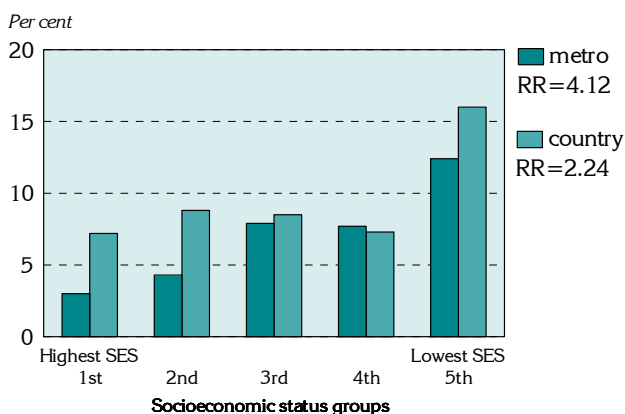
Region	No.	%
Northern Adelaide	239	9.5
Western Adelaide	90	8.1
Eastern Adelaide	32	4.1
Southern Adelaide	136	5.9
Metropolitan regions	497	7.4
Adelaide Hills	27	5.6
Murray and Mallee	68	9.1
Fleurieu and Kangaroo Island	13	5.8
Limestone Coast	38	6.1
Barossa	51	11.4
Yorke and Mid North	58	9.4
Eyre and Western [#]	55	11.3
Far North [#]	52	25.2
Country SA	362	9.5
South Australia	948	8.3

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In metropolitan Adelaide, the percentage of children in below average reading scores increases, although not consistently, with increasing socioeconomic disadvantage (Figure 46). The differential in rates between the most and least disadvantaged areas is over four times, from 3.0% in the highest SES areas to 12.4% in the lowest SES areas.

Figure 46: Children in Year 9 at government schools with below-average reading scores, by socioeconomic status, South Australia, 2008

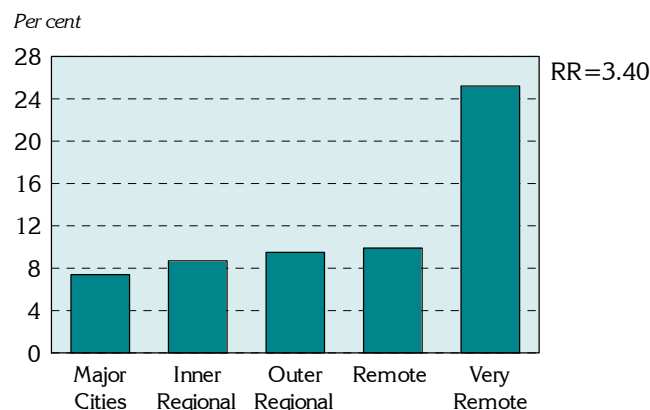


The differential in rates between the lowest and highest SES areas (2.24) was lower in country South Australia than in metropolitan Adelaide (Figure 46), although the rates were higher in all but the fourth socioeconomic status group.

Remoteness

The percentage of Year 9 children reading at levels below the national minimum standard increases steadily over the first four remoteness classes, from 7.4% in the Major Cities areas to 9.9% in the Remote areas, before increasing substantially to 25.2% in the Very Remote areas (Figure 47).

Figure 47: Children in Year 9 at government schools with below-average reading scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 9 with reading scores below the national minimum standard and welfare-dependent and other low income families, jobless families and poor educational performance in secondary school and admissions to a public acute hospital. Correlations are strong with low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI, clients of CAMHS and lack of access to the Internet at home (in particular to a high-speed connection); and generally strong with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy).

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Numeracy outcomes for Year 9 students in government schools

Indicator definition: children in Year 9 in government schools in 2008 with numeracy scores below the national minimum standard, by SLA of the student's address.

Key points

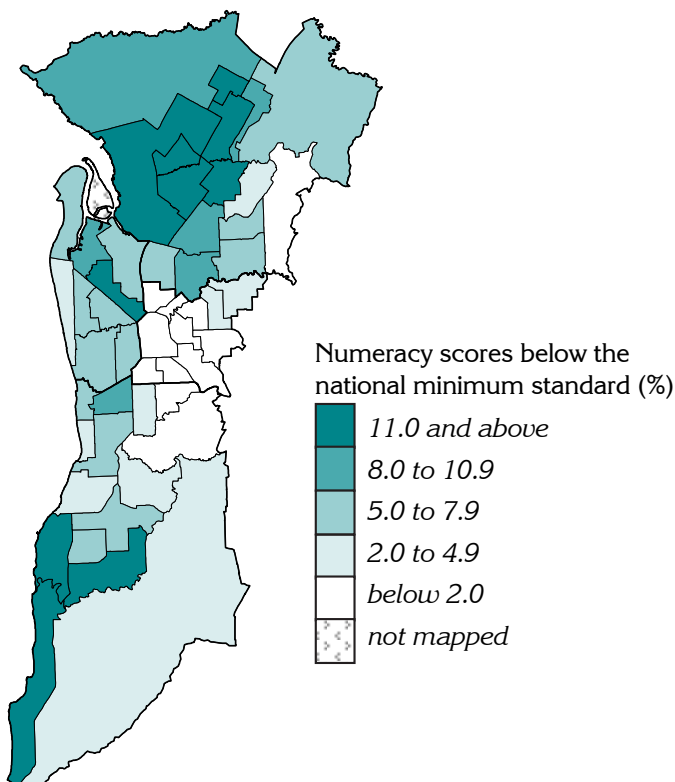
- The gap between regions with the best and worst outcomes in both metropolitan Adelaide and country South Australia is substantial.
- As noted for reading, there are very strong socioeconomic and remoteness gradients in these data, with particularly poor outcomes for students in the most disadvantaged and most remote areas.

Geographic variation

Adelaide

The highest percentages of Year 9 children with numeracy scores below the national minimum standard are living in SLAs located in the outer north and outer south of metropolitan Adelaide (**Map 59**). These are the SLAs of Playford - West Central and - Elizabeth and Salisbury - Inner North; and Onkaparinga - Hackham, - North Coast and - South Coast: also in this highest range is Charles Sturt - North-East. The lowest percentages are generally found in the city centre and adjacent SLAs, as well as to the east and south-east, with no children in this category in the SLAs of Walkerville, Unley - East and - West, Prospect and Adelaide. Low percentages were also recorded in Mitcham - Hills and - North-East, Burnside - South-West and - North-East, and Tea Tree Gully - Hills.

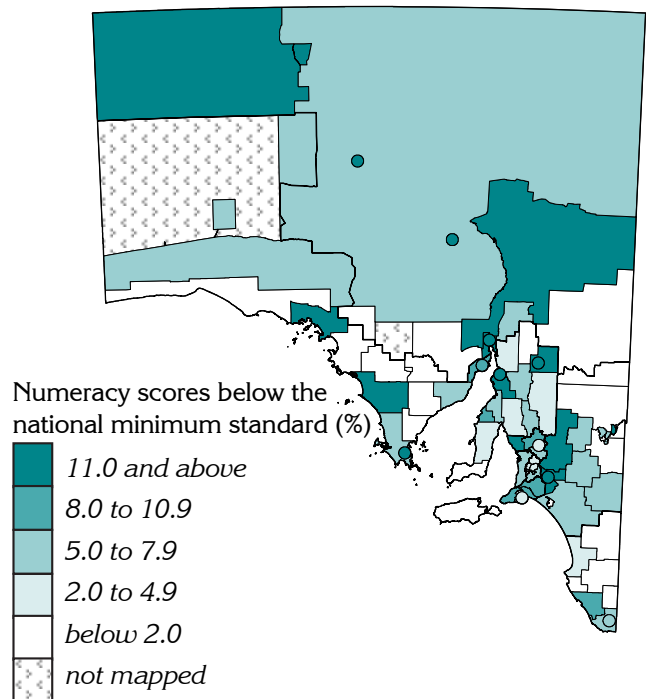
Map 59: Children in Year 9 at government schools with below-average numeracy scores, Adelaide, 2008



Country South Australia

There is no clear spatial pattern in country South Australia in the distribution of Year 9 children with numeracy scores below the national minimum standard, although a majority of the larger towns are mapped in the highest range (**Map 60**). Anangu Pitjantjatjara, Port Augusta, Coober Pedy, Roxby Downs, Murray Bridge, Peterborough, Elliston and Unincorporated Flinders Ranges all had percentages above 16%. Excluding areas with no children in this category, the lowest percentages were recorded in Tatiara, Naracoorte and Lucindale, Adelaide Hills - Central, Goyder, Barossa - Barossa - Tanunda, Kingston and Yorke Peninsula - North.

Map 60: Children in Year 9 at government schools with below-average numeracy scores, South Australia, 2008



Regional totals

Eastern Adelaide, Limestone Coast, Adelaide Hills and Southern and Western Adelaide were the only regions to have relatively fewer children in Year 9 with numeracy scores below the national minimum standard than the State average (Table 27). By far the highest proportion was recorded in Far North (20.7%), followed by Northern Adelaide (10.2%).

Table 27: Children in Year 9 at government schools with below-average numeracy scores, by State Region, 2008

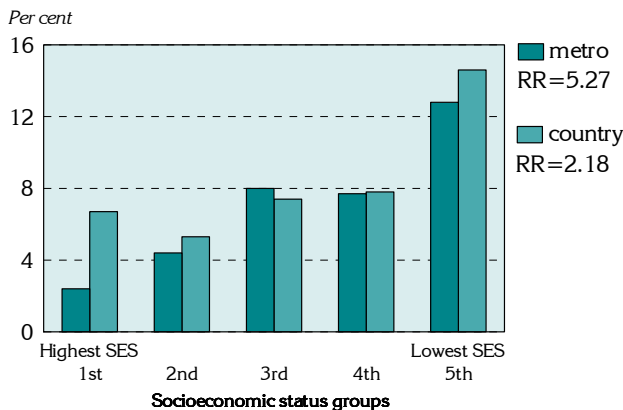
Region	No.	%
Northern Adelaide	252	10.2
Western Adelaide	80	7.2
Eastern Adelaide	16	2.0
Southern Adelaide	147	6.4
Metropolitan regions	495	7.4
Adelaide Hills	27	5.6
Murray and Mallee	72	9.6
Fleurieu and Kangaroo Island	19	8.6
Limestone Coast	31	5.0
Barossa	35	7.9
Yorke and Mid North	52	8.3
Eyre and Western [#]	43	8.8
Far North [#]	41	20.7
Country SA	320	8.4
South Australia	893	7.9

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

A strong gradient, and a large differential, is evident in the rates of children in Year 9 with numeracy scores below the national minimum standard, from the lowest rate in the least disadvantage (highest SES) areas (2.4%) to the highest rate in the most disadvantaged (lowest SES) areas (12.8%).

Figure 48: Children in Year 9 at government schools with below-average numeracy scores, by socioeconomic status, South Australia, 2008



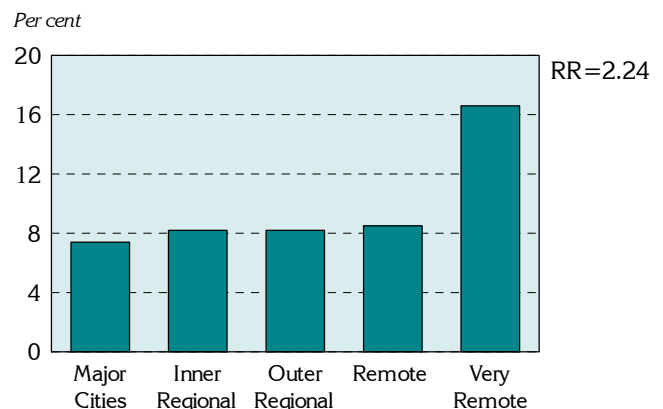
Despite a higher overall rate, the differential in rates in country South Australia is smaller than that in metropolitan Adelaide (Figure 48). The rate in

the lowest SES areas (14.6%) is more than twice the rate in the highest SES areas (6.7%)

Remoteness

The proportion of children in Year 9 with numeracy scores below the national minimum standard shows relatively little variation across the first four remoteness classes, rising from 5.2% in the Major Cities areas to 7.4% in the Remote areas (Figure 49). The proportion increases substantially in the Very Remote areas, to 18.1%.

Figure 49: Children in Year 9 at government schools with below-average numeracy scores, by remoteness, South Australia, 2008



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of children in Year 9 with numeracy scores below the national minimum standard and welfare-dependent and other low income families, jobless families, poor educational performance in secondary school and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations are strong with low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI and lack of access to the Internet at home (in particular to a high-speed connection); and generally strong with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy).

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Early school leavers

Young people who leave school early and do not undertake further training or education may be at risk of social exclusion, poorer life chances and socioeconomic disadvantage in the longer term. These data include people of all ages and have been adjusted so that areas can be compared, irrespective of variations between areas in age cohorts.

Indicator definition: the number of people per 100 population who completed Year 10 or below, or did not go to school (referred to as 'early school leavers'); the data have been age standardised (see the notes in the Appendix).

Key points

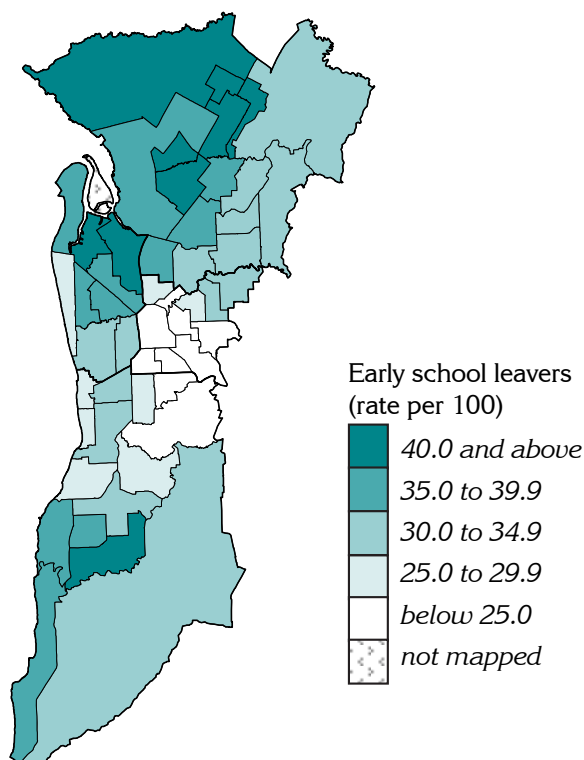
- People living in low socioeconomic status areas are 75% more likely to have left school early than those in high socioeconomic status areas.
- The rate of early school leavers in the population is markedly higher among people living in country areas of South Australia (38.7 per 100 population) than in metropolitan Adelaide (31.9).

Geographic variation

Adelaide

The distribution within metropolitan Adelaide of early school leavers (**Map 61**) closely reflects the distribution of the population by socioeconomic status. A cluster of areas in the outer north recorded the highest rates of early school leavers; they were the SLAs of Playford - West Central, - West and - Elizabeth; and Salisbury - Inner North. The lowest rates were in the City of Adelaide, Burnside - South-West and - North-East, Walkerville, Unley - East and Mitcham - North-East.

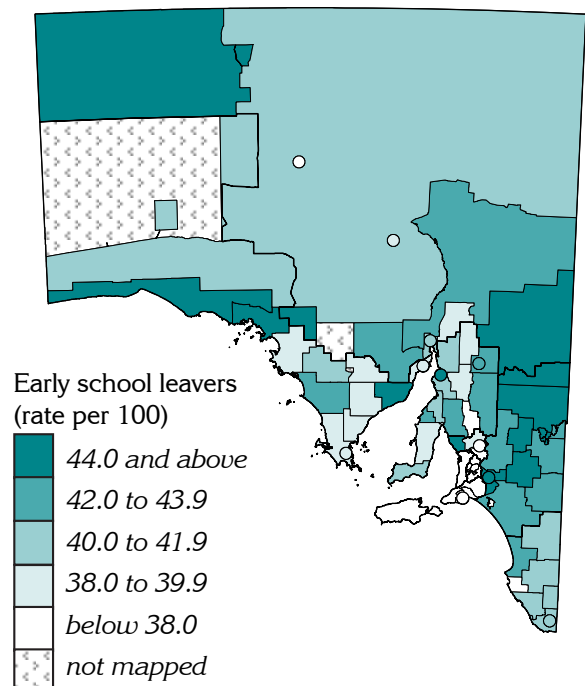
Map 61: Highest level of schooling completed: Year 10 or below, Adelaide, 2006



Country South Australia

Areas located in close proximity to metropolitan Adelaide recorded the lowest rates of early school leavers in country South Australia (**Map 62**). These areas included the Adelaide Hills SLAs of - Central, - Ranges, - Balance and - North and Mount Barker Balance. In contrast, the highest rates were recorded in Anangu Pitjantjatjara, Unincorporated Riverland, and Unincorporated West Coast, all areas with above average percentage of Aboriginal people in their populations. Of the larger towns, Murray Bridge and Port Pirie had rates in the highest range mapped.

Map 62: Highest level of schooling completed: Year 10 or below, Adelaide, 2006



Regional totals

Eastern Adelaide, Southern Adelaide and Adelaide Hills were the only regions to record rates below the State average (Table 28). Rates of above 40 early school leavers per 100 population were recorded in Murray and Mallee, Far North, Yorke and Mid North, and Limestone Coast.

Table 28: Highest level of schooling completed: Year 10 or below, by State Region, 2006

Region	No.	Rate*
Northern Adelaide	95,947	37.6
Western Adelaide	59,354	34.1
Eastern Adelaide	38,800	22.9
Southern Adelaide	82,161	30.9
Metropolitan regions	276,262	31.9
Adelaide Hills	14,050	28.0
Murray and Mallee	24,531	44.4
Fleurieu and Kangaroo Island	13,452	34.5
Limestone Coast	19,815	40.8
Barossa	18,428	39.0
Yorke and Mid North	26,077	41.3
Eyre and Western [#]	17,049	39.6
Far North [#]	8,495	43.4
Country SA	141,897	38.7
South Australia	419,057	34.0

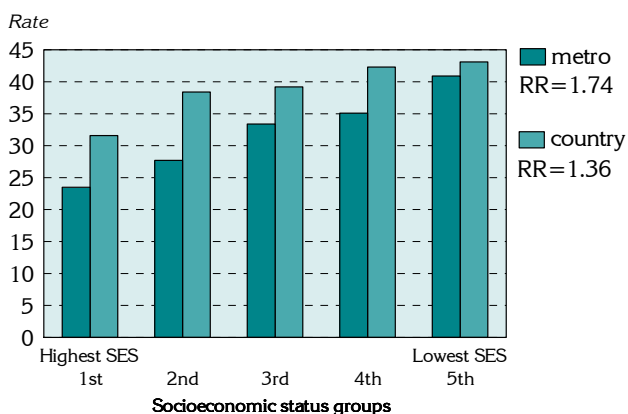
* Rate is the number of students aged 15 to 24 years participating in vocational education and training per 100 population at that age

See 'Notes on the data' in the Appendix

Socioeconomic status

There is a strong, continuous gradient evident in rates of early school leavers in metropolitan Adelaide, with rates 74% higher in the most disadvantaged (lowest SES) areas compared to those in the least disadvantaged (highest SES) areas (Figure 50).

Figure 50: Highest level of schooling completed: Year 10 or below, by socioeconomic status, South Australia, 2006

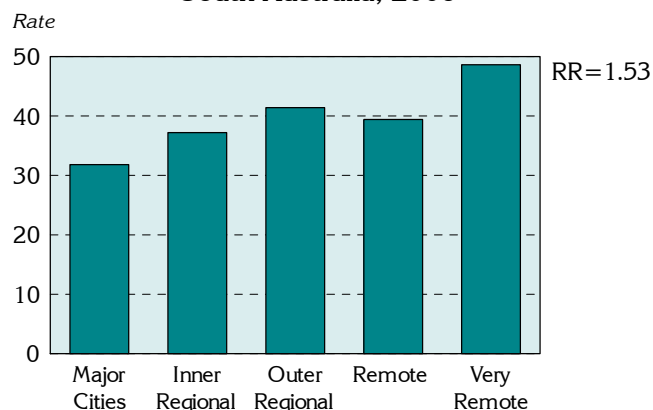


There is also a continuous gradient evident in the country areas of South Australia (Figure 50), although the differential was not as great as that in Adelaide, with 45% more early school leavers in the lowest SES areas. This smaller differential is a result of the markedly higher proportion of early school leavers recorded in the highest SES areas in country South Australia.

Remoteness

The rate of early school leavers increases, although not consistently (due to the slightly lower rate in the Remote areas), with increasing remoteness (Figure 51). The increase is from 31.8 per 100 population in the Major Cities remoteness areas to 48.6 in the Very Remote areas, an overall differential of 52.6%.

Figure 51: Highest level of schooling completed: Year 10 or below, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of early school leavers and many other indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Full-time participation in secondary school education

Participation in secondary school education increases opportunities for choice of occupation and for income and job security, and also equips young people with life skills – key factors that influence wellbeing throughout the life course. Young people completing Year 12 (and who would be still at school at age 16) are more likely to make a successful initial transition to further education, training and work than are early school leavers. There is a greater risk of poor outcomes for several groups, including those whose families are the most socioeconomically disadvantaged.

Indicator definition: young people aged sixteen years who were in full-time secondary school education.

Key points

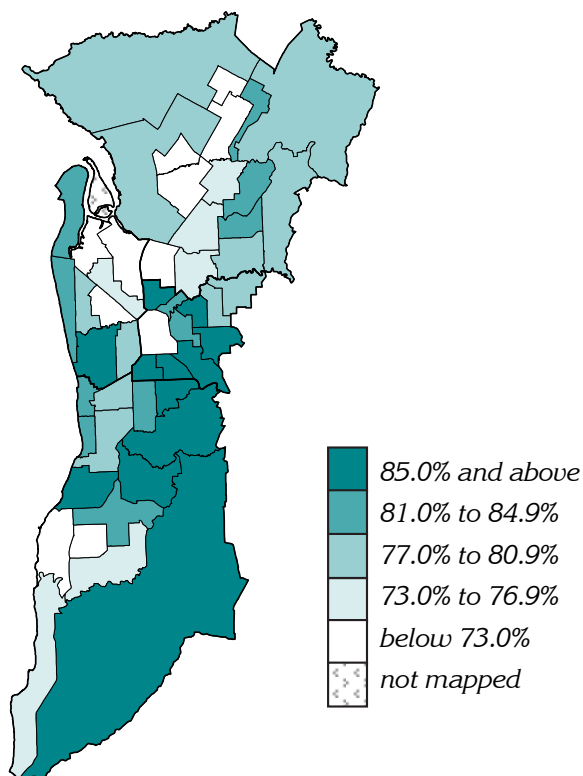
- In 2006, just over three quarters (78.5%) of young people aged 16 were participating in full-time education.
- Young people in the lowest SES areas, or in remote areas, have poorer outcomes on this measure.

Geographic variation

Adelaide

The areas with the lowest participation rates are those commonly seen as among the most disadvantaged in Adelaide (**Map 63**). SLAs with fewer than 70% of young people aged 16 years in full-time secondary school education include Playford - Elizabeth and - West Central; Port Adelaide Enfield - Park, - Inner and - Port; Onkaparinga - North Coast and Salisbury - Central. Areas with participation rates in excess of 90% are Unley - East and - West, Mitcham - North East and Burnside - North-East.

Map 63: Full-time participation in secondary school education at age 16, Adelaide, 2006

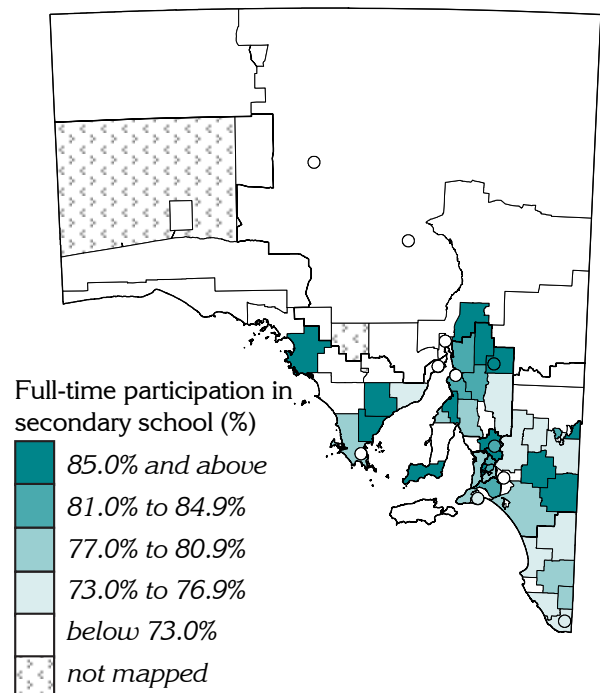


Many of the areas with the lowest participation rates are also areas of high unemployment, and have low access to further education and training. This also applies to those areas with the lowest participation rates in country South Australia.

Country South Australia

Very low full-time secondary school participation rates are common in many of the larger towns in country South Australia, as well as across much of the northern and western parts of the State (**Map 64**). Ceduna, Roxby Downs, Port Augusta, Port Lincoln and Whyalla all had rates below 70%: the highest rates were in Barunga West, Tumby Bay and Renmark Paringa - Paringa. These comments are limited to areas with 20 or more students.

Map 64: Full-time participation in secondary school education at age 16, South Australia, 2006



Regional totals

There is less variation in rates of full-time educational participation at age 16 between regions in metropolitan Adelaide than in country areas, and a slightly higher overall rate. Rates in metropolitan Adelaide ranged from 75.0% in Northern Adelaide to 85.8% in Eastern Adelaide, while in country areas the range was from 59.6% in Far North to 82.7% in Adelaide Hills (Table 29).

