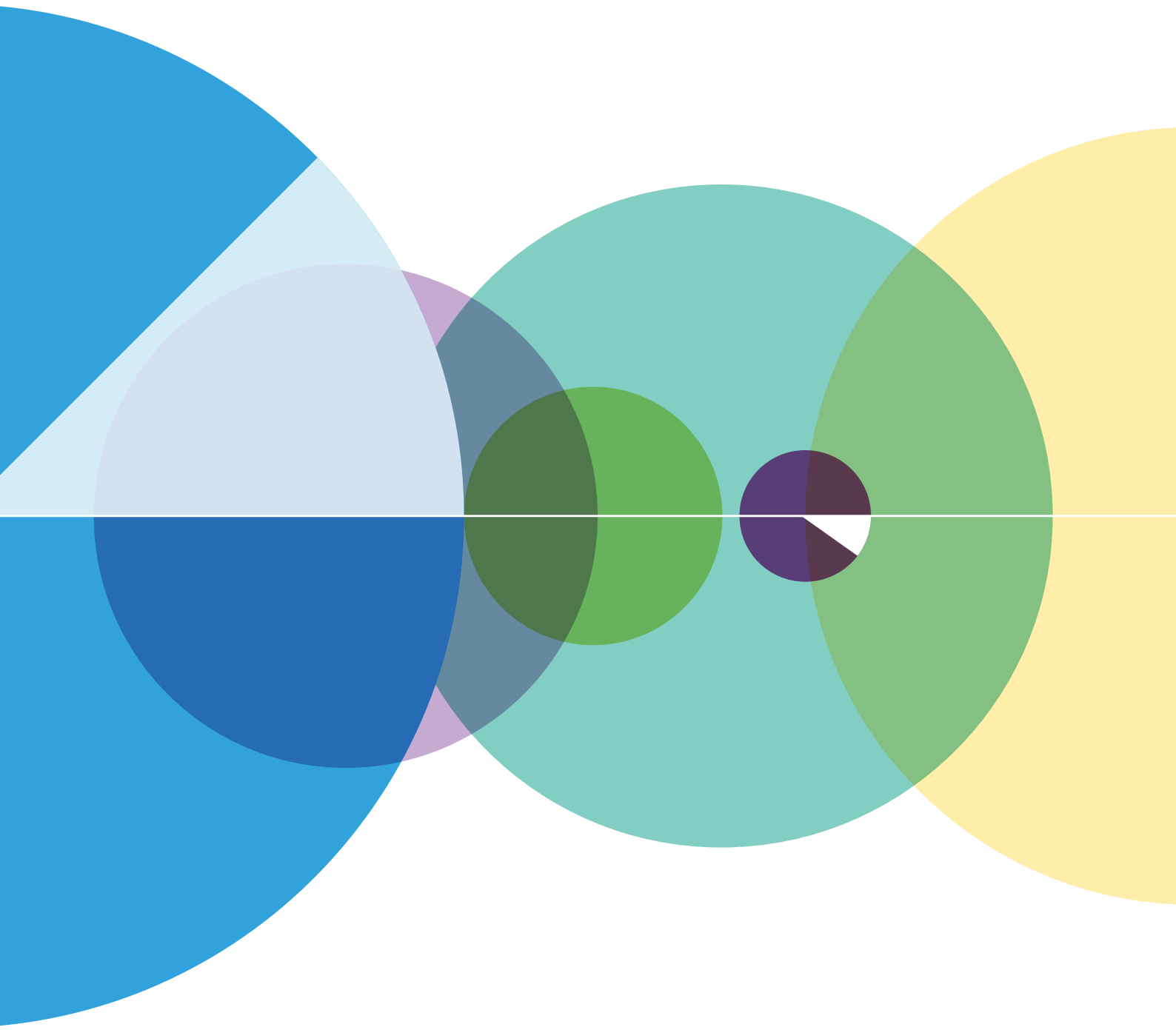
An atlas of six South Australian communities

Mapping the influences on community wellbeing

Produced for the South Australian Department for Communities and Social Inclusion
and the Department for Health and Ageing



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Contents

Page

Contents *...cont.*

List of tables

Page

List of figures

Page

List of maps

Page

List of maps *...cont.*

Page

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However, the responsibility for the content of this atlas lies solely with PHIDU.

The following staff members of PHIDU were involved in the project:

- Diana Hetzel developed and wrote Sections 1, 2 and 3 and undertook final editing;
- Sarah Ambrose, Sarah McDonald and Kimberley Sobczak produced the maps and the tables and contributed to Section 4; and
- John Glover wrote Section 4 and the Summary, edited the report and managed the project.

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Section 1:

Context and purpose

In this section …

- Introduction
- Background and policy context
- Overview and aims
- Taking a place-based approach
- Understanding community wellbeing through indicators
- Outline of the atlas

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Introduction

Over the last three decades, numerous reports and studies have highlighted substantial variations in the wellbeing across the South Australian population, and the gaps between those who are doing well, and those who are not. These differences, or 'inequalities', are readily apparent across Adelaide, and our rural and remote communities, as they are in other areas of Australia.[1-6,16]

This atlas describes the extent and significance of inequalities in individual and community wellbeing, particularly those associated with wider social and economic influences; and points to areas where the impacts of disadvantage across the lifespan, and, in many cases across generations, need to be addressed.

Background and policy context

This atlas has been produced by the Public Health Information Development Unit (PHIDU) at Torrens University Australia for the South Australian Department for Communities and Social Inclusion (DCSI) and the Department for Health and Ageing (SA Health). The atlas includes a number of communities in Adelaide and rural and remote parts of the State, identified by these Departments.

Four of these communities – northern Adelaide, southern Adelaide, Peterborough, and the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands – have been identified for inclusion in the Thriving Communities Initiative, a South Australian Government call to address strong patterns of intergenerational disadvantage affecting the lives of many individuals and families living in these areas.

Current economic and social imperatives are driving a change in the way government works. Innovation becomes necessary and urgent in the face of complex and entrenched social issues, particularly in times of rising economic challenge, and with increasing acknowledgement of the inextricable relationship between economic and social agendas.

Across the world, governments, communities and businesses are creating new ways to bring about sustainable change, on the mounting evidence that traditional siloed service-based approaches are failing to make a lasting impact on complex issues. Central to these approaches is the development of genuine, ongoing collaboration across sectors and between all stakeholders to enable integrated effort towards agreed outcomes using a range of solutions at program, policy and system levels. Critical to this is the use of shared data as a basis for decision making and for measuring progress.

Overview and aims

The social and economic environment is a major determinant of population wellbeing in South Australia, as elsewhere.[1-4] The recent work of the World Health Organization's (WHO) Commission on the Social Determinants of Health has highlighted the importance of looking at all the factors which determine wellbeing, not only for individuals but also for entire communities.[8,9] Such factors are essential for communities to thrive.[10-12,17-20]

The purpose of this atlas is to understand better the impact that social, environmental and economic factors can have on individual and community wellbeing, and to describe the distribution of these factors across the selected populations. This reflects the growing awareness of the multidimensional nature of wellbeing, which includes material resources; education and skills; culture and kinship; community engagement; socioeconomic position; opportunities for employment; levels of health and disability; and social, community and personal assets.[13,14] Assessing assets as well as needs gives a richer understanding of communities and helps to foster strengths, increase social cohesion and develop better ways of providing effective services.[15] Healthy communities are also essential for economic growth and development.[7]

Taking a place-based approach

There is a clear relationship between the wellbeing of individuals, and the places where they live. Place can influence

wellbeing both positively and negatively, directly and indirectly.[20,21,231] Thus, there is interest from governments and agencies in concentrating upon place to influence community wellbeing directly. One such example is the WHO Healthy Cities approach.[10]

Place-based approaches focus upon specific neighbourhoods or communities, and are a promising way to bring people, government agencies and services together in a locality.[20,22] They have been used to improve economic development, environmental sustainability, homelessness and public housing, poverty and social exclusion, regional development, and public health.[21]

Geographical context is central to place-based work (where context includes social, cultural, historical and institutional characteristics); and the active role of local participants is essential, with residents, local government, business, services and other bodies shaping local change together.[23,24,25]

Place-based approaches:

- are designed to meet the unique needs of people in locations;
- engage participants across all sectors in collaborative decision-making;
- make the most of opportunities, particularly local skills and resources;
- evolve and adapt to new information and participants' interests;
- encourage collaborative action by crossing organisational borders and interests;
- pull together assets and knowledge through shared ownership; and
- encourage new behaviours and "norms" in a location.[21]

They work to impact the conditions that influence wellbeing in communities, and are set in the context of the broader structural social, political and economic factors that also shape wellbeing but need to be addressed at regional, state and national levels.[21,22,26]

As part of a place-based approach, community development work can identify the assets and strengths within communities, and the insights and abilities of local residents become resources for addressing a neighbourhood's challenges.[24,25,27] This does not mean that disadvantaged neighbourhoods do not need outside help, but rather that any genuinely local project can be resident-led, with agencies outside the community acting in a support role.[28]

Understanding community wellbeing through indicators

To improve wellbeing, we need first to understand the complex interactions between individuals and their families, the benefits and pressures exerted by their communities, and how these factors influence community thriving, economic development and sustainability, and ultimately, the full participation of current and future generations of residents as citizens. Such information is also helpful to plan for, implement and monitor policies, plans and actions and assess their effects.[17]

One way of doing this is to choose a number of indicators to describe the levels of different aspects of wellbeing of a population and, by using them, to highlight the extent of existing differences in the factors that influence community wellbeing, and cause communities to thrive.[231]

Indicators need to:

- reflect the values and goals of those who will use them;
- be accessible and reliably measured in the communities of interest;
- be easily understood, particularly by community members and others 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 communities, governments, services and businesses to action.[17]

The indicators of wellbeing presented in the atlas have been chosen because they describe the extent of difference in service access, participation and outcomes, within the context of the demographic and socioeconomic makeup of the six communities. They are also those for which

reliable data are available, and can be presented in maps and graphs, to show variations across the communities, and by the socioeconomic status of their populations.

The mapping of small areas is used to show:

- the level of multiple disadvantage in the selected communities;
- the wider distribution of socioeconomic differences in wellbeing (as shown by the gradient across groups in the population according to their socioeconomic position); and
- supporting evidence, which highlights the extent to which disadvantage is clustered into particular geographic areas, making the targeting of programs and services in selected locations a useful approach when coupled with broader community-led strategies.

The distribution of the population with the poorest wellbeing has a strong and distinct geographic pattern, both by remoteness (in particular, for some Aboriginal[a] peoples) and in locations with high proportions of people who are significantly socioeconomically disadvantaged. The focus of Section 4 is to show the geographic distribution of the population across the communities, using these indicators.

We should care about social and economic differences in wellbeing because they have the potential to shape the opportunities for the next generation. While the indicators represent topics where considerable differences in wellbeing exist, they can provide only part of the picture of the existing social and economic strengths and vulnerabilities in these communities. However, it is hoped that the atlas will raise awareness of their extent and their impacts on different sections of their populations, and provide a basis for working towards a better future for these communities.

Outline of the atlas

The first two Sections of the atlas provide background and a general discussion of community wellbeing, including the links between wellbeing and economic and social development, and the determinants of wellbeing. A focus on Aboriginal wellbeing is included as Section 3.

Section 4 concentrates on the data. The information presented highlights a variety of health, economic and social indicators that can impact on the wellbeing of the community.

The Appendices provide further detail about interpreting the maps and charts in Section 4, key maps, notes on the data, and the sources of information used throughout the atlas.

[a] In this atlas, the word 'Aboriginal' refers to Aboriginal and/or Torres Strait Islander peoples.

A note about terms used in the Atlas

In the 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. Thus, this lack of resources leads inevitably to avoidable differences in health and other outcomes for disadvantaged communities.[b]

Identifying the communities whose residents are not faring as well as others, may be seen as stigmatising. However, the purpose of the atlas is to highlight the extent of their disadvantage in order to provide evidence upon which community members and decision-makers can rely, and which can underpin advocacy for change. If we avoid highlighting the most disadvantaged areas, we avoid providing the evidence that society is failing those who live there. Moreover, being complacent about their plight, and not publishing the evidence, makes us complicit in their poorer life outcomes.

[b] In discussing the maps, reference is also made to 'poor health outcomes for the population of the most disadvantaged areas'. This is not to imply that the same health outcomes (e.g., a high premature death rate) apply to everyone living in the named areas: clearly, the average rate for an area is comprised of a range of rates across the area.

Section 2:

What determines community wellbeing?

In this section …

- Introduction
- The notion of flourishing
- What factors determine wellbeing across the lifespan?
- Understanding inequality
- Entrenched and intergenerational disadvantage
- Addressing differences in community wellbeing

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Introduction

Over the last four decades, there have been substantial social and economic changes in South Australia, especially in the areas of wealth, work, health, education, technology, resources for families, community supports and the interplay between them. These changes are evident across Australia, and in other high-income countries. Examples include:

- the effects of rising life expectancies, delayed childbearing, population ageing, overseas migration and increasing cultural diversity;[29,30]
- marked alterations in the nature and availability of work, and in opportunities for the employment of young people, with globalisation and technological advances placing greater demands on education and skills development;[31,32]
- rapid technological change bringing new ways of learning, communicating and interacting across communities;[32]
- increasing challenges in balancing work or the lack of it, with child-rearing and family responsibilities;[33,34,35]
- changes in the economy, especially in sectors such as manufacturing, retailing and financial services, with significant economic hardship and joblessness for many affected households;[36,37]
- pressures on affordable housing, particularly public housing;[38]
- the impact of climate variability on urban, rural and remote communities;[39,40]
- a rise in those adversely affected by alcohol, drugs, gaming and gambling, mental ill health and various forms of interpersonal violence;[41,42]
- a greater awareness of the effects of harmful stress on infants, children, young people and their families as a result of serious family problems and relationship breakdown;[43] and
- the persistence of significant differences in the health, education and other outcomes across populations, especially for many Aboriginal and Torres Strait Islander peoples, people living with disability, refugees, and others who are disproportionately at risk of poorer wellbeing.[44,45]

This has led to what has been described as 'modernity's paradox', a term which questions whether today's communities are developing in a positive and healthy way, given the rapid social and technological changes, which are without precedent in their scope and effects.[46,47] These changes have heightened the need for up-to-date skills and knowledge and new areas for employment, especially in communities which have been adversely affected in sectors such as manufacturing, or in remote areas where employment prospects are few.

The notion of flourishing

Wellbeing can be described in different ways, but most definitions incorporate the idea of 'flourishing': individuals thrive or flourish when they are functioning well in their interactions with the world, and they experience positive emotions as a result.[18] A flourishing life involves healthy relationships, autonomy, competence and a sense of purpose, as well as feelings of hope, happiness and satisfaction.[18]

While the term 'flourishing' is often applied to individuals, it can also be used to describe communities. Flourishing communities are those where everyone has someone to talk to, neighbours look out for each other, and people take pride in where they live, volunteer to help others, and feel able to influence decisions about their local area.[15] Residents of all abilities can access open green space and feel safe doing so, and there are opportunities and places to bring people together as a community.[15] A flourishing community is one in which members have high levels of wellbeing, which are sustained over time, and one which builds on its strengths and assets to maximise opportunities to increase wellbeing, sustainability and economic development further.[18,231]

Community flourishing is the overall state of a community in terms of environmental sustainability, social and economic factors,

which is reflected in the wellbeing of its members.[11,12,18] It has to do with the way a community functions - indeed, with the 'healthiness' of the community as a whole.[19] The key to flourishing neighbourhoods is to strengthen local assets and social capacity, while also tackling vulnerabilities and disadvantage.[20] The wellbeing of a community is reflected by its ability to generate and use its assets and resources effectively to support the quality of life of its members, and the community as a whole, in the face of challenges and barriers within its environment.[15]

Community flourishing also describes reciprocal relationships between people and their environments with the goal of sustainability.[11] Reciprocity and continuous positive interaction between people and the social, economic and physical environments that make up their community, are essential to bring about change and to enhance the wellbeing of individuals and the community itself.[11,15]

As a concept, community flourishing represents not only subjective elements (for example, satisfaction with one's life), but also more objective components, such as capabilities and fair allocations of resources and opportunities.[19,51,52] Communities provide support, order, and a framework for their members to use to help make sense of their lives. The resilience of a community is reflected in its ability to address adversity and, in doing so, extend community capacity.[149] A flourishing community can be thought of as continually creating, promoting and improving its physical, social and economic environments, and expanding on community skills and resources, which enable its members to be the best that they can be.[18,49] However, this also needs to occur alongside sustained support from local, state, and national governments and institutions, as communities cannot improve social and economic outcomes or remediate inequalities on their own.[48]

The use of the term 'flourishing' relates to all aspects of human development, including health, learning, functioning and capability.[50-52] A capability approach 'focuses on the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have'.[52,231] The idea of human capabilities is a more expansive notion than human capital, because it encourages aspects that are wider than those associated with merely increasing productivity or economic growth, and underpins what makes a 'good society'.[52-54] Wellbeing is regarded as a human right; and the 'capabilities approach' to eradicating inequality, social exclusion and poverty focuses on achieving positive 'freedoms', such as being able to access education and health care, enjoy recreational activities, own property, and find satisfying employment.[50,55] These freedoms enable people to have a level of control or 'agency' over their lives, by having the ability to make choices freely regarding their lives.[50,55]

What factors determine wellbeing across the lifespan?

Wellbeing is a multidimensional concept, which is also described as a dynamic, emergent capacity that develops continuously over the lifespan in a complex, non-linear process.[56-58] There are many different factors, or 'determinants', which influence wellbeing, and contribute to flourishing individuals and communities.[59,60] These can be illustrated as 'layers of influence', starting with the individual, and extending to aspects of families, kinship and cultural groups, relational associations, neighbourhoods and the wider community (Figure 1, next page).[57]

This model is one of many, which link influences from various domains – society-wide factors (e.g., socioeconomic, cultural, environmental), middle-level factors (e.g., access to health care, education and other human services) and individual factors (e.g., tobacco use, genes, age) – to explain the origins of health and wellbeing.[54,57,61] Many social determinants can potentially be modified to improve individual and community wellbeing, and reduce inequalities across and within communities.[54,57,58,60,61]

As shown in Figure 1, health and wellbeing are the result of multiple factors that operate together within genetic, biological, behavioural, social, cultural, environmental and economic settings that have differing influences at various points in our lives. For example, family context has a greater effect on the wellbeing of infants and young children early in life, while peer and neighbourhood factors and individual behaviours become more important as older children move into adolescence and early adulthood.[62,63] The life pathways of individuals are the product of the interplay of cumulative risk and protective factors, along with wider social and economic influences.[63,64]

Risks and protective factors can occur independently, or may cluster together in socially patterned ways.[63] Taking a 'life course approach' to wellbeing means looking at the long-term effects of physical, emotional and social exposures to protective and risk factors during gestation, infancy, childhood, adolescence, young adulthood, and later adult life, and the transitions between these life stages.[58,65-67] It acknowledges all the biological, behavioural and psychosocial pathways that operate over an individual's lifespan, as well as across generations, to influence the development of wellbeing.[46,68] Thus, the path that leads to any particular outcome may be very different for different individuals and communities.

Figure 1: Key determinants of health and wellbeing[57]

The timing and sequence of biological, cognitive, psychological, emotional, cultural and historical events and experiences all influence the development of wellbeing in individuals, communities and across populations.[58,59,69] For example, populations historically subjected to long-term mass trauma can exhibit a higher prevalence of disease, even several generations after the original trauma occurred.[69,70] Thus, the life course of individuals is embedded in and shaped by historical times and the events and places they experience over their lifetime.[71] This is especially relevant for Australia's Indigenous peoples.[166,185]

The key determinants of wellbeing are described in more detail below, and are reflected in the indicators that are included in Section 4 of this atlas. Many determinants overlap, and more remains to be learned about the specific ways in which these factors influence individual and community wellbeing.

1. Wealth and socioeconomic position

These are among the most important individual-level determinants, and one's overall wellbeing tends to improve at each step up the economic and social hierarchy. Thus, people with more wealth generally enjoy better health and longer lives than people with less wealth.[4,9,62] The rich are healthier than those with mid-level incomes, who are in turn healthier than those who are poor.[61] This is known as 'the social gradient'.