Table 29: Full-time participation in secondary school education at age 16, by State Region, 2006

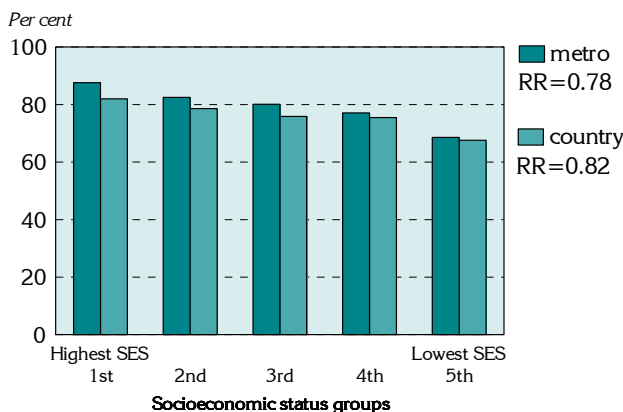
Region	No.	%
Northern Adelaide	3,534	75.0
Western Adelaide	1,808	77.7
Eastern Adelaide	2,161	85.8
Southern Adelaide	3,596	81.4
Metropolitan regions	11,099	79.4
Adelaide Hills	868	82.7
Murray and Mallee	703	75.8
Fleurieu and Kangaroo Island	418	76.6
Limestone Coast	695	75.1
Barossa	747	79.9
Yorke and Mid North	742	77.7
Eyre and Western [#]	560	70.8
Far North [#]	190	59.6
Country SA	4,923	76.3
South Australia	16,031	78.5

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In 2006, there were 22% fewer young people aged 16 years in full-time schooling in the most disadvantaged (lowest SES) areas in metropolitan Adelaide than in the most advantaged (highest SES) areas, with participation rates decreasing, in a step-wise fashion, from 87.6% to 68.6% (Figure 52). The largest drop was between the fourth and fifth SES areas.

Figure 52: Full-time participation in secondary school education at age 16, by socioeconomic status, South Australia, 2006

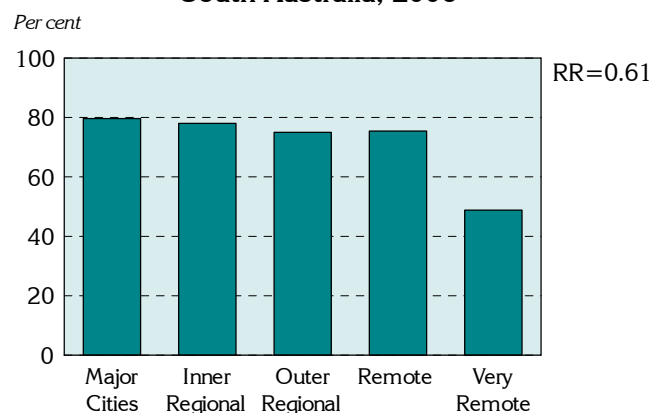


Outside of Adelaide, there was a differential in rates of 18% between the lowest SES areas (a participation rate of 82.6%) and highest SES areas (67.6%), with rates also decreasing in a step-wise fashion, and with largest drop being between the fourth and fifth SES areas (Figure 52).

Remoteness

The rate of full-time participation in education at age 16 also declines with increasing remoteness, although with only a small decline from the Major Cities areas (79.6%) to the Remote areas (75.4%), before a substantial drop to a low of 48.8% in the Very Remote areas (Figure 53).

Figure 53: Full-time participation in secondary school education at age 16, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high levels of participation in secondary school education at age 16 and participation in preschool and formal schooling and access to a high speed Internet connection at home; and very strong inverse correlations with many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are inverse, and strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Young people aged 19 years who have completed Year 12 or its equivalent

For those young people who complete Year 12 or its equivalent, opportunities for their choice of occupation and for income and job security in adulthood are more likely than for those who leave school early and do not undertake further education and training.

Indicator definition: proportion of the population aged 19 years who have completed Year 12 or qualified at Certificate level II.

Key points

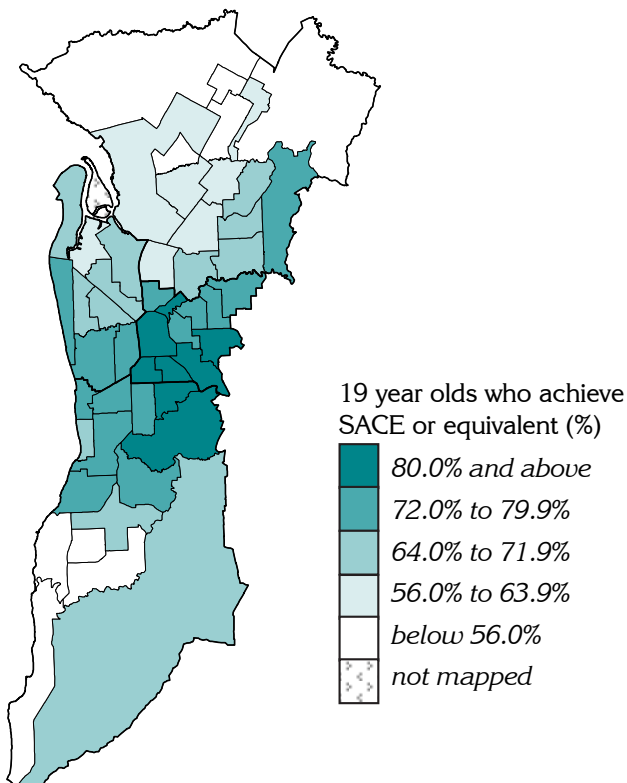
- Young people living in metropolitan Adelaide had a higher rate of completing Year 12 or an equivalent qualification than did residents of country South Australia, with rates of 68.9% and 54.4% respectively.
- The geographic distribution of this group largely highlights areas of high socioeconomic status.

Geographic variation

Adelaide

Areas adjacent to the city centre, in particular to the immediate east and south, had the highest rates of young people aged 19 years who had completed Year 12 or an equivalent qualification (**Map 65**). Rates above 80% were recorded in the SLAs of Burnside - South-West and - North-East and Mitcham - Hills. The lowest rates were in the outer north, in Playford - West Central and - Elizabeth and Salisbury - Inner and - Central; in the north-west, in Port Adelaide Enfield - Inner and - Park; and, in the outer south, in Onkaparinga - Morphett, - Hackham and - South Coast.

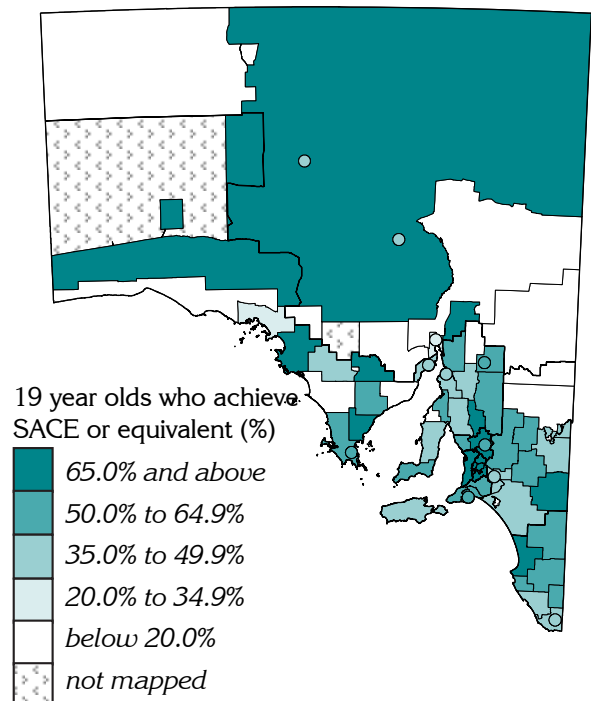
Map 65: Young people aged 19 years who had completed Year 12 or equivalent, Adelaide, 2006



Country South Australia

The highest percentage of the 19 year old population who had completed Year 12 or equivalent were found in SLAs closer to metropolitan Adelaide, and in areas scattered throughout the State (**Map 66**). The SLAs of Kingston, Adelaide Hills - Central, Flinders Ranges, Adelaide Hills - Ranges and Tumbly Bay all recorded figures above 75%. In contrast, relatively low percentages were found in the towns, other than in Tanunda.

Map 66: Young people aged 19 years who had completed Year 12 or equivalent, South Australia, 2006



Regional totals

There is considerable variation between the regions, with the highest percentages of young people who had completed Year 12 or equivalent by 19 years of age in Eastern Adelaide (80.1%), Adelaide Hills (71.8%), Western Adelaide (70.1%) and Southern Adelaide (69.8%) (Table 30). Very low percentages were recorded in Far North (32.8%) and Yorke and Mid North (45.8%).

Table 30: Young people aged 19 years who had completed Year 12 or equivalent, by State Region, 2006

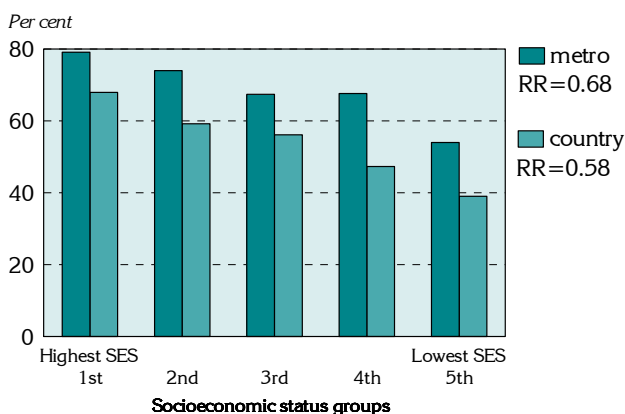
Region	No.	%
Northern Adelaide	2,787	59.8
Western Adelaide	1,871	70.1
Eastern Adelaide	2,560	80.1
Southern Adelaide	3,190	69.8
Metropolitan regions	10,408	68.9
Adelaide Hills	588	71.8
Murray and Mallee	326	47.9
Fleurieu and Kangaroo Island	201	59.6
Limestone Coast	314	48.0
Barossa	491	63.5
Yorke and Mid North	277	45.8
Eyre and Western [#]	308	50.0
Far North [#]	96	32.8
Country SA	2,601	54.4
South Australia	13,026	65.4

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

Young people (aged 19 years) who had completed Year 12 or equivalent were more likely to be from the higher SES areas, with rates decreasing with increasing socioeconomic disadvantage (Figure 54). There were 32% fewer people aged 19 years with these characteristics in the most disadvantaged (lowest SES) areas (54.0%) compared to those in the most advantaged (highest SES) areas (79.1%).

Figure 54: Young people aged 19 years who had completed Year 12 or equivalent, by socioeconomic status, South Australia, 2006

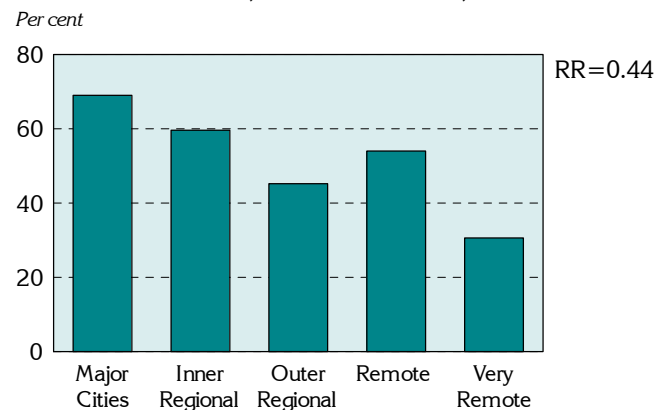


The socioeconomic gradient in rates for young people living in country South Australia is even stronger, with the rates decreasing by 42%, from 67.9% in the highest SES areas to 39.0% in the lowest SES areas: the largest decline is between the lowest socioeconomic status groups (Figure 54).

Remoteness

The rate of completion of Year 12 or an equivalent qualification decreases strongly with remoteness, down by more than half (56%), from 69.0% in the Major Cities areas to 30.6% in the Very Remote areas, although with a higher rate in the Remote areas (Figure 55).

Figure 55: Young people aged 19 years who had completed Year 12 or equivalent, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of the population aged 19 years who had completed Year 12 or equivalent, participation in secondary school education at age 16 and access to a high speed Internet connection at home; and very strong inverse correlations with many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance under NAPLAN and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are inverse, and strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Participation in vocational education and training

Vocational education and training (VET) refers to post-compulsory education and training (excluding degree and higher level programs) which provides people with occupational or work-related knowledge and skills. For school-aged participants, VET programs offer industry-specific skills and pathways to further study and initial employment opportunities ⁽⁵⁾.

Indicator definition: age standardised rate of students aged 15 to 24 years participating in vocational education and training per 100 population at that age.

Key points

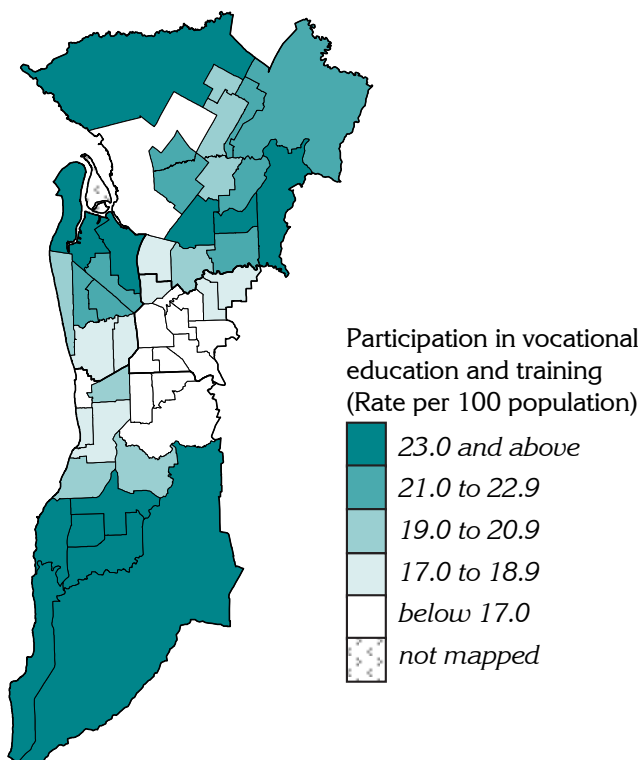
- In 2008, 47,301 young people aged 15 to 24 years were participating in vocational education and training, representing 21.9 students per 100 population.
- The rate of participation in vocational education and training is higher in country South Australia than in metropolitan Adelaide, with the highest rates in remote parts of the State.

Geographic variation

Adelaide

Participation of young people in vocational education and training has a mixed geographic distribution, with the highest rates in the north-east, north-west and outer south of Metropolitan Adelaide, as well as in one outer northern SLA (**Map 67**). Port Adelaide Enfield - Park, Onkaparinga - Hackham and Salisbury - South-East had the highest rates; with the lowest rates in the inner areas of Mitcham - North-East, Norwood Payneham St Peters - West, Burnside - South-West and Unley - East.

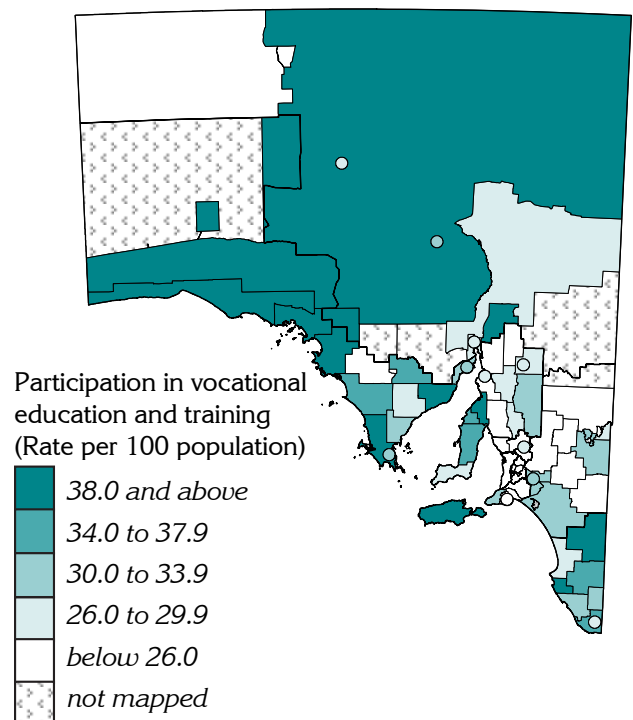
Map 67: Participation in vocational education and training (15-24 years), Adelaide, 2008



Country South Australia

Areas in the State's far north and west, as well as in the south-east, had the highest rates of participation in vocational education and training. These included Unincorporated West Coast, Franklin Harbour, Flinders Ranges, Unincorporated Far North, Lower Eyre Peninsula and Ceduna in the north and west; and Robe, Tatiara and Barunga West in the south-east (**Map 68**). Low participation rates were recorded in a number of SLAs, with the lowest in Anangu Pitjantjatjara, Loxton Waikerie - West, Adelaide Hills Balance, Mount Barker Balance and Mount Remarkable.

Map 68: Participation in vocational education and training (15-24 years), South Australia, 2008



Regional totals

There are wide variations at the regional level in participation rates, from 14.9 per 100 in Eastern Adelaide to more than twice that level in Eyre and Western (32.9 per 100) (Table 31).

Table 31: Participation in vocational education and training (15-24 years), by State Region, 2008

Region	No.	Rate*
Northern Adelaide	11,075	21.7
Western Adelaide	5,941	21.4
Eastern Adelaide	4,839	14.9
Southern Adelaide	9,467	19.9
Metropolitan regions	31,321	19.7
Adelaide Hills	1,774	19.0
Murray and Mallee	2,382	28.9
Fleurieu and Kangaroo Island	1,120	25.3
Limestone Coast	2,754	33.8
Barossa	2,006	24.2
Yorke and Mid North	2,382	30.0
Eyre and Western [#]	2,381	32.9
Far North [#]	1,126	30.1
Country SA	15,925	27.8
South Australia	47,301	21.9

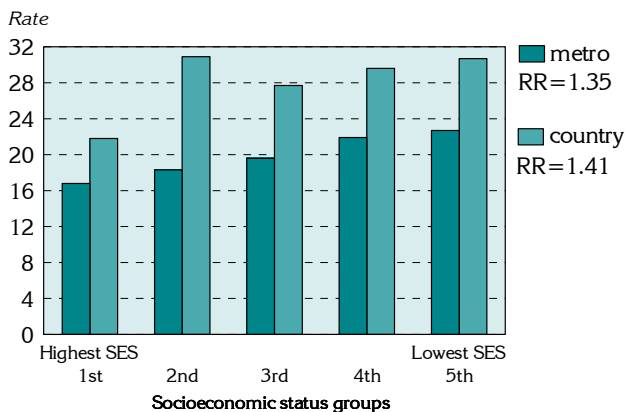
* Rate is the number of students aged 15 to 24 years participating in vocational education and training per 100 population at that age

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

A clear socioeconomic gradient is evident in the participation of 15 to 24 year olds in vocational education and training in metropolitan Adelaide (Figure 56), with 35% more students in the most disadvantaged (lowest SES) areas (22.7 per 100) compared with the least disadvantaged (highest SES) areas (16.8 per 100).

Figure 56: Participation in vocational education and training, by socioeconomic status, South Australia, 2008

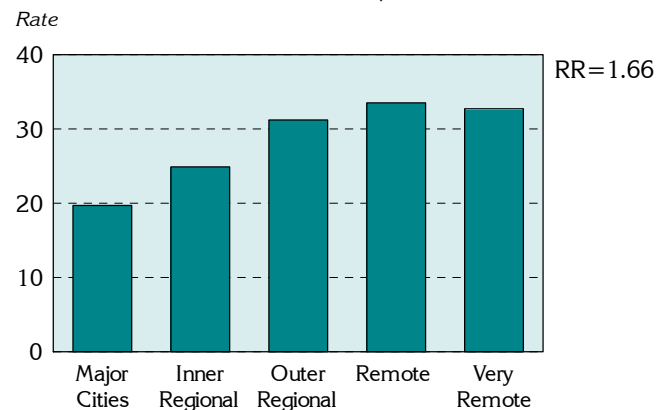


There were also more country students from the lowest SES areas participating in vocational education and training compared to the highest SES areas (41% more, with rates of 30.7 and 21.8 per 100 population, respectively) (Figure 56). The highest rate was in the second highest SES areas.

Remoteness

The rate of participation in vocational education and training increases with increasing remoteness, from a low of 19.7 per 100 young people aged 15 to 24 years in the Major Cities remoteness class, to rates of 33.5 in the Remote and 32.7 in the Very Remote areas, an overall differential of 66.2% (Figure 57).

Figure 57: Participation in vocational education and training, by remoteness, South Australia, 2008



Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of participation in vocational education and training and many of the indicators of socioeconomic disadvantage, including high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), poor educational performance in secondary school (and from moderate to strong with poor outcomes under NAPLAN), and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are generally moderate to strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Young people learning or earning

Post-compulsory education and training participation builds the stock of skills in the economy and is an important determinant of future individual and state/national economic and social wellbeing ⁽⁶⁾. Young people who fail to engage in school, employment or further education and training run a significant risk of school failure, unemployment, risky health behaviours and mental health problems, social exclusion, and socioeconomic disadvantage over the longer term.

Indicator definition: People aged 15 to 19 years who are fully engaged in school, work or further education/training.

Key points

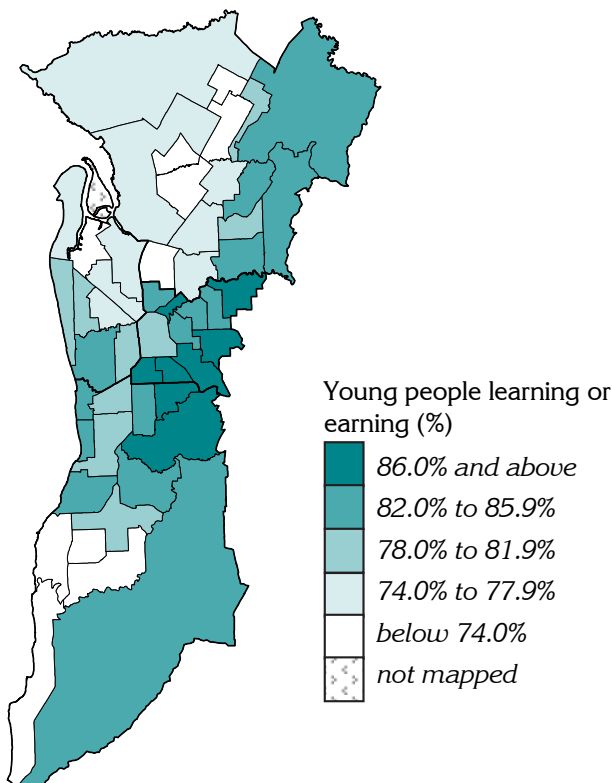
- Young people who live in high socioeconomic areas are more likely to be learning or earning than are those in the most disadvantaged areas.
- The proportion of the population aged 15 to 19 years and learning or earning is particularly low in the most remote areas of the State, including in areas with relatively large Aboriginal populations.

Geographic variation

Adelaide

The distribution of young people aged 15 to 19 years who were learning or earning provides a striking example of the divide between high and low socioeconomic status areas in Adelaide (**Map 69**). In August 2006, young people from the SLAs of Burnside - North-East and - South-West, Mitcham - North-East, Walkerville and Unley - West were those most likely to be engaged in school, work or further education/training; those least likely to be were living in Playford - Elizabeth and - West Central, Onkaparinga - North Coast and Salisbury - Inner North.

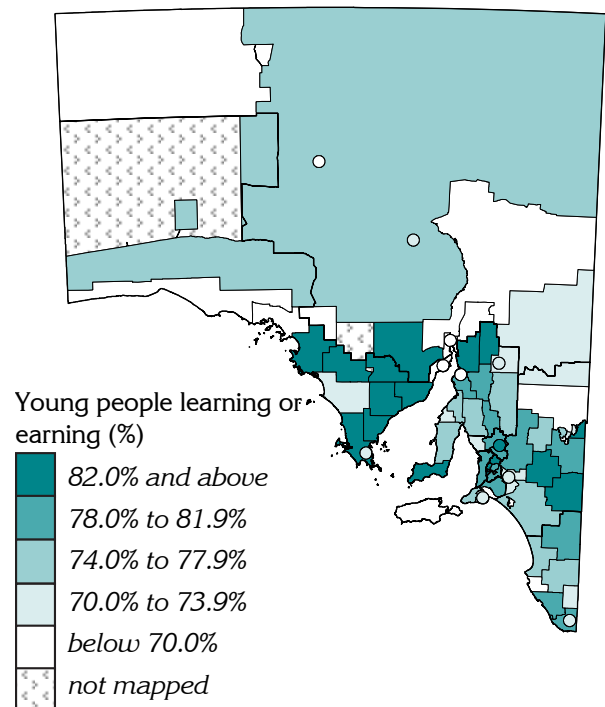
Map 69: Young people learning or earning, Adelaide, 2006



Country South Australia

In country South Australia, SLAs with the highest levels of young people learning or earning were mainly on Eyre Peninsula, in the Murray Mallee and in SLAs in close proximity to metropolitan Adelaide (**Map 70**). Low rates were found in all of the larger towns, other than Tanunda (with a rate of 83.3%), as well as across much of the far north and west, and in parts of the south east. Karoonda East Murray, Unincorporated Whyalla, Kimba, Southern Mallee, Le Hunte and Cleve all had percentages above 90%; and Anangu Pitjantjatjara, Coober Pedy, Unincorporated Riverland, Unincorporated Flinders Ranges, Robe and Port Augusta had percentages below 65%.

Map 70: Young people learning or earning, South Australia, 2006



Regional totals

The majority of regions had near-average rates of participation by young people in work or study with the exception of the low rate in Far North (59.9%) and the above average rates in Adelaide Hills (82.4%) and Eastern Adelaide (85.6%).

Table 32: Young people learning or earning, by State Region, 2006

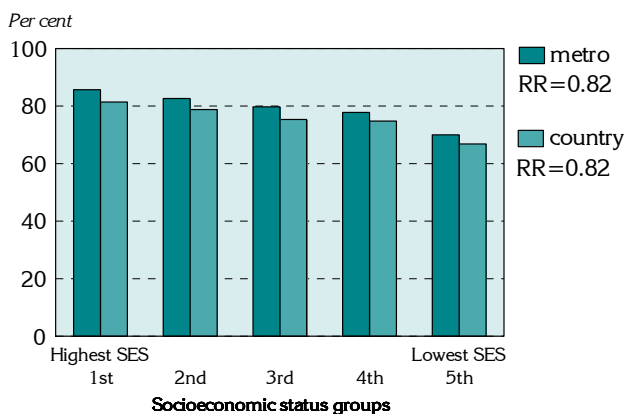
Region	No.	%
Northern Adelaide	17,653	75.6
Western Adelaide	9,572	79.0
Eastern Adelaide	11,538	85.6
Southern Adelaide	17,941	80.0
Metropolitan regions	56,704	79.4
Adelaide Hills	4,028	82.4
Murray and Mallee	3,143	75.5
Fleurieu and Kangaroo Island	1,695	73.8
Limestone Coast	3,033	76.0
Barossa	3,354	77.6
Yorke and Mid North	3,191	76.0
Eyre and Western [#]	2,627	72.8
Far North [#]	1,030	59.9
Country SA	22,102	75.7
South Australia	78,809	78.4

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

A clear socioeconomic gradient is apparent in rates of young people learning or earning in metropolitan Adelaide, with the rates decreasing with increasing disadvantage (**Figure 58**). The range in rates was from 85.7% in the most advantaged (highest SES) areas to 70.0% in the most disadvantaged (lowest SES) areas, a differential of 18% (a rate ratio of 0.82). The largest decline is between the lowest socioeconomic status groups.

Figure 58: Young people learning or earning, by socioeconomic status, South Australia, 2006



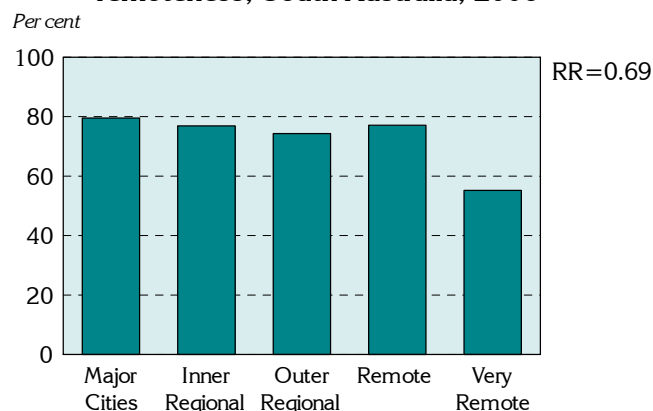
Although the overall level is a little lower, the pattern in country South Australia is the same, (**Figure 58**), with the proportion of the population aged 15 to 19 years and learning or earning

decreasing from 81.4% in the highest SES areas to 66.8% in the lowest SES areas. Again, the differential is 18%, and the largest decline is between the lowest socioeconomic status groups.

Remoteness

The percentage of young people learning or earning is similar across the first four remoteness classes, but declines markedly in the Very Remote areas (**Figure 59**). Rates vary from 79.5% in the Major Cities areas to 55.2% in the Very Remote areas, a differential of 31%.

Figure 59: Young people learning or earning, by remoteness, South Australia, 2006



Correlations

There are strong to very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of the population aged 15 to 19 years who were learning or earning and participation in secondary school education at age 16 and in preschool, and access to a high speed Internet connection at home; and very strong inverse correlations with many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) and substantiations of notifications of child abuse or neglect are inverse and very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Internet access at home for children and young people

The socioeconomic characteristics of households continue to influence the rate of computer and Internet connectivity across Australia. Households that are located in non-metropolitan or regional areas of Australia and/or have lower household incomes are less likely to have a computer and/or the Internet ⁽⁷⁾. These socioeconomic factors also influence the rate of broadband access, in addition to technical issues regarding service availability in certain locations.

Indicator definition: Private dwellings with at least one person under 16 years of age with no Internet connection.

Key points

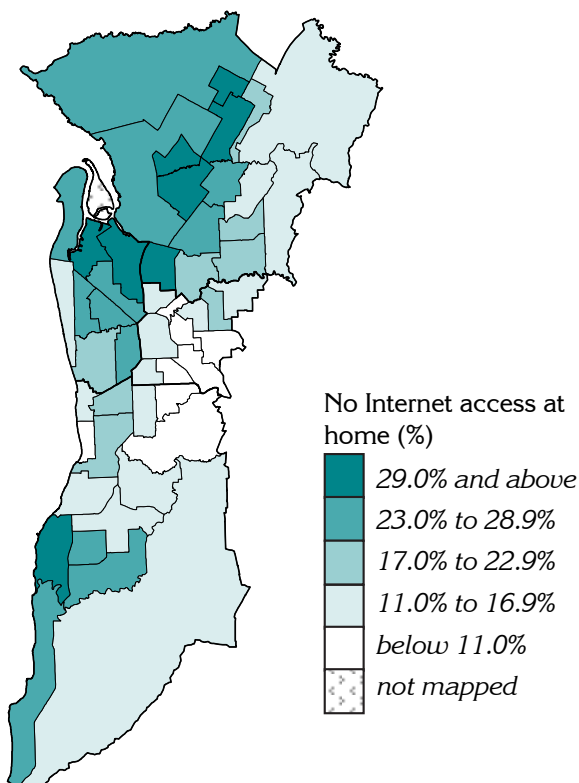
- Almost one quarter (22.7%) of dwellings in South Australia with children and young people below 16 years of age had no Internet connection.
- The distribution of the population without an Internet connection has strong associations with the pattern of socioeconomic disadvantage across the State.

Geographic variation

Adelaide

The majority of dwellings with children and young people where there was no access to the Internet were located in the north-western and outer northern suburbs, and in the south, along the coast (Map 71). More than 40% of dwellings with children and young people in Playford - Elizabeth and - West Central and Port Adelaide Enfield - Park had no access to the Internet at home. In contrast, fewer than 10% of these dwellings in Walkerville, Burnside - North-East and - South-West, Mitcham - North-East and Unley - East had no Internet access.

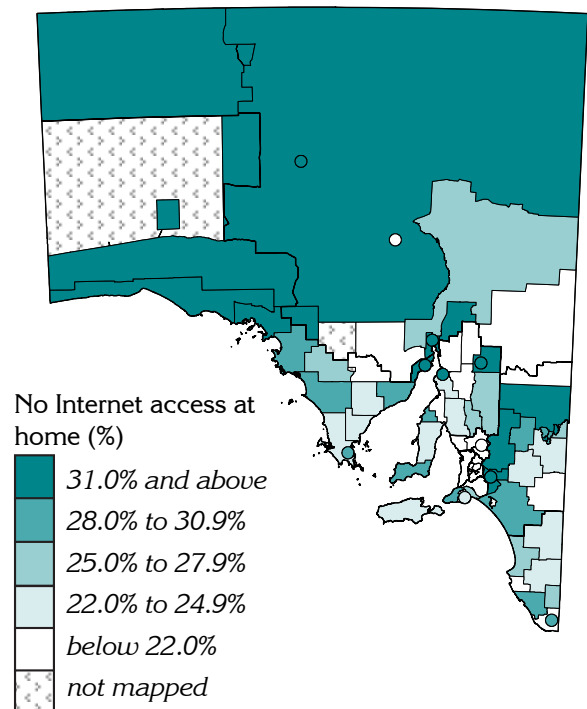
Map 71: No Internet access at home for children and young people, Adelaide, 2006



Country South Australia

In country South Australia, there were high percentages of children and young people with no Internet access at home in the north and west of the State, around the Riverland and also in a number of the major towns (Map 72). By far the lowest rate of access was recorded in Anangu Pitjantjatjara, with very low access rates also in Unincorporated West Coast, Unincorporated Riverland, Peterborough, Port Augusta, Ceduna and Murray Bridge. Those living in Adelaide Hills - Central, Adelaide Hills - Ranges, Roxby Downs, Robe and Adelaide Hills Balance had the highest rate of access (lowest percentage).

Map 72: No Internet access at home for children and young people, South Australia, 2006



Regional totals

At the regional level, there is substantial variation in access to the Internet, ranging from 12.7% in Eastern Adelaide to almost three times that level in Far North, with 35.3% (Table 33). Even with these large geographic areas, the variation within metropolitan Adelaide shows a more than doubling of rates, from 12.7% in Eastern Adelaide to 26.5% in Northern Adelaide (with a slightly smaller differential with Western Adelaide).

Table 33: No Internet access at home for children and young people, by State Region, 2006

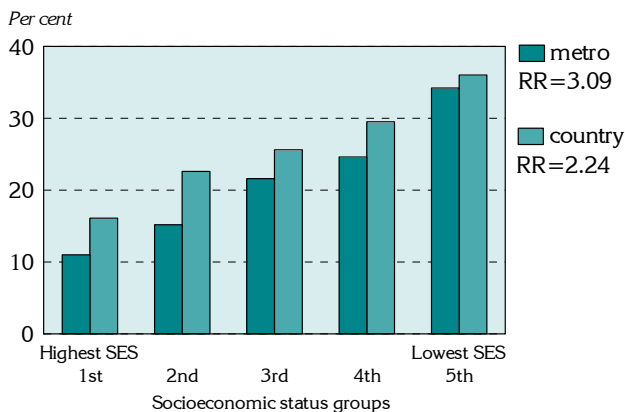
Region	No.	%
Northern Adelaide	10,654	26.5
Western Adelaide	5,025	24.9
Eastern Adelaide	2,342	12.7
Southern Adelaide	6,379	18.2
Metropolitan regions	24,400	21.4
Adelaide Hills	1,144	14.4
Murray and Mallee	2,288	30.4
Fleurieu and Kangaroo Island	955	23.9
Limestone Coast	1,910	25.9
Barossa	1,555	21.6
Yorke and Mid North	2,080	27.7
Eyre and Western [#]	2,009	30.7
Far North [#]	1,115	35.3
Country SA	13,056	25.5
South Australia	37,456	22.7

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In metropolitan Adelaide, there is a clear socioeconomic gradient in rates of access at home to the Internet, for children and young people (Figure 60). The most disadvantaged (lowest SES areas (34.2%)) had three times more dwellings with no Internet connection than the most advantaged (highest SES) areas (11.0%).

Figure 60: No Internet access at home for children and young people, by socioeconomic status, South Australia, 2006

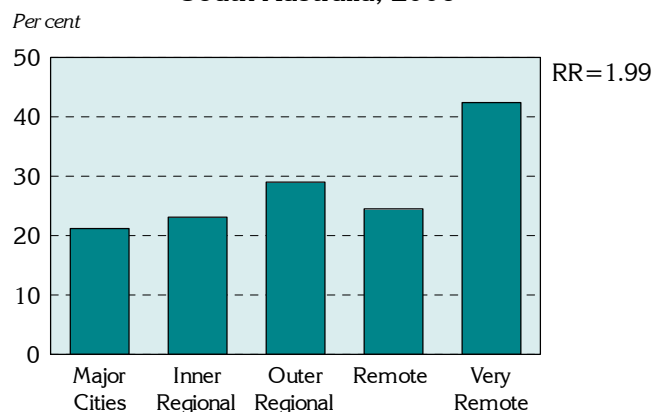


Although not as strong as the gradient recorded in the metropolitan area, the proportion of dwellings with no Internet connection increased from 16.1% in the highest SES areas to 36.0% in the lowest SES areas (Figure 60).

Remoteness

The Very Remote areas had the highest proportion of children and young people without Internet access at home, almost twice the level in the Major Cities area (with percentage of 42.4% and 21.2%, respectively) (Figure 61). The second highest level was 29.0%, in the Outer Regional areas.

Figure 61: No Internet access at home for children and young people, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of dwellings with children and young people with no Internet access and many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong to very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Admissions to hospital of children and young people

Hospital admission for infants, children and young people is usually an uncommon occurrence and most health practitioners aim to keep young patients out of hospital.

Indicator definition: Admissions at ages 0 to 24 years to public acute and private hospitals in South Australia.

Key points

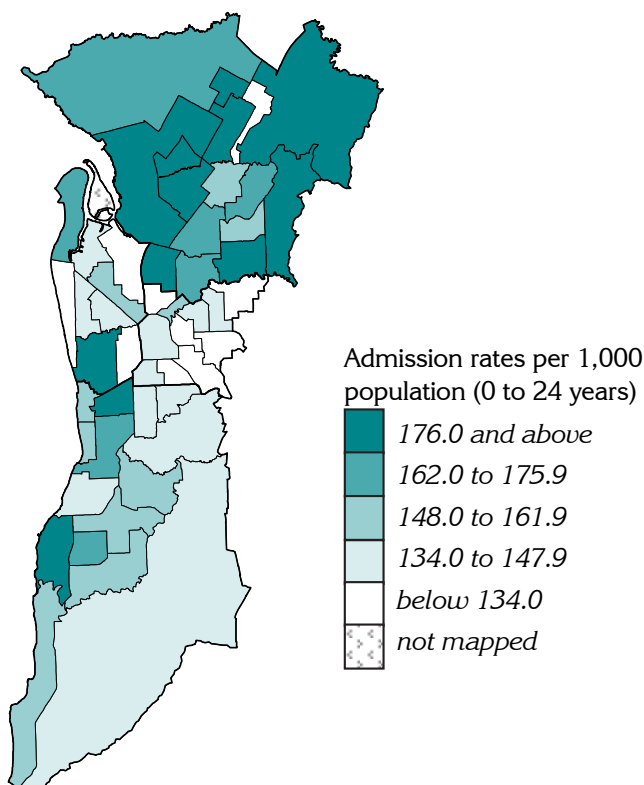
- Variations in rates of admission to hospital of children and young people are strongly associated with socioeconomic status.
- Admission rates in country South Australia are notably higher than in metropolitan Adelaide.

Geographic variation

Adelaide

The highest hospital admission rates for children and young people aged 0 to 24 years were largely recorded in suburbs to the north and north-east of the city centre, with high rates also in some western and outer southern SLAs (**Map 73**). These areas include Playford - Elizabeth, - Hills and - West Central; Tea Tree Gully - Hills and - South; Port Adelaide Enfield - Inner; and Salisbury Balance, Onkaparinga - North Coast, West Torrens - West and Marion - North. The lowest rates were recorded in the inner city areas of Prospect, Unley - East, Burnside - North-East and - South-West, Campbelltown - East and Norwood Payneham St Peters - West.

Map 73: Hospital admissions for children and young people, Adelaide, 2006/07

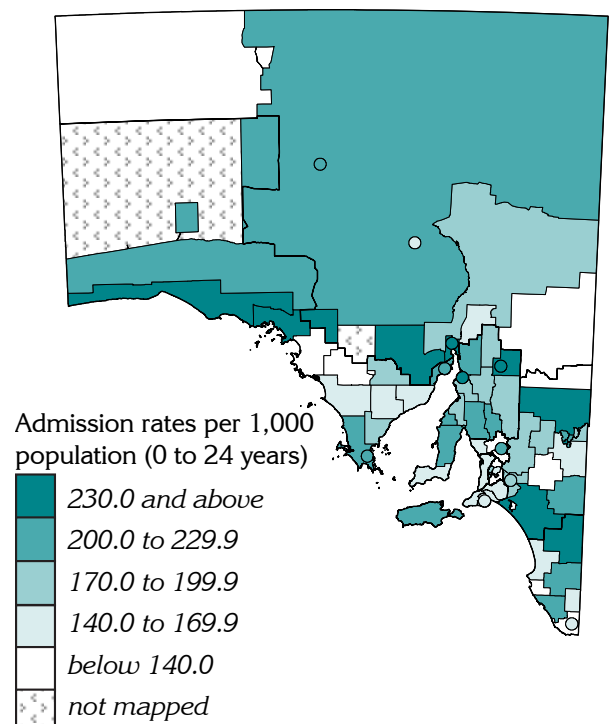


Country South Australia

There is no notable pattern in the distribution of children and young people admitted to hospital for residents of country South Australia, other than the higher rates in the towns around the northern tip of Spencer Gulf and the generally lower rates in SLAs closer to metropolitan Adelaide and in some areas in the far north (**Map 74**). It is widely accepted that rates are higher in country areas, in part due to the limited availability of other health services. The mixture of low and high rates in areas with relatively large Aboriginal populations partly reflects differential access to hospital services.

The highest rates were recorded in the northern and western SLAs of Unincorporated West Coast, Unincorporated Whyalla, Port Augusta, Ceduna and Peterborough; in Unincorporated Riverland; and in the south-east of the State in Tatiara and The Coorong. The lowest rates were recorded in Grant, Mount Barker Balance, Streaky Bay, Unincorporated Pirie, Robe, Barossa - Barossa and Light.

Map 74: Hospital admissions for children and young people, South Australia, 2006/07



Regional totals

Admission rates were considerably higher in country South Australia (182.7) than in metropolitan Adelaide (156.9 per 1,000 population) (**Table 34**). The lowest rates were recorded in Eastern Adelaide and Western Adelaide, and in Adelaide Hills, and Fleurieu and Kangaroo Island, with markedly higher rates (above 200 per 1,000 population) in Far North, Eyre and Western, and Yorke and Mid North.

Table 34: Hospital admissions for children and young people, by State Region, 2006/07

Region	No.	Rate*
Northern Adelaide	21,515	177.4
Western Adelaide	9,139	144.8
Eastern Adelaide	8,594	129.6
Southern Adelaide	16,831	157.7
Metropolitan regions	56,079	156.9
Adelaide Hills	3,381	152.5
Murray and Mallee	3,996	188.8
Fleurieu and Kangaroo Island	1,668	154.7
Limestone Coast	3,893	184.7
Barossa	3,134	156.1
Yorke and Mid North	4,259	207.2
Eyre and Western [#]	3,968	209.5
Far North [#]	2,135	214.9
Country SA	26,434	182.7
South Australia	82,513	164.3

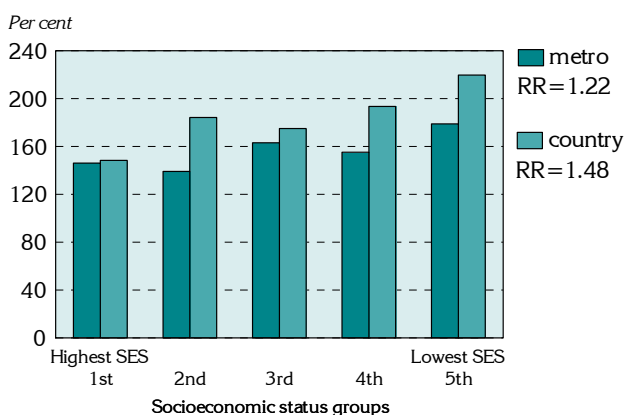
* Rate is the number of hospital admissions for children and young people aged 0 to 24 years per 1,000 population at that age

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The rate of hospitalisation among the population aged 0 to 24 years increases, although not consistently, with increasing socioeconomic disadvantage (**Figure 62**). In metropolitan Adelaide, the rates ranged from 146.1 per 1,000 in the most advantaged areas (highest SES) to 178.9 in the most disadvantaged areas (lowest SES).

Figure 62: Hospital admissions for children and young people, by socioeconomic status, South Australia, 2006/07

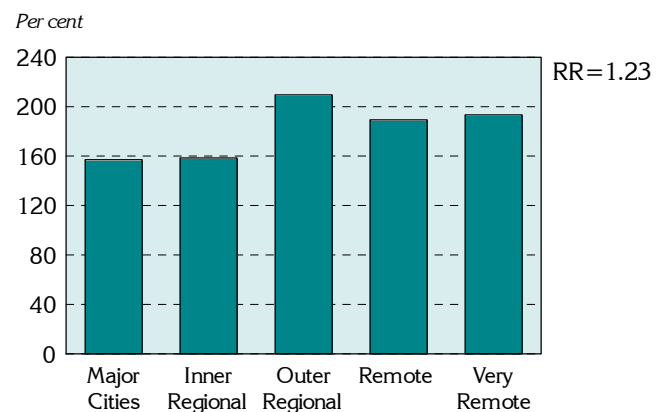


In country South Australia, the rates in each socioeconomic group, and the differential in rates between the lowest and highest SES areas, were greater than in metropolitan Adelaide. Overall, there were 48 per cent more children and young people admitted to hospital in the lowest SES areas (219.7 per 1,000) than in the highest SES areas (148.4) (**Figure 62**).

Remoteness

The highest rates of hospital admission were recorded in the Outer Regional areas (209.5 per 1,000), with similar rates in the Very Remote (193.4) and Remote (189.4) areas (**Figure 63**). The Major Cities (157.1) and Inner Regional (158.5) remoteness classes had the lowest rates of children and young people admitted to hospital. This distribution is, in part, explained by the commentary to the map for country South Australia, above.

Figure 63: Hospital admissions for children and young people, by remoteness, South Australia, 2006/07



Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of admission to hospital of children and young people and many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and clients of CAMHS. Correlations with poor dental health at age 12 and smoking during pregnancy are strong. When limited to admissions to public acute hospitals, the correlations become substantially stronger.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Child and Adolescent Mental Health Service clients

The Child and Adolescent Mental Health Service (CAMHS) is a state-wide service for infants, children and young people with emotional, behavioural or mental health problems, and their families. Services are provided by child and family specialists including psychologists, psychiatrists, social workers, nurses, occupational therapists and speech pathologists. CAMHS staff also offer prevention, early intervention and mental health promotion activities.

Indicator definition: Clients aged 0 to 19 years who attended a government-funded Child and Adolescent Mental Health Service, as a proportion of the population of the same age.

Key points

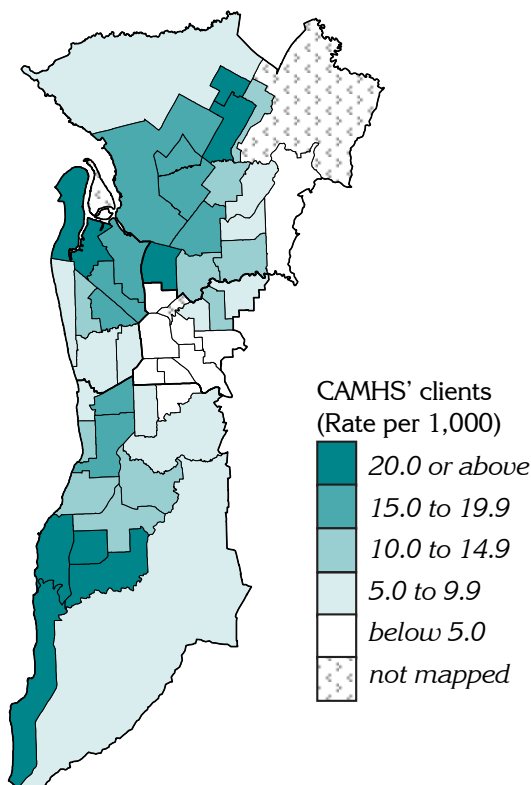
- The rate of CAMHS' clients living in country South Australia (a rate of 28.9 per 1,000) is more than twice the level of those living in the metropolitan Adelaide (13.3 per 1,000).
- Although influenced by the location of the services, variations in take-up of CAMHS' services reflect the need for this important public health service.

Geographic variation

Adelaide

CAMHS' clients living in metropolitan Adelaide came mainly from SLAs located in the inner north, north-west, outer north and outer south suburbs (**Map 75**). These areas included Playford - West Central and - Elizabeth; Port Adelaide Enfield - Port, - Inner and - Coast; and Onkaparinga - North Coast, - Hackham and - Morphett. In contrast, there were very few clients from Burnside - North-East and - South-West, Adelaide, Norwood,

Map 75: Child and Adolescent Mental Health Service clients, Adelaide, 2007/08

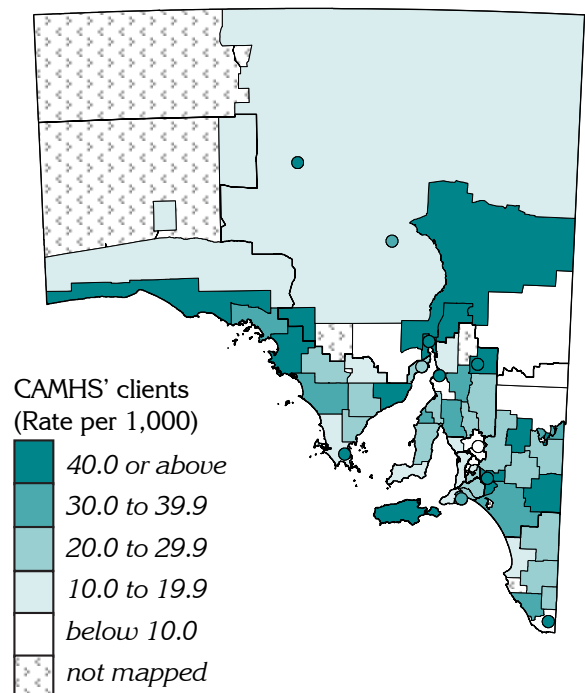


Unley - East and - West, Prospect, Mitcham North-East and Tea Tree Gully - Hills.

Country South Australia

As there are substantially higher rates in country SLAs, the legend for this map (**Map 76**) is different to that of the map for metropolitan Adelaide. Some of the highest rates were recorded in the towns of Streaky Bay and Flinders Ranges, and the towns of Port Pirie, Port Lincoln, Peterborough, Coober Pedy, Mt Gambier and Murray Bridge. Children and adolescents living in Grant; Barossa - Barossa and -Tanunda; Port Pirie City Districts Balance; and Adelaide Hills - Ranges and - North had the lowest rates.