In Australia, many indicators of wellbeing vary by socioeconomic position – for example, health risk behaviours (such as smoking, physical inactivity); a range of chronic diseases (such as type 2 diabetes, cardiovascular disease, some cancers); and mortality.[44] A gradient also exists for other outcomes – from coping behaviours, to literacy and mathematical achievement.[46,72] A gradient is evident whether one looks at differences in current socioeconomic status or in that of family of origin. These effects seem to persist throughout the life course, from birth, through adulthood and into old age, and for some outcomes, to the next generation.[46,65,68]

For most people in Australia, this variation in wellbeing is not due primarily to the lack of money for food, clothing or shelter. Thus, the important factors in explaining differences appear to be not only material conditions, but also the social advantages and power attached to those conditions.[2,9] In mature economies such as Australia, these are major influences on wellbeing, both for individuals and for communities. Indeed, smaller regional communities experiencing slow growth often score more positively on other dimensions of wellbeing than larger cities, especially on measures of social interaction.[73]

2. Culture and kinship

The concept of culture reflects a shared identity based on factors such as common language, related values and attitudes, and similarities in beliefs, lived histories, and experiences.[74] For many people, the expression of these aspects of their culture is an enabling and protective factor for their wellbeing.[75] Culture, spirituality and kinship have overarching influences on beliefs and practices related to wellbeing, health and healing, including concepts of wellbeing and knowledge of the causes of health and illness and their remedy.[76]

However, minority groups can face serious risks to their wellbeing because of conflicting values from more dominant cultures, which can contribute to discrimination, loss or devaluation of language and culture, marginalisation, poor access to culturally competent care and services, and lack of recognition of skills and training for the minority culture.[77,266] This results in avoidable and unfair inequalities in power, resources or opportunities across groups in society.

Racism, discrimination and social exclusion are expressed through beliefs, prejudices, community perceptions, typecasting and media portrayal, behaviours and practices; and can be based on race, ethnicity, gender identity, sexual preference, disability, culture or religion.[78] They have direct impacts on wellbeing, and indirect effects are mediated through various forms of social and economic inequality.[77,79] These concepts are clearly applicable to Australian society, and are exemplified by the effects of racism and/or discrimination on Aboriginal and Torres Strait Islander peoples, people living with disability or mental health problems, refugees and recently arrived migrants, amongst others.[76,78,80,81]

3. Education and training

Education increases opportunities for choice of occupation and for income and job security, and also equips people with the skills and ability to control many aspects of their lives – key factors that influence wellbeing over the lifespan.[82] Participation in schooling and/or training is also a major protective factor across a range of risk factors for young people, including substance misuse and homelessness.[83]

In Australia, evidence shows that wellbeing also improves with increasing levels of educational attainment.[6] Educational

attainment and participation are also steeply graded according to socioeconomic position.[6,46,74] The pervasive socioeconomic inequalities in adult learning outcomes (and many other markers of wellbeing) have their roots in socioeconomic inequalities in early child development.[46,85] 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.[6,46,85]

Communities with large proportions of educated, skilled members have greater social and economic wellbeing, with benefits evident at three levels: individual, local community and regional.[86-88] While learning improves an individual's skills and knowledge, it also contributes to their self-efficacy and sense of control, allowing them to participate more effectively in the community.[88,89] Learning contributes to individuals' sense of belonging and better places them in a position to add to the combined resources of the community, so that the shared sense of wellbeing is improved.[89] In this way, education also supports economic growth and productivity, as skilled workers are better able to take employment opportunities in existing and emerging industries.[89]

4. Employment and working conditions

Employment in satisfying work contributes to individual wellbeing.[90] For employed people, those who have more control over their work and fewer stress-related demands in their jobs are likely to be healthier.[90,91] Workplace hazards and injuries are significant causes of disability and related health problems.[90] Furthermore, those who do not have access to secure and fulfilling work are less likely to have an adequate income; and unemployment and under-employment are generally associated with reduced life opportunities, greater likelihood of social exclusion from the community and poorer wellbeing.[90-93]

While some of the most disadvantaged households are in South Australia's remote communities, there are also concentrations of highly disadvantaged households within some neighbourhoods in Adelaide and regional communities. These concentrations of disadvantage are often reinforced by the uneven distribution of access to employment and other opportunities apparent in more affluent areas.[16,94] Access to employment is critical to levels of labour force participation and to the flow-on effects for household income and wealth, and community wellbeing.

In some communities, the changing nature of industry has left localities with fewer job opportunities.[94] Structural change is continuing to reduce job opportunities in manufacturing, and increasing job opportunities in the services' sector. Concentrations of different types of employment and the variation in transport connections to these jobs can leave already disadvantaged communities marginalised from such job opportunities, or make other communities vulnerable to increasing rates of unemployment – with significant consequences for the wellbeing of these communities, and their members.[16]

5. The physical environment

Another significant determinant of wellbeing is the safety, quality and sustainability of the physical environment (which includes the natural and built environments, such as housing), which provides the basic necessities for life, such as clean air, water and food; and raw materials for clothing, shelter and industry. Features of the natural and built environments also provide different opportunities for social interaction, safe recreation and play, tourism, transportation, employment and housing. For example, a lack of access to transport or adequate housing is a risk factor for poorer wellbeing and social exclusion of people and their communities, as is pollution of the air, water or soil.[95] The effects of changes in climatic conditions, altered cycles of flooding

and drought, and the disruption of ecosystems on communities pose further challenges for health and wellbeing, and are likely to affect populations unequally.[96-98]

Physical environments which undermine safety and heighten abuse and violence, or weaken the creation of social ties, are clearly unhealthy and socially excluding. By contrast, a healthy environment, endowed with safe public spaces, good quality buildings and generous natural settings, provides opportunities for social integration and leisure activities, and enhances community wellbeing.[98,99]

6. Social support networks

Access to support from families, friends and communities is associated with better health and wellbeing.[62,100] Aspects of this determinant shape people's daily experiences, and include individual and neighbourhood socioeconomic characteristics, a sense of connectedness, community norms, and spiritual and cultural beliefs and practices.[62,100] Sources of support help people to deal with crises and difficulties as they arise, to maintain a sense of control over their lives, to enhance their resistance to life's challenges, and to feel able to contribute as members of a community.[101] Shared principles and values, meaningful consultation about significant issues, trust-building, and reciprocity and collaboration can yield positive outcomes for communities and their members.[102] People who are socially isolated or disconnected from others are between two and five times more likely to die (from all causes) compared to those who maintain strong bonds with family, friends and community.[103,104]

Researchers also describe the quality of the social context of everyday life ('social quality') as having four conditional factors: socioeconomic security, social cohesion, social inclusion and social empowerment.[101] These factors are underpinned by the rule of law, human rights and social justice, social recognition and respect, social responsiveness, and individuals' capacities to participate as citizens within their communities.[101]

7. Early life factors

Early life is a time when individuals are particularly vulnerable to risk and protective influences.[6,46] Developmental vulnerability has its origins in a child's biological risks, and prenatal and early childhood experiences and environment, and the complex interplay between these.[64] Children who are developmentally vulnerable risk not being able to achieve their true capabilities over their lifespan.[58,64]

Experiences at the beginning of life are reflected in health and wellbeing outcomes during the middle and end of the lifespan.[59,65] There is strong evidence of the effects of supportive early experiences on an individual's cognitive function, growth, ability to learn, physical and mental wellbeing, and resilience in later life.[46,85] Exposure to neglect, trauma, violence and abuse in childhood and beyond, carries a risk of poorer physical and mental health throughout life, with adverse consequences for later learning, development, relationships and overall wellbeing.[69,70]

A life course view highlights the sequencing of events across an entire lifetime.[58,59,71] There is also evidence for intergenerational effects: for example, the socioeconomic status of a child's grandfather may predict the child's cognitive and emotional development at 14 years of age.[68]

Research has shown that supportive, culturally responsive early child development programs enhance the wellbeing of children, their families (particularly those who are disadvantaged and marginalised), and also their communities.[85] Such interventions can have positive effects on the economy of a community as a whole, by raising its stock of human capabilities, enhancing current and future productivity and mitigating disadvantage.[46,105]

8. Individual behaviours and practices

Personal behaviours, practices, and coping mechanisms can promote or compromise wellbeing.[106] Factors such as physical inactivity, tobacco smoking, use of drugs and

harmful alcohol consumption, unhealthy food habits, exposure to violence and trauma, and gambling have obvious impacts. However, many of these health behaviours reflect decisions that are patterned by an individual's and their community's economic, cultural, historical and social circumstances.[46,106]

People on low incomes have access to fewer alternatives to help reduce stress and cope with life's challenges. As a result, they may be more likely to take up readily available and more economically accessible choices, such as tobacco use.[107] Not surprisingly therefore, smoking behaviour is steeply graded according to socioeconomic status, resulting in those who are the most disadvantaged having the poorest smoking-related health outcomes.[107] Not only does the prevalence of smoking increase with socioeconomic disadvantage, but the average number of cigarettes smoked per week also increases with growing disadvantage.[108]

While personal attributes and risk behaviours interactively shape wellbeing, people who suffer from adverse social and material living conditions can also experience higher levels of physiological and psychological stress.[109] Stressful experiences arise from coping with conditions of low income, homelessness, or poor quality housing, food insecurity, unsafe communities, hazardous working conditions, unemployment or under-employment, and various forms of discrimination based on Indigenous status, mental illness, disability, religion, gender, sex, or ethnicity.[109,110] A lack of supportive relationships, social isolation, and a mistrust of others further increases stress and reduces wellbeing, at both an individual and a community level.[110,111]

9. Access to effective and timely services

The timely use of effective services is a determinant of individual wellbeing, especially the accessibility of preventive and primary health care, education and family support services that are universally available, high quality, safe, affordable and culturally secure.[112,113,268] For certain populations who are socially marginalised or geographically remote, lack of access to and availability of appropriate services continue to be important influences on their wellbeing.[73,266]

Inadequate social infrastructure, such as a lack of effective services, has significant long-term consequences and associated costs for new and existing communities.[113,114] A "spiral of decline" can occur when there are poor local services or effective services are downgraded or relocated elsewhere, with significant negative impacts on communities and their members.[115]

10. Gender and sexual identity

While not excluding biological differences, a gendered approach considers the critical roles that social and cultural factors and power relations between men and women play in promoting and protecting or impeding health and wellbeing for individuals.[62,116] The overall goal should be to achieve equitable resource distribution, community flourishing, and social inclusion and participation by all community members.

For many gay, lesbian, bisexual, transgender and intersex Australians, poorer wellbeing can arise as a result of the considerable stress of experiencing discrimination, trauma and social exclusion.[117,118] Gender- and sexuality-specific health needs for individuals include the adequacy and appropriateness of health care and other support services, because wellbeing is shaped by the inclusiveness of communities and the fair distribution of resources.[119]

11. Disability

Understanding the distinction between individual and social models of disability is critical to recognising disability as a key determinant of wellbeing.[120] When disability is thought of only as a personal tragedy or a form of biological deficit, action tends to focus on medical responses of care, cure or prevention. By contrast, social model approaches focus not on presumed deficiencies of an individual, but on the

social processes that cause people with perceived impairments to experience inequalities and social exclusion as a minority group in the community.[121] A social model of disability acknowledges that the causes of social inequalities operate beyond the level of the individual, and both structural and cultural forces play a part in the collective experience of inequality and the social exclusion of those living with disability.[121] When the experience of disability is identified as discrimination, exclusion or injustice, policy responses are more likely to focus on human rights and the removal of barriers to inclusion.

People with disabilities experience significantly poorer health outcomes than their non-disabled peers; and these negative health outcomes extend to aspects of wellbeing unrelated to the specific health conditions associated with their disability.[122] Poorer wellbeing may also be experienced by family members who care for their disabled children or adult relatives.[123]

People with certain impairments may be more likely to die at a younger age than the average for the population, as a result of the biological impact of the impairment on the body's capacity for survival. However, less access to health care, fulfilling employment, safe and supportive communities, and sufficient resources can also affect survival chances adversely.[121,123] These broader inequities, including those linked to socioeconomic background, underlie the social patterning of the health and life experiences of people who live with disability, and their families.[122]

Communities that are disability-friendly can improve the wellbeing of their members more generally. For example, the cultural and artistic life of a community flourishes when people with disabilities and older people are able to fully contribute their skills and talents both as artists and as patrons.[124] Social participation in arts and culture opportunities can also strongly influence individual wellbeing as well as fostering a greater sense of community.[124]

12. Biologic factors and genetic inheritance

Genetic inheritance, the functioning of individual body systems and the processes of growth and ageing are powerful determinants of wellbeing. A person's genetic endowment was once thought to be pre-determined and not amenable to change. However, recent evidence indicates that the ways that genes are expressed can be shaped by a person's particular physical, psychological and social environment; and social relationships and environments may influence the expression of DNA throughout one's lifetime.[125,126]

To summarise, the factors discussed above play important roles in the wellbeing of populations. However, they do not exist in isolation from each other, but function as an intricate web. Our wellbeing as individuals is determined by the influence of factors acting where determinants interconnect across the lifespan.[127,128] The impact of social group membership and geography on health and wellbeing is not only powerful but also persistent.[87,142,144] Differences early in life, including *in utero* circumstances, can impact later wellbeing regardless of subsequent life events, generating health inequalities between social groups over the lifespan, and across generations.[65,87,129,143]

Understanding inequality

While the overall level of wellbeing of South Australians is high when compared to many overseas countries, there are substantial differences in the wellbeing of specific groups and communities within our population.[130,132] These and other disparities are referred to as 'inequalities'. 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 society into different groupings. Inequalities contribute to differing capacities to define what counts as being a citizen and particularly, a 'good' citizen.[233]

There are many types of inequality – age, sex, ethnicity, social and economic position, gender, disability, geographical area,

remoteness, and so on. Some dimensions of inequality are unavoidable and not responsive to change, such as age. Other inequalities occur as a result of differences in access to the things that underpin wellbeing, such as educational opportunities, material resources, safe working conditions, effective services, nurturing experiences in childhood, and so on.[131] A lack of opportunity can also alter expectations of what life offers in the future.

Such inequalities are unfair, as they do not occur randomly or by chance, but are socially determined by circumstances largely beyond an individual's control.[234] These circumstances disadvantage people and limit their chances to live longer, healthier lives. Socioeconomic inequalities in health and wellbeing are potentially avoidable because they are rooted in political and social decisions.[131,234] This has implications beyond health inequalities. Less equal societies, in terms of the differences in the income, power and wealth across the population show an association with doing less well over a range of health and social outcomes, including violence and homicide, substance use and social mobility.[235] This 'hidden damage' shapes every aspect of life: from the ability to learn and the foundations of health and wellbeing laid down in childhood, to the safety of our neighbourhoods and the productivity of our enterprises, and ultimately, our collective identity as a society.

There is now widespread agreement that health inequalities result from an unequal distribution of income, power and wealth across the population and between groups.[234] Good evidence of effective interventions and policies is needed to address the inequalities in wellbeing, which are apparent across the many communities, which are not flourishing.

Tackling the social influences on wellbeing is recognised as one way to reduce these inequalities.[152,147] However, the social factors promoting or undermining the wellbeing of individuals and communities should not be confused with the social processes underlying their unequal distribution.[147] This distinction is important because, despite improvements in many determinants of wellbeing, social and economic inequalities have persisted.[148]

In considering how to remedy inequalities in wellbeing, it is necessary to distinguish between:

- the social causes of wellbeing – which generally include the non-genetic and non-biological influences – meaning individual behaviours as well as wider influences (such as income, wealth, education, housing, transport, the environment and the other determinants discussed earlier); and
- the social causes of the inequalities, or differences, in these determinants (sometimes called 'the fundamental causes' or 'the causes of the causes').[9,152]

The distinction between the social causes of wellbeing and of inequality in wellbeing can be clarified by focusing on social position as the point in the causal chain, where societal resources are both distributed and unequally distributed between social groups.[148,152] Using a single model to explain *both* wellbeing and inequalities in wellbeing can blur this distinction; and lead to the assumption that tackling 'the layers of influence' on individual and population health and wellbeing alone will reduce inequalities.[148] We need to recognise that unequal social positions carry with them unequal probabilities of being exposed to hazards along the social context/risk factors/illness and disease pathway.[9,148]

The most significant causes appear to be those that produce stratification within a society – or 'structural' causes – such as the distribution of wealth, or discrimination on the basis of age, sex, gender, sexuality, ability or ethnicity.[56,152] These determinants establish a set of positions within hierarchies of power, prestige and access to resources.[56,145,147] Mechanisms that produce and maintain this stratification can include governance; education systems; human services; labour market structures; and the

presence or absence of redistributive welfare policies.[56,148]

These structural mechanisms, which affect the different social positions of individuals, are the fundamental causes of inequalities in wellbeing across communities.[145,146,148] These differences shape individual health status and wellbeing through their impacts on intermediary determinants such as living conditions, psychosocial circumstances, social inclusion, behavioural and/or biological risk factors, as well as health care and other human service systems.[56]

Entrenched and intergenerational disadvantage

The impact of inequalities in wellbeing has profound implications for the economic, social and sustainable development of communities. Increasing inequality is also a matter for significant community concern because it tends to unravel the social fabric, through its adverse effects on individuals' life chances and their ability to participate as active citizens in community life.[129] These effects may also be handed down from generation to generation, as social and economic disadvantages progressively accumulate and are reflected in poorer wellbeing.[68] As a society we cannot, and should not, turn away from the challenge of persistent intergenerational disadvantage in communities, no matter how confronting it may be to address.[14]

Intergenerational disadvantage refers to the situation in which '*multiple generations of the same family experience high and persisting levels of social exclusion, material and human capital impoverishment, and restrictions on the opportunities and expectations that would otherwise widen their capability to make choices*'.[139,140] However, this definition hides a great deal of complexity, because different characteristics are transmitted in different ways.[139] The extent of intergenerational transmission depends not only on parental, household and community characteristics but also on institutional settings, policies, and the wider economic and historical contexts.[87,139]

In South Australia, there are numerous communities with multiple generations of people living with disadvantage as a result of entrenched poverty and social exclusion.[143]

Low levels of earnings and education, persistent joblessness and under-employment can persist across generations, resulting in little intergenerational social and economic improvement.[139] While low social mobility is beneficial for families from high socioeconomic backgrounds, it has a clearly negative impact on severely disadvantaged families.[141] Intergenerational disadvantage can also extend beyond the transmission of economic and material impoverishment, to encompass the contextual circumstances that contribute to its perpetuation, such as disrupted family relationships.[141] For example, the likelihood of relationship breakdown can also persist across generations, with intergenerational disadvantage more likely for the children of an unsupported sole parent, who is living in poverty.[139]

Preventing intergenerational disadvantage involves providing support and opportunities essential to a person's advantageous personal, social and economic development to prevent the deprivation of assets (material, intellectual, and other kinds) of the older generation from becoming deprivation of the younger generation's access to beneficial opportunities.[132] The consequences of this deprivation can include the restricting of a child's social development and the failure of a young person to be the best that they can be.[141] From an economic point of view, the legacy of childhood disadvantage can last long into adulthood and beyond, and lead to social and economic costs for society.[132]

Research shows that there is more involved in the intergenerational transmission of disadvantage than simply family 'culture', with little evidence for the idea that parental behaviours have the strongest causal effects on children's long-term economic success.[132,133] Both research and practice experience indicate that the effects of social origins work through two different mechanisms.[134] The first involves family

conditions, and parental stimulation in early childhood in particular; and the second reflects the decisions people make at crucial transition points in the education system and labour market.[132,134,138] Among the influential family conditions, parental education is important, as well as parenting styles and role modelling and the social and cultural assets that they share with their children.[132]

However, broader structural issues are increasingly recognised as critical factors.[132] Limited parental incomes during childhood often restrict the economic status, stability and mobility of adult children; and community-level factors in areas of entrenched poverty (such as a loss of socialising institutions, or a shortage of people engaging in work, with consequential loss of introductions to available work opportunities locally), also contribute.[132,135,136] Relevant structural factors that inhibit participation in work include limited work experience, low levels of education, literacy and industry-ready skills, child care costs, and transport difficulties.[132,136,137]

However, growing up in a disadvantaged family and/or community does not necessarily predict poorer life chances, and many people are able to prevail over adversity and achieve good health and wellbeing, complete education and training, find fulfilling employment, and access safe and affordable housing. This is because, rather than being an asset in itself, the ability to overcome disadvantages results from having a range of assets such as supportive relationships, and community resources (e.g., effective education, social and health services; neighbourhood safety and quality; available employment and/or appropriate levels of income support).[132] Therefore, there are opportunities to improve outcomes for people experiencing intergenerational disadvantage, by enhancing family supports and strengthening community resources, but, above all, within a sustaining and responsive economic and social environment.