Map 76: Child and Adolescent Mental Health Service clients, South Australia, 2007/08



Regional totals

The rate of CAMHS' clients in country South Australia is more than twice that in metropolitan Adelaide (Table 35). All country regions, other than Barossa - Barossa with a rate of 12.5 per 1,000 population, had higher rates than the South Australian average, ranging from 21.3 per 1,000 in Adelaide Hills to 39.1 in Far North. A substantially lower rate was recorded in Eastern Adelaide, with only 4.9 CAMHS' clients per 1,000 population, well below the levels in the other regions in Adelaide.

Table 35: Child and Adolescent Mental Health Service clients, by State Region, 2007/08

Region	No.	Rate*
Northern Adelaide	1,545	15.4
Western Adelaide	685	14.8
Eastern Adelaide	222	4.9
Southern Adelaide	1,208	14.5
Metropolitan regions	3,569	13.3
Adelaide Hills	415	21.3
Murray and Mallee	677	36.5
Fleurieu and Kangaroo Island	280	28.2
Limestone Coast	541	30.5
Barossa	224	12.5
Yorke and Mid North	641	33.5
Eyre and Western [#]	570	35.8
Far North [#]	298	39.1
Country SA	3,646	28.9
South Australia	7,215	18.3

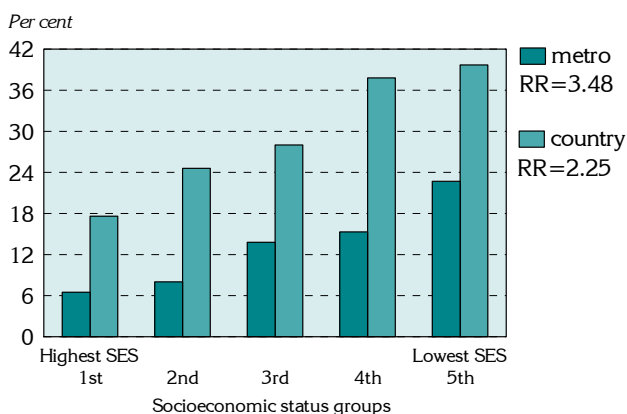
* Rate is the number of CAMHS' clients aged 0 to 19 years per 1,000 population at that age

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

The rate of CAMHS' clients in metropolitan Adelaide increases substantially with increasing socioeconomic disadvantage, from a rate of 6.5 per 1,000 in the most advantaged (highest SES) areas to 22.7 in the most disadvantaged (lowest SES) areas, a rate ratio of 3.48 (Figure 64).

Figure 64: Child and Adolescent Mental Health Service clients, by socioeconomic status, South Australia, 2007/08

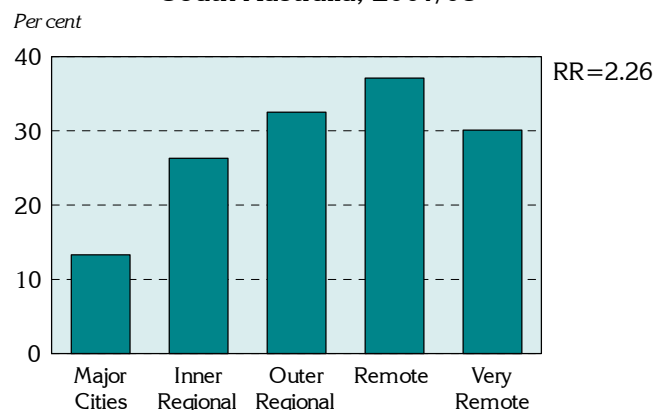


There are substantially more clients per head of population in country South Australia than in metropolitan Adelaide in each of the socioeconomic status groups. However, the differential in rates between the highest SES areas (a rate of 17.6 per 1,000) and lowest SES areas (39.7 per 1,000) is less marked (a rate ratio of 2.25).

Remoteness

Just over half (51.3%) of the clients of the Child and Adolescent Mental Health Service live in the Major Cities remoteness class, compared to 70.8% of the population aged 0 to 19 years, resulting in the lowest rates. The highest rates were recorded for those children and adolescents living in the Remote (a rate of 37.1 per 1,000 population) and Outer Regional (32.5 per 1,000) remoteness areas (Figure 65).

Figure 65: Child and Adolescent Mental Health Service clients, by remoteness, South Australia, 2007/08



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of clients of CAMHS and many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and admission to hospital of children and young people. Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are strong to very strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Active parental involvement with school activities

Parent involvement with activities in their children's school has been described as a form of cultural capital, and an important means to support better learning outcomes for children⁽⁸⁾. Parents may be involved in school governance and decision-making (i.e., parents participate in formal school structures); in teaching and learning activities in the school and at home (e.g., parents volunteer in the classroom, help with sports coaching or organisation and discuss school-related issues with children); and in communications between home and school⁽⁹⁾. Such involvement is strongly influenced by family socioeconomic status; and also by the cultural and ethnic backgrounds of parents and their proficiency in English^(10, 11).

Indicator definition: people with school aged children who reported being involved with activities in their child's or children's school(s). These data were not available for all SLAs, so only limited geographical analysis was possible.

Key points

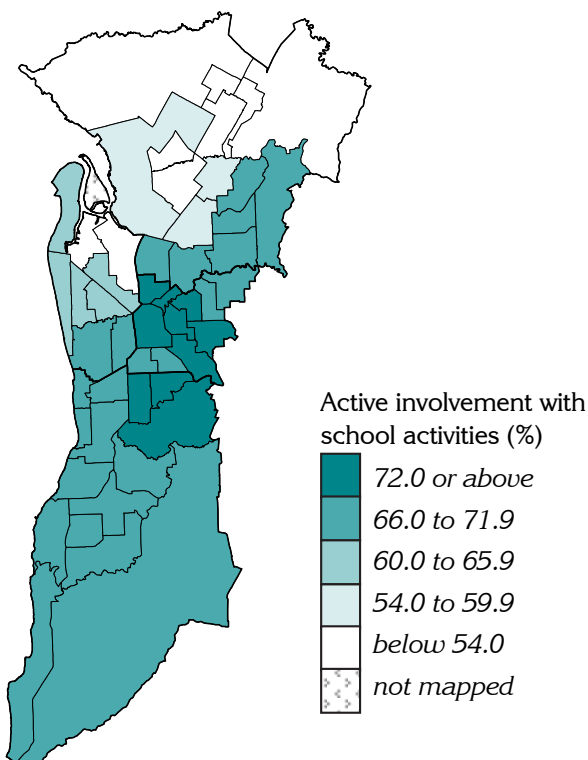
- The proportion of the population with school-aged children who were involved in school activities was slightly higher in metropolitan Adelaide (64.8%) than in country South Australia (60.5%).
- People in lower socioeconomic areas in the north-west and outer north were less likely to be involved in school activities than those in other parts of Adelaide, in particular areas of high socioeconomic status.

Geographic variation

Adelaide

The geographic distribution of parents of school-aged children, who were actively involved in school activities, is somewhat unusual. On the one hand, it shows a clear and strong association with socioeconomic status, with the highest rates of participation in the city and in adjacent SLAs to the north, east and south-east (**Map 77**).

Map 77: Active parental involvement with school activities, Adelaide, 2006



On the other hand, there is a high level of involvement across all of the south-western and outer southern SLAs, including those of low socioeconomic status.

More than 80% of parents with school-aged children were actively involved in school activities in the higher SES areas of Adelaide, Burnside, Prospect and Walkerville, and Mitcham.

Fewer than 50% of parents reported being actively involved in Salisbury - Central and - Inner North, Playford - West and - West Central, and Port Adelaide Enfield - Port.

Country South Australia

The highest level of involvement in school activities in country South Australia was recorded on the Eyre Peninsula, with the lowest rates in Murray and Mallee and Southern and Hills (**Table 36**).

Table 36: Active parental involvement with school activities, country South Australia, 2006

Area#	%
Central	59.1
Eyre Peninsula	74.7
Gawler	64.1
Murray and Mallee	52.9
South East	59.0
Southern and Hills	55.2

See Glossary

Regional totals

Parent involvement in school activities was slightly higher in metropolitan Adelaide (64.8%) than in country South Australia (60.5%).

In metropolitan Adelaide, participation rates ranged from 55.6% in Northern Adelaide to 76.7% in Eastern Adelaide (Table 37).

Table 37: Active parental involvement with school activities, by State Region, South Australia, 2006

Region	%
Northern Adelaide	55.6
Western Adelaide	62.6
Eastern Adelaide	76.7
Southern Adelaide	71.1
Metropolitan regions	64.8
Country SA	60.5
South Australia	63.7

Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of the population who reported being actively involved with activities in their children's school with participation in preschool and secondary school, and access to a high speed Internet connection at home; and strong to very strong inverse correlations with many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, poor dental health at age 12 and smoking during pregnancy) are inverse and strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Young women at risk of a poor pregnancy outcome

Late fetal and neonatal death rates are often used to identify geographic areas of increased perinatal risk, but these deaths are now too infrequent to provide reliable risk estimations for small population groups. In 1986, data from perinatal deaths was supplemented with additional risk factor assessments to gain a broader basis for inferring risk by area ⁽¹²⁾. Factors found to correlate with adverse perinatal outcomes in South Australia include low birthweight, low gestational age at birth, birth defects, Aboriginal births, pregnancies among teenagers and women in their late thirties and older, single mothers, three or more prior live births, a prior perinatal death, and limited antenatal care. These factors help to explain the differences in perinatal risk by area. A variety of obstetric and other clinical conditions also contribute ⁽¹²⁾.

Indicator definition: The results of seventeen perinatal risk factors (see notes in Appendix) were calculated separately for women aged 15 to 24 years; SLAs with nine or more individual risk factors with a poor outcome relative to the state-wide score (e.g., percentage of low birthweight babies higher than the South Australian average; fewer than the average number of antenatal visits), were given a 'high risk' score.

Key points

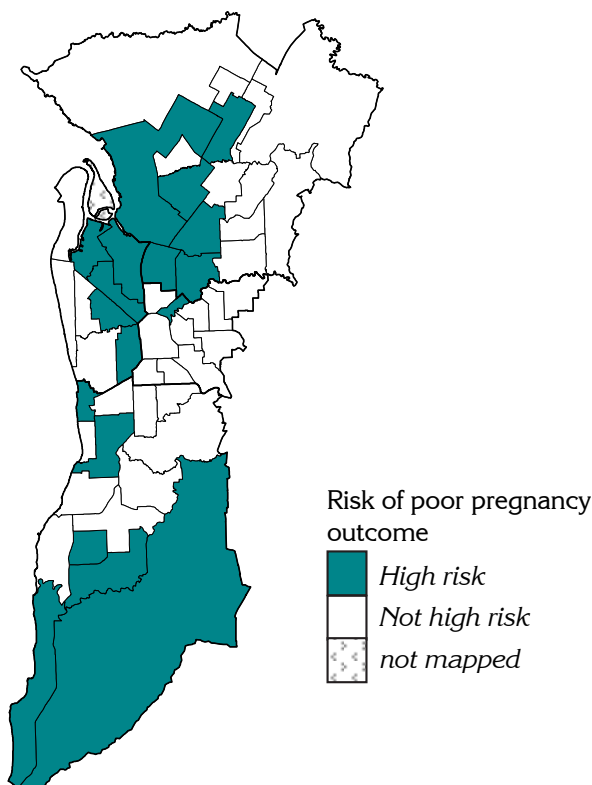
- There is a strong association at the SLA level in metropolitan Adelaide between the risk of a poor pregnancy outcome and socioeconomic disadvantage.

Geographic variation

Adelaide

Metropolitan SLAs where young pregnant women were considered to be at a high risk for an adverse perinatal outcome were located in three clusters, with the largest cluster extending from areas immediately to the west and north of the city to the outer northern suburbs; two smaller clusters occurred in the middle and outer south (**Map 78**).

Map 78: Risk of poor pregnancy outcome, Adelaide, 2003 to 2005

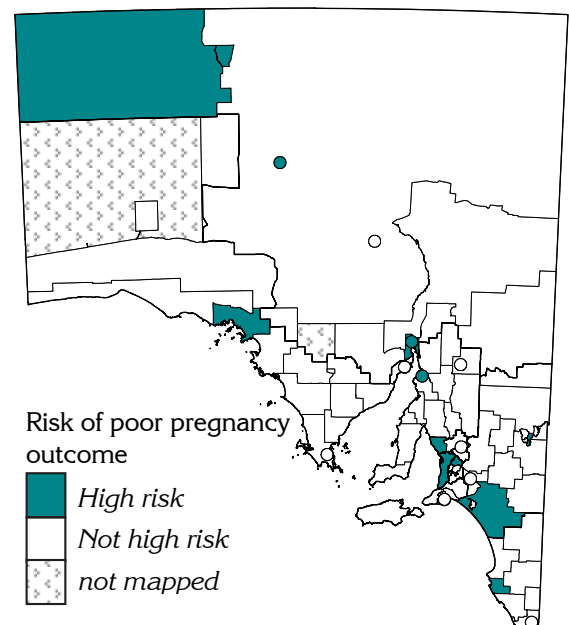


Areas where women were not considered at a high risk for an adverse perinatal outcome include those areas of higher socioeconomic status, as well as some of relatively low socioeconomic status, using the IRSD (see **Map 25**).

Country South Australia

Pregnant women aged 15 to 24 years in the majority of SLAs in country South Australia were not considered to be at a high risk for adverse perinatal outcomes: this may, in part, reflect the smaller number of births in these areas imposing a limit on the value of the analysis.

Map 79: Risk of poor pregnancy outcome, South Australia, 2003 to 2005



SLAs where pregnant women were considered to be at a high risk an adverse perinatal outcome included Ceduna, Port Pirie, Port Augusta, Anangu Pitjantjatjara and Coober Pedy in the more remote parts of the State, and as well as Mallala, Adelaide Hills - North, Berri, The Coorong and Robe.

Regional totals

At the regional level in the metropolitan area, young pregnant women living in the Northern Adelaide and Western Adelaide regions were considered to be at a high risk of a poor pregnancy outcome; and in country South Australia, regions where women were considered to be at a high risk included Murray and Mallee, Yorke and Mid North, and Far North (Table 38).

Table 38: Risk of poor pregnancy outcome, by State Region, 2003 to 2005

Region	Risk
Northern Adelaide	High risk
Western Adelaide	High risk
Eastern Adelaide	Not high risk
Southern Adelaide	Not high risk
Metropolitan regions	High risk
Adelaide Hills	Not high risk
Murray and Mallee	High risk
Fleurieu and Kangaroo Island	Not high risk
Limestone Coast	Not high risk
Barossa	Not high risk
Yorke and Mid North	High risk
Eyre and Western [#]	Not high risk
Far North [#]	High risk
Country SA	Not high risk
South Australia	..

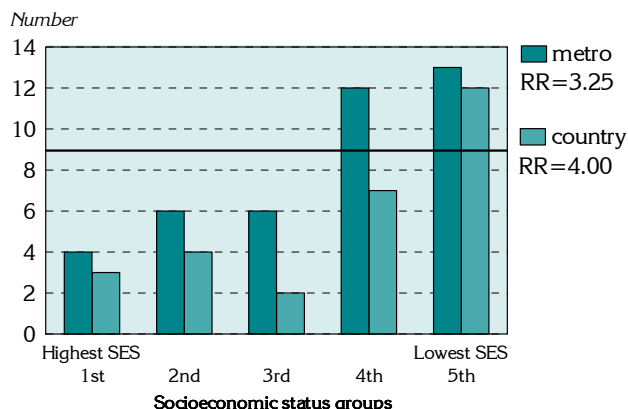
[#] See 'Notes on the data' in the Appendix

Socioeconomic status

Figure 66 shows the number of individual perinatal risk factors that were above the State average in each socioeconomic status group. In metropolitan Adelaide, the number of risk factors indicating a poorer outcome of pregnancy than the state-wide average increases with socioeconomic disadvantage, ranging from four in the most advantaged (highest SES) areas to 13 in the most disadvantaged (lowest SES) areas.

In country South Australia, the number of risk factors indicating poorer outcomes is four times higher in the lowest SES areas (12) compared to the highest SES areas (three). The step-wise gradient is broken by a much lower figure in the middle socioeconomic status group.

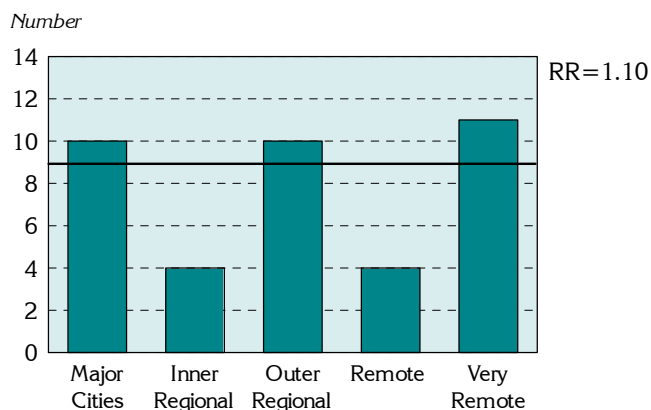
Figure 66: Risk of poor pregnancy outcome, by socioeconomic status, South Australia, 2003 to 2005



Remoteness

The number of perinatal risk factors with elevated scores was substantially below the state-wide average of nine risk factors in the Inner Regional and Remote areas (both with four), and above average in the other three remoteness classes. The highest number is in the Very Remote areas (13) (Figure 67).

Figure 67: Risk of poor pregnancy outcome, by remoteness, South Australia, 2003 to 2005



Correlations

There are moderate correlations at the SLA level in metropolitan Adelaide between areas where pregnant women were considered to be at a high risk of an adverse perinatal outcome and many of the indicators of socioeconomic disadvantage, including jobless families, high rates of welfare dependency, low rates of participation in formal schooling, lack of access at home to the Internet and clients of CAMHS. Correlations with poor health outcomes (high proportions of four year old boys who were obese and smoking during pregnancy) are also of moderate strength.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Smoking in pregnancy by young women

Maternal smoking during pregnancy results in higher risks of adverse outcomes for the baby before and after delivery, such as premature birth, miscarriage and perinatal death, poor intra-uterine growth and SIDS (Sudden Infant Death Syndrome). Other related problems include a higher risk of disability and developmental delay, decreased lung function and increased respiratory illness, which may affect children through to adulthood.

Indicator definition: Females aged 15 to 24 years who reported that they smoked during their pregnancy.

Key points

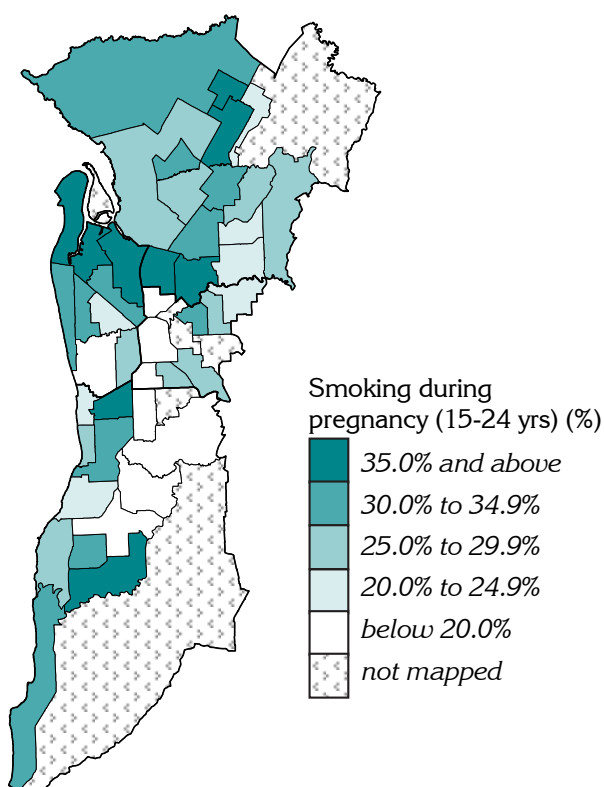
- Just over one third (34.4%) of young women reported smoking during their pregnancy, with a higher rate for Aboriginal women (64.9%) than for non-Aboriginal women (32.4%).
- There is substantial variation in rates when viewed by socioeconomic status, with rates of 37.9% in the areas of greatest socioeconomic disadvantage in metropolitan Adelaide, and 44.4% in country areas.

Geographic variation

Adelaide

The distribution of young women who smoked during pregnancy is strongly associated with socioeconomic disadvantage (**Map 80**). The SLAs of Playford - Elizabeth, - West Central and - West; Port Adelaide Enfield - Coast, - Port, - Inner and - East; Walkerville and Onkaparinga - Hackham, - Morphett and - South Coast had the highest rates. In areas with five or more cases, the lowest rates were recorded in Onkaparinga - Reservoir, West Torrens - West, Unley - West and Mitcham - Hills.

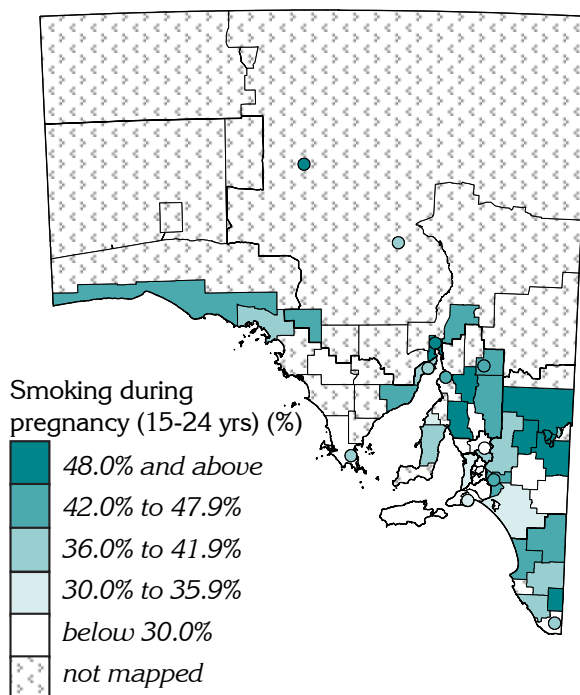
Map 80: Females aged 15 to 24 years who smoked during pregnancy, Adelaide, 2003 to 2005



Country South Australia

The highest rates of smoking during pregnancy by young women were found in country South Australia (note the higher ranges used in the legend in **Map 81**). They included Unincorporated Riverland, Northern Areas, Wakefield, Berri and Wattle Range - East: also in this highest range were Coober Pedy (with the highest rate in the State) and Port Augusta. The lowest rates, in areas where there were five or more cases, were recorded in Alexandrina - Strathalbyn, Grant, Adelaide Hills - Ranges, Mount Barker Balance and Southern Mallee. As can be seen by the number of areas 'greyed' out in the map, many areas had too few cases for analysis. See over for comment on smoking rates for Aboriginal women.

Map 81: Females 15 to 24 years who smoked during pregnancy, South Australia, 2003 to 2005



Regional totals

There is wide variation at the regional level in smoking rates among young pregnant women, ranging from a low of 23.2% in Eastern Adelaide to a high of 49.1% in Far North (Table 39). Relatively high percentages were also recorded in the regions of Murray and Mallee, and Yorke and Mid North.

Table 39: Females aged 15 to 24 years who smoked during pregnancy, by State Region, 2003 to 2005

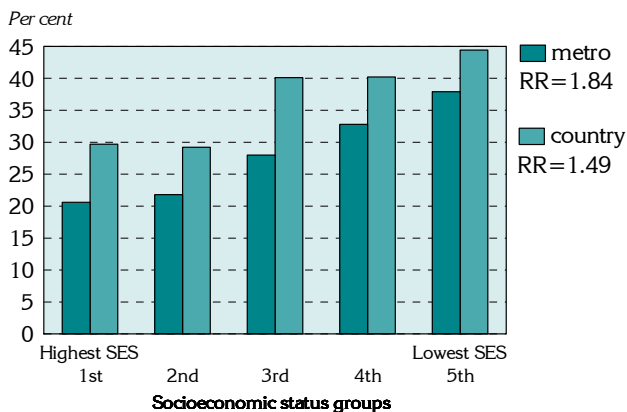
Region	No.	%
Northern Adelaide	1,256	34.8
Western Adelaide	371	32.1
Eastern Adelaide	105	23.2
Southern Adelaide	518	28.4
Metropolitan regions	2,250	32.0
Adelaide Hills	74	28.9
Murray and Mallee	311	42.7
Fleurieu and Kangaroo Island	63	27.3
Limestone Coast	236	38.4
Barossa	141	33.5
Yorke and Mid North	230	40.6
Eyre and Western [#]	270	38.5
Far North [#]	184	49.1
Country SA	1,509	38.7
South Australia	3,759	34.4

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

In metropolitan Adelaide, there is a clear pattern of higher rates of smoking by young women during their pregnancy with increasing socioeconomic disadvantage (Figure 68). Rates in metropolitan Adelaide increased, from 20.6% in the most advantaged (highest SES) areas to 37.9% in the most disadvantaged (lowest SES) areas, a differential of 84%. Rates in each socioeconomic status group were below those in country South Australia.