Addressing differences in community wellbeing

Tackling health inequalities requires a blend of actions to undo the fundamental causes, prevent the damaging wider environmental influences, and mitigate (make less harmful) the negative impact on individuals (Figure 2).[234,236]

Figure 2: Examples of what can help to reduce inequalities in health and wellbeing[234,236]

Actions to undo the fundamental causes of health inequalities	Actions to prevent harmful environmental influences on health inequalities	Actions to mitigate the effects of health inequalities on individuals
▪ Introduce a healthy standard of living for all. ▪ Ensure the welfare system provides sufficient income for healthy living and reduces stigma for recipients, through universal provision in proportion to need ('proportionate universalism'). ▪ Progressive individual and corporate taxation. ▪ The creation of a vibrant democracy, a greater and more equitable participation in local communities and public service decision-making. ▪ Create fair employment - active labour market policies (e.g. hiring subsidies/self-employment incentives, apprenticeship schemes) and holistic support (e.g. subsidised childcare, workplace adjustments for those with health problems) to create good jobs and help people get and sustain work.	▪ Ensure local, culturally responsive service availability and high quality, clean green and open spaces, including space for play. ▪ Lower speed limits. ▪ Raise the price of harmful commodities like tobacco and alcohol through taxation and further restrict unhealthy food and alcohol advertising. ▪ Protection from adverse work conditions (greater job flexibility, enhanced job control, support for those returning to work and to enhance job retention, occupational safety). ▪ Provide high quality early childhood education and adult learning. ▪ Provide practical support to families early in pregnancy, and through early childhood to the start of school, where needed. ▪ Improve health literacy for local communities, including those with poor proficiency in English.	▪ Training to ensure that the public sector workforce is sensitive to all social and cultural groups, to build on the personal assets of service users. ▪ Link services for vulnerable individuals (e.g. income maximisation welfare advice for low income families linked to health care). ▪ Provide specialist outreach and services for particularly disadvantaged individuals (e.g. children in care; those who are homeless). ▪ Ensure that services are provided in locations and ways, which are likely to reduce inequalities in access (i.e. link to public transport routes; avoid discrimination by language, gender, culture, ethnicity etc.). ▪ Maintain a culture of service that is collaborative and seeks to produce benefits, including health and wellbeing, such as through service re-design with local community members.

We often fail to make the most of interventions that address the social context and conditions in which people grow, live, work, play and age, all of which have a powerful influence on health and wellbeing.[9,150] Action must be based on evidence of need, understanding of barriers to social opportunities and what is most likely to work.[234] As described earlier, many of the key factors required for creating the conditions for wellbeing lie within the social context of people's lives and have the potential to contribute to reducing inequalities.[154,236]

In thinking about differences in wellbeing across communities and what each means in terms of the design of policies, services and other actions, there are a number of approaches, which can be used, at different levels and to different effect.[150-153,234,236] Historically, approaches to the promotion of health and wellbeing have focused on identifying the needs and problems of populations that require professional resources and hospital, welfare and other services.[155] Such approaches are necessary and important, particularly in identifying levels of need, inequity and priorities; but they should be complemented by other perspectives, as they tend to define communities and individuals solely in negative terms, often disregarding what is positive and working well for particular populations.[151,155] Much of the evidence available to policy makers to inform decisions about the most effective approaches to promoting health and wellbeing and to tackling health inequalities is based on the 'problem' model, and this may disproportionately lead to policies and practices, which can further disempower the populations and communities who are to benefit from them.[151,155] By comparison, 'assets' or 'strengths' based models accentuate those resources that promote the skills and capacities of individuals and communities.[151,155]

Communities – be they communities of place, of identity or of interest – have significant assets.[15,232] An assets approach incorporates the notion of 'health creation' and in doing so, encourages active partnership with local communities in the wellbeing development process.[155,156] Effective local delivery requires effective participatory decision-making at local levels, and this can only happen by empowering individuals and communities.[150] Strengths based approaches, which focus on community assets, provide an opportunity for public agencies and their partners to respond to this challenge in alternative ways.[154]

Assets for wellbeing have been described as "*any factor or resource which enhances the ability of individuals, communities and populations to maintain and sustain health and wellbeing and to help to reduce health inequalities... (and can) operate as protective and promoting factors to buffer against life's stresses*".[155] They include factors at the individual, community and organisational levels – from personal self-esteem and sense of purpose, to supportive family, kinship and friendship networks, intergenerational solidarity, cultural and spiritual knowledge, to environmental resources necessary for promoting wellbeing, employment security, opportunities for volunteering and civic participation, safe and affordable housing, political democracy and social justice.[155] They are the collective resources that individuals and communities have at their disposal, which promote wellbeing and protect against poor health and other outcomes.[154,156]

Practically speaking, community assets can be:

- the everyday skills, capabilities and knowledge of local residents;
- the passions and interests of local residents that contribute the energy to make changes;
- the networks and connections in a community;
- the effectiveness of local community, voluntary and other associations;
- the resources of public, private and not-for-profit organisations that are available to support a community; and
- the physical and economic resources of a place that enhance wellbeing.[27]

These assets can act as the foundation from which to bring about change that is led by the community, rather than by those who

provide or fund services.[154] Many examples of asset based work do not use 'asset' language, but include terms such as 'community engagement', 'community development', 'community empowerment', 'collective impact' and 'mutuality' to describe what they do. These terms all share similar features and value the positive capacity, skills, experience, knowledge and connections in a community.[155]

In South Australia, there is interest in the 'collective impact' framework from the USA, where long-term commitments are made by a range of partners from different sectors with members of the community to set 'a common agenda to tackle deeply entrenched and complex social problems'.[157] It is an approach to 'making collaboration work across government, business, philanthropy, non-profit organisations and citizens to achieve significant and lasting social change together'.[157] Participants need to develop 'mutual trust, and knowledge (gained from prior community development practice and research, and an underlying shared understanding of the capacities of a well-functioning community), perseverance, and a willingness to take concerted action for the common good'.[14]

Assessing strengths alongside needs can give a better understanding of the health, wellbeing, learning and care requirements of individuals, enabling a shift towards more empowering, sustainable and holistic approaches for addressing intergenerational disadvantage, and delivering services in communities.[158] However, taking an asset based approach is not an alternative to addressing need.[158] In practice, there is not a simple and clear division between problem based, and asset based approaches.[158] Rather, research suggests that problems can be addressed using a different model of working, which develops strengths and resources rather than potentially perpetuating need, and recognises the value and importance of achieving a balance between service delivery and community building.[14,158] A focus on community strengthening is not to deny the continuing importance of external investment in markedly disadvantaged localities; however, in order for services, infrastructure and other interventions to be effective in the long run, they must not only be useful in their own right, but simultaneously contribute to strengthening the overall community.[14]

While reducing inequalities in wellbeing is considered one of the most important challenges for our society, we do not yet have sufficiently robust knowledge of which interventions will be effective, in which locations and for which populations.[159,160] Further work is needed to monitor and evaluate alternative actions and their impacts and determine if, how and why particular populations respond; and communities must be at the forefront of these processes.[161,162] Causes of unintended, differential outcomes of current and new public policies also need to be determined.[161] While there are some sensitive, skilled community projects across Australia, given our present state of knowledge, it is doubtful whether a single community, marked by extreme cumulative disadvantage, has been 'turned around' in the sense of experiencing a sustainable and generalised improvement in life opportunities for its citizens over the longer term.[14]

However, there is a growing body of knowledge that can provide direction for developing policies to reduce the determinants of inequalities in health and wellbeing in communities afflicted by entrenched, intergenerational disadvantage.[161,162] 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 housing, taxation and social security, employment, urban design, pollution control, educational attainment, and early childhood development, as well as health care and other human services.[160,162] By considering impacts across all policy sectors, population wellbeing can be improved and the growing economic burden of health care and other human services reduced.[161,163]

A focus on the social and economic contexts of life in no way implies that other factors such as genetics, behaviours or use of services do not figure in determining wellbeing; rather, this highlights a greater understanding in recent years of the hidden social factors that underpin differences in the likelihood of having a healthy and fulfilling life, and the impacts on wellbeing for both individuals and communities, who are disadvantaged. Investing in a population-focused approach to addressing inequalities in wellbeing offers a number of potential benefits: increased prosperity, because a well-functioning and healthy community is a major contributor to a vibrant economy; reduced expenditures on health, education and social problems; and overall community stability, cohesion and wellbeing for citizens.[164]

Section 3:

A focus on Aboriginal wellbeing

In this section …

- Introduction
- Understanding Aboriginal wellbeing
- Key factors in Aboriginal wellbeing
- Towards hope: supporting Aboriginal social and economic sustainability

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Introduction

In South Australia, the substantial social, political and economic hardship experienced by Aboriginal peoples has been documented many times. Numerous social and economic indicators such as poverty, employment, housing, education, justice and health reveal the impacts of colonisation, lost and stolen generations of families and the attempted decimation of the innumerable cultures of the peoples inhabiting Australia well before 1770.[165,166] From a social and political perspective, for there to be improvements in Aboriginal wellbeing, a process of real reconciliation, that acknowledges the past in the light of the present, has to be embraced across all the sectors of our society, including substantial change in discriminatory attitudes and practices, reparation, and the sharing of power.[167-169]

Aboriginal cultural groupings within South Australia are defined by a number of distinct language groups, numbering over thirty, and related to defined Indigenous regions of the State.[170] The Aboriginal peoples of South Australia are diverse with many distinct cultural differences, including their connections with land, language and culture.[170] They live in Adelaide, regional centres, small country towns and in remote areas of the State, from the coast to the arid lands of central Australia; and in 2011, almost half (48%) of Aboriginal peoples lived outside the Greater Adelaide area.[171]

Understanding Aboriginal wellbeing

Most 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.[151] While it is important to illustrate unmet need for appropriate resources and services and resulting inequities, this approach overlooks the strengths, capabilities and passion that Aboriginal peoples demonstrate in caring for their families, communities, their environments, and their lands; and fails to represent the holistic nature of Aboriginal cultures and histories.[151,171]

For Aboriginal peoples, the idea of wellbeing is broader and more inclusive than non-Indigenous concepts of health.[173] Therefore, in this atlas, an understanding of wellbeing is drawn from the definition proposed by the National Aboriginal Health Strategy (NAHS) Working Party in 1989:

> *"Not just the physical well-being of the individual but the social, emotional and cultural well-being of the whole community. This is the whole-of-life view and it also includes the cyclical concept of life-death-life".*[174]

The NAHS definition notes that achieving wellbeing is an attribute of communities as well as the individuals within a community; and it identifies cultural wellbeing, along with physical, social, spiritual and emotional wellbeing, as equally important.[174] Land, culture and community identity are central to Aboriginal perceptions of wellbeing.[175] Aboriginal cultures are numerous and diverse, made up of many different kinship and language groups that have adapted to diverse living conditions throughout South Australia over thousands of years. These cultures are dynamic and evolving.[175]

The NAHS definition emphasises a holistic approach, and highlights the importance of many of the determinants of wellbeing identified in Section 2. 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.[176]

With respect to the way community functions, Chong and colleagues observe 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."[172]

Thus, an Aboriginal community's social capabilities and functioning are fundamental to enhancing individual and collective knowledge and wellbeing, engaging in social and economic development, and in resolving local issues.[10] As Aboriginal culture is not something that can be easily understood by non-Aboriginal people, it must be respected, and acknowledged appropriately, within the socio-political context of Indigenous people's human rights, including their rights to health and wellbeing.[176,205,267]

The *Social and Emotional Well Being Framework for Aboriginal and Torres Strait Islander Mental Health and Social and Emotional Wellbeing* outlines strategies for improving wellbeing.[177] The first guiding principle recognises the critical importance of land:

"Aboriginal and Torres Strait Islander health is viewed in a holistic context, that encompasses mental health and physical, cultural and spiritual health. Land is central to wellbeing. Crucially, it must be understood that when the harmony of these interrelations is disrupted, Aboriginal and Torres Strait Islander ill health will persist."[177]

The elements contributing to Aboriginal wellbeing are based on social interactions with people and the non-human landscape, and described as the inter-related: Land, Body and Spirit.[178,205] Aboriginal spirituality derives from a sense of belonging to the land, to the sea, to other people and to one's culture.[205] It resides in stories, ceremonies and dance, language, values and structures.[205] The Aboriginal concept of belonging to land is often encapsulated by the Aboriginal English word 'country' that has been described as follows:

"Country is multi-dimensional – it consists of people, animals, plants, Dreamings; underground, earth, soils, minerals and waters, air ... People talk about country in the same way that they would talk about a person: they speak to country, sing to country, visit country, worry about country, feel sorry for country, and long for country."[178]

Land and place are connected with spirituality and are important determinants of wellbeing.[205] Places are a mixture of physical, social, spiritual and cultural elements, and are dynamic and interactive.[230] They contain social, spiritual and cultural references about how people are to behave as individuals and as part of the community.[230] Aboriginal wellbeing can be considered as 'achieved capabilities and qualities, developed through relationships of mutual care of kin, non-human affiliations and observance of ethical conduct described by the law or dreaming that is encoded within the landscape':[176,179,180,205]

"For Aboriginal people, land is not only our mother – the source of our identity and our spirituality – it is also the context for our human order and inquiry."[181]

"Our identity as human beings remains tied to our land, to our cultural practices, our systems of authority and social control, our intellectual traditions, our concepts of spirituality, and to our systems of resource ownership and exchange. Destroy this relationship and you damage – sometimes irrevocably – individual human beings and their health."[182]

Key factors in Aboriginal wellbeing

In addition to the determinants outlined in the previous section which apply to all peoples, a number of key determinants of Aboriginal wellbeing are included here. Each is embedded in the overall social structure, in political, economic and educational systems, in diverse cultural requirements, in local community, and Aboriginal and non-Aboriginal peoples' actions.[167,183,184] There is a strong thread of interdependence between them, and the nature of the inter-relationships is complex and deep.

These things can help to address the existing intergenerational cycle of disadvantage, which is present for many Aboriginal peoples, as a legacy of colonisation and its aftermath; and the inequality that they experience is a contemporary reflection of their historical treatment as peoples.[185] However, the strength and spirit of Aboriginal peoples have prevailed over such adversity; and kinship, shared communities, land, painting, storytelling and other cultural illustrations celebrate the depth of this capacity for survival.[151,182,205]

1. Early life factors

Early life experiences are important for wellbeing. They influence growth, the ability to learn, and physical and mental health in later life, and can have effects across generations. Adversities experienced by Aboriginal communities and by individual families impact particularly on their youngest members. Factors such as low birthweight, failure to thrive and the effects of trauma can have serious consequences for children's wellbeing and development.[186] Parents in communities experiencing such adversity may suffer high rates of emotional distress that also affect their children, especially when families are left without healing and resolution.[184]

The imposition of mainstream culture and services early in life failed to deliver the necessary improvements in wellbeing to Aboriginal children, families and communities; and there is now a recognition that a 'both ways' approach to service design and delivery is needed, which values and respects practices from both Aboriginal and non-Aboriginal cultures.[187,188] In order to enable a 'both ways' approach, cultural knowledge from the diversity of Aboriginal communities needs to sit alongside mainstream early childhood services.[268] This includes knowledge about conception and birth, family roles and responsibilities, language, land, discipline, emotional development, dreaming, play and exploration, and physical development.[188,189] 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.[190] Many of these practices are also positive models for non-Aboriginal child rearing and early child development approaches.

2. Physical, social and emotional health and wellbeing

Health, learning and capacity development are closely inter-related and this relationship is critically important for Aboriginal wellbeing.[176,205] Maternal health, nutrition, early attachment, cultural identity, and good physical and emotional health in childhood support early development, readiness to learn, social efficacy, educational attainment, and adult participation in the work force.[183] For example chronic infection, trauma, and vision, hearing and other disabilities disproportionately affect many Aboriginal children and young people and impact upon their wellbeing and learning.[184] Both health and educational experiences, and the interactions between them, have effects that reverberate throughout an individual's lifetime, and on to the wellbeing of subsequent generations.[205]

Research shows that the more control a person has over their life circumstances, the better their wellbeing.[191] 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.[192,193] Health-harming levels of stress 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.[191,194] Aboriginal peoples and communities must have control over their lives to progress self-determination, and enhance their wellbeing; and they must be supported to do so, in an environment of harmony and mutual respect.[191]

In this regard, the Aboriginal concept of social and emotional wellbeing has been defined by the South Australian Aboriginal Health Partnership as:

"Living in a community where everyone feels good about the way they live and the way they feel. Key factors in achieving this include connectedness to family and community, control over one's environment and exercising power of choice."[195]

Attaining a satisfactory state of social and emotional wellbeing involves 'a process of empowerment'.[196,205] As a consequence of the history of dispossession and contemporary social disadvantage, Aboriginal people have spoken of their poor social and emotional wellbeing and a need to heal, come to terms with past trauma, and understand their present life circumstances and life's opportunities.[196,197,205] They identify empowerment as encompassing the steps of:

a. dealing with pain;
b. gaining control;
c. becoming strong;
d. finding one's voice;
e. participating in change; and
f. working together for a stronger community.[198]

Taking steps towards improving social and emotional wellbeing also contributes to social sustainability.[196]

Effective, culturally secure programs, which focus on family and community wellbeing, can contribute to social sustainability by providing a mechanism for Aboriginal people to identify collectively their personal and community strengths and needs, and fulfil these needs by becoming involved in community action or advocacy.[199,267,268]

Community-controlled organisations play an important role in improving community strength, health and hope through self-determination.[205] For example, the concepts and experiences of Aboriginal spirituality and social and emotional wellbeing can be found in the holistic health care of the community-controlled health centres. These services (remote and urban) have a major role to play in incorporating spirituality, bush medicine and traditional healers in their healing practices.[205] Similarly, strong involvement by parents in culturally responsive schools and VET programs can influence young people's educational and employment outcomes.[200]

3. Community networks and social support

The central importance of family and kin is a key social and cultural resource in many Aboriginal families and communities; and extended family formation serves a fundamental role in wellbeing.[201] These networks are crucial mechanisms for cushioning against financial hardship and social isolation, and enable the sharing of child-rearing and the redistribution of resources across households.[201,202] Strong Aboriginal culture underpins communal norms that influence perceptions of responsibilities to family and land, identity, reciprocities and obligations about sharing.[203]

As discussed earlier, Aboriginal community networks provide an essential source of support and enhance the wellbeing of their members. Dense bonding networks reinforce, and are reinforced by, Aboriginal norms of identity, sharing and reciprocity.[203] However, while Aboriginal people have strong and dense bonding networks, they may have sparse bridging and linking networks, especially to resources and expertise located within the dominant culture.[203] The repeated experience of racism and the lack of opportunities that intergenerational disadvantage brings undermine the development of trusting relationships beyond the Aboriginal community.[203]

4. Housing, shelter and connections to country

As a population, Aboriginal people 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 whole community.[165] 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 visit each other.[165]

Aboriginal people are more likely to access accommodation in the public rental sector, than non-Aboriginal people who are more likely to own or be purchasing their home.[165]

This again reflects economic hardship, and also highlights the presence of racial discrimination in sections of the private rental market.[204] A significant proportion of Aboriginal people rely on publicly-subsidised social housing, the Aboriginal Housing Authority and Aboriginal community or cooperative housing groups to meet their accommodation needs. However, there is much heterogeneity within Aboriginal populations, and not all families use public housing.

The wellbeing of Aboriginal South Australians is also more likely to be affected by exposure to factors such as poorer quality housing and inadequate community infrastructure.[165] Aboriginal people living in very remote communities may not have regular access to safe housing, affordable healthy food, reliable supplies of water and electricity or adequate sewerage and drainage systems, all of which are essential for wellbeing.[165]

As discussed earlier, the importance of country and connection to country is central to the wellbeing of many Aboriginal peoples.[205] Quality of life and control of traditional lands enhance community wellbeing and the capacity of many Aboriginal communities to develop strong governance structures and sustainable opportunities for economic development.

5. Income, employment and socioeconomic position

Aboriginal peoples as a population group are widely recognised as being financially disadvantaged.[165] Low levels of income are also a strong indicator of relative disadvantage in areas such as educational attainment, labour force participation, housing and health and wellbeing.[165]

Overall, the levels of income of Aboriginal people tend to be lower than those of non-Aboriginal people in comparable circumstances. Those who live in remote and regional areas have limited access to numerous services, which are readily accessible for people living in urban areas. Many people have to rely on government income support benefits as their major source of income, in the absence of local employment and sustained training opportunities.[4] This can have adverse effects on community and individual wellbeing, and on the sustainability of communities over the longer term, as dependency on income support becomes socially embedded.[207]

Opportunities for the further establishment of Aboriginal-run community-based enterprises and the employment of young Aboriginal people following their participation in education and training are important areas for improving income and community wellbeing.[207] When Aboriginal peoples experience high levels of effective control over local governance arrangements, the opportunity to develop sound, stable, culturally secure governing arrangements helps meet the needs of their communities.[208] Effective governance training is a key ingredient in supporting this control.[208]

Employment is not only dependent on what you know (skills, knowledge, qualifications) but also on whom you know (social relations, connections and acquaintances).[203] Furthermore, not all the people in one's immediate social network are equally effective at providing information and facilitating employment, and some may negatively influence motivation to engage with mainstream education or employment opportunities. Brokers who can bridge and link Aboriginal individuals and their dense social networks to potential employers are one mechanism for Aboriginal people to be able to obtain trusted information on jobs and access employment opportunities.[203,268] However, stress and burnout can be suffered by people who broker networks with divergent values in cross-cultural settings, and who work between Aboriginal communities and mainstream services.[203,209] To improve employment outcomes and expand livelihood options especially in remote Australia, it is essential to recruit Aboriginal people, and they must be appropriately recognised, supported, trained and remunerated.[203,209]

6. Learning, education and training

Current concepts of learning recognise that knowledge is culturally constructed, that individuals 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.[210] All students need educational experiences, which are meaningful for the learner and which reflect the learner's background and history. Aboriginal students are no exception.[211]

As young students, Aboriginal children learn through their culture and the cultures of others, and their participation in those cultures shapes their identities.[212] 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 trained Aboriginal workers significantly increases preschool and school participation rates, as do programs that encourage and support parents' involvement.[213]

Factors linked to Aboriginal students' individual life experiences have a direct impact on their capacity to engage with school and learn, and these interact with each other.[214] They include: having their basic material and personal support needs met; their experiences 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.[215] 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, may impact on pre-school and school attendance patterns, especially where mainstream schools are not culturally secure and inclusive.[213-215]

Issues which can affect educational experience include institutional, peer and teacher-based racism in formal learning 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 competence in teachers and counsellors; the need for support structures such as dedicated spaces for Aboriginal students' homework and tutoring assistance; population mobility; and poverty.[216] Others have described a mindset within schools that accepts absenteeism and poor educational outcomes from Aboriginal students as 'usual'.[217] In contrast, schools with high attendance levels attribute their success to well-trained, culturally competent teachers who can build a rapport with Aboriginal students and their families, offer additional support and develop individualised learning plans.[212,268]

Educational institutions, such as schools, are based around systems that include political, cultural, community, home, school, year-level, classroom, and peer groups.[218] These can interact with each other in supportive and non-supportive ways, but should be institutions that build wellbeing and give students a sense of belonging, participating and being valued. Non-racist, culturally secure environments are essential starting points for effective learning, from pre-school onwards.[184]

In addition to the importance Aboriginal parents place on education, they also highly value their child maintaining and learning about aspects of their culture for identity development, the positive experience of Aboriginal culture, and the significance of support from the community to which they belong.[211] These can be seen as preconditions to the achievement of success through education. Therefore, 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.[218,219]

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 secure mechanisms for support.[175,220,221,268] Cultural diversity and knowledge need to be valued highly and made explicit in all educational settings. This encourages greater involvement of Aboriginal parents, caregivers and community members in the education of their children and young people. In addition, cultural fit is enhanced by programs that support wider Aboriginal community goals, as opposed to those which may directly or indirectly work against them.[172,222] For example, breakfast programs in schools might be better replaced by effective community services, which enable families to feed their children themselves and reduce the likelihood of service dependency.

While a drop in retention persists as Aboriginal students move toward the post-compulsory years of schooling, they are highly-represented in vocationally oriented school courses.[219] Many young Aboriginal people are intentionally pursuing the practical, hands-on learning that VET-in-School courses provide.[223] Increasing numbers of Aboriginal students are also undertaking and completing courses at the Bachelor degree and above levels in the tertiary education sector.[224] However, VET participation is not yet providing Aboriginal young people living in remote areas with sufficient pathways from learning to work or into higher level education.[225,226]

A range of issues affects participation in education and training by Aboriginal South Australians, including access to educational institutions, transport and distance, socioeconomic factors, and cultural and community expectations.[226] Indigenous students in remote areas do not have the same access to secondary education as young people in other parts of the country. They often have longer distances to travel, or may have to leave home to continue with secondary school. They may live in communities where English is a second or third language, and where there are fewer incentives for persisting with education, because of a lack of jobs to aspire to and few adults who have completed secondary education.[226] Other barriers for those living in remote South Australia include higher transport and tuition costs.[226] While government policies have been developed to address some of these issues, further work is needed to ensure that Aboriginal young people leave school well-prepared for the higher education, training and/or employment sectors. While there has been considerable progress to date to improve Aboriginal educational attainment in South Australia, the level of educational inequality that many Aboriginal peoples continue to experience is still too high.[224,226]

Towards hope: supporting Aboriginal social and economic sustainability

As discussed earlier, inequalities in wellbeing for Aboriginal peoples in South Australia are the result of a complex interplay between historical, cultural, spiritual, educational, health, housing, social and economic factors. The fact that significant problems continue to compromise Aboriginal peoples' wellbeing points the existence of powerful and static forces.[218,227,228]

Social sustainability is 'a life enhancing condition within communities, and a process within communities that can achieve this condition'.[196,199,229] For Aboriginal peoples, social sustainability needs to encompass equity of access to effective, culturally secure services; mechanisms for ensuring that future generations will not be disadvantaged by the activities of the current generation; the valuing and protection of disparate cultures; the participation as citizens in political activity, particularly at a local level; and mechanisms for communities collectively to identify their strengths and needs, and to fulfil these needs through community action or political advocacy.[196,199, 266-8] In fact, the process of taking steps towards achieving these conditions is also a part of social sustainability.[196,199]

The responsibility for making improvements in Aboriginal wellbeing has to be a shared one.[228,229] Non-Aboriginal organisations should become more knowledgeable about,

engaged with and respectful of the backgrounds, lives and aspirations of Aboriginal peoples; and, in turn, Aboriginal peoples need to feel more confident about and engaged with the work of non-Aboriginal services.[229] Determined action is required at multiple levels and sustained for more than a generation to ameliorate the situation and build on the progress that has been achieved by Aboriginal communities to date.[218,229,267] When Aboriginal people are able actively to drive cooperation, transparency and accountability across all sectors, true partnerships will have been established to build social wellbeing and economic sustainability for all Aboriginal South Australians.

Section 4:

Indicators of community wellbeing

In this section …

- Introduction
- The value of indicators
- Selection and presentation of indicators
- Data gaps and limitations
- Interpreting data about an area
- Correlation analysis
- Age distribution of the population
- Indicators of wellbeing
- Summary

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Introduction

In this section, information is presented which describes the wellbeing of the populations of the six Local Government Areas (LGAs), in the context of the level of socioeconomic disadvantage in each LGA. The intention is to highlight inequalities in outcomes in wellbeing and in health, and to do so in a way, which can identify policy approaches that may lead to improvements in the overall levels of wellbeing in these communities.

In the absence of individual-level data, the approach taken is to compare the characteristics of the populations living in these six LGAs with either the Adelaide, or Regional South Australian data, as appropriate. The LGAs in Adelaide are Playford and Salisbury in the outer north, and Onkaparinga, in the outer south; those in Regional South Australia are the Anangu Pitjantjatjara Aboriginal Community, Ceduna and Peterborough. For the more heavily-populated LGAs in Adelaide, the data are also presented for smaller geographic areas, as this can assist in identifying inequalities in outcomes that exist within the LGAs. These smaller areas, called Population Health Areas (PHAs), are described in more detail, below.

The information, presented as a series of indicators, highlights these inequalities and draws attention to the influence of social, economic and environmental factors on health and wellbeing. The ensuing picture is one of significant differences in outcomes in these communities, compared with similarly-located areas.

More detail, as to the set of indicators presented in the atlas, is provided under the heading 'Selection and presentation of indicators', below.

The value of indicators

As outlined in Section 1, one way to describe inequalities in health and wellbeing is through the use of indicators. Indicators are summary measures of chosen events (for example, the percentage of children under 15 years of age living in families where no parent is employed) derived from data collections that record all cases, or a representative sample, of the events in a population.

Describing geographic variations in indicators of outcomes, and of inequalities in those outcomes, provides information which can be used to develop approaches and to support progress towards reducing such differences.

Selection and presentation of indicators

The indicators selected for inclusion in the atlas are listed in Table 1.

Each of the indicators is presented over four or five pages and is introduced with a brief note as to its relevance to health and wellbeing. This statement is followed by a brief definition of the composition of the indicator and three 'Key points', drawn from the data. The data are presented in tables, maps and charts.

The tables are shown for both Adelaide and Regional South Australia, and include, for each LGA and, where appropriate, each PHA: the number of people represented (as a percentage or rate), and the relationship between the percentage or rate in the area and the comparable figure for either Adelaide or Regional South Australia.

The data are also mapped at the PHA level in Adelaide, and by LGA in Regional South Australia. For each indicator, graphs are presented showing where the six LGAs rank in comparison with all other LGAs in the region.

A description is included of the major spatial patterns in the data, and concludes with details of any correlations, at the PHA level across Adelaide or Regional South Australia, with the other indicators presented in the atlas.

The key map pages on the last sheets in the atlas enable identification of the PHAs and LGAs.

Table 1: Indicators of disadvantage

Topic	Indicator
	Whole population
Summary measure of disadvantage	IRSD (Index of Relative Socio-economic Disadvantage)
Early Childhood Development	AEDC (the Australian Early Development Census): young children developmentally vulnerable on one or more domains
Education	NAPLAN (National Assessment Program – literacy and numeracy): children below national minimum standard in: - numeracy outcomes in Year 3
	Early school leavers
Income and families	Children aged less than 15 years living in jobless families
	Age Pension recipients
Labour force	Youth unemployment benefit recipients
	Young people aged 15 to 24 years engaged in learning or earning
	Unemployment benefit recipients
Disability	People aged 15 to 64 years living in the community with disability
Access	No Internet access at home
	Households without a motor vehicle
Housing	Low income households under financial stress from rent/mortgage
Community strengths	Positively rate the environment in terms of planning, open space and lack of pollution
	Participated in voluntary work for an organisation or group
	Can get support in times of crisis from outside the household
Risk factors	Adult obesity
	Adult smokers
	High or very high levels of psychological distress
Health	Premature mortality

Areas mapped

The data for LGAs in Adelaide are mapped to Population Health Areas (PHAs). PHAs are aggregations of the Statistical Areas Level 2 (SA2) spatial area introduced by the Australian Bureau of Statistics (ABS) on 1 July 2011. As SA2s are much smaller than the areas which they replaced, Statistical Local Areas (SLAs), it was not possible to obtain data for some important datasets, either because the number of cases would be too small to be reliable, or because the data custodians believe the data could reveal confidential information about the person for whom the event was recorded. Examples are some income support payment and premature mortality data. As a result, PHAs were developed for the publication of population health data across Australia.

LGAs are mapped for Regional South Australia.

Data gaps and limitations

There are a number of important datasets about the population that are missing, such as detailed information about refugees, carers, homelessness, family violence, and the extent of bullying, racism or discrimination experienced by various minority groups in the population.

Interpreting data about an area

Readers should note that the areas referred to represent the location of the usual address (at the LGA or PHA level) of the person about whom the event (e.g., education participation, tobacco smoking) is recorded.

Throughout the atlas, the geographic distribution of areas with socioeconomically disadvantaged populations, or poorer outcomes, is highlighted by the darker shades.

However, just as there are differences between areas, there are variations, and sometimes substantial variations, within an area. As such, the figures for a PHA, for example, represent the average of the different population groups within the PHA. This observation is even more relevant to the larger LGAs.

Correlation analysis

Correlation analyses have been undertaken to illustrate the extent of association at the PHA and LGA levels in Adelaide and Regional South Australia between the indicators in this atlas.

The results of the strongest correlations are discussed under each indicator; the tables in Appendix C include the detailed correlation matrices.

As a general rule, correlation coefficients of plus or minus 0.71 or more, are of substantial statistical significance, because this higher value represents at least fifty per cent shared variation (r^2 greater than or equal to 0.5): these are referred to in this atlas as being 'very strong' correlations, while those of 0.50 to 0.70 are of meaningful statistical significance, and are referred to as being 'strong' correlations.

Terminology

In discussing the extent to which percentages or rates vary from the South Australian or other figures, the following terms are used:

- "Notable", referring to a rate ratio from 1.10 to <1.20 (a difference of from 10% to <20%), or from 0.90 to <0.80 (a difference of from -10% to <-20%);
- "Marked", referring to a rate ratio from 1.20 to <1.50 (a difference of from 20% to <50%), or from 0.80 to <0.50 (a difference of from -20% to <-50%);
- "Substantial", referring to a rate ratio of 1.50 or above (a difference of 50% or more), or of 0.50 and below (a difference of greater than 50%).

Age distribution of the population

Local Government Areas

Adelaide

The population in the Playford LGA is the youngest when compared with that in Adelaide overall; this is most noticeable at ages under 30 years, and particularly so, at ages 0 to 4 and 20 to 29 years (Figure 3). Playford LGA also has relatively fewer people at middle and older ages.
The age profile in Salisbury LGA is similar to that in Adelaide at middle and older ages, although with smaller populations at these ages. There are relatively more males and females at 0 to 39 years than in Adelaide, although the proportions at the younger ages are smaller than in Playford.

The population pyramid for Onkaparinga has relatively straight sides through to the 65 to 69 year age group, indicating it is a 'stable' population, without the growth at the youngest ages or early adulthood seen for the LGAs above. Of these three LGAs, Onkaparinga has the highest proportions of its population at older ages.

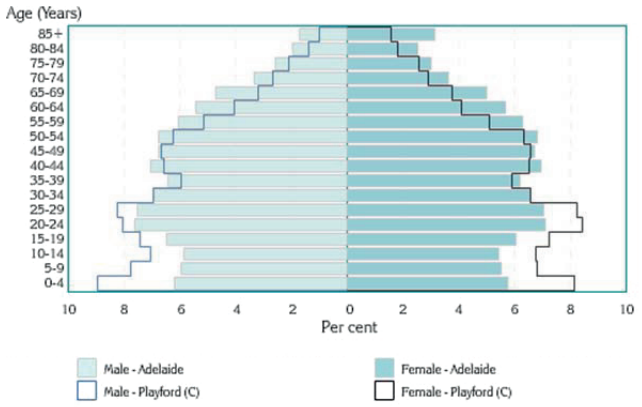
Regional South Australia

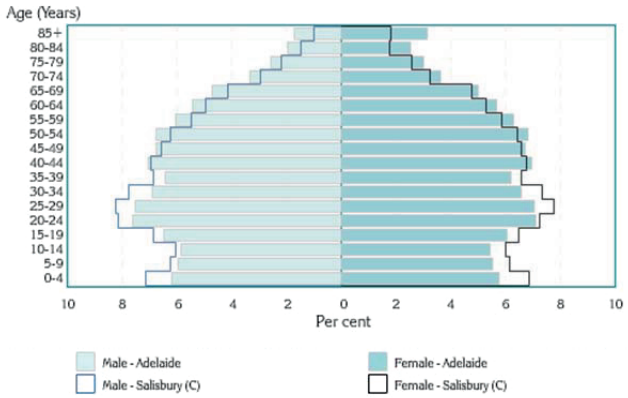
The population in Ceduna most closely approximates that in Regional South Australia overall, albeit with more children and young adults, and fewer people at older ages (Figure 4).

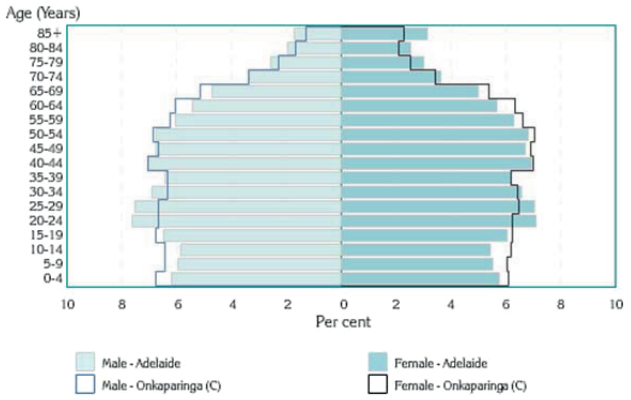
The population in Peterborough is quite different, with fewer young adults and higher proportions at ages 50 years and over for males, and from younger ages for females.

The Anangu Pitjantjatjara Aboriginal Community has a profile typical of an Aboriginal population, with relatively high birth rates and deaths, producing a profile closer to a triangle than to a pyramid. The challenges of providing appropriate services to deliver good outcomes in education and health, let alone to provide employment, in this remote community are well known, but remain largely unaddressed as will be seen from the data presented later in this atlas.