Figure 68: Females aged 15 to 24 years who smoked during pregnancy, by socioeconomic status, South Australia, 2003 to 2005



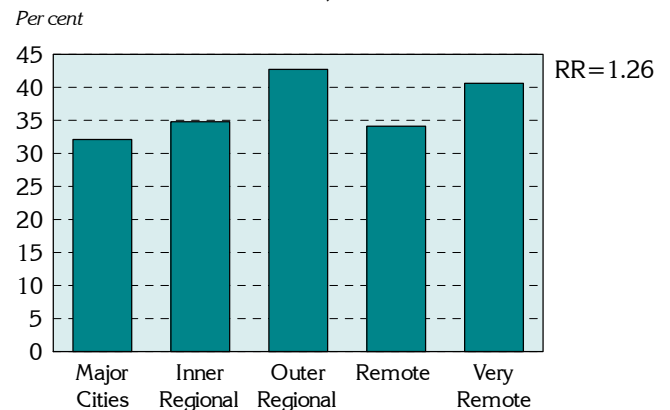
A clear gradient is also evident in rates in country South Australia. Although the differential in rates between the lowest and highest SES areas is smaller than in metropolitan Adelaide, this is a result of the substantially higher rate in the highest SES areas (Figure 68). There were 49% more women aged 15 to 19 years smoking during pregnancy in the lowest SES areas (44.4%) compared with those in the highest SES areas (29.7%).

Remoteness

The percentage of young women smoking during pregnancy was highest in the Outer Regional and Very Remote areas, with rates of 42.7% and 40.6% respectively (Figure 69). Rates were similar in the Inner Regional and Remote classes (just under 35%), with the lowest rate recorded in the Major Cities areas (32.1%).

These data, and those in the map, regional table and SES graph, are influenced by the higher rate of smoking among Aboriginal women.

Figure 69: Females aged 15 to 24 years who smoked during pregnancy, by remoteness, South Australia, 2003 to 2005



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of smoking by young women during their pregnancy and many of the indicators of socioeconomic disadvantage, including high rates of jobless families, welfare dependency, lack of access to the Internet at home and use of public health services (admissions to a public acute hospital and clients of CAMHS). The correlation with children developmentally vulnerable on two or more domains under the AEDI is strong; and those with poor health outcomes (high proportions of four year old children who were obese and poor dental health at age 12) are moderate to strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Overweight and obesity in four year old children

Overweight and obesity in childhood and adolescence can cause a range of physical and emotional health problems; and obesity increases the risk of chronic disease and premature death in adulthood.

Four year old children who are overweight

Indicator definition: four year old children assessed as being overweight (but not obese) on the basis of their measured height and weight: details of the distribution of children assessed as obese are also shown.

Key points

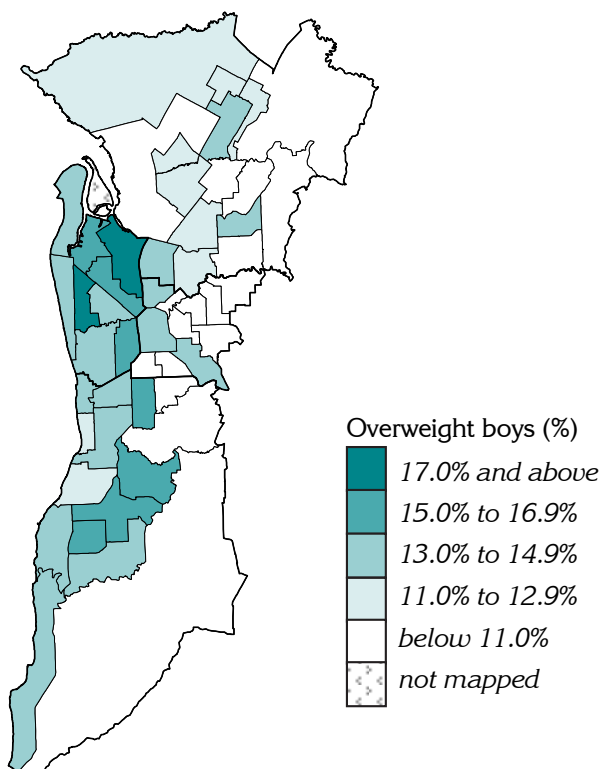
- There are more overweight girls (15.7% of girls) than boys (12.7%) at four years of age.
- Variations are evident across the State, with different geographic distributions evident for boys and girls; however, overall there are similar percentages of overweight four year old children in country and metropolitan areas.

Geographic variation

Adelaide

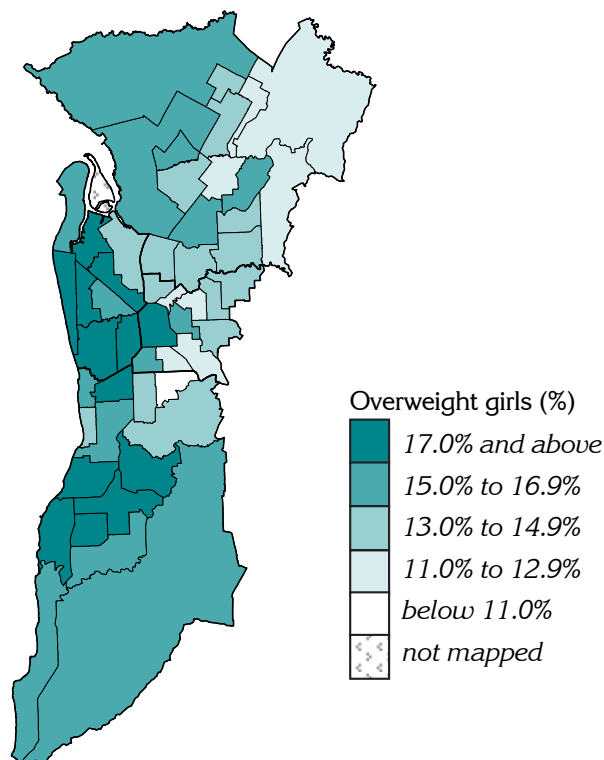
The distribution of overweight four year old boys is relatively even, with a majority of SLAs mapped in the middle and lowest ranges (**Map 82**). The highest rates were in SLAs in the north-west, in Charles Sturt - Inner West and Port Adelaide Enfield - Park. Of the many areas with very low rates, the lowest (with fewer than 9% of boys assessed as being overweight) were Norwood Payneham St Peters - East, Tea Tree Gully - North and Unley - East.

Map 82: Overweight four year old boys, Adelaide, 2004 to 2007



The distribution for girls differs somewhat, with more SLAs in the highest range in the north-west, west and the outer south, where the highest rates were found in the Onkaparinga SLAs of - Morphett, - Reservoir and - Woodcroft. Mitcham - North-East, Unley - East and Burnside - South-West had the lowest percentages (**Map 83**). Notably, no SLA in the outer north had high rates.

Map 83: Overweight four year old girls, Adelaide, 2004 to 2007

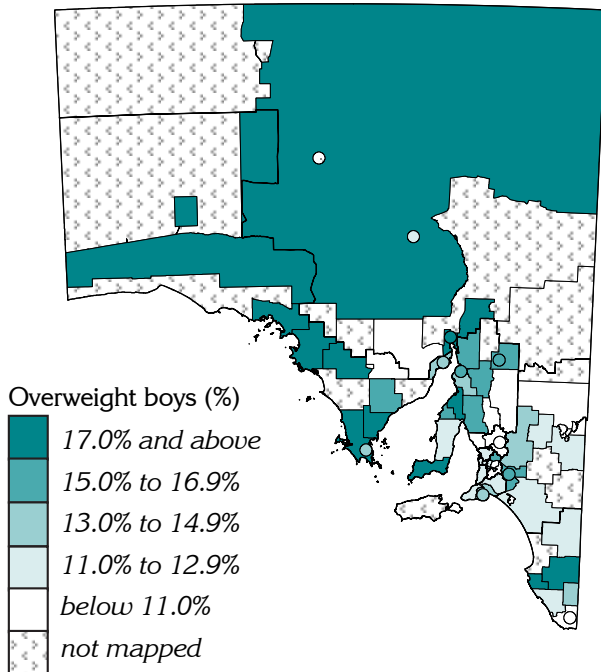


Country South Australia

Country areas with the highest rates of overweight four year old boys were widely spread, including in the SLAs of Barunga West, Unincorporated Far North, Le Hunte and Ceduna (**Map 84**).

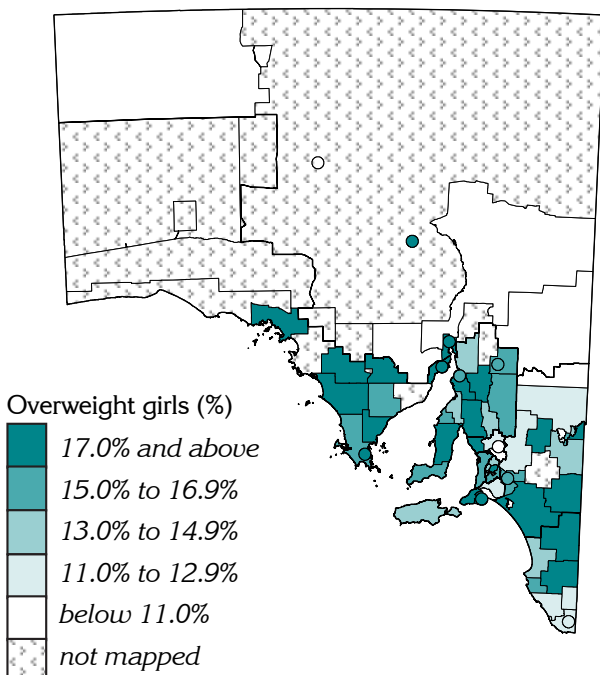
The lowest percentages were generally in SLAs located closer to Adelaide (in the Barossa - Barossa SLAs of - Tanunda and - Barossa), the mid north and the Riverland, including Berri and Barmera.

Map 84: Overweight four year old boys, South Australia, 2004 to 2007



The distribution of overweight girls is rather different to that for boys, with more SLAs mapped in the highest range, and more of the larger towns with above-average rates. The lowest percentages, in areas with ten or more overweight girls, were recorded in Barossa, Alexandrina - Coastal and Light (Map 85).

Map 85: Overweight four year old girls, South Australia, 2004 to 2007



High rates for overweight girls were recorded in a number of areas, including in several SLAs on Eyre Peninsula, in the Mid North and Yorke Peninsula, and the South East, as well as in some SLAs near Adelaide. Le Hunte, Ceduna and Northern Areas had the highest rates, followed by a number of the larger towns (Port Lincoln, Whyalla, Port Augusta, Roxby Downs and Victor Harbor).

Regional totals

The highest proportion of overweight children in metropolitan Adelaide for both boys (Table 40) and girls (Table 41) was in Western Adelaide, with rates of 15.2% and 17.5%, respectively.

In the country regions, the highest percentage for both boys and girls were recorded in Eyre and Western, Far North, and Yorke and Mid North.

Table 40: Overweight four year old boys, by State Region, 2004 to 2007

Region	No.	%
Northern Adelaide	678	11.4
Western Adelaide	373	15.2
Eastern Adelaide	222	10.1
Southern Adelaide	648	14.2
Metropolitan regions	1,920	12.7
Adelaide Hills	132	11.8
Murray and Mallee	159	11.9
Fleurieu and Kangaroo Island	52	12.1
Limestone Coast	164	11.6
Barossa	94	9.0
Yorke and Mid North	227	14.9
Eyre and Western*	180	15.2
Far North*	69	15.6
Country SA	1,076	12.7
South Australia	3,028	12.7

See 'Notes on the data' in the Appendix

Table 41: Overweight four year old girls, by State Region, 2004 to 2007

Region	No.	%
Northern Adelaide	811	14.5
Western Adelaide	413	17.5
Eastern Adelaide	282	13.6
Southern Adelaide	745	17.3
Metropolitan regions	2,251	15.7
Adelaide Hills	165	14.8
Murray and Mallee	208	15.2
Fleurieu and Kangaroo Island	58	13.9
Limestone Coast	204	14.2
Barossa	111	12.0
Yorke and Mid North	243	17.0
Eyre and Western*	225	20.0
Far North*	68	17.0
Country SA	1,282	15.6
South Australia	3,576	15.7

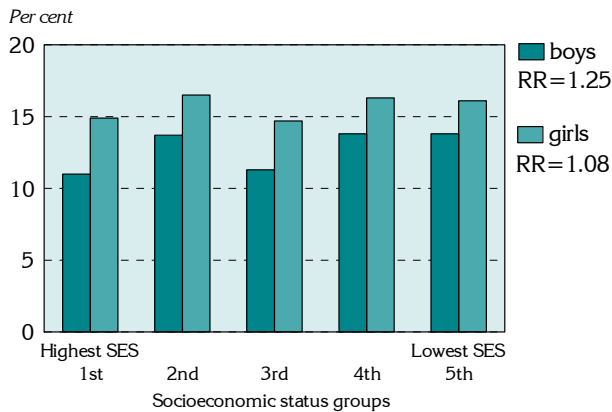
See 'Notes on the data' in the Appendix

Socioeconomic status

Adelaide

The differential in rates of overweight children between the most disadvantaged (lowest SES) areas and the most advantaged (highest SES) areas in metropolitan Adelaide was greater for boys (25%, a rate ratio of 1.25) than for girls (8%, 1.08) (Figure 70).

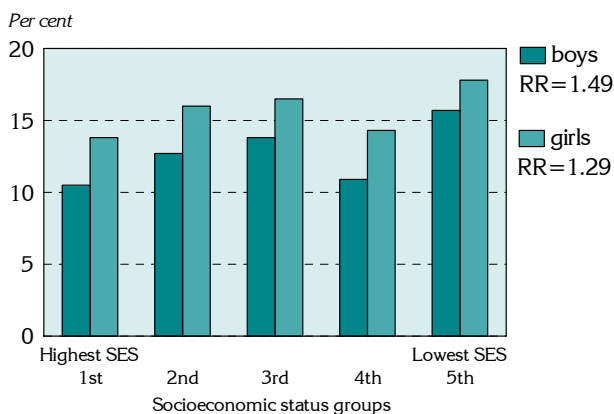
Figure 70: Overweight boys and girls, by socioeconomic status, Adelaide, 2004 to 2007



Country South Australia

In the country areas of South Australia, the differential in rates of overweight boys (49%, a rate ratio of 1.49) and girls (29%, 1.29) between the most disadvantaged and advantaged areas are both greater than in Adelaide, and are similarly greater for boys than girls (Figure 71). It is not clear why rates are so much lower in the fourth socioeconomic status group.

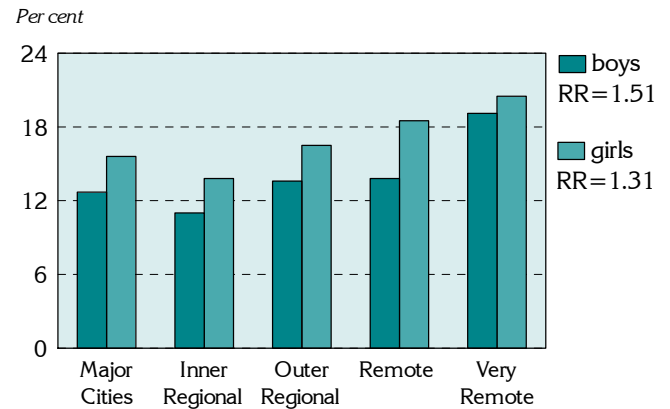
Figure 71: Overweight boys and girls, by socioeconomic status, country South Australia, 2004 to 2007



Remoteness

Being overweight is also associated with remoteness, with more boys and girls being assessed as overweight as remoteness increases, other than for the Inner Regional areas (Figure 72). There were 51% more overweight boys, and 31% more overweight girls, in the Very Remote areas than in the Major Cities areas under the remoteness classification.

Figure 72: Overweight boys and girls, by remoteness, Adelaide, 2004 to 2007



Correlations

There are correlations of moderate strength at the SLA level in metropolitan Adelaide between areas with high rates of boys and girls assessed as being overweight; and, for boys, a moderate correlation with clients of CAMHS.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Four year old children who are obese

Indicator definition: Four year olds assessed as being obese, on the basis of their measured height and weight.

Note: the overall variation at the SLA level in metropolitan Adelaide in percentages for boys in metropolitan Adelaide is relatively small (2.1% to 8.5%) compared to that for girls (1.8% to 12.9%) – and much smaller than the ranges in country areas. As a result, and so as to show as clearly as possible the variation between SLAs with the highest and lowest rates, as well as maintaining the same ranges for boys and girls, the ranges mapped are very small (one percentage point). Users are reminded that the most valid comparisons are between the highest and lowest ranges.

Key points

- There are substantially more obese girls than boys at four years of age, with rates of 6.2% and 4.6% respectively.
- Variations are evident across the State, although with different geographic patterns for boys and girls. However, there are similar percentages of obese four year old children in country and metropolitan areas, with the highest percentage found in the most disadvantaged areas.

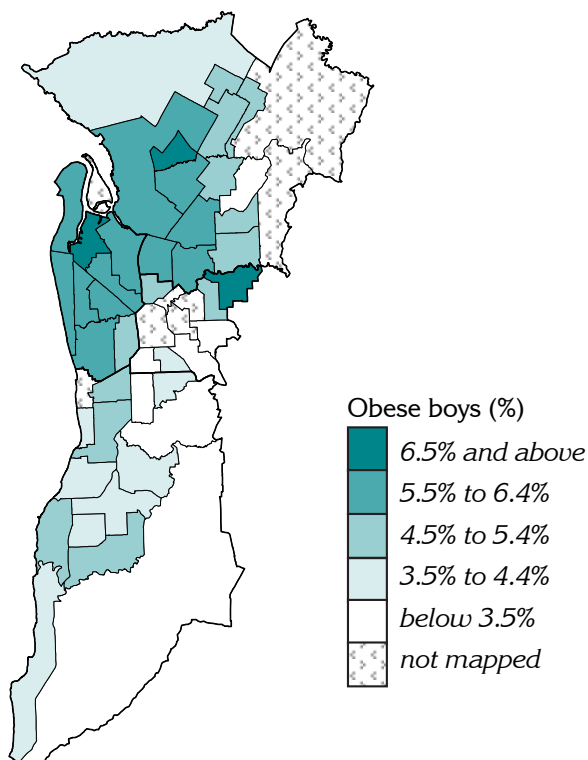
Geographic variation

Adelaide

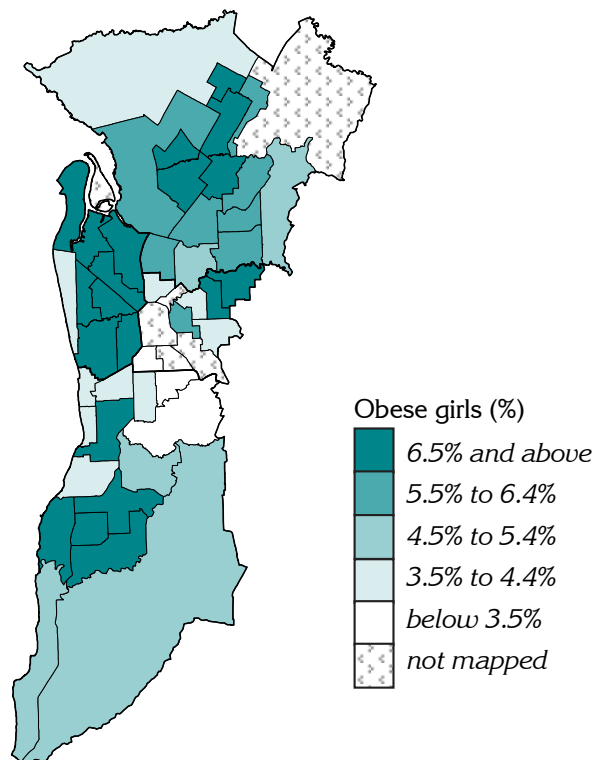
In metropolitan Adelaide, 4.7% of four year old boys were assessed as being obese. Areas with the highest percentages (and ten or more obese boys) were Port Adelaide Enfield - Port, Salisbury - Inner North and Campbelltown - East. The lowest percentages were found in areas located to the east and south of the city, including Mitcham - Hills, Mitcham - West and Burnside - South-West (**Map 86**).

The rate of obesity for girls was higher than for boys at four years of age, with 6.2% of girls assessed as obese. Girls in this category were found in a large number of SLAs in the west, north, north-west, north-east and outer north, as well as in the middle and outer south of metropolitan Adelaide (**Map 87**). The highest rates were in Port Adelaide Enfield - Park and - Port, and Charles Sturt - North-East, - Inner East and - Inner West. The inner southern SLAs of Mitcham - Hills and - North-East, and Unley - West had the fewest four year old girls assessed as obese.

Map 86: Obese four year old boys, Adelaide, 2004 to 2007



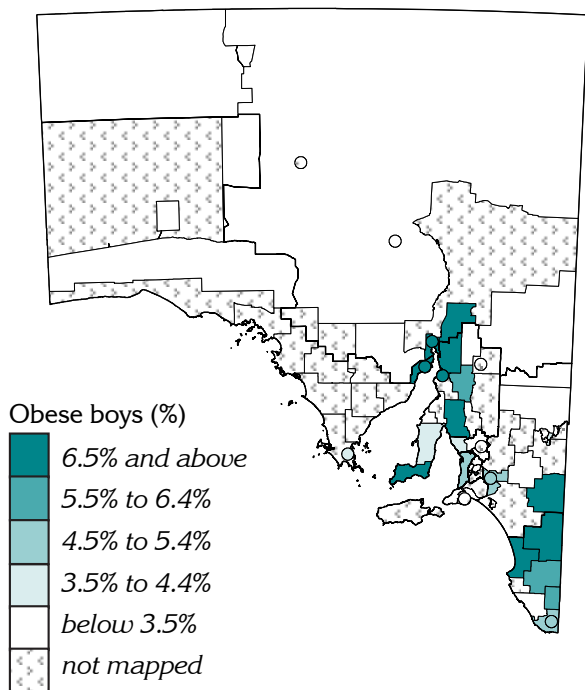
Map 87: Obese four year old girls, Adelaide, 2004 to 2007



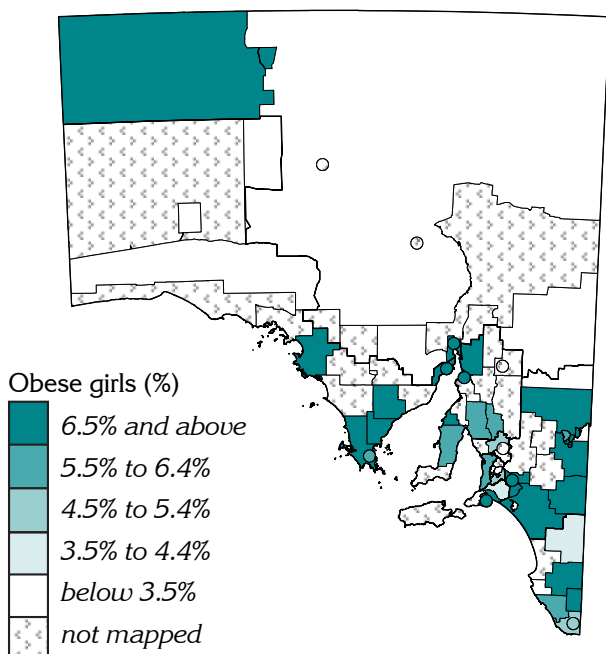
Country South Australia

In country South Australia, the highest percentages of obese four year old boys (in areas where there were ten or more obese boys) were recorded in Port August, Tatiara, Port Pirie and Wakefield (**Map 88**). The SLA of Gawler was the only area with at least ten obese boys mapped in the lowest range.

Map 88: Obese four year old boys, South Australia, 2004 to 2007



Map 89: Obese four year old girls, South Australia, 2004 to 2007



Of areas with ten or more four year old girls assessed as being obese, Naracoorte and Lucindale, Whyalla, Murray Bridge and Port Pirie had the highest percentages in country South Australia; the lowest percentages were recorded in the SLAs of Gawler, Mount Barker - Central and Mount Gambier (**Map 35**).

Regional totals

There were more obese four year old girls (**Table 42**) than boys (**Table 43**) in all metropolitan and country regions. Far North had the highest proportion of obese boys, with the next highest rate in Western Adelaide. For girls, the highest rate for was recorded in Eyre and Western, with the next highest in Western Adelaide.

Table 42: Obese four year old boys, by State Region, 2004 to 2007

Region	No.	%
Northern Adelaide	305	5.2
Western Adelaide	146	6.0
Eastern Adelaide	88	4.0
Southern Adelaide	176	3.9
Metropolitan regions	716	4.7
Adelaide Hills	37	3.3
Murray and Mallee	50	3.7
Fleurieu and Kangaroo Island	11	2.7
Limestone Coast	73	5.2
Barossa	31	3.0
Yorke and Mid North	76	5.0
Eyre and Western [#]	68	5.7
Far North [#]	28	6.4
Country SA	374	4.4
South Australia	1,104	4.6

[#] See 'Notes on the data' in the Appendix

Table 43: Obese four year old girls, by State Region, 2004 to 2007

Region	No.	%
Northern Adelaide	356	6.4
Western Adelaide	202	8.6
Eastern Adelaide	99	4.8
Southern Adelaide	224	5.2
Metropolitan regions	882	6.1
Adelaide Hills	41	3.6
Murray and Mallee	108	7.9
Fleurieu and Kangaroo Island	24	5.7
Limestone Coast	83	5.8
Barossa	34	3.6
Yorke and Mid North	97	6.8
Eyre and Western [#]	106	9.4
Far North [#]	28	7.1
Country SA	520	6.3
South Australia	1,414	6.2

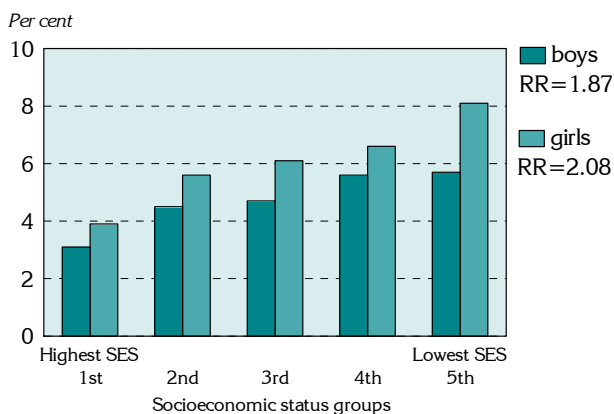
[#] See 'Notes on the data' in the Appendix

Socioeconomic status

Adelaide

In metropolitan Adelaide, the proportion of the four year old population who were assessed as being obese increases substantially with increasing socioeconomic disadvantage for both boys and girls (Figure 73). The difference in rates from those most disadvantaged (lowest SES) areas to those most advantaged (highest SES) areas is greater for girls (2.08) than for boys (1.87).

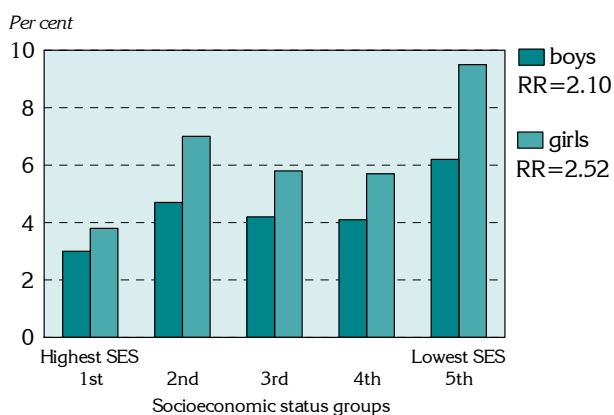
Figure 73: Obese boys and girls, by socioeconomic status, Adelaide, 2004 to 2007



Country South Australia

In country South Australia, obesity also increases with increasing socioeconomic disadvantage, although not consistently (Figure 74). However, for both boys (with a rate ratio of 2.10) and girls (2.52), the rate of obesity in the lowest SES areas was more than twice that in the highest SES areas.

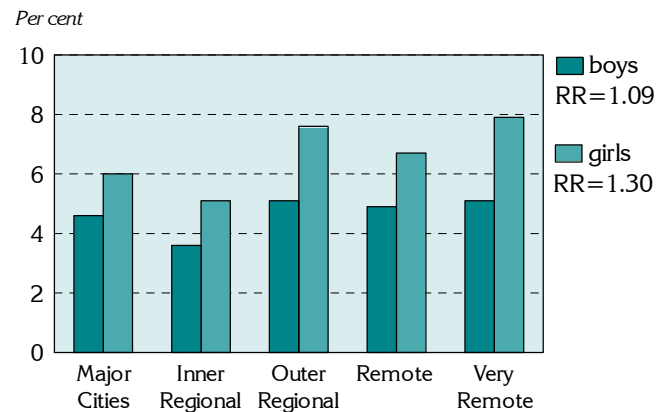
Figure 74: Obese boys and girls, by socioeconomic status, country South Australia, 2004 to 2007



Remoteness

For both boys and girls, the highest percentages of obese four year olds are in the Very Remote and Outer Regional areas, with the lowest in the Inner Regional and Major Cities classes (Figure 75). However, the overall differential in obesity rates between the most remote and least remote areas is just 9% for boys, compared to 30% for girls.

Figure 75: Obese boys and girls, by remoteness, Adelaide, 2004 to 2007



Correlations

There are strong correlations at the SLA level in metropolitan Adelaide between areas with high rates of four year old boys and girls assessed as being obese and many of the indicators of socioeconomic disadvantage, including high rates of jobless families, welfare dependency, lack of access to the Internet at home (in particular to a high-speed connection), low rates of participation in formal schooling and clients of CAMHS. Correlations with poor health outcomes (smoking during pregnancy and poor dental health at age 12) are moderate.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Substantiations of notifications of child abuse or neglect, 2008/09

The burden of complex and chronic family issues (such as low income, disability, substance abuse, mental health issue, family violence and unsupported sole parenting) may lead to children being notified to child protection authorities ⁽¹³⁾. Helping families to deal with these problems often requires sustained intervention from agencies other than child protection authorities. There is also a need for strengthened prevention and early intervention services, and better support for those children and young people with longer-term involvement in the child protection system ⁽¹³⁾. Rates of notifications for Aboriginal children are around twelve times those for non-Aboriginal children, indicating the relative socioeconomic disadvantage of Aboriginal families in South Australia.

Indicator definition: Substantiations of notifications to child protection authorities of child abuse or neglect, expressed as a rate (age standardised) per 1,000 population aged 0 to 18 years.

Key points

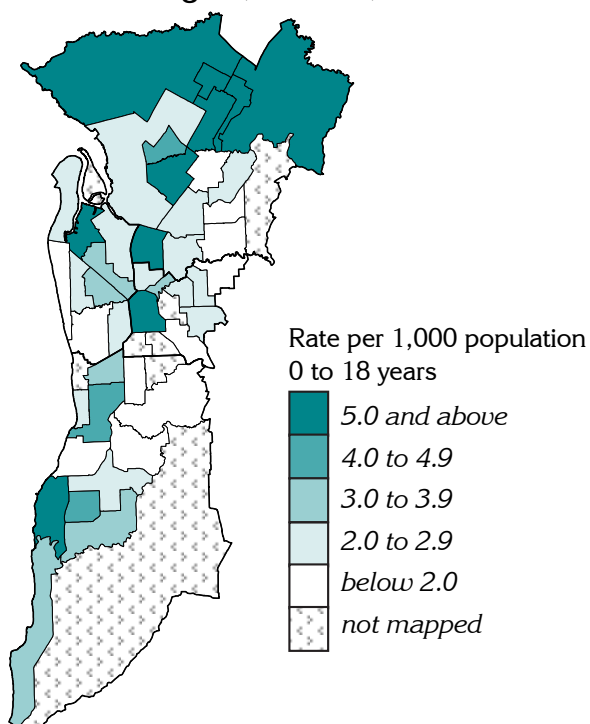
- There are clear distinctions between areas with high and those with low rates of substantiations of child abuse or neglect in both metropolitan Adelaide and country South Australia.
- Rates are highest in the most remote areas of the State, and in the most disadvantaged areas.

Geographic variation

Adelaide

The distribution at the SLA level in metropolitan Adelaide of substantiated notifications of child abuse or neglect shows a clear divide between areas with high and areas with low rates. There are highly elevated rates in a number of outer northern SLAs, as well as in a small number of SLAs dispersed across Adelaide – in the city centre, the inner north, north-west and outer south. Low rates occur across most of the remaining areas, including in the north-east, east, west and some middle southern suburbs (Map 92).

Map 90: Substantiations of notifications of child abuse or neglect, Adelaide, 2008/09

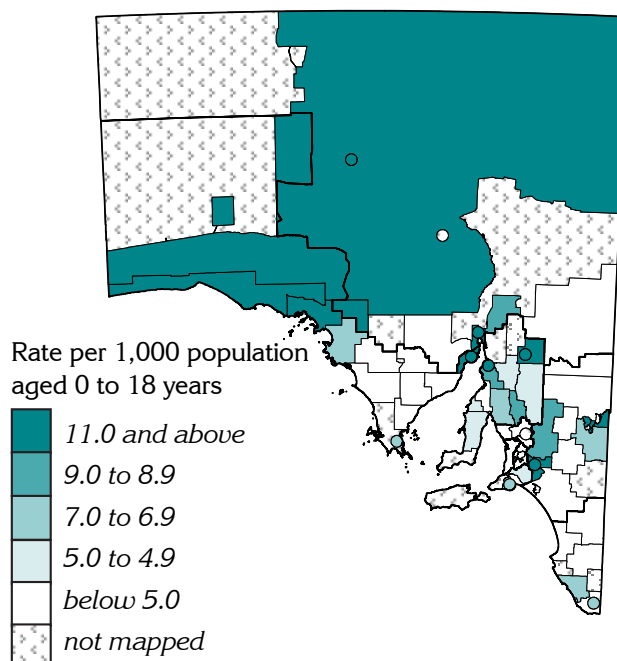


South Australia

A number of SLAs in country South Australia had fewer than five substantiated cases of child abuse or neglect (and have not been mapped) and many others had very low rates (Map 93). The highest rates were recorded in SLAs across much of the far north and west of the State, as well as in the Riverland. Murray Bridge and all of the northern towns (other than Roxby Downs) had highly elevated rates.

The SLA of Anangu Pitjantjatjara, in the far north-west of the State, had too few notifications or substantiated cases to map; this is unlikely to reflect the true situation in this area.

Map 91: Substantiations of notifications of child abuse or neglect, South Australia, 2008/09



Regional totals

At the regional level in metropolitan Adelaide, rates more than double, from 1.9 per 1,000 population aged 0 to 18 years in Eastern Adelaide to 4.5 per 1,000 in Northern Adelaide (Table 44). In country South Australia, the variation in the rates of substantiations is from 2.1 per 1,000 in Adelaide Hills to 25.5 per 1,000 in Far North.

Table 44: Substantiations of notifications of child abuse or neglect, by State Region, 2008/09

Region	No.	Rate*
Northern Adelaide	425	4.5
Western Adelaide	113	2.5
Eastern Adelaide	79	1.9
Southern Adelaide	224	2.8
Metropolitan regions	841	3.2
Adelaide Hills	39	2.1
Murray and Mallee	198	11.1
Fleurieu and Kangaroo Island	43	4.5
Limestone Coast	104	5.9
Barossa	83	4.9
Yorke and Mid North	155	8.6
Eyre and Western [#]	194	12.1
Far North [#]	206	25.5
Country SA	1,022	8.4
South Australia	1,863	4.9

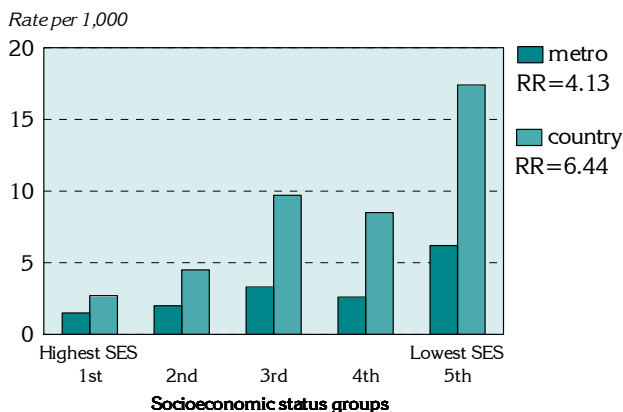
[#] See 'Notes on the data' in the Appendix

*Rate per 1,000 population 0 to 18 years

Socioeconomic status

In metropolitan Adelaide, the rate of substantiations of child abuse or neglect notifications in the most disadvantaged (lowest SES) areas were more than four times those in the most advantaged (highest SES) areas, with rates of 6.2 and 1.5 per 1000, respectively (Figure 76).

Figure 76: Substantiations of notifications of child abuse or neglect, by socioeconomic status, South Australia, 2008/09

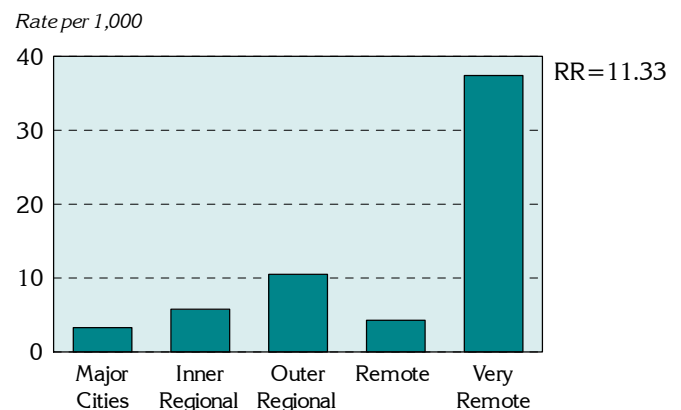


The differential in rates between the highest and lowest SES areas in country South Australia was greater than in metropolitan Adelaide (Figure 78), with over six times more substantiations in the most disadvantaged areas (17.4 per 1,000) compared to the most advantaged areas (2.5 per 1,000).

Remoteness

The rate of substantiations of child abuse or neglect notifications increase, although not consistently, with increasing remoteness, ranging from 3.3 per 1,000 in the Major Cities category to 37.4 per 1,000 in the Very Remote class (Figure 79). As noted above, there are negligible numbers reported from Anangu Pitjantjatjara, which is included in the Very Remote class. While this effectively leads to an understatement in the ratio between the rates in the most and least remote areas, it is still substantial, at over eleven.

Figure 77: Substantiations of notifications of child abuse or neglect, by remoteness, South Australia, 2008/09



Correlations

There are strong correlations at the SLA level in Adelaide in Adelaide between areas with high rates of substantiations of notifications of child abuse or neglect and many indicators of socioeconomic disadvantage, including high rates of jobless families, welfare dependency, lack of access to the Internet at home, low rates of participation in formal schooling, children developmentally vulnerable on two or more domains under the AEDI and high rates of use of public health services (admissions to public acute hospitals and clients of CAMHS). Correlations with poor health outcomes (smoking during pregnancy by young mothers and poor dental health at age 12) are also strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Poor dental health of twelve year old children

Oral health is fundamental to overall health, wellbeing and quality of life ⁽¹⁴⁾. The oral health of children in South Australia has improved markedly over several decades, as a result of changes in diet and declines in sugar consumption, exposure to fluoride and changes in disease management. However, recent trends indicate some deterioration – for example, there was a 21% increase in decay experience in five year old children between 1996 and 1999 ⁽¹⁵⁾.

Indicator definition: Twelve year old children attending the School Dental Service who had one or more decayed, missing or filled teeth.

Key points

- Almost half (45.5%) of twelve year old children attending the School Dental Service had decayed, missing or filled teeth.
- Poor dental health was more predominant among children of lower socioeconomic status and those living in remote areas.

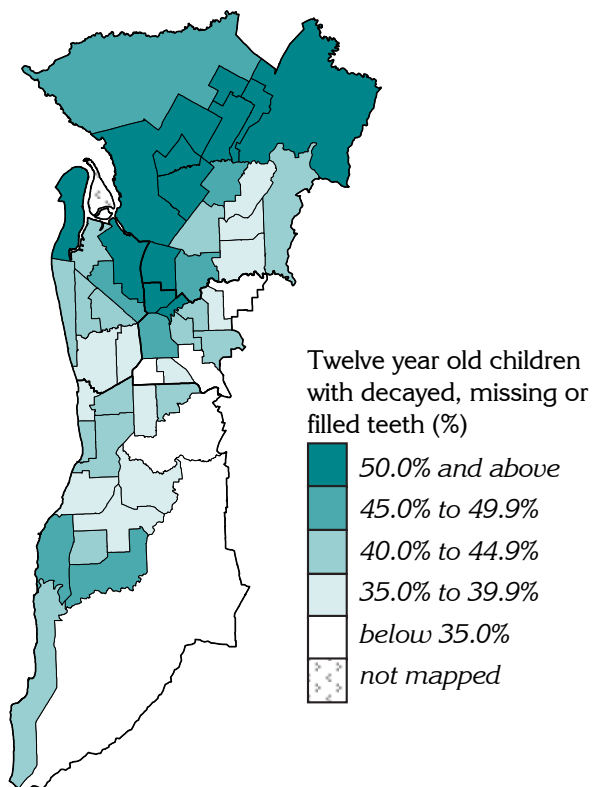
Geographic variation

Adelaide

The following data include children attending the School Dental Service (SDS); children of this age attending dental practitioners in private practice are not included.

The distribution at the SLA level in metropolitan Adelaide of children with poor dental health is striking, with highly elevated rates across much of the inner north, and north-west and outer northern suburbs, and generally low rates in the remaining areas, including the outer south (Map 92). More than half (55%) of twelve year old children in the

Map 92: Twelve year old children with poor dental health, Adelaide, 2007 to 2008

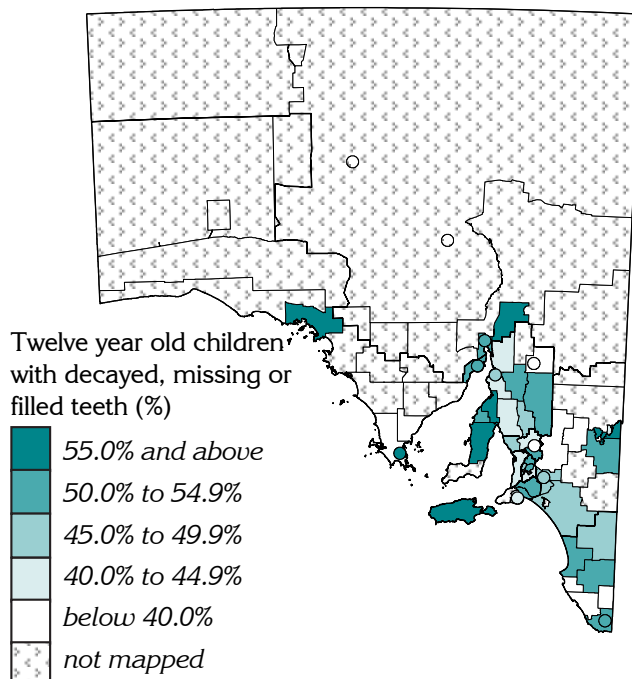


northern SLAs of Playford - Hills, - West Central and - East Central; and Salisbury - Inner North and - Central had decayed, missing or filled teeth. The lowest rates were recorded in Mitcham - Hills, Unley - West and Onkaparinga - Hills.

South Australia

Many SLAs in country South Australia had fewer than five children with poor dental health and have not been mapped (Map 93). The poorest outcomes were recorded in Ceduna, Kangaroo Island and Yorke Peninsula - North; and in the towns of Whyalla, Port Lincoln, Mount Gambier and Port Augusta. The best outcomes were found in Tanunda, Peterborough, Robe, Loxton Waikerie - West and Wattle Range - East, as well as many of the areas with fewer than five children assessed.

Map 93: Twelve year old children with poor dental health, South Australia, 2007 to 2008



Regional totals

At the regional level in metropolitan Adelaide, percentages vary from 39.0% in Eastern Adelaide to 48.6% in Northern Adelaide (Table 45). In country South Australia, the variation in the proportion of twelve year old children with decayed, missing or filled teeth is from 44.4% in Barossa - Barossa to 53.4% in Eyre and Western.

Table 45: Twelve year old children with poor dental health, by State Region, 2007 to 2008

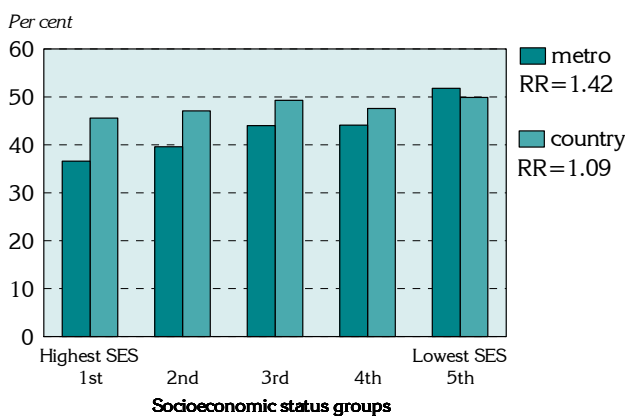
Region	No.	%
Northern Adelaide	1,094	48.6
Western Adelaide	530	44.9
Eastern Adelaide	222	39.0
Southern Adelaide	803	39.9
Metropolitan regions	2,649	44.1
Adelaide Hills	174	45.9
Murray and Mallee	208	46.4
Fleurieu and Kangaroo Island	127	49.0
Limestone Coast	388	47.5
Barossa	198	44.4
Yorke and Mid North	228	47.5
Eyre and Western [#]	237	53.4
Far North [#]	114	51.6
Country SA	1,673	47.9
South Australia	4,323	45.5

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

Over 2007 and 2008, twelve year old children living in the most disadvantaged (lowest SES) areas were 42% more likely to have decayed, missing or filled teeth than those in the most advantaged (highest SES) areas, with proportions of 51.8% and 36.6%, respectively (Figure 78).

Figure 78: Twelve year old children with poor dental health, by socioeconomic status, South Australia, 2007 to 2008

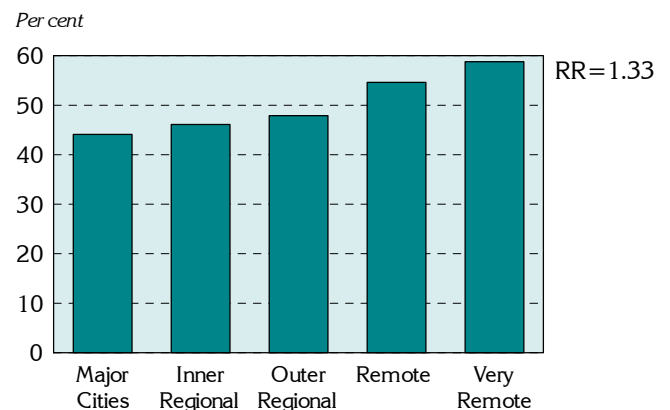


The differential in rates between the highest and lowest SES areas in country South Australia was smaller than in metropolitan Adelaide (Figure 78), with just 9% more children with poor dental health in the most disadvantaged areas (49.9%) compared to the most advantaged (45.6%).

Remoteness

The percentage of twelve year old children with poor dental health increases with increasing remoteness, ranging from 44.1% in the Major Cities category to 58.8% in the Very Remote class, an overall differential of 33% (Figure 79).

Figure 79: Twelve year old children with poor dental health, by remoteness, South Australia, 2007 to 2008



Correlations

There are moderate to strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of jobless families with young children and many of the indicators of socioeconomic disadvantage, including high rates of welfare-dependent families and jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (high proportions of four year old children who were obese, and smoking during pregnancy) are also moderate to strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

Children and young people with a disability

An understanding of the number and geographic distribution of children with a profound or severe disability is important for the current and future planning for, and provision of, services to meet their needs and those of their siblings and families.

Indicator definition: Estimated number of children and young people, aged 0 to 24 years, living in the community, who had a profound or severe disability.

Key points

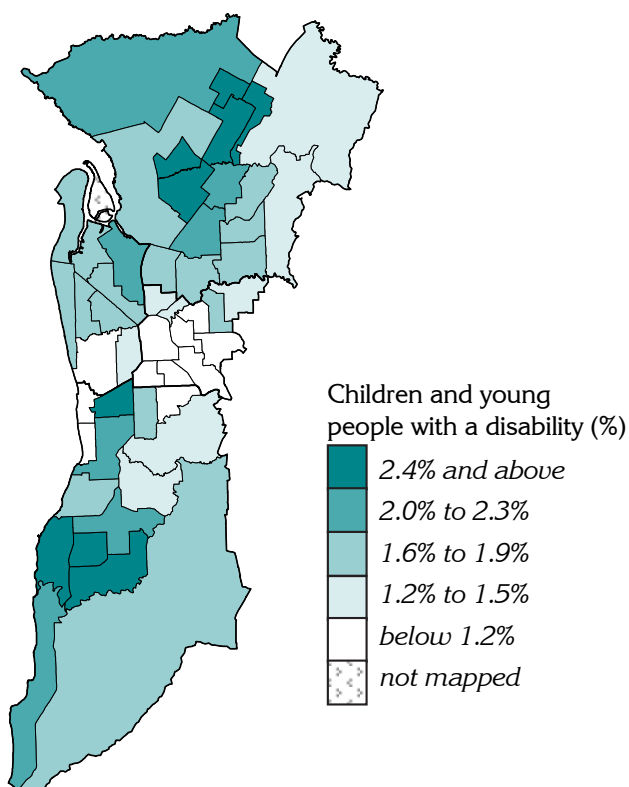
- Although the numbers of children and young people with a profound or severe disability are relatively small, their regional distribution is of importance for the provision of services.
- There is a strong association in the geographic distribution of children and young people with a profound or severe disability, and socioeconomic disadvantage in metropolitan Adelaide.

Geographic variation

Adelaide

The highest percentage of the population aged 0 to 24 years who had a profound or severe disability were largely in SLAs in the outer north and south, while lower rates were predominantly located in a band from the western coastal areas through the inner city region to the east of metropolitan Adelaide (Map 94). Rates were highest in the SLAs of Playford - Elizabeth and - West Central, Onkaparinga - Hackham, - North Coast and - Morphett, and Salisbury - Inner North; and lowest in the Burnside SLAs, Norwood Payneham St Peters - East, Holdfast Bay - North and - South, Mitcham - North-East, Unley - East and Adelaide.

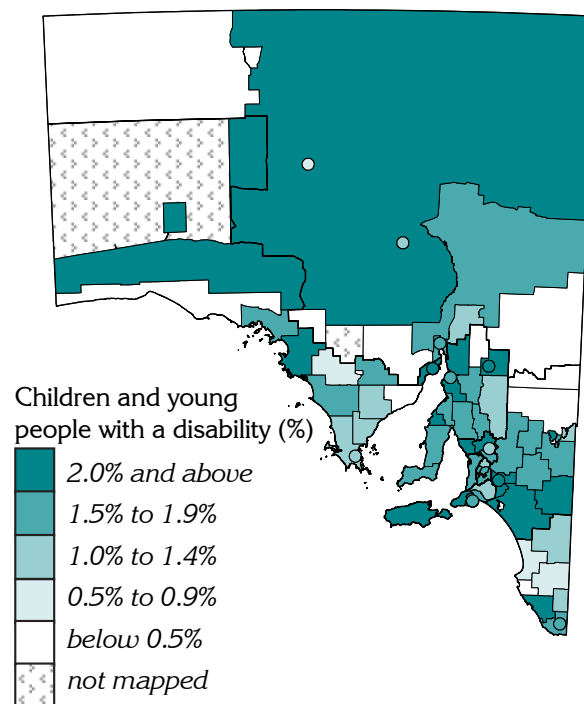
Map 94: Children and young people with a disability, Adelaide, 2006



Country South Australia

Peterborough, Unincorporated Far North, Copper Coast, Southern Mallee, Gawler, Whyalla, The Coorong and Murray Bridge recorded the highest rates of children and young people with a profound or severe disability (Map 95). There were no children with a profound or severe disability recorded as living in the low-population, Unincorporated areas of Riverland, West Coast, Whyalla and Pirie, nor in the SLAs of Robe, Franklin Harbour and Orroroo/ Carrieton. Low percentages were recorded in Kingston, Naracoorte and Lucindale, Le Hunte, Coober Pedy and Anangu Pitjantjatjara.