Figure 3: Population by age, Playford, Salisbury and Onkaparinga LGAs, 2013





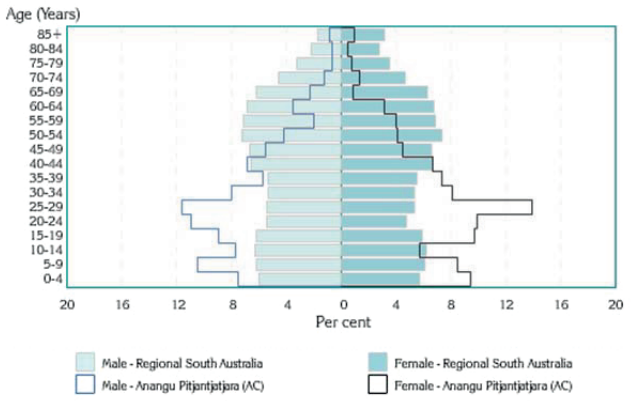


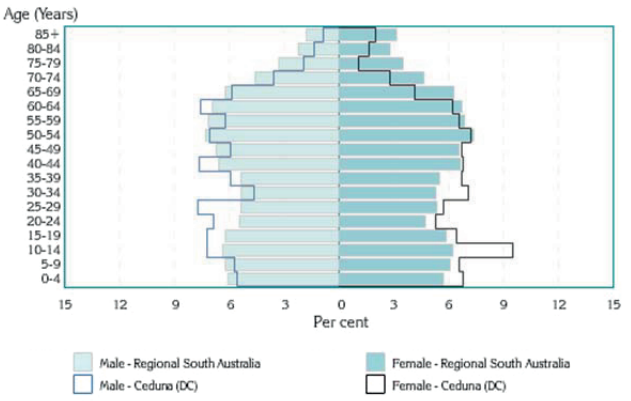
Total population by sex, 2013

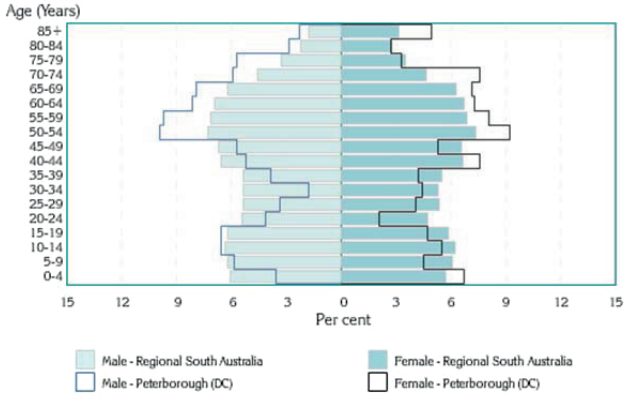
Local Government Area	Males	Females
Playford	42,364	42,705
Salisbury	68,143	67,779
Onkaparinga	81,793	84,642

Source: Produced in PHIDU from ABS Estimated Resident Population by SA2, 2013

Figure 4: Population by age, Anangu Pitjantjatjara Aboriginal Community and Ceduna and Peterborough LGAs, 2013







Total population by sex, 2013

Local Government Area	Males	Females
Anangu Pitjantjatjara	1,371	1,363
Ceduna	1,834	1,836
Peterborough	882	903

Source: Produced in PHIDU from ABS Estimated Resident Population by SA2, 2013

Population Health Areas

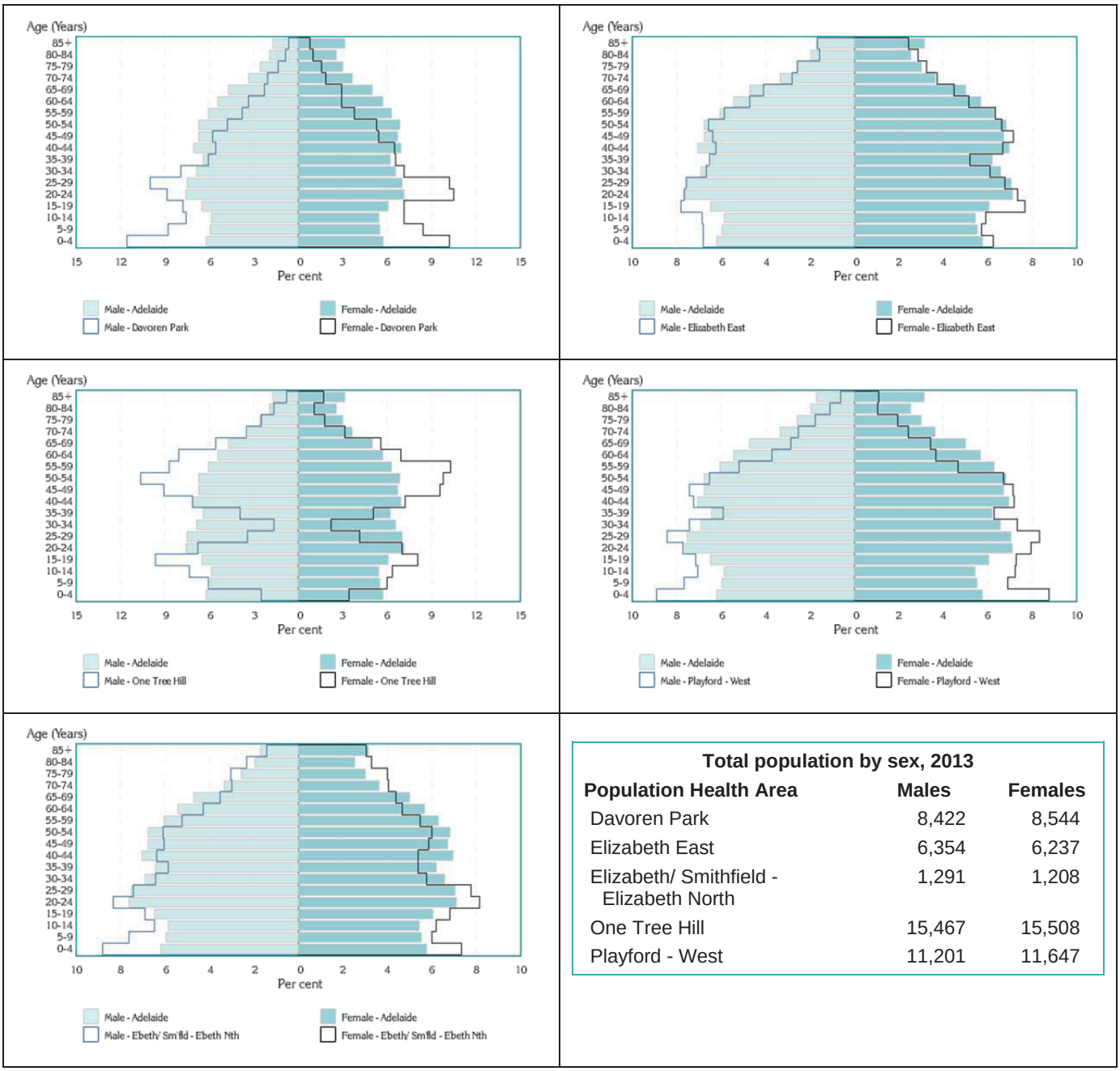
Total population

Playford LGA

The age profile in Davoren Park is quite triangular, with relatively high birth rates and deaths (Figure 5). Although this profile is reminiscent of that of an Aboriginal community, only 5.5% of the population in Davoren Park are estimated to be Aboriginal, and their profile has even higher proportions at younger, and lower proportions at older, ages than does the non-Indigenous population (Figure 5). The other PHA in which the population profile differs most from that for Adelaide is One Tree Hill, where the relatively small population (2,499 people) is largely comprised of families with teen-aged children.

The profile in Elizabeth East is most similar to that for Adelaide, with the largest variation being higher proportions in age groups under 20 years.

Figure 5: Population by age, Population Health Areas in Playford, 2013



Total population by sex, 2013

Population Health Area	Males	Females
Davoren Park	8,422	8,544
Elizabeth East	6,354	6,237
Elizabeth/ Smithfield - Elizabeth North	1,291	1,208
One Tree Hill	15,467	15,508
Playford - West	11,201	11,647

Note: There are different scales on the charts for Davoren Park and One Tree Hill; these scales reflect the higher proportions in certain age groups in these PHAs and change the shape of the profile for Adelaide (i.e., it becomes elongated).

Source: Produced in PHIDU from ABS Estimated Resident Population by SA2, 2013

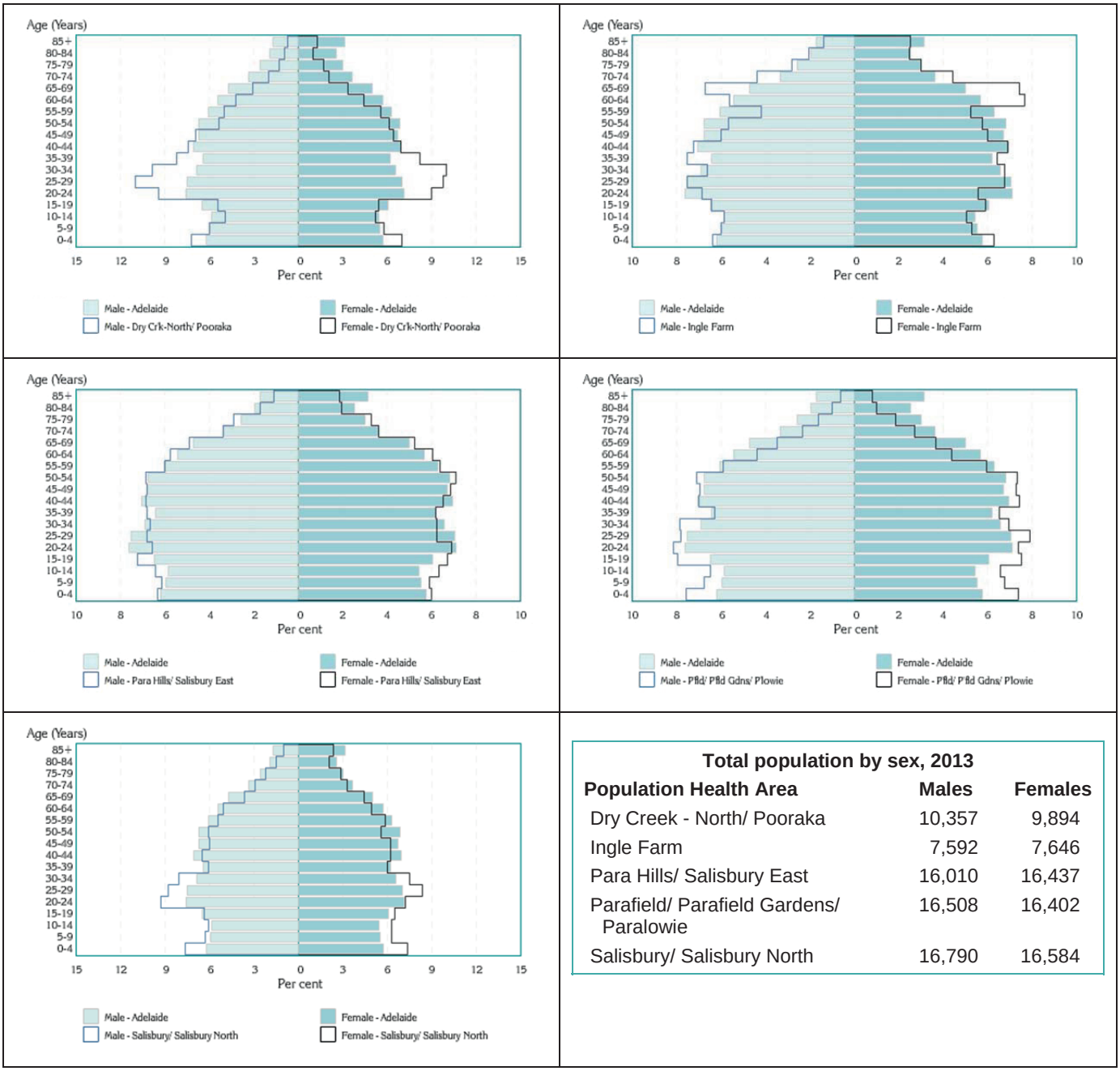
Elizabeth/ Smithfield - Elizabeth North has the highest proportion of its population at older ages when compared with the other PHAs in Playford. This PHA also has a relatively high proportion of its male population under 25 years of age, and of females under 30 years of age, in particular in the 0 to 4 year age group (where it is more noticeable for boys, than for girls).

Playford - West has a younger profile than the LGA overall, with noticeably larger populations at the middle and younger ages, and smaller populations at older ages.

Salisbury LGA

In Salisbury, the PHA in which the population profile varies most from that in the LGA is Dry Creek - North/ Pooraka (Figure 6). The most noticeable feature is the larger proportion of young adults, many of whom are starting to have children as evidenced by the higher proportions in the 0 to 4 year age group. This PHA also has relatively few people at middle and older ages.

Figure 6: Population by age, Population Health Areas in Salisbury, 2013



Total population by sex, 2013

Population Health Area	Males	Females
Dry Creek - North/ Pooraka	10,357	9,894
Ingle Farm	7,592	7,646
Para Hills/ Salisbury East	16,010	16,437
Parafield/ Parafield Gardens/ Paralowie	16,508	16,402
Salisbury/ Salisbury North	16,790	16,584

Note: There are different scales on the charts for Dry Creek - North/ Pooraka and Salisbury/ Salisbury North; these scales reflect the higher proportions in certain age groups in these PHAs and change the shape of the profile for Adelaide (i.e., it becomes elongated).

Source: Produced in PHIDU from ABS Estimated Resident Population by SA2, 2013

The profile in Salisbury/ Salisbury North is similar to that in Dry Creek - North/ Pooraka, although the differences from the LGA proportions are less marked, other than in the 0 to 4 year age group.

Of these PHAs, Para Hills/ Salisbury East has the closest match to the age distribution in Adelaide.

The distribution across the ages in Ingle Farm is a close match in many age groups, although there are relatively fewer people in the middle-aged groups, and more at ages between 60 and 70 years.

Parafield/ Parafield Gardens has more males under 35 and females under 55 years, and fewer people aged 55 years or over.

Onkaparinga LGA

Aldinga PHA has the youngest age profile within the LGA of Onkaparinga, with the largest proportion of its population at ages 0 to 4 years for boys (in particular) and for girls (Figure 7).

Christie Downs/ Hackham West - Huntfield Heights also has higher proportions in the younger age groups, as well as for young adults, and lower proportions at the oldest ages.

The oldest age structure can be seen in the chart for Christies Beach/ Lonsdale.

Figure 7: Population by age, Population Health Areas in Onkaparinga, 2013

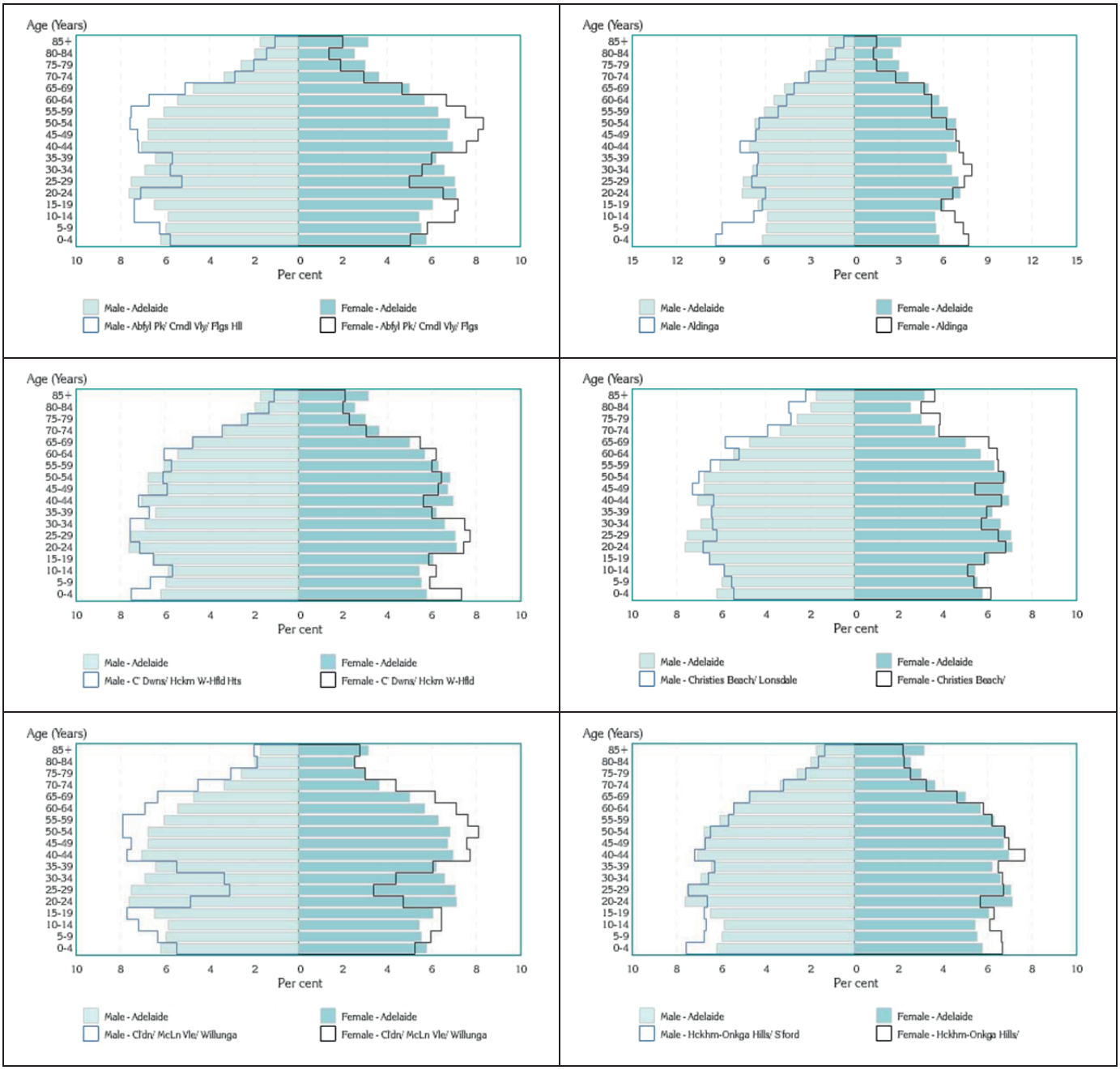
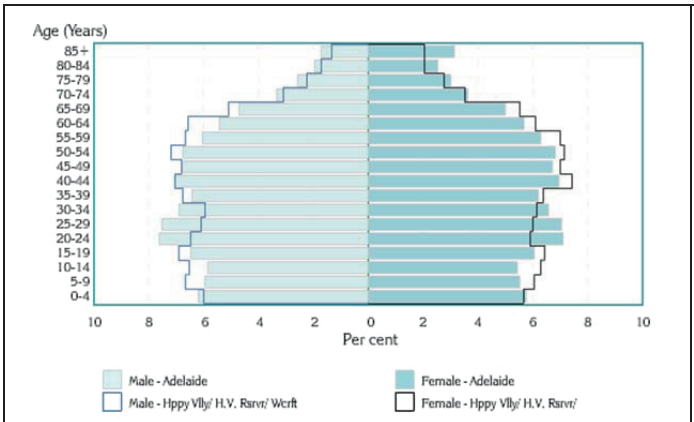
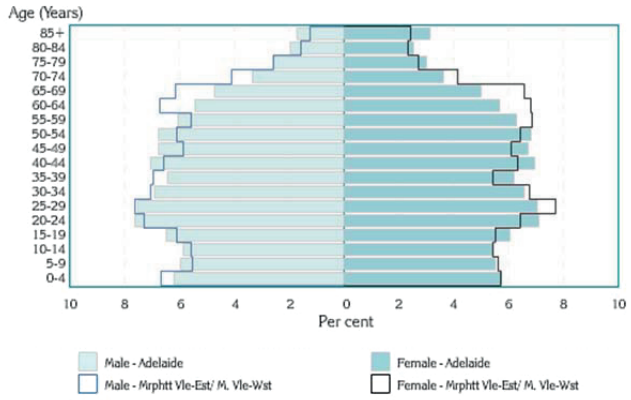
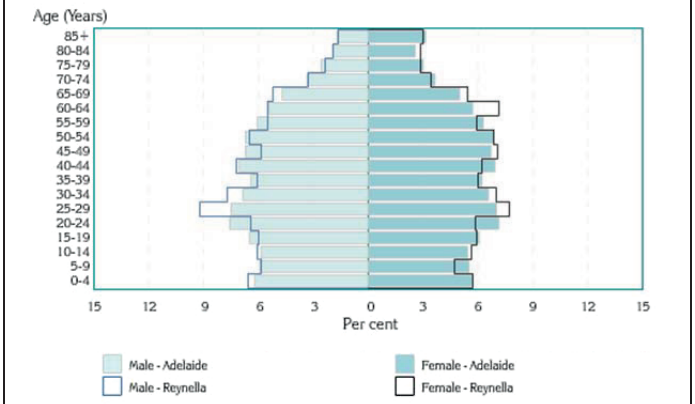


Figure 8: Population by age, Population Health Areas in Onkaparinga, 2013 *...continued*







Total population by sex, 2013

Population Health Areas	Males	Females
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	13,543	13,827
Aldinga	7,503	7,712
Christie Downs/ Hackham West - Huntfield Heights	8,184	8,590
Christies Beach/ Lonsdale	5,048	5,110
Clarendon/ McLaren Vale/ Willunga	5,937	6,202
Hackham - Onkaparinga Hills/ Seaford	13,404	13,976
Happy Valley/ Happy Valley Reservoir/ Woodcroft	12,456	12,962
Morphett Vale - East/ Morphett Vale - West	11,354	11,798
Reynella	5,020	5,093

Note: There are different scales on the charts for Aldinga and Reynella; these scales reflect the higher proportions in certain age groups in these PHAs and change the shape of the profile for Adelaide (i.e., it becomes elongated).

Source: Produced in PHIDU from ABS Estimated Resident Population by SA2, 2013

The profiles in Reynella and Hackham - Onkaparinga Hills/ Seaford are the closest to that in Adelaide, with the major variation being in the latter, with its relatively larger numbers at ages under 20 years, and smaller numbers at older ages (from age 65 years for females, and 75 years for males).

Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill and Clarendon/ McLaren Vale/ Willunga, despite a large difference in their total populations (27,370 and 12,139, respectively), have similar profiles. Both have relatively more young people, fewer young adults and more people at ages 40 years and above; although in Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill, there are smaller proportions at ages 70 years and over for males, and 65 years of age and over for females. Of note is that in both of these PHAs, there are proportionately more females than males at ages 40 to 64 years, and not just at the oldest ages, as is generally the case.

Happy Valley/ Happy Valley Reservoir/ Woodcroft has the most stable population, in demographic terms.

Morphett Vale - East/ Morphett Vale - West appears to have a mix of young families, perhaps increasing in numbers, and of older people.