Map 95: Children and young people with a disability, South Australia, 2006



Regional totals

The majority of children and young people with a profound or severe disability were located in Northern (2,552 people) and Southern (1,979) Adelaide (**Table 46**). In metropolitan Adelaide, percentages ranged from 1.1% in Eastern Adelaide to 2.2% in Northern Adelaide, while in country South Australia, the percentages were higher but the range was narrower, from 1.4% in Far North to 2.0% in both Barossa - Barossa and Yorke and Mid North.

Table 46: Children and young people with a disability, by State Region, 2006

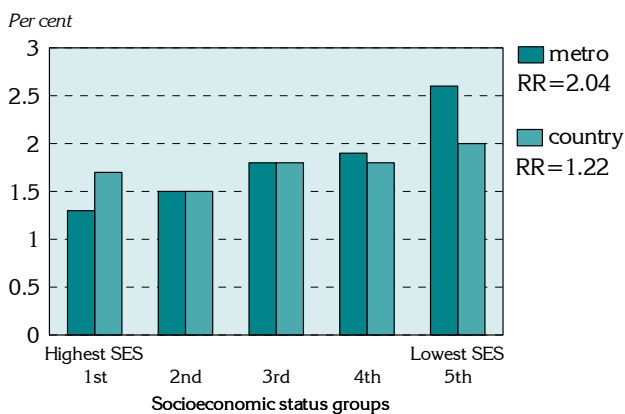
Region	No.	%
Northern Adelaide	2,552	2.2
Western Adelaide	951	1.6
Eastern Adelaide	667	1.1
Southern Adelaide	1,979	1.9
Metropolitan regions	6,149	1.8
Adelaide Hills	360	1.6
Murray and Mallee	395	1.9
Fleurieu and Kangaroo Island	180	1.7
Limestone Coast	320	1.5
Barossa	405	2.0
Yorke and Mid North	409	2.0
Eyre and Western [#]	312	1.7
Far North [#]	129	1.4
Country SA	2,510	1.8
South Australia	8,659	1.8

[#] See 'Notes on the data' in the Appendix

Socioeconomic status

There were more than twice the number of children and young people with a disability in the most disadvantaged areas (2.6%) (lowest SES) compared to those in the most advantaged areas (1.3%) (highest SES) (**Figure 80**).

Figure 80: Children and young people with a disability, by socioeconomic status, South Australia, 2006



In country South Australia, the differential between the highest SES and lowest SES areas is smaller, although still showing there to be 22% more

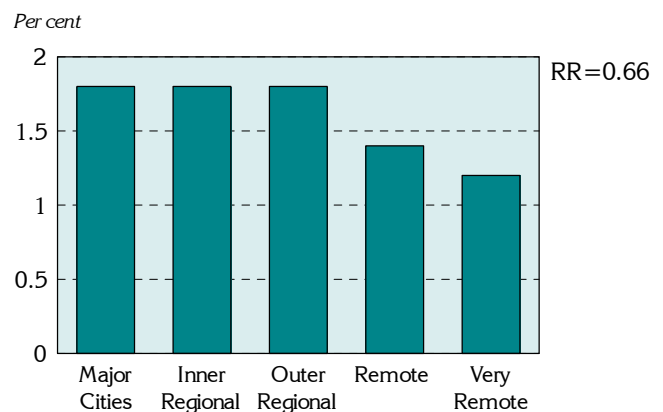
children and young people with a disability in the lowest SES areas when compared with the highest SES areas.

The socioeconomic gradient is not consistent, with the lowest rate in the second highest socioeconomic status group (1.5%).

Remoteness

Over the first three remoteness categories, 1.8% of the population aged 0 to 24 years had a profound or severe disability; the percentage decreased over the next two classes, to 1.4% in the Remote areas and 1.2% in the Very Remote class (**Figure 81**).

Figure 81: Children and young people with a disability, by remoteness, South Australia, 2006



Correlations

There are very strong correlations at the SLA level in metropolitan Adelaide between areas with high proportions of many of the indicators of socioeconomic disadvantage, including high rates of welfare-dependent families and jobless families, low rates of participation in formal schooling, lack of access to the Internet at home (in particular to a high-speed connection), children developmentally vulnerable on two or more domains under the AEDI, poor educational performance under NAPLAN and in secondary school, and use of public health services (admissions to a public acute hospital and clients of CAMHS). Correlations with poor health outcomes (poor dental health at age 12 and smoking during pregnancy) are strong.

Correlation coefficients for these and other indicators are available on the PHIDU website at www.publichealth.gov.au.

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Section 6

Summary

In this section ...

- Summary findings from the data in the report

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Summary of findings

The social and economic environment is a powerful influence on an individual's and a population's learning and developmental outcomes. This is evident in the opening sections of the report, where the many factors which determine learning, development and wellbeing across the life span are presented in a model drawn from research and practitioner experience. The information presented in Section 5 describes the geographic distribution of many of these factors across the South Australian population.

Despite the generally favourable outcomes for South Australians relative to Australians overall, there are substantial differences within the population. These differences are no more marked than in the data presented by remoteness, with the poorer educational achievements and overall level of socioeconomic disadvantage driving substantially higher rates in the most remote areas of the State, where many Aboriginal peoples live. The charts describing variations by socioeconomic status across Adelaide and country South Australia paint a similar picture of inequality for the whole population, both Aboriginal and non-Aboriginal.

Most of these differences have been known for many years, and have been quantified at a geographic level for the whole State since 1990⁽¹⁶⁾. The inclusion in this report of information on younger children, using the NAPLAN and AEDI data, adds to the weight of evidence of these inequalities.

There is a final example, not referenced in this report, which provides a salutary lesson for us all of the importance of addressing these issues. While deaths before 75 years of age for all South Australians have declined markedly over the past 20 years, the rate for these premature deaths in the most disadvantaged groups in the population in 2006 has not yet declined to the level of those in the most advantaged/well-off groups in 1987. This poorer life expectancy not only reflects a substantial degree of inequality, but is, by any measure, inequitable. What do we want the situation to be in five, ten, or 20 years' time?

It is a situation that is both avoidable and unfair, but not inevitable. The challenge for all of us, whether in government, the bureaucracy, as service providers or researchers or in the wider community, is to move on, from further description and better measurement, to action.

And where will those efforts be best placed? There is now substantial evidence that overall wellbeing is the result of complex interactions of the social, economic, biological and ecological environments in which people live. A lack of enabling social and

environmental conditions results in poor outcomes for people. However, if these environments are supportive, they can provide a foundation for the development of competence and skills that underpin learning, behaviour, health and wellbeing throughout life.

With respect to policy development, a determinants-oriented approach to tackling inequalities turns the spotlight on policies with the potential to influence the distribution of determinants, particularly inequalities in social position⁽²⁰⁾. There is evidence that interventions directed to disadvantaged groups and communities can be important levers for reducing inequalities in social position, and their consequences for wellbeing.

One example is early childhood intervention programs to improve the life chances of poor children. Evaluations show that these programs accelerate children's social and cognitive development throughout childhood and have a positive impact on their social position in adulthood^(17, 18, 19). Yet, even though they are important elements of an equity strategy, targeted interventions alone are not enough. The reason is that their effects will be mediated by more far-reaching policies: by employment and fiscal policy and by equitable access to quality education, housing, and social security. These mainstream policies have a more powerful impact on an individual's life chances and living standards and on the scale of inequality in the wider society⁽²⁰⁾.

Much time is spent discussing the relative merits of universal and targeted approaches. Should we put our efforts into improving outcomes for all, and in particular for the largest numbers, those in the middle socioeconomic status groups? Or should the focus be on the groups with the poorest outcomes? Both are, of course, necessary; but, unless we want the inequality gaps described above to widen, then we must do better than a one-size-fits-all approach.

The findings in this report highlight areas where further action is needed, and there is much that can be done. There is a growing body of knowledge that provides direction for developing policies to reduce inequities across the population. The socioeconomic environment is a powerful and potentially modifiable factor, and public policy is a key instrument to improve this environment, particularly in areas such as early childhood development and educational achievement, as well as housing, taxation and social security, work environments, urban design, sustainable communities, and pollution control. South Australia's Strategic Plan is also monitoring progress towards targets in many of these areas.

For the Department of Education and Children's Services (DECS), the findings of the report will be useful in its policy development and strategic planning processes.

Governments committed to improving a population's wellbeing, learning and development and reducing socioeconomic inequalities, need to assess the effects of their policies on the population as a whole. In addition, they must address the differing consequences of their policies for groups with unequal access to the factors that determine wellbeing, learning and development ⁽²⁰⁾. There are numerous benefits of investing in a population-based approach: increased social and economic prosperity, because a well-functioning and educated population is a major contributor to a vibrant community; reduced expenditure on education, health, welfare, justice to remediate social problems; and most importantly, overall community stability and wellbeing for current and future generations of South Australians.

Appendix

In this section ...

- Notes on the data
- Notes on the indicators and data sources
- Sources of information for Sections 5 and 6
- Glossary

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Notes on the data

Data

Measures used

Data are presented as percentages or rates per population. Where it was considered that variations in the age distribution of the population for any variable could affect the analysis, the data have been age standardised (by the indirect method). An example is the indicator for early school leavers (people who completed Year 10 or below, or did not go to school), as completion of schooling beyond Year 10 has increased over the years. For example, the population aged 80 years had lower rates of school completion than did the population aged 60 years, or 40 years. Age standardisation adjusts for, and removes, this age cohort influence in the data.

Socioeconomic status groups

In the absence of any direct measure of socioeconomic status in the datasets from which the indicators have been constructed, the socioeconomic status of the address of the population has been used as a proxy measure: the address is the usual resident address of the person to whom the statistic refers (e.g., of young women smoking during pregnancy; of overweight or obese children). The areas for which the data were available (SLA) were ranked by the Index of Relative Socio-economic Disadvantage (IRSD) score for the population in that SLA (for additional information on the IRSD, see *Notes on the indicators and data sources*, below). This ranked list was then split into five groups, each with approximately 20% of the State's population. Thus, group one comprises the areas with the highest IRSD scores (highest socioeconomic status, or most advantaged, areas) and group five comprises areas with the lowest IRSD scores (lowest socioeconomic status, or most disadvantaged, areas). The IRSD used was from the 2006 Census.

Reliability of ABS Census data: note on Introduced random error copied from Census Dictionary Australia 2006 (Reissue) ABS cat. No. 29.1.0 (underlining below is author's)

Data obtained from the ABS Census and presented in this report are subject to random adjustment of the data is considered to be the most satisfactory technique for avoiding the release of identifiable Census data. When the technique is applied, all cells are slightly adjusted to prevent any identifiable data being exposed. These adjustments result in small introduced random errors. However the information value of the table as a whole is not impaired. The technique allows very large tables, for which there is a strong client demand, to be produced even though they contain numbers of very small cells.

The totals and subtotals in summary tables are also subjected to small adjustments. These adjustments of totals and subtotals include modifications to preserve the additivity within tables. Although each table of this kind is internally consistent, comparisons between tables which contain similar data may show some minor discrepancies. In addition the tables at different geographic levels are adjusted independently, and tables at the higher geographic level may not be equal to the sum of the tables for the component geographic units.

It is not possible to determine which individual figures have been affected by random error adjustments, but the small variance which may be associated with derived totals can, for the most part, be ignored.

No reliance should be placed on small cells as they are impacted by random adjustment, respondent and processing errors.

When calculating proportions, percentages or ratios from cross-classified or small area tables, the random error introduced can be ignored except when very small cells are involved, in which case the impact on percentages and ratios can be significant.

Remoteness

For each variable in the atlas, details were calculated of the average percentage or rate, for each of the five ASGC Remoteness classes (ref ABS). For example, for participation in vocational education and training, the average percentage of all such people in SLAs in remoteness class one (Major Cities) was calculated and shown in a graph with the average percentage in each of the other four categories. The ASGC Remoteness classification thereby provides a summary measure of the characteristics of the population, for each of the variables mapped, categorised by accessibility to the largest populated centres.

Maps

The maps show data for the usual resident address of the person to whom the statistic refers (e.g., of women smoking during pregnancy; of overweight and obese children).

Where possible, data have been mapped for metropolitan Adelaide (as defined by the four metropolitan State Regions) and South Australia. The areas mapped are Statistical Local Areas (SLAs). In metropolitan Adelaide, three of the 52 SLAs are equivalent to a Local Government Area (LGA) and the remainder are smaller than an LGA (with the exception of Torrens Island, which is not incorporated as an LGA, and for which data are not mapped).

In the map of South Australia, in 2006 (the date of the boundaries used for most indicators), 43 of the 76 SLAs are equivalent to an LGA, ten LGAs are split into smaller SLAs and the nine areas not incorporated as LGAs – the unincorporated areas of the State – are also SLAs. On this State map, metropolitan Adelaide is shown as one area (i.e., SLAs within Adelaide are not shown) and the remainder of the State (referred to as the country, or country South Australia) is shown by SLA.

Some SLA names, which refer to well-known towns, have been shortened when used in the text: these are Barossa - Tanunda (referred to as Tanunda in the text); Barmera - Barmera (Barmera) and Barmera -Berri (Berri); and Port Pirie City Districts (M) (Port Pirie).

In the maps, some areas are shown as data 'not mapped'. Data have not been mapped where there are fewer than 100 people, or fewer than 5 cases for the particular indicator.

Regional totals

Under the State Regions, a small proportion of Unincorporated Whyalla (5.7% of a population of 209) and Unincorporated Far North (1.0% of a population of 1,541) should be included in "Eyre and Western". However, as the data provided to PHIDU are often at the SLA level, and there are minimal populations involved, 100% of both these SLAs have been allocated to "Far North".

Notes on the indicators and data sources

Comparisons between jurisdictions (page 61)

AEDI: proportion of children developmentally on track and developmentally vulnerable by domain of the AEDI: all indicators ⁽³⁾

NAPLAN: proportion of students below the national minimum standard: all indicators ⁽²¹⁾

Note: The NAPLAN figures shown in this table are calculated on a different basis to those shown elsewhere in Section 5. They have been included for purposes of comparison with the other States and Territories.

Secondary education

- Full-time participation in secondary school education at age 16
Source: ABS Census 2006 (unpublished)
- Apparent retention rates (Years 10, 11, 12)
Source: ABS Schools Australia 2008, ABS Cat No. 4221.0

Post secondary education

- Participation in vocational education and training, 15 to 24 years
Source: NCVET (unpublished)

Learning or earning

- Young people at ages 15 to 19 earning or learning
Source: ABS Census 2006 (unpublished)

Child health and wellbeing indicators

- Birthweight: low birthweight babies
Source: Australian Health Departments; Data periods: NSW, Vic, WA & Tas - 2004 to 2006; SA - 2003 to 2005; NT & ACT - 2004 to 2005
- Smoking: Mothers smoking in pregnancy
Source: Australian Health Departments; Data periods: NSW & WA - 2004 to 2006; SA - 2003 to 2005; Tas: 2003 to 2005; NT & ACT - 2004 to 2005
- Infant mortality: deaths before one year of age
Source: ABS Deaths and Births data, 2002 to 2006 (unpublished)
- Immunisation: children fully immunised at 12 months
Source: Australian Child Immunisation Register, Medicare Australia, 2008
- Child abuse or neglect (0 to 18 years): notifications
Source: AIHW, 2007/08
- Disability: profound or severe core activity restrictions for people 0 to 24 years living in the community
Source: ABS Census 2006 (unpublished)

Population indicators

- Summary measure of disadvantage: IRSD score
Source: ABS Census 2006
- Children in welfare-dependent and other low income families
Source: Centrelink, June 2006; and ABS Estimated Resident Population, 30 June 2006
- Welfare-dependent population: Females receiving the Parent Payment
Source: Centrelink, June 2009; and ABS Estimated Resident Population, 30 June 2008
- Welfare-dependent population: Total population receiving an unemployment benefit, including CDEP
Source: Unemployment benefit - Centrelink, June 2009; CDEP - FaHCSIA, 2007; and ABS Estimated Resident Population, 30 June 2008
- Welfare-dependent population: young people (15 to 24 years) receiving an unemployment benefit
Source: Centrelink, June 2009; and ABS Estimated Resident Population, 30 June 2008
- Educational attainment, whole of population, proportion left school before year 11
Source: ABS Census 2006 (unpublished)

Distribution of children and young people - current and projected (page 66)

Current - ABS Estimated Resident Population, 30 June 2008

Source: *ABS Estimated Resident Population, 30 June 2008*

Projected - The data presented here are projections, not predictions or forecasts, and are intended to illustrate the growth and change in population which would occur if certain assumptions about future levels of fertility, mortality, internal migration and overseas migration were to prevail over the projection period. The assumptions incorporate recent trends which indicate increasing levels of fertility and net overseas migration for Australia.

These population projections were prepared by the ABS as consultant to the Australian Government Department of Health and Ageing. The projections are not official ABS data. The base Estimated Resident Population (ERP) is preliminary for 2007, based on final 2006 Census-year ERP; later years are projected. ERP age/sex cells have been confidentialised through perturbation, though this does not affect SLA totals. SLAs with total ERP under 500 have generally been held constant as reliable projections are not possible for the very small age/sex cells involved.

These projections are a revised set using preliminary 2007 Census-based ERP and assumptions from the 2006-2101 issue of Population Projections, Australia (ABS Cat. No. 3222.0). The 2006-based SLA projections were a preliminary version and are now superseded.

The assumptions of fertility (birth rates), mortality (death rates) and migration underpinning the projections are primarily based on historical patterns and trends specific to each area. **CONDITIONS OF USE:** Specific Conditions of Use apply in respect of the use of the data and information prepared here as it was based, in part on, customised Population Projections for Statistical Local Areas prepared for the Australian Government Department of Health and Ageing. Accordingly, terms and conditions must be acknowledged, understood and accepted BEFORE the material presented at this site is used for any purpose. Refer to: <http://www.health.gov.au/internet/main/publishing.nsf/Content/ageing-stats-lapp.htm>

Source: *ABS Population Projections, 2010, 2015, 2020 and 2025; Customised Population Projections for Statistical Local Areas prepared for the Australian Government Department of Health and Ageing prepared by the Australian Bureau of Statistics.*

Aboriginal and Torres Strait Islander children and young people (page 72)

Children and young people identifying in the Census as Aboriginal and/or Torres Strait Islanders (0 to 24 years) expressed as a proportion of the total population in the same age group.

Source: *ABS Census 2006*

Children living in jobless families (page 76)

Children under 15 years in families in which no parent is employed expressed as a proportion of total children under 15 years.

Source: *ABS Census 2006 (unpublished)*

Children living in welfare-dependent and other low income families (page 78)

The number of children aged under 16 years and living in families receiving an income support payment (Sole Parent or Disability Support Pension; unemployment, sickness or special benefits; or the Family Tax Benefit B) is expressed as a percentage of all children aged under 16 years.

The data do not include children in families receiving unemployment payments under the Community Development Employment Program, a job creation scheme for Aboriginal communities. To this extent, the percentages of children in some areas will be understated: this is particularly likely to be the case in remote areas of the State, where Aboriginal people are a larger proportion of the population.

Source: *Centrelink, June 2006; and ABS Estimated Resident Population, 30 June 2006*

Disadvantage: summary measure of socioeconomic disadvantage (page 80)

The Index of Relative Socio-Economic Disadvantage is one of four socioeconomic indexes produced from the 2006 Census.

It is derived, using principal component analysis, from attributes such as low income, low educational attainment, high unemployment, jobs in relatively unskilled occupations and variables that reflect disadvantage, rather than measure specific aspects of disadvantage (e.g., Indigenous status and separated/divorced). Full details of the composition and construction of this and the other three indexes are available from the Information Paper, Socio-Economic Indexes for Areas, Australia, 2006 ABS Cat. No. 2039.0.

Source: ABS SEIFA, Census 2006

Participation in preschool education (page 82)

Preschool children aged three to four years, expressed as a proportion of all children aged 3 to 4 years.

Source: ABS Census 2006

Note: These figures, in particular the smaller numbers of children, should be used with caution. As enrolment data from the three school systems were not available at the geographic level required ((SLA), data from the 2006 Population Census have been used as a proxy. This introduces a number of problems, in particular for data by Indigenous status, where the numbers of Aboriginal students at the SLA level in metropolitan Adelaide can be quite small. In order to have a numerator (the number of preschool students) and a denominator (children of preschool age) that are comparable, it was necessary to specify an age range for preschool students: this was set at ages three and four. The ABS uses a process (referred to as perturbation) to confidentialise cells in their tables. This introduces random errors into the tables, such that the numbers do not add up and, at times, make little sense. For example, the ABS data show there to be 40 children aged three to four years in Coober Pedy, eight of whom are attending preschool; when these same data are extracted by Indigenous status (excluding those for whom Indigenous status was not stated on the Census form), the total number of children is 34, of whom 10 are attending preschool. Another outcome of this approach is that an area with a number of people who have a particular characteristic (e.g., a profound or severe disability) can be reported as having no such people (a zero cell).

Participation in primary school education (page 84)

Primary school students aged 5 to 12 years, expressed as a proportion of all children aged 5 to 12 years. See the note to preschool students, above.

Source: ABS Census 2006

See the 'note' under preschool students, above.

Participation in secondary school education (page 86)

Primary school students aged 13 to 17 years, expressed as a proportion of all young people aged 13 to 17 years.

Source: ABS Census 2006

See the 'note' under preschool students, above.

AEDI (page 89)

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 10th and 25th percentile of the AEDI population are classified as developmentally at risk. Children who score above the 25th percentile (in the top 75 per cent) of the AEDI population are classified as on track.

Even when aggregated to SLA, some SLAs have fewer than five children and the data have not been mapped.

Source: Confidentialised Unit Record File provided by DECS, 2009

National Assessment Program - Literacy and numeracy (NAPLAN) (page 103)

Children in Year 3, 5, 7 or 9 with below national minimum standard scores for reading and numeracy (excluding those exempt) expressed as a proportion of all children in Year 3, 5, 7 or 9.

In 2008, the National Assessment Program – Literacy and Numeracy (NAPLAN) commenced in Australian schools. All students in Years 3, 5, 7 and 9 were assessed using national tests in the aspects of reading, writing, language conventions (spelling, grammar and punctuation) and numeracy. The data required for this analysis, by Statistical Local Area of the student's address, were not available for the Catholic and other independent school's systems.

Details of participation - proportion of children present, exempt, absent and withdrawn - are included in the note on the indicator 'Participation of children in the National Assessment Program'.

Data shown are the proportion, for each aspect, of students with scores below national minimum standard for those present (excluding children exempt (see the note, below) from the test): this differs from the approach in the national reporting which includes exempted students among those below the national minimum standard.

Note: Students with a language background other than English, who arrived from overseas less than a year before the tests, and students with significant intellectual disabilities may be exempted from testing.

Source: NAPLAN, supplied by DECS, 2008

Early school leavers (page 124)

The data presented are age-standardised rates of people who completed Year 10 or below, or did not go to school, per 100 population. See comments, above, under *Notes on the data: Measures used*.

Source: ABS Census 2006 (unpublished)

Full-time participation in secondary school education (page 126)

16 year olds in full-time secondary school education expressed as a proportion of the population aged 16 years.

Source: ABS Census 2006 (unpublished)

Young people aged 19 years who have completed Year 12 or equivalent (page 128)

19 year olds who have completed Year 12 or qualified at Certificate level II expressed as a proportion of the population aged 19 years.

Source: ABS Census 2006 (unpublished)

Participation in vocational education and training (page 130)

The data presented are age-standardised rates of students aged 15 to 24 years participating in vocational education and training per 100 population aged 15 to 24 years.

Source: National Centre for Vocational Education Research Ltd., 2006; and ABS Estimated Resident Population, 2006

Young people learning or earning (page 132)

15 to 19 year olds engaged in school, work or further education/ training expressed as a proportion of the population aged 15 to 19 years.

Source: ABS Census 2006

Internet access at home for children and young people (page 134)

Private dwellings (with at least one person aged 16 yrs or less) with no Internet connection at home expressed as a proportion of total private dwellings with at least one person aged 16 yrs or less.

Source: ABS Census 2006

Hospital admissions (page 136)

The data presented are age-standardised rates of admissions of 0 to 24 year olds to public acute and private hospitals in South Australia, excluding same day admissions for renal dialysis per 1,000 population aged 0 to 24 years.

Hospital admissions include episodes of hospitalisation in public acute and private (acute and psychiatric) hospitals. All admissions have been included, with the exception of the small number of same day admissions for renal dialysis. Same day admissions for renal dialysis have been excluded as they cover many repeat visits by a relatively small number of patients, who may have several admissions in a week.

Source: SA Health, 2007/08; and ABS Estimated Resident Population, average of 30 June 2007 and 2008

Child and Adolescent Mental Health Service clients (page 138)

The data presented are age-standardised rates of children aged 0 to 19 years who attended the government-funded Child and Adolescent Mental Health Service per 1,000 population aged 0 to 19 years.

Source: SA Health, 2007/08; and ABS Estimated Resident Population, average of 30 June 2007 and 2008

Active parental involvement with school activities (page 140)

People with school aged children who reported being actively involved in activities in their children's school expressed as a proportion of survey respondents.

Data were only collected for groups of SLAs (as some SLAs had small numbers of respondents); in presenting the data by SLA, each SLA in the affected group has been given the same data (percentage).