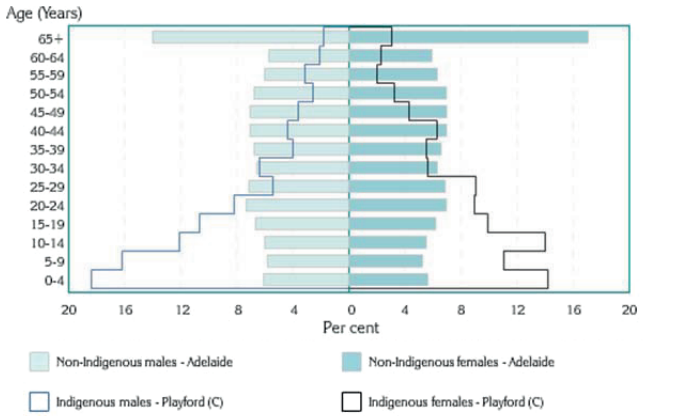
Population by Indigenous status

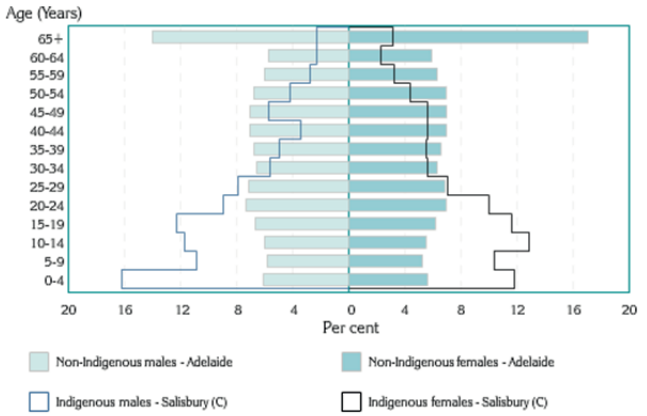
The age profiles of the Aboriginal populations in each of the three LGAs charted below are similar, although Playford has the highest proportions at the youngest ages, with slightly smaller proportions in Salisbury, and smaller again in Onkaparinga (Figure 9).

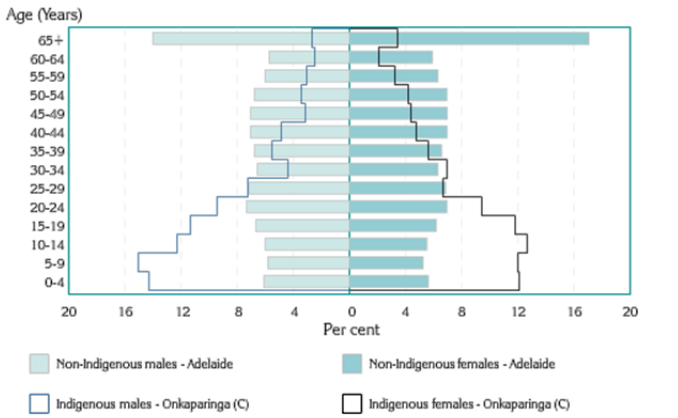
As noted above, these 'triangular-', rather than 'coffin-' shaped profiles are typical of Aboriginal populations with their high birth rates and high death rates from relatively young ages onwards.

The differences from the structures of the non-Indigenous populations are substantial, and underlined by the massive difference in the proportion of the population in the 65 years and over age group.

Figure 9: Population by Indigenous status and age, Population Health Areas in Playford, Salisbury and Onkaparinga LGAs, 2015







Indigenous population by sex, 2015

Local Government Area	Males	Females
Playford	1,689	1,690
Salisbury	1,685	1,700
Onkaparinga	1,343	1,466

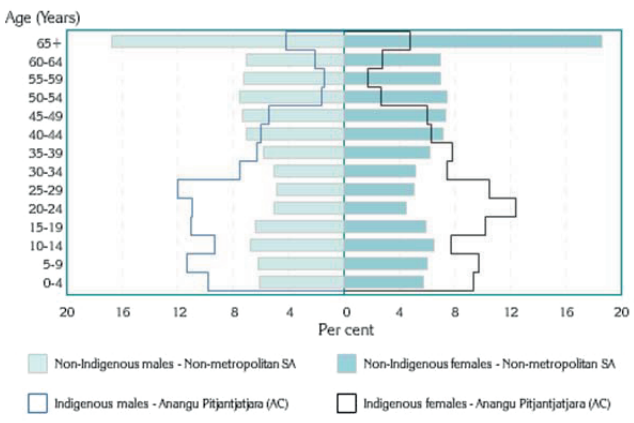
Source: PHIDU - from estimated resident population by SA2, produced by Prometheus Information based on 2013 data

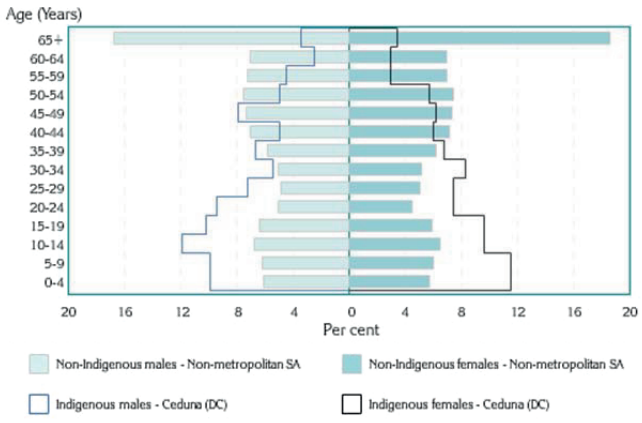
The populations in the Anangu Pitjantjatjara Aboriginal Community and Peterborough areas have relatively large numbers of Aboriginal children, young people and young adults when compared with the non-Indigenous population (Figure 10).

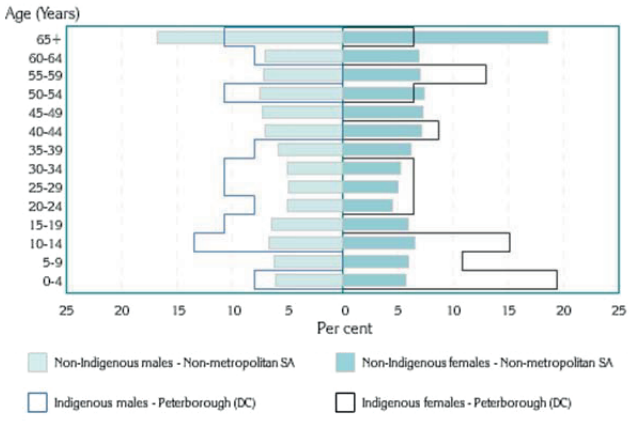
However, whereas the charts show there are relatively fewer people at older ages than in the non-Indigenous population, the differences are not as stark as seen for the LGAs in Adelaide, presented above.

The Aboriginal population in Peterborough was estimated to be 72 in 2015; as such, the age group data are less useful than for the other areas.

Figure 10: Population by Indigenous status and age, Anangu Pitjantjatjara Aboriginal Community and Ceduna and Peterborough LGAs, 2015







Indigenous population by sex, 2015

Local Government Area	Males	Females
Anangu Pitjantjatjara	1,261	1,246
Ceduna	470	550
Peterborough	33	39

Note: There is a different scale on the chart for Peterborough, reflecting the higher proportions in certain age groups in this LGA; this changes the shape of the profile for Adelaide (i.e., it becomes narrower).

Source: PHIDU - from estimated resident population by SA2, produced by Prometheus Information based on 2013 data

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Summary measure of socioeconomic disadvantage

The Index of Relative Socio-economic Disadvantage (IRSD) is one of four Socio-Economic Indexes for Areas (SEIFAs) compiled by the Australian Bureau of Statistics (ABS) after the Census of Population and Housing. The aim is to represent the socioeconomic status (SES) of Australian communities and identify areas of advantage and disadvantage. The IRSD scores each area by summarising attributes of the population, such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. It reflects the overall or average level of disadvantage of the population of an area.

Indicator definition: Index of Relative Socio-economic Disadvantage, derived by the ABS from 2011 Census data.

Note: The Index has a base of 1000 for Australia: scores above 1000 indicate relative lack of disadvantage, and those below indicate relatively greater disadvantage.

Key points

- Playford, with an IRSD score of 871, has the second-lowest score for a capital city LGA, indicative of the extent of disadvantage in this community.
- Several PHAs in these three LGAs have relatively low IRSD scores, with the lowest being in Elizabeth/ Smithfield - Elizabeth North (750) and Davoren Park (800).
- Similarly, the Anangu Pitjantjatjara Aboriginal Community has one of the lowest IRSD scores in Australia, with an index score of 593; the IRSD score for Peterborough is also very low (798).

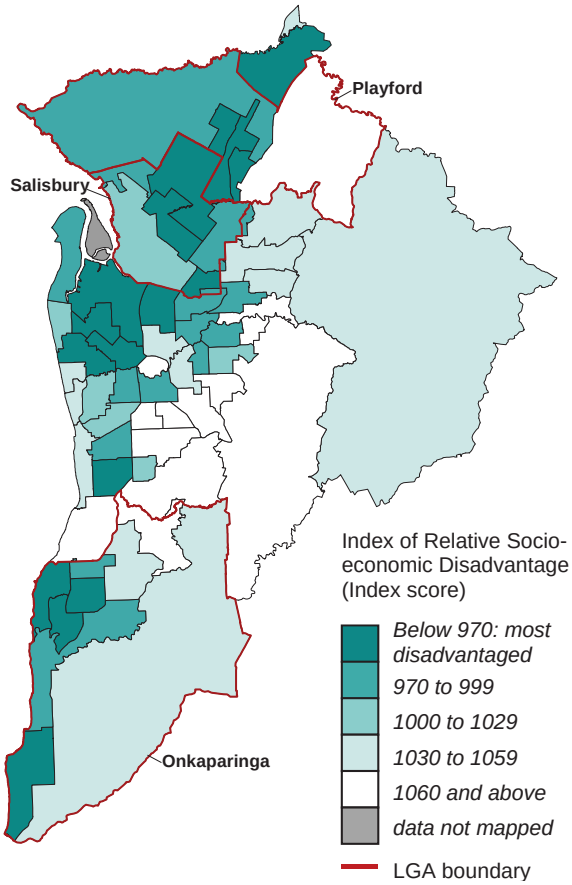
Geographic variation in Adelaide

Playford, with an IRSD score of 871, has the second-lowest score for a capital city LGA after Fairfield in Sydney, with an index score of 854. Within Playford, scores are well below the Adelaide average score, in Elizabeth/ Smithfield - Elizabeth North (with an index score of 750), Davoren Park (807), and Elizabeth East (873) (Map 1 and Table 2). The score in Playford - West (983) is a little below the average, whereas that in One Tree Hill (1087) is well above average.

There is also a relatively greater level of socioeconomic disadvantage in Salisbury LGA under this measure than in Adelaide, with index scores of 937 and 993, respectively. Only in Dry Creek - North/ Pooraka is the index score (1017) above the level in Adelaide; the lowest scores at the PHA level are in Salisbury/ Salisbury North (864) and Parafield/ Parafield Gardens/ Paralowie (914), with other scores above 950.

The level of socioeconomic disadvantage in Onkaparinga is the same as in Adelaide (a score of 993). Within the LGA, index scores at the PHA level are evenly divided between those above and those below the Adelaide

Map 1: IRSD, PHAs in Adelaide, 2011



average, with scores ranging from 856 in Christie Downs/ Hackham West - Huntfield Heights, to 1079 in Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill. Other relatively advantaged PHAs are Clarendon/ McLaren Vale/ Willunga (1054) and Happy Valley/ Happy Valley Reservoir/ Woodcroft (1052).

Table 2: Index of Relative Socio-economic Disadvantage, PHAs in selected LGAs, Adelaide, 2011

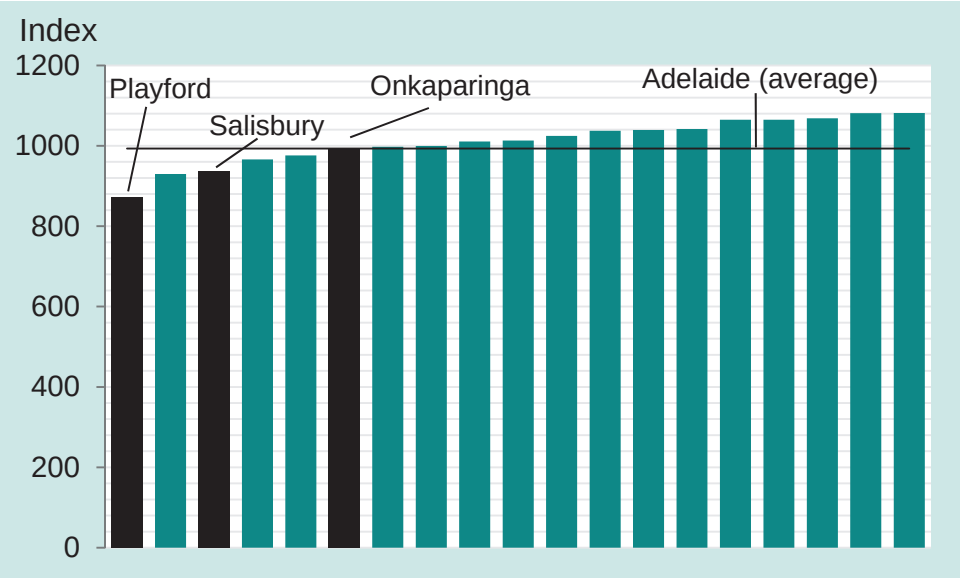
PHA and LGA	No.	Index
Davoren Park	*15,539*	*807*
Elizabeth East	*12,169*	*873*
One Tree Hill	*2,393*	*1087*
Playford - West	*27,700*	*983*
Elizabeth/ Smithfield - Elizabeth North	*22,039*	*750*
Playford LGA	**79,082**	**871**
Dry Creek - North/ Pooraka	*18,287*	*1017*
Parafield/ Parafield Gardens/ Paralowie	*31,451*	*914*
Salisbury/ Salisbury North	*31,632*	*864*
Ingle Farm	*14,672*	*961*
Para Hills/ Salisbury East	*31,589*	*980*
Salisbury LGA	**129,067**	**937**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*26,594*	*1079*
Aldinga	*14,138*	*962*
Christie Downs/ Hackham West - Huntfield Heights	*16,149*	*856*
Christies Beach/ Lonsdale	*9,875*	*942*
Clarendon/ McLaren Vale/ Willunga	*11,617*	*1054*
Hackham - Onkaparinga Hills/ Seaford	*25,335*	*992*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*24,708*	*1052*
Morphett Vale - East/ Morphett Vale - West	*22,559*	*944*
Reynella	*9,786*	*998*
Onkaparinga LGA	**159,517**	**993**
Adelaide	**1,224,865**	**993**

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The range in IRSD scores across Adelaide is from 871 in Playford LGA to 1081 in Burnside LGA (Figure 11). The LGA in the chart between Playford and Salisbury is Port Adelaide Enfield, with an index score of 929.

Figure 11: Index of Relative Socio-economic Disadvantage, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

The IRSD score for Regional South Australia is 950, lower than the score for Adelaide (993), indicating a higher level of relative disadvantage (Table 3).

The Anangu Pitjantjatjara Aboriginal Community has one of the lowest IRSD scores in Australia, a very low index score of 593 (Map 2). The index score in Peterborough, of 798, is also very low, whereas the score of 932 in Ceduna is relatively close to the Regional South Australian average.

Map 2: Index of Relative Socio-economic Disadvantage, Regional South Australia by LGA, 2011

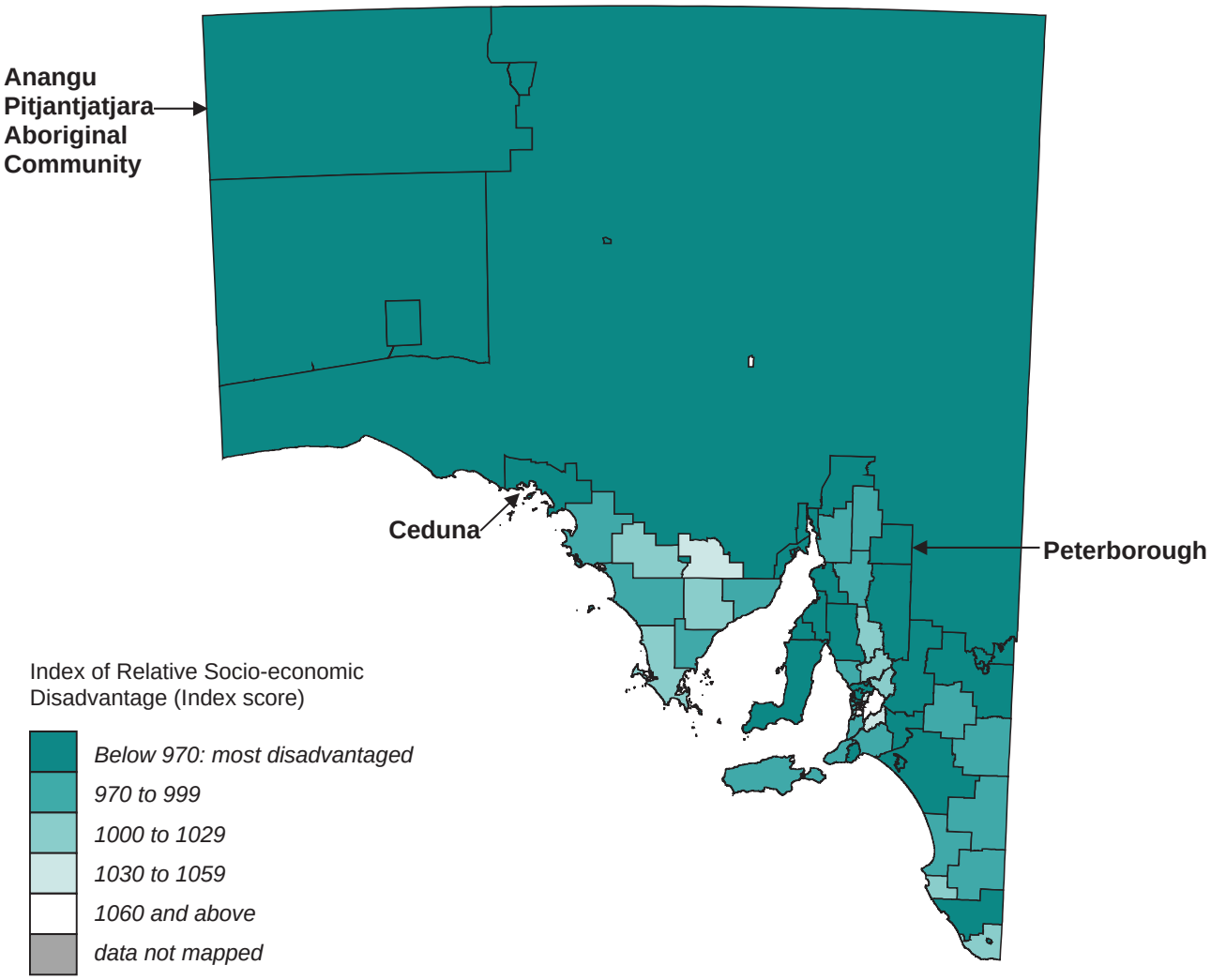


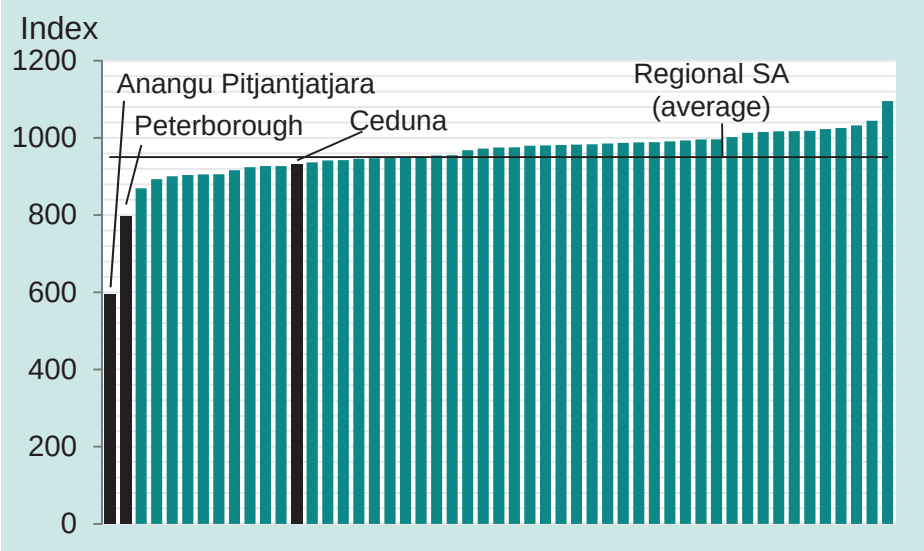
Table 3: Index of Relative Socio-economic Disadvantage, selected LGAs in Regional South Australia, 2011

LGA	No.	Index
Anangu Pitjantjatjara Aboriginal Community	2,433	593
Ceduna LGA	3,485	932
Peterborough LGA	1,733	798
Regional South Australia	368,255	950

Comparisons across Regional South Australia

There is a stark difference in IRSD scores between the Anangu Pitjantjatjara Aboriginal Community (with a score of 593) and the mining town of Roxby Downs (1095), which had the highest score in Regional South Australia (Figure 12).