Source: Telephone survey of indicators of community strength across South Australian Local Government Areas, South Australian Department for Families and Communities, 2006

Risk of poor pregnancy outcome (page 142)

The results of the seventeen perinatal risk factors (see list below) were calculated separately; and then areas with nine or more individual risk factors with a poor outcome (e.g., per cent of low birthweight babies higher than the South Australian average; fewer antenatal visits), are given a 'high risk' score

This data is collected through the Perinatal Statistics Collection and includes maternal socio-demographic, medical and obstetric information, as well as characteristics and outcomes of the baby. Studies undertaken by the Epidemiology Branch (SA Health Commission) in 1986 on these data identified seventeen risk factors that were most predictive of adverse perinatal outcomes. Certain risk factors directly or indirectly reflect the socioeconomic status of women for whom these events are recorded.

A summary perinatal risk score has been calculated for each SLA. The score is calculated by examining the frequency with which a poorer outcome was recorded on individual risk factors (e.g., percentage of mothers with low birthweight babies, or with previous still births), in relation to the South Australian average. SLAs were considered to be 'high risk' for adverse perinatal outcomes if nine or more individual risk factors had a poor outcome, compared with the South Australian average.

Risk factors most predictive of adverse perinatal outcomes: Aboriginal maternal race; single marital status; high parity; previous still births; previous neonatal death; previous pregnancy termination; few antenatal visits; young maternal age; obstetric complications; complications of labour/delivery; homebirth; low birthweight; pre-term birth; low Apgar score; prolonged time to establish regular breathing; congenital abnormality; perinatal death.

Source: SA Health, 2003 to 2005

Smoking in pregnancy (page 144)

Women aged 15 to 24 years who reported that they smoked during their pregnancy expressed as a proportion of pregnant women aged 15 to 24 years.

Source: SA Health, 2003 to 2005

Four year old children who are overweight or obese (page 146)

Four year old boys/ girls assessed as being obese/ overweight on the basis of their measured height and weight expressed as a proportion of all four year old boys assessed.

These data were provided by staff of the Children, Youth and Women's Health Service (CYWHS) who have, for a number of years, collected height and weight information for children aged from four years three months to five years (collectively referred to as four year old children). The measurements are taken at child care and preschool centres by staff of CYH, with an average coverage at these ages of just over 75% over the period. The data shown are for four year old boys assessed as being obese on the basis of their measured height and weight, with obesity calculated using the methodology by Cole et al. (2000).

Reference: Cole TJ et al 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. *BMJ* 320:1240-1245.

Source: *Child and Youth Health at the Children, Youth and Women's Health Service, 2004 to 2007*

Substantiations of notifications of child abuse or neglect (page 152)

Data were provided of notifications, renotifications (within a 12 month period) and substations of notifications in 2008/09 for the population aged from zero to 18 years. The data mapped in this report are of substantiations. Substantiations of notifications to child protection notifications which were investigated and the investigation was finalised during 2008/09 and it was concluded that there was reasonable cause to believe that the child had been, was being or was likely to be abused or neglected or otherwise harmed. Data expressed as a rate (age standardised) per 1,000 population aged zero to 18 years.

The data were age standardised to the population at 30 June 2008, as the population by age at the SLA level in metropolitan Adelaide is not yet available to calculate the population at the mid-point of this period.

Source: *Families SA, Department for Families and Communities, 2008/09*

Poor dental health of 12 year old children (page 154)

Twelve year old children attending the School Dental Service who had decayed, missing or filled teeth expressed as a proportion of twelve year old children attending the School Dental Service.

Dental caries, an indicator of poor dental health, is measured by the DMFT score - a sum of permanent teeth (T) that are decayed (D), missing (M) or filled due to caries (F).

Source: *SA Dental Service, 2004 to 2006*

Children with a disability (page 156)

Estimated total persons, 0 to 24 years, living in the community, with a profound or severe disability, expressed as a proportion of the population aged 0 to 24 years.

The 'Core Activity Need for Assistance' variable was developed by the ABS to measure the number of people with a profound or severe disability, and to show their geographic distribution. A person with profound or severe limitation needs help or supervision always (profound) or sometimes (severe) to perform activities that most people undertake at least daily, that is, the core activities of self-care, mobility and/or communication, as the result of a disability, long-term health condition (lasting six months or more), and/or older age. Fewer people are reported under this measure as having a profound or severe disability than are measured in the ABS Survey of Disability, Ageing and Carers (SDAC): this is particularly so in relation to children and young people. The reasons for this are definitional: for example, the SDAC approach uses a filtering approach to determine whether the respondent has a disability, and the severity of that disability, as compared to the self-report approach in the Census. In addition, there is a large not-stated category in the Census data, with more people not responding to this set of questions than are reported as having a profound or severe disability. While the SDAC figures should be used as the measure for this concept, the Census data are appropriate for getting an understanding of the geographic distribution of this population group. In using the figures at the SLA level, it should be noted that data provided by the ABS have been adjusted to confidentialise tables: one outcome of the approach used by ABS is that an area with a number of people who have a particular characteristic (e.g., a profound or severe disability) can be reported as having no such people (a zero cell).

The ABS figures include people living in long-term residential accommodation in nursing homes, accommodation for the retired or aged (not self-contained), hostels for the disabled and psychiatric hospitals: the 'total' figure includes people living in these accommodation types, whereas the figures presented here for 'living in the community' exclude them. This adjustment is not as relevant for children and young people as it is for adults.

Source: *ABS Census 2006 (unpublished)*

Sources of information for Sections 5 and 6

The following resources were used to underpin the information presented in Sections 5 to 7.

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21. Centre for Community Child Health and Telethon Institute for Child Health Research 2009. *A Snapshot of Early Childhood Development in Australia – AEDI National Report 2009*, Australian Government, Canberra

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Glossary

Terminology

Aboriginal	Aboriginal and Torres Strait Islander people
AEDI	Australian Early Development Index
Area	Area is the term used for the groupings of SLAs used by the Department for Families and Communities in presenting data for parental involvement in activities at their children school: the areas are Central (includes Barossa - Barossa - Angaston, - Barossa - Barossa and - Tanunda, .Barunga West, Clare and Gilbert Valleys, Coober Pedy, Copper Coast, Flinders Ranges, Goyder, Light, Mallala, Mount Remarkable, Northern Areas, Orroroo/ Carrieton, Peterborough, Port Pirie City Districts - City and - Balance, Roxby Downs, Wakefield, Yorke Peninsula - North and - South, Unincorporated Flinders Ranges and Unincorporated Far North.), Eyre Peninsula (Ceduna, Cleve, Elliston, Franklin Harbor, Kimba, Le Hunte, Lower Eyre Peninsula, Port Augusta, Port Lincoln, Streaky Bay, Tumby Bay, Whyalla, Unincorporated West Coast and Unincorporated Whyalla), Murray and Mallee (Berri & Barmera - Barmera and - Berri, Karoonda East Murray, Loxton Waikerie - East and - West, Mid Murray, Murray Bridge, Renmark Paringa - Paringa and - Renmark, Southern Mallee and The Coorong), South East (Grant, Lacepede, Mount Gambier, Naracoorte and Lucindale, Robe, Tatiara and Wattle Range - East and - West) and Southern and Hills (includes .Adelaide Hills - Central, - Ranges, - North and Balance, Alexandrina - Coastal and - Strathalbyn, Kangaroo Island, Mount Barker - Central and Balance, Victor Harbor and Yankalilla.)
Change, or variation between SLAs, Regions, by socioeconomic status, remoteness	The following terminology has been used throughout this report to describe change: <i>notable</i> – indicates a change of from 10 to less than 20% <i>marked</i> - indicates a change of from 20 to less than 50% <i>substantial</i> - indicates a change of 50% or greater
Country South Australia	The whole State, other than metropolitan Adelaide – see below
IRSD	See Disadvantage <i>summary measure of socioeconomic disadvantage</i> in <i>Notes on the indicators and data sources data</i> in the Appendix.
Metropolitan Adelaide	The area mapped that shows the built-up area of Adelaide, extending from south of Gawler in the north, to Sellicks Beach in the south
NAPLAN	National Assessment Program - Literacy and Numeracy
Not mapped	In the majority of cases, this refers to there being fewer than five events (students, hospital admissions) of children or young people living in the area; these areas have not been mapped as the data are likely to be unreliable. A small number of areas are not mapped because they have a population below 100 children and young people: Maralinga Tjarutja and Torrens Island are examples
Rate ratio/ RR	The ratio of the rate (i.e. the percentage or standardised ratio) in one area to that in another: in this report it is generally the ratio of the percentage etc. in the most disadvantaged areas to that in the least disadvantaged areas
Region	State Regions, for use by South Australian Government agencies
Remoteness	The remoteness classification used by the Australian Bureau of Statistics

Terminology ...cont

Socioeconomic status/
socioeconomic status
groups (SES)

The data for each indicator have also been presented to show the extent of variation within Adelaide and within country South Australia by socioeconomic status. This is achieved by calculating the rates for each indicator by five groups of areas based on socioeconomic status, using the Index of Relative Socio-economic Disadvantage (IRSD) score for the population in the SLA, as calculated by the Australian Bureau of Statistics (ABS) from data collected at the 2006 Population Census. Group 1 comprises the SLAs with the highest IRSD scores (highest socioeconomic status, or most advantaged areas) and group 5 comprises the SLAs with the lowest IRSD scores (lowest socioeconomic status, or most disadvantaged areas). Each group comprises approximately 20% of the total population in the areas under analysis (e.g., metropolitan Adelaide or country South Australia).

Statistical Local Area(SLA)

See *Maps in Notes on the data* in the Appendix for a description

Symbols used

..	not applicable
na	not available
nya	not yet available
0 (zero, in tables)	nil, or less than half the final digit shown

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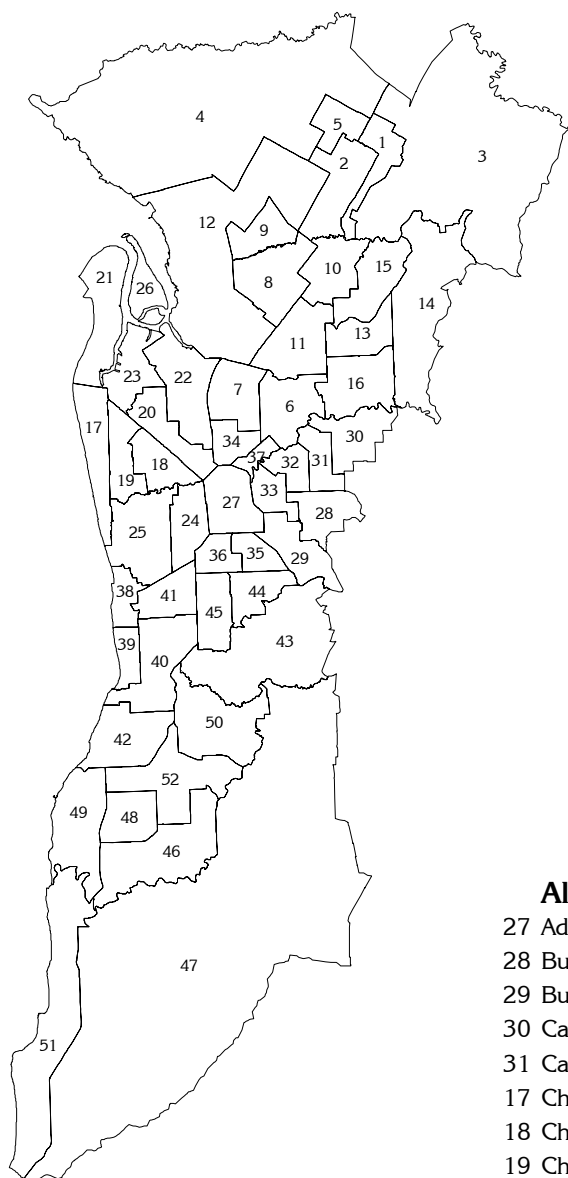
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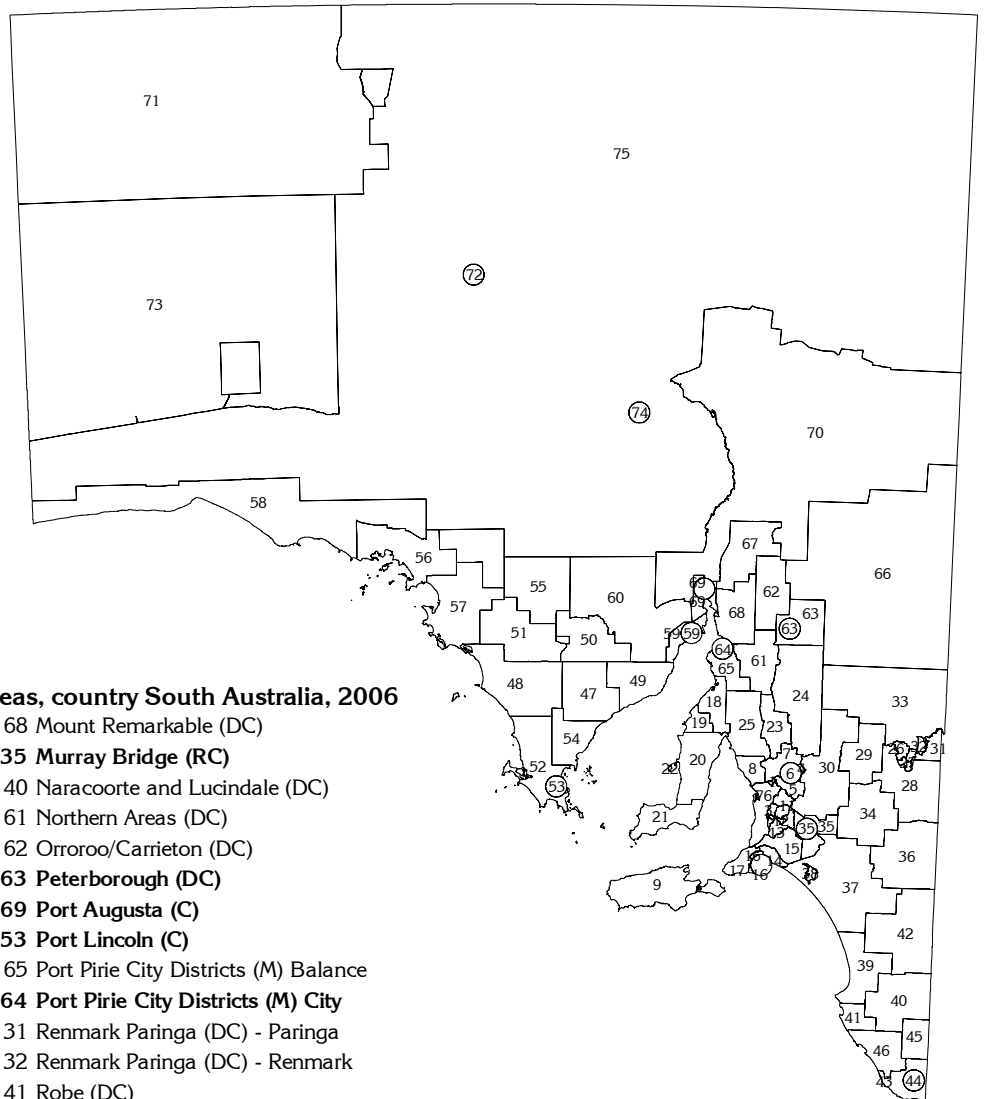
Key to areas mapped for indicators, Adelaide



Alphabetical key to Statistical Local Areas, Adelaide, 2006

27 Adelaide (C)	1 Playford (C) - East Central
28 Burnside (C) - North-East	2 Playford (C) - Elizabeth
29 Burnside (C) - South-West	3 Playford (C) - Hills
30 Campbelltown (C) - East	4 Playford (C) - West
31 Campbelltown (C) - West	5 Playford (C) - West Central
17 Charles Sturt (C) - Coastal	21 Port Adelaide Enfield (C) - Coast
18 Charles Sturt (C) - Inner East	6 Port Adelaide Enfield (C) - East
19 Charles Sturt (C) - Inner West	7 Port Adelaide Enfield (C) - Inner
20 Charles Sturt (C) - North-East	22 Port Adelaide Enfield (C) - Park
38 Holdfast Bay (C) - North	23 Port Adelaide Enfield (C) - Port
39 Holdfast Bay (C) - South	34 Prospect (C)
40 Marion (C) - Central	8 Salisbury (C) - Central
41 Marion (C) - North	9 Salisbury (C) - Inner North
42 Marion (C) - South	10 Salisbury (C) - North-East
43 Mitcham (C) - Hills	11 Salisbury (C) - South-East
44 Mitcham (C) - North-East	12 Salisbury (C) Balance
45 Mitcham (C) - West	13 Tea Tree Gully (C) - Central
32 Norwood Payneham St Peters (C) - East	14 Tea Tree Gully (C) - Hills
33 Norwood Payneham St Peters (C) - West	15 Tea Tree Gully (C) - North
46 Onkaparinga (C) - Hackham	16 Tea Tree Gully (C) - South
47 Onkaparinga (C) - Hills	26 Unincorporated Western
48 Onkaparinga (C) - Morphett	35 Unley (C) - East
49 Onkaparinga (C) - North Coast	36 Unley (C) - West
50 Onkaparinga (C) - Reservoir	37 Walkerville (M)
51 Onkaparinga (C) - South Coast	24 West Torrens (C) - East
52 Onkaparinga (C) - Woodcroft	25 West Torrens (C) - West

Key to areas mapped for indicators, South Australia



Alphabetical key to Statistical Local Areas, country South Australia, 2006

- | | |
|-----------------------------------|--|
| 2 Adelaide Hills (DC) - Central | 68 Mount Remarkable (DC) |
| 10 Adelaide Hills (DC) - North | 35 Murray Bridge (RC) |
| 3 Adelaide Hills (DC) - Ranges | 40 Naracoorte and Lucindale (DC) |
| 11 Adelaide Hills (DC) Bal | 61 Northern Areas (DC) |
| 14 Alexandrina (DC) - Coastal | 62 Orroroo/Carrieton (DC) |
| 15 Alexandrina (DC) - Strathalbyn | 63 Peterborough (DC) |
| 71 Anangu Pitjantjatjara (AC) | 69 Port Augusta (C) |
| 4 Barossa (DC) - Angaston | 53 Port Lincoln (C) |
| 5 Barossa (DC) - Barossa | 65 Port Pirie City Districts (M) Balance |
| 6 Barossa (DC) - Tanunda | 64 Port Pirie City Districts (M) City |
| 18 Barunga West (DC) | 31 Renmark Paringa (DC) - Paringa |
| 26 Berri & Barmera (DC) - Barmera | 32 Renmark Paringa (DC) - Renmark |
| 27 Berri & Barmera (DC) - Berri | 41 Robe (DC) |
| 56 Ceduna (DC) | 74 Roxby Downs (M) |
| 23 Clare and Gilbert Valleys (DC) | 36 Southern Mallee (DC) |
| 47 Cleve (DC) | 57 Streaky Bay (DC) |
| 72 Coober Pedy (DC) | 42 Tatiara (DC) |
| 19 Copper Coast (DC) | 37 The Coorong (DC) |
| 48 Elliston (DC) | 54 Tumby Bay (DC) |
| 67 Flinders Ranges (DC) | 75 Unincorporated Far North |
| 49 Franklin Harbour (DC) | 70 Unincorporated Flinders Ranges |
| 1 Gawler (T) | 55 Unincorporated Lincoln |
| 24 Goyder (DC) | 38 Unincorporated Murray Mallee |
| 43 Grant (DC) | 66 Unincorporated Pirie |
| 9 Kangaroo Island (DC) | 33 Unincorporated Riverland |
| 34 Karoonda East Murray (DC) | 58 Unincorporated West Coast |
| 50 Kimba (DC) | 60 Unincorporated Whyalla |
| 39 Kingston (DC) | 22 Unincorporated Yorke |
| 51 Le Hunte (DC) | 16 Victor Harbor (C) |
| 7 Light (RegC) | 25 Wakefield (DC) |
| 52 Lower Eyre Peninsula (DC) | 45 Wattle Range (DC) - East |
| 28 Loxton Waikerie (DC) - East | 46 Wattle Range (DC) - West |
| 29 Loxton Waikerie (DC) - West | 59 Whyalla (C) |
| 8 Mallala (DC) | 17 Yankalilla (DC) |
| 73 Maralinga Tjarutja (AC) | 20 Yorke Peninsula (DC) - North |
| 30 Mid Murray (DC) | 21 Yorke Peninsula (DC) - South |
| 12 Mount Barker (DC) - Central | |
| 13 Mount Barker (DC) Balance | |
| 44 Mount Gambier (C) | |
| | 76 Metro Adelaide |

SLA status key: Cities (C), Towns (T), Rural Cities (RC), Municipalities/Municipal Councils (M), District Councils (DC), Regional Councils (RegC) and Aboriginal Councils (AC)

Numerical key to Statistical Local Areas, Adelaide, 2006

1 Playford (C) - East Central	19 Charles Sturt (C) - Inner West	37 Walkerville (M)
2 Playford (C) - Elizabeth	20 Charles Sturt (C) - North-East	38 Holdfast Bay (C) - North
3 Playford (C) - Hills	21 Port Adelaide Enfield (C) - Coast	39 Holdfast Bay (C) - South
4 Playford (C) - West	22 Port Adelaide Enfield (C) - Park	40 Marion (C) - Central
5 Playford (C) - West Central	23 Port Adelaide Enfield (C) - Port	41 Marion (C) - North
6 Port Adelaide Enfield (C) - East	24 West Torrens (C) - East	42 Marion (C) - South
7 Port Adelaide Enfield (C) - Inner	25 West Torrens (C) - West	43 Mitcham (C) - Hills
8 Salisbury (C) - Central	26 Unincorporated Western	44 Mitcham (C) - North-East
9 Salisbury (C) - Inner North	27 Adelaide (C)	45 Mitcham (C) - West
10 Salisbury (C) - North-East	28 Burnside (C) - North-East	46 Onkaparinga (C) - Hackham
11 Salisbury (C) - South-East	29 Burnside (C) - South-West	47 Onkaparinga (C) - Hills
12 Salisbury (C) Balance	30 Campbelltown (C) - East	48 Onkaparinga (C) - Morphett
13 Tea Tree Gully (C) - Central	31 Campbelltown (C) - West	49 Onkaparinga (C) - North Coast
14 Tea Tree Gully (C) - Hills	32 Norwood Payneham St Peters (C) - East	50 Onkaparinga (C) - Reservoir
15 Tea Tree Gully (C) - North	33 Norwood Payneham St Peters (C) - West	51 Onkaparinga (C) - South Coast
16 Tea Tree Gully (C) - South	34 Prospect (C)	52 Onkaparinga (C) - Woodcroft
17 Charles Sturt (C) - Coastal	35 Unley (C) - East	
18 Charles Sturt (C) - Inner East	36 Unley (C) - West	

Numerical key to Statistical Local Areas, country South Australia, 2006

1 Gawler (T)	27 Berri & Barmera (DC) - Berri	53 Port Lincoln (C)
2 Adelaide Hills (DC) - Central	28 Loxton Waikerie (DC) - East	54 Tumby Bay (DC)
3 Adelaide Hills (DC) - Ranges	29 Loxton Waikerie (DC) - West	55 Unincorporated Lincoln
4 Barossa - Barossa (DC) - Angaston	30 Mid Murray (DC)	56 Ceduna (DC)
5 Barossa - Barossa (DC) - Barossa	31 Renmark Paringa (DC) - Paringa	57 Streaky Bay (DC)
6 Barossa - Barossa (DC) - Tanunda	32 Renmark Paringa (DC) - Renmark	58 Unincorporated West Coast
7 Light (RegC)	33 Unincorporated Riverland	59 Whyalla (C)
8 Mallala (DC)	34 Karoonda East Murray (DC)	60 Unincorporated Whyalla
9 Kangaroo Island (DC)	35 Murray Bridge (RC)	61 Northern Areas (DC)
10 Adelaide Hills (DC) - North	36 Southern Mallee (DC)	62 Orroroo/Carrieton (DC)
11 Adelaide Hills (DC) Bal	37 The Coorong (DC)	63 Peterborough (DC)
12 Mount Barker (DC) - Central	38 Unincorporated Murray Mallee	64 Port Pirie City Districts (M) City
13 Mount Barker (DC) Balance	39 Kingston (DC)	65 Port Pirie City Districts (M) Balance
14 Alexandrina (DC) - Coastal	40 Naracoorte and Lucindale (DC)	66 Unincorporated Pirie
15 Alexandrina (DC) - Strathalbyn	41 Robe (DC)	67 Flinders Ranges (DC)
16 Victor Harbor (C)	42 Tatiara (DC)	68 Mount Remarkable (DC)
17 Yankalilla (DC)	43 Grant (DC)	69 Port Augusta (C)
18 Barunga West (DC)	44 Mount Gambier (C)	70 Unincorporated Flinders Ranges
19 Copper Coast (DC)	45 Wattle Range (DC) - East	71 Anangu Pitjantjatjara (AC)
20 Yorke Peninsula (DC) - North	46 Wattle Range (DC) - West	72 Coober Pedy (DC)
21 Yorke Peninsula (DC) - South	47 Cleve (DC)	73 Maralinga Tjarutja (AC)
22 Unincorporated Yorke	48 Elliston (DC)	74 Roxby Downs (M)
23 Clare and Gilbert Valleys (DC)	49 Franklin Harbour (DC)	75 Unincorporated Far North
24 Goyder (DC)	50 Kimba (DC)	76 Metro Adelaide
25 Wakefield (DC)	51 Le Hunte (DC)	
26 Berri & Barmera (DC) - Barmera	52 Lower Eyre Peninsula (DC)	