Figure 12: Index of Relative Socio-economic Disadvantage, LGAs in Regional South Australia, 2011



Australian Early Development Census: Children assessed as being developmentally vulnerable

The Australian Early Development Census (AEDC) is a census of children's health and development in their first year of full-time school. It provides a picture of early childhood development outcomes for Australia and was first conducted in 2009.[239] The results from the AEDC provide communities and schools with information about how local children have developed by the time they start school, across five domains of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (schools-based), and communication skills and general knowledge.

Indicator definition: Children who were assessed as being developmentally vulnerable on one or more domains, expressed as a proportion of all children assessed.

Key points

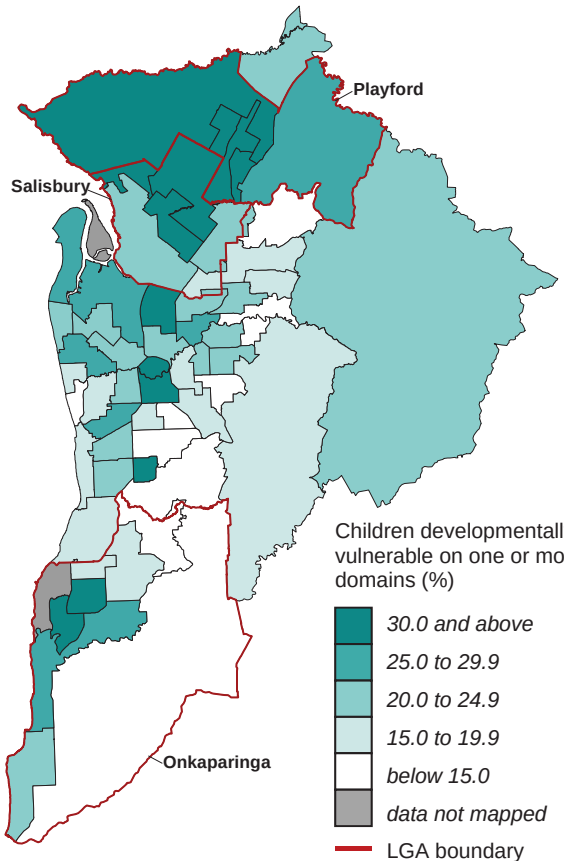
- Playford, Salisbury and Peterborough LGAs all have relatively poor outcomes under the AEDC measure of children assessed as being developmentally vulnerable on one or more domains, when compared with other areas in their regions.
- Within these three areas, some communities have very poor outcomes, often with proportions of 50% or more above the average; there are also some areas within Onkaparinga where the results indicate the need for further attention.
- However, none of these LGAs has an outcome in any way comparable with that in the Anangu Pitjantjatjara Aboriginal Community, which has the poorest outcome on this measure in the State, and with 80% of children assessed as being developmentally vulnerable on one or more domains under the AEDC.

Geographic variation in Adelaide

In the Playford LGA, the proportion of children in their first year of school who were assessed as being developmentally vulnerable on one or more domains under the AEDC was 66% above the proportion across Adelaide as a whole (a rate ratio of 1.66) (Table 4). All of the PHAs within Playford have poorer outcomes than across Adelaide as a whole, with substantially higher proportions in Elizabeth/ Smithfield - Elizabeth North (a rate ratio of 1.98, or nearly twice the Adelaide average), Davoren Park (83% higher) and Elizabeth East (78% higher) (Map 3).

There was a smaller elevation above the Adelaide proportion in Salisbury, of 25%, with the highest proportions in Salisbury/ Salisbury North (64% more young children in this category) and in Parafield/ Parafield Gardens/ Paralowie (38% more). Young children in Ingle Farm were far less likely to be assessed as developmentally vulnerable on one or more domains, with 17% fewer children in this category than in Adelaide overall (a rate ratio of 0.83).

Map 3: Children developmentally vulnerable on one or more domains under the AEDC, PHAs in Adelaide, 2012



In the southern City of Onkaparinga, the overall proportion was much lower, being just below the Adelaide average (2% below, a rate ratio of 0.98). The PHAs of Christie Downs/ Hackham West - Huntfield Heights, Morphett Vale - East/ Morphett Vale - West and Hackham - Onkaparinga Hills/ Seaford each had rates markedly above the Adelaide average, at 44%, 30% and 20%, respectively. However, in Clarendon/ McLaren Vale/ Willunga, Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill and Happy Valley/ Happy Valley Reservoir/ Woodcroft, the outcome was much better, with at least 25% fewer young children in this category in each of these PHAs.

Table 4: Children developmentally vulnerable on one or more domains under the AEDC, selected PHAs and LGAs in Adelaide, 2012

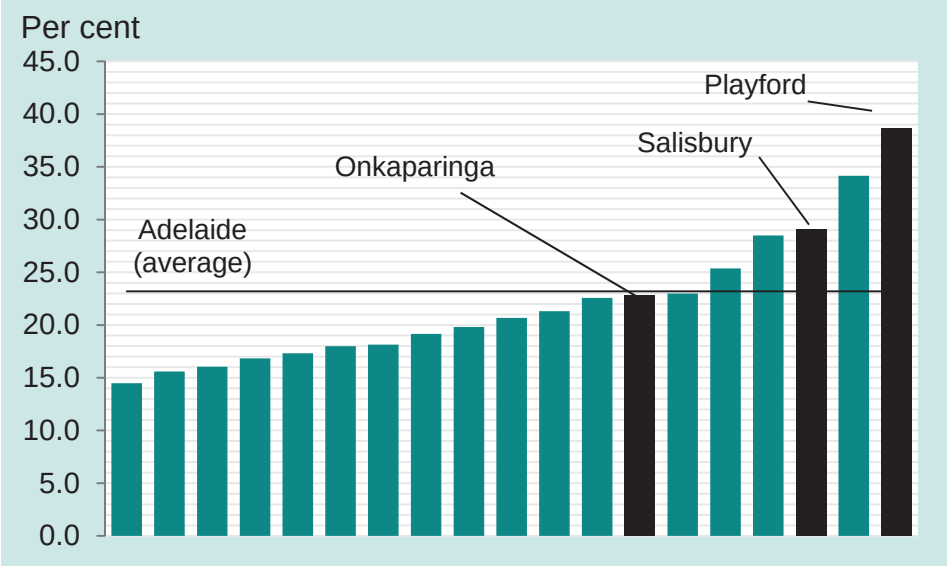
PHA and LGA	No.	%	RR*
Davoren Park	126	42.4	1.83
Elizabeth East	70	41.2	1.78
One Tree Hill	5	26.3	1.13
Playford - West	119	30.1	1.30
Elizabeth/ Smithfield - Elizabeth North	122	45.9	1.98
Playford LGA	**440**	**38.6**	**1.66**
Dry Creek - North/ Pooraka	48	21.2	0.92
Parafield/ Parafield Gardens/ Paralowie	134	31.9	1.38
Salisbury/ Salisbury North	149	38.1	1.64
Ingle Farm	29	19.3	0.83
Para Hills/ Salisbury East	82	23.7	1.02
Salisbury LGA	**451**	**29.1**	**1.26**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	42	14.8	0.64
Aldinga	41	20.4	0.88
Christie Downs/ Hackham West - Huntfield Heights	67	33.5	1.44
Christies Beach/ Lonsdale	#	..	..
Clarendon/ McLaren Vale/ Willunga	16	13.0	0.56
Hackham - Onkaparinga Hills/ Seaford	76	27.9	1.20
Happy Valley/ Happy Valley Reservoir/ Woodcroft	52	17.3	0.74
Morphett Vale - East/ Morphett Vale - West	74	30.2	1.30
Reynella	17	18.7	0.81
Onkaparinga LGA	**411**	**22.8**	**0.98**
Adelaide	**3,066**	**23.2**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

Data suppressed due to small number of cases

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Figure 13: Children developmentally vulnerable on one or more domains under the AEDC, LGAs in Adelaide, 2012



Comparisons across Adelaide

The outcomes for young children under this measure vary across the 19 LGAs in Adelaide, from 14.5% in Unley to 38.6% in Playford (Figure 13, previous page). This is a difference of over two and a half times, with the result in Unley demonstrating the outcome that could, potentially, be achieved elsewhere.

Geographic variation in Regional South Australia

In both the Anangu Pitjantjatjara Aboriginal Community and in the Peterborough LGA, young children had relatively poorer outcomes under this measure than in Regional South Australia overall (Map 4 and Table 5). The proportion for Regional South Australia (25.4%) is almost ten per cent higher than in Adelaide (23.2%).

The proportion of children in both Ceduna and Peterborough who were in their first year of school and were assessed as being developmentally vulnerable on one or more domains under the AEDC was almost 50% above the Regional South Australian average, a rate ratio of 1.48. However, young children in the Anangu Pitjantjatjara Aboriginal Community face the poorest outcome on this measure in the State, with 80% of children assessed as being developmentally vulnerable on one or more domains under the AEDC: when these data are examined for Aboriginal children, the proportion increases to 87.8%, or 36 children. This outcome is the result of many factors, including those of history, culture, race, geography and general disadvantage, which have developed over several generations and have, to date, proven difficult to address.

Map 4: Children developmentally vulnerable on one or more domains under the AEDC, Regional South Australia by LGA, 2012

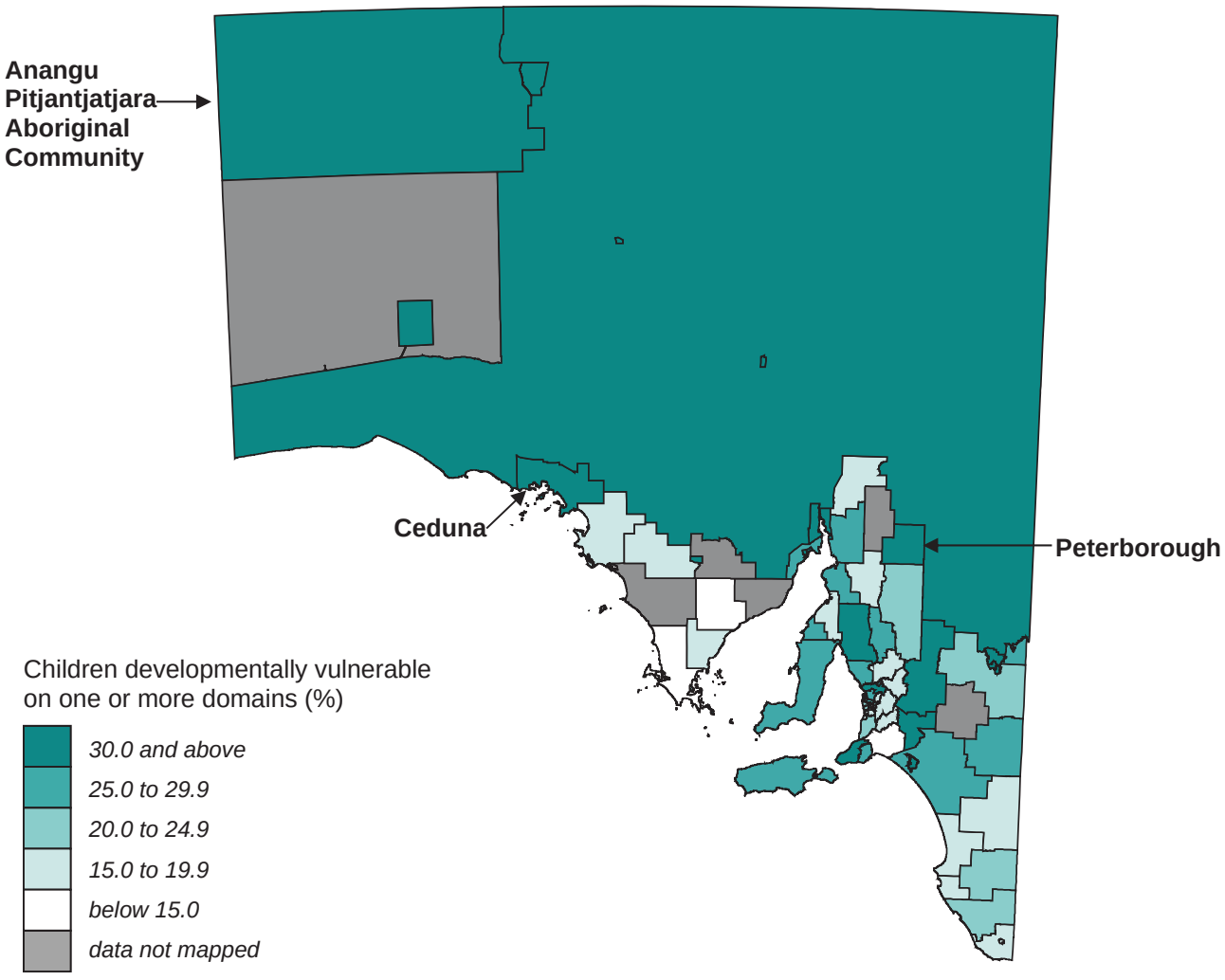


Table 5: Children developmentally vulnerable on one or more domains under the AEDC, selected LGAs in Regional South Australia, 2012

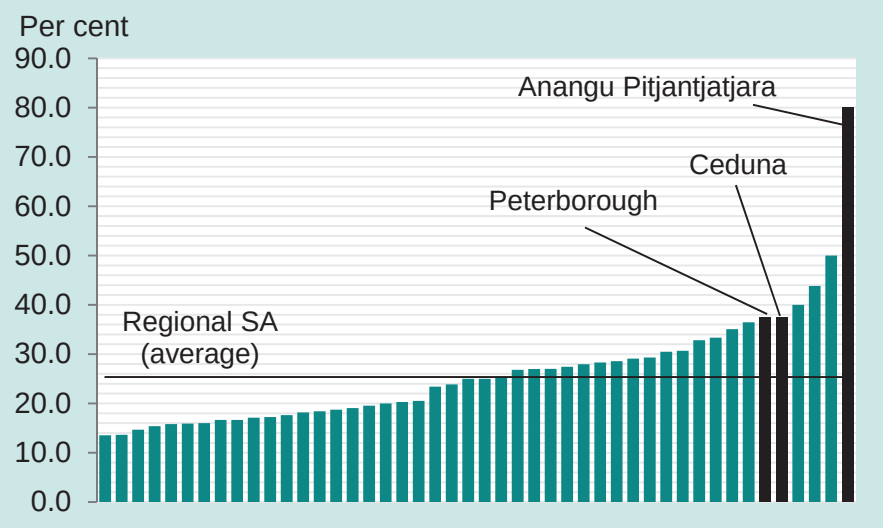
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	36	80.0	3.15
Ceduna LGA	15	37.5	1.48
Peterborough LGA	6	37.5	1.48
Regional South Australia	1,047	25.4	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The very poor outcomes for young children in the Anangu Pitjantjatjara Aboriginal Community under this measure, as noted above, are strikingly evident in Figure 14, which shows all 51 LGAs in Regional South Australia. Ceduna and Peterborough also have relatively poor outcomes, being ranked fifth and sixth, respectively among these areas. The Unincorporated Area, covering much of the far north of the State and parts of the west coast, is ranked second, and Coober Pedy is ranked fourth, adding to the poorer outcomes across these remote areas.

Figure 14: Children developmentally vulnerable on one or more domains under the AEDC, LGAs in Regional South Australia, 2012



Numeracy outcomes for Year 3 students in government schools

The National Assessment Program – Literacy and Numeracy (NAPLAN), first conducted in 2008, is an annual assessment for students in Years 3, 5, 7 and 9. Although children's school performance results from many factors, a major influence is the socioeconomic environment in which they live. The data presented here are of numeracy scores below the national minimum standard for children in State Government schools, by location of the children's addresses.

Indicator definition: Children in Year 3 attending government schools in 2014 with numeracy scores below the national minimum standard, expressed as a proportion of all children assessed; data are shown by area of the student's address, not the location of the school.

Note: These data were not available for the Catholic and other independent school systems.

Key points

- Playford LGA had the second-highest proportion of children attending Year 3 at a government school with numeracy scores below the national minimum standard.
- Children living in several PHAs in Onkaparinga LGA had much better outcomes on this measure when compared with the Adelaide average.
- In the Anangu Pitjantjatjara Aboriginal Community, over three quarters of the children who sat the NAPLAN test did not meet the national minimum standard for numeracy for Year 3.

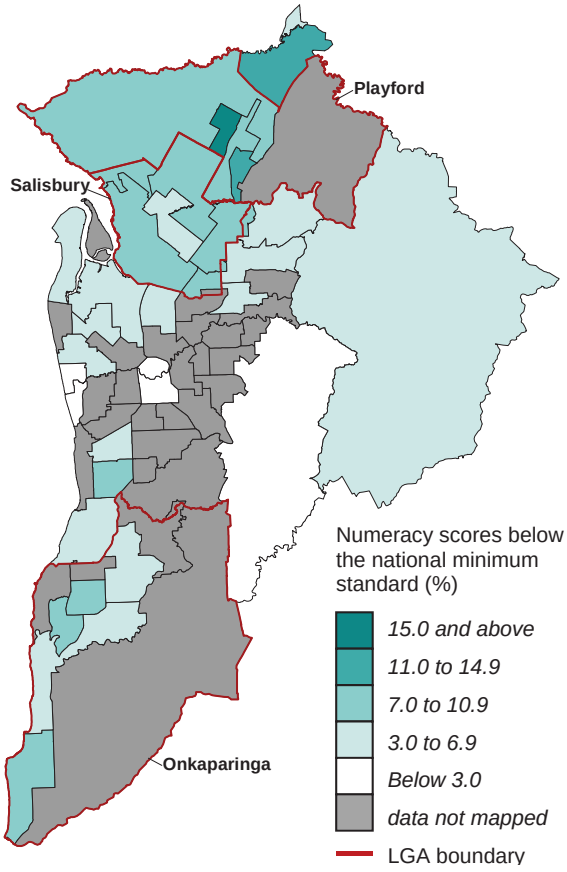
Geographic variation in Adelaide

The proportion of children attending a government school with numeracy scores in Year 3 below the national minimum standard varied substantially across these LGAs, from a low of 5.4% in Onkaparinga (11% above the Adelaide average), to over twice that level in Playford (11.5%, and 2.36 times the Adelaide average (Table 6).

All of the PHAs in Playford LGA, with sufficient numbers of children for reliable reporting, had substantially poorer outcomes on this measure than was the case across Adelaide as a whole (Map 3). In Davoren Park, 15.8% of children in Year 3 attending a government school had numeracy scores below the national minimum standard, 3.24 times the Adelaide average. Other results were 11.3% in Elizabeth East (2.32 times the Adelaide average), 10.8% in Elizabeth/ Smithfield - Elizabeth North (2.21 times), and 8.7% in Playford - West (1.79 times).

In Salisbury LGA, all of the PHAs had above-average proportions: of 9.2% in Salisbury/ Salisbury North (1.89 times the Adelaide average), 8.8% in Para Hills/ Salisbury East (1.82 times), 8.0% in Ingle Farm (1.63 times), 7.9% in Dry Creek - North/ Pooraka (1.63 times), and 6.3% in Parafield/ Parafield Gardens/ Paralowie (1.29 times).

Map 5: Children in Year 3 at government schools with numeracy scores below the national minimum standard, PHAs in Adelaide, 2014



Outcomes in Onkaparinga LGA were also relatively poor in Aldinga (10.0% of children in Year 3 attending a government school had numeracy scores below the national minimum

standard, 2.05 times the Adelaide average), Christie Downs/ Hackham West - Huntfield Heights (8.0%, 1.65 times), Morphett Vale - East/ Morphett Vale - West (7.2%, 1.48 times) and Hackham - Onkaparinga Hills/ Seaford (6.5%, 1.32 times). There were relatively fewer children in Happy Valley/ Happy Valley Reservoir/ Woodcroft than across Adelaide as a whole (3.3%, or two thirds of the Adelaide average).

Note that the PHAs in which the data have been suppressed all have relatively large numbers of students; as the numbers suppressed are between one and four, proportions in these PHAs are clearly low, and none are above the Adelaide average.

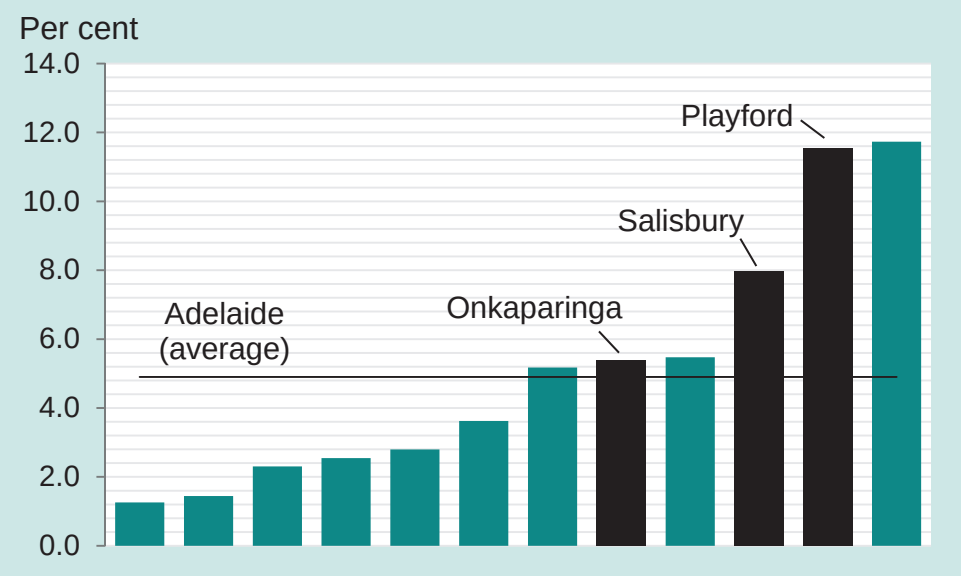
Table 6: Children in Year 3 at government schools with numeracy scores below the national minimum standard, selected PHAs and LGAs in Adelaide, 2014

PHA and LGA	No.	%	RR*
Davoren Park	*30*	*15.8*	*3.24*
Elizabeth East	*13*	*11.3*	*2.32*
One Tree Hill	*#*	*..*	*..*
Playford - West	*22*	*8.7*	*1.79*
Elizabeth/ Smithfield - Elizabeth North	*23*	*10.8*	*2.21*
Playford LGA	**88**	**11.5**	**2.36**
Dry Creek - North/ Pooraka	*10*	*7.9*	*1.63*
Parafield/ Parafield Gardens/ Paralowie	*19*	*6.3*	*1.29*
Salisbury/ Salisbury North	*29*	*9.2*	*1.89*
Ingle Farm	*9*	*8.0*	*1.63*
Para Hills/ Salisbury East	*20*	*8.8*	*1.82*
Salisbury LGA	**87**	**8.0**	**1.63**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*#*	*..*	*..*
Aldinga	*13*	*10.0*	*2.05*
Christie Downs/ Hackham West - Huntfield Heights	*13*	*8.0*	*1.65*
Christies Beach/ Lonsdale	*#*	*..*	*..*
Clarendon/ McLaren Vale/ Willunga	*#*	*..*	*..*
Hackham - Onkaparinga Hills/ Seaford	*14*	*6.5*	*1.32*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*8*	*3.3*	*0.68*
Morphett Vale - East/ Morphett Vale - West	*14*	*7.2*	*1.48*
Reynella	*#*	*..*	*..*
Onkaparinga LGA	**76**	**5.4**	**1.11**
Adelaide	**429**	**4.9**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide
Data supressed due to small number of cases
Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Figure 15: Children in Year 3 at government schools with numeracy scores below the national minimum standard, LGAs in Adelaide, 2014



Note that Figure 15 excludes the Adelaide LGA, as there were no children living in in Year 3 attending a government school who had numeracy scores below the national minimum standard, and the LGAs of Burnside, Holdfast Bay, Norwood Payneham St Peters, Prospect Unley, Walkerville, all had between one and four children in this category.

Playford and Salisbury LGAs were ranked second and third after Gawler LGA (Figure 15). The 11.7% of Year 3 children attending a government school who had numeracy scores below the national minimum standard is nine times that in Mitcham LGA, with 1.3%.

Geographic variation in Regional South Australia

The very poor outcomes under this measure for children living in the Anangu Pitjantjatjara Aboriginal Community and attending Year 3 at a government school are evident from Figure 19, Table 7 and Map 4, with over three quarters (76.7%) of children who were tested having numeracy scores below the national minimum standard. Such a poor outcome, along with that in the AEDC, does not augur well for the future development of this generation of young Aboriginal people.

The outcome in Ceduna LGA is also of concern, with 16.7% of its children attending Year 3 at a government school having a numeracy score below the national minimum standard. This result is 2.32 times the Regional South Australian average.

None of the very few children in Peterborough LGA attending Year 3 at a government school, who were assessed, had a numeracy score below the national minimum standard.

Map 6: Children in Year 3 at government schools with numeracy scores below the national minimum standard, Regional South Australia by LGA, 2014

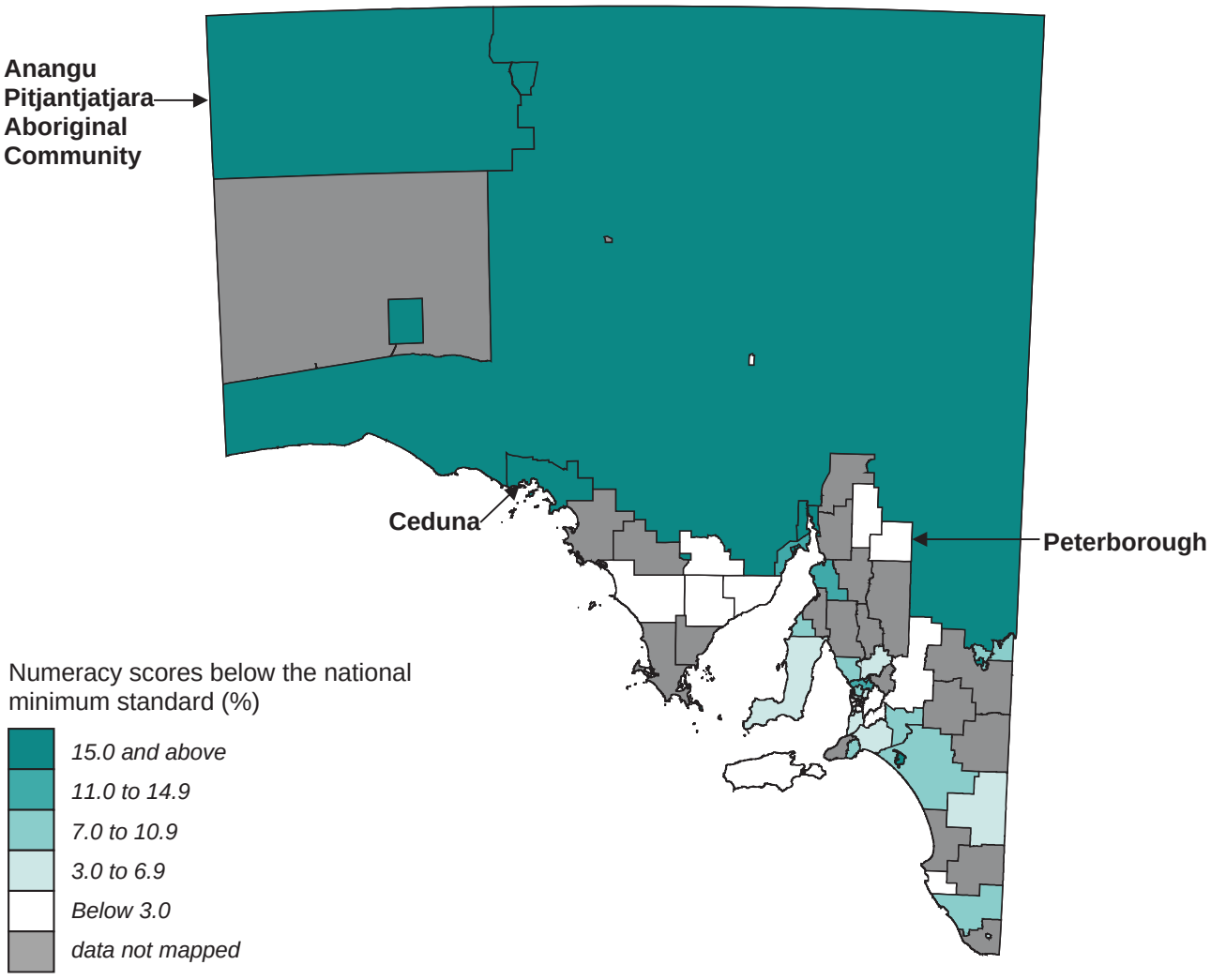


Table 7: Children in Year 3 at government schools with numeracy scores below the national minimum standard, selected LGAs in Regional South Australia, 2014

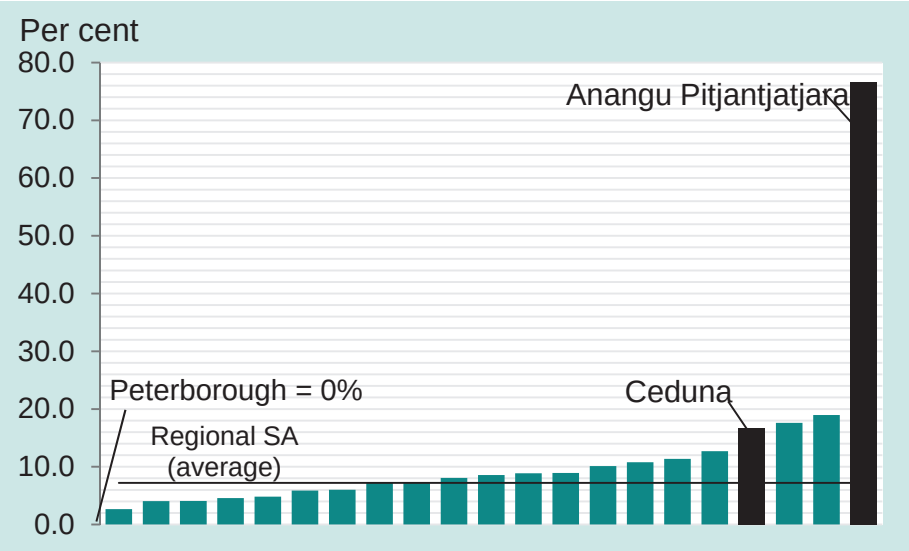
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	23	76.7	10.62
Ceduna LGA	5	16.7	2.32
Peterborough LGA	0	0.0	0.00
Regional South Australia	235	7.2	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The stark difference in outcomes between the Anangu Pitjantjatjara Community and other areas is highlighted in Figure 16. Although not shown as a bar, the result in Peterborough, with no children with numeracy scores below the national minimum standard, is also indicated in the chart.

Figure 16: Children in Year 3 at government schools with numeracy scores below the national minimum standard, LGAs in Regional South Australia, 2014



Early school leavers

Education increases opportunities for choice of occupation and for income and job security, and also equips people with skills and ability to control many aspects of their lives – key factors that influence wellbeing throughout the life course. Young people completing Year 12 are more likely to make a successful initial transition to further education, training and work than early school leavers. There is greater risk of poor transitions or mixed outcomes for those who have disabilities, lower levels of literacy or numeracy, or come from a family with low socioeconomic status.[240] Participation in schooling is also a major protective factor across a range of risk factors, including substance dependence, unemployment and homelessness.

Indicator definition: Early school leavers include people who left school at Year 10 or below, or did not go to school. These data have been age-standardised: see notes in Appendix A for details.

Key points

- The rate of early school leavers in Playford LGA was 45% above the rate for Adelaide overall, and the highest of all metropolitan LGAs, with rates for Salisbury and Onkaparinga LGAs also ranked in the highest five.
- The rate for the Anangu Pitjantjatjara Aboriginal Community was over twice the Regional SA average, with 93.1% of those aged 15 years and over having left school at Year 10 or below, or not gone to school. Rates for Ceduna and Peterborough LGAs were also above this average.

Geographic variation in Adelaide

The rate of early school leavers in Playford LGA was 46.1 per 100 population aged 15 years and over, which placed it 45% above the rate for Adelaide overall (Table 8). At the PHA level within the LGA, rates were also generally high, being 60% above average in Davoren Park, 56% above in Elizabeth/ Smithfield - Elizabeth North, 38% above in Playford - West and 33% above in Elizabeth East (Map 7). Only in One Tree Hill were there relatively fewer early school leavers, with a rate of 29.8 per 100, or 7% below the Adelaide average.

The rate in Salisbury was somewhat lower (40.9), although still markedly (28%) above the Adelaide average. Rates at the PHA level were again relatively high, ranging from 43% above average in Salisbury/ Salisbury North (a rate of 45.7 per 100 population) and 42% above in Parafield/ Parafield Gardens/ Paralowie (45.3), to 1% below in Dry Creek - North/ Pooraka (31.7). Other high rates were in Ingle Farm (a rate of 38.3 per 100 population, or 20% above average) and Para Hills/ Salisbury East (38.1, and 19% above).

In Onkaparinga LGA, just over one third of the population aged 15 years and over had left school at Year 10 or below, or had not gone to school; this was 11% above the Adelaide average. Within Onkaparinga, the PHA of Christie Downs/ Hackham West - Huntfield Heights had nearly half (44.6 per 100) of its population in this category, a rate which was 40% above the Adelaide average.

Map 7: Early school leavers, PHAs in Adelaide, 2011

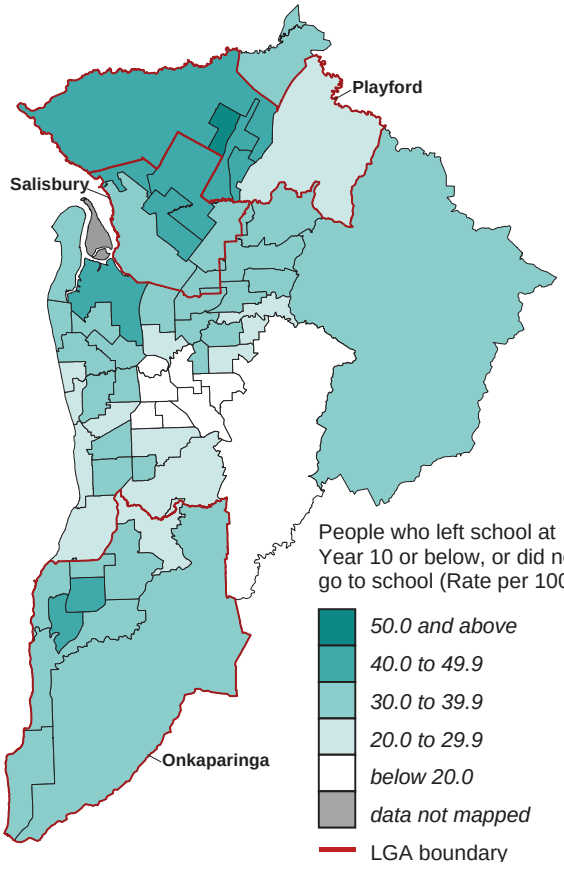


Table 8: Early school leavers, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	Rate^	RR*
Davoren Park	*4,509*	*51.1*	*1.60*
Elizabeth East	*3,657*	*42.5*	*1.33*
One Tree Hill	*552*	*29.8*	*0.93*
Playford - West	*7,653*	*44.0*	*1.38*
Elizabeth/ Smithfield - Elizabeth North	*7,653*	*49.7*	*1.56*
Playford LGA	**23,690**	**46.1**	**1.45**
Dry Creek - North/ Pooraka	*3,627*	*31.7*	*0.99*
Parafield/ Parafield Gardens/ Paralowie	*9,136*	*45.3*	*1.42*
Salisbury/ Salisbury North	*9,749*	*45.7*	*1.43*
Ingle Farm	*4,145*	*38.3*	*1.20*
Para Hills/ Salisbury East	*8,643*	*38.1*	*1.19*
Salisbury LGA	**35,842**	**40.9**	**1.28**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*4,787*	*25.2*	*0.79*
Aldinga	*3,453*	*38.0*	*1.19*
Christie Downs/ Hackham West - Huntfield Heights	*5,024*	*44.6*	*1.40*
Christies Beach/ Lonsdale	*2,884*	*38.0*	*1.19*
Clarendon/ McLaren Vale/ Willunga	*2,792*	*30.8*	*0.96*
Hackham - Onkaparinga Hills/ Seaford	*6,573*	*37.0*	*1.16*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*5,515*	*31.3*	*0.98*
Morphett Vale - East/ Morphett Vale - West	*6,740*	*40.8*	*1.28*
Reynella	*2,668*	*37.7*	*1.18*
Onkaparinga LGA	**40,245**	**35.3**	**1.11**
Adelaide	**284,361**	**31.9**	**1.00**

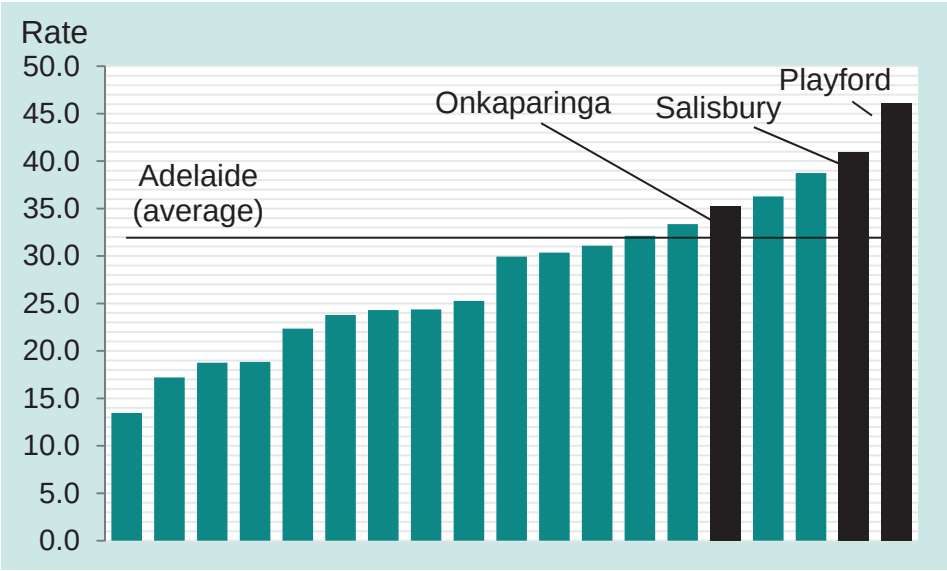
^Indirectly age-standardised rate per 100 population
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The outcomes in LGAs across the north-west and outer north and outer south for this indicator are evident from the chart below, with Playford and Salisbury with the highest and second highest rates, and Onkaparinga ranked in fifth place (Figure 17). The third and fourth ranked areas were Gawler and Port Adelaide Enfield, with rates of 38.7 and 36.3 per 100, respectively of their populations being early school leavers. In Adelaide LGA, just 13.5 per 100 had left school at Year 10 or below, or had not gone to school. There is a strong gradient in rates across Adelaide's LGAs, with the higher rates suggesting continuing disadvantage in many LGAs for some time to come, unless there is greater engagement with education.

Figure 17: Early school leavers, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

The Anangu Pitjantjatjara Aboriginal Community has a rate of early school leavers that is over twice the Regional South Australian average, with 93.1% of the population aged 15 years and over having left school at Year 10 or below, or not gone to school (Map 8 and Table 9).

Although much lower, the rate of 50.4 per 100 in Ceduna is still markedly (21%) above the Regional South Australian average; the rate in Peterborough of 46.5 is 11% above this average.

Map 8: Early school leavers, Regional South Australia by LGA, 2011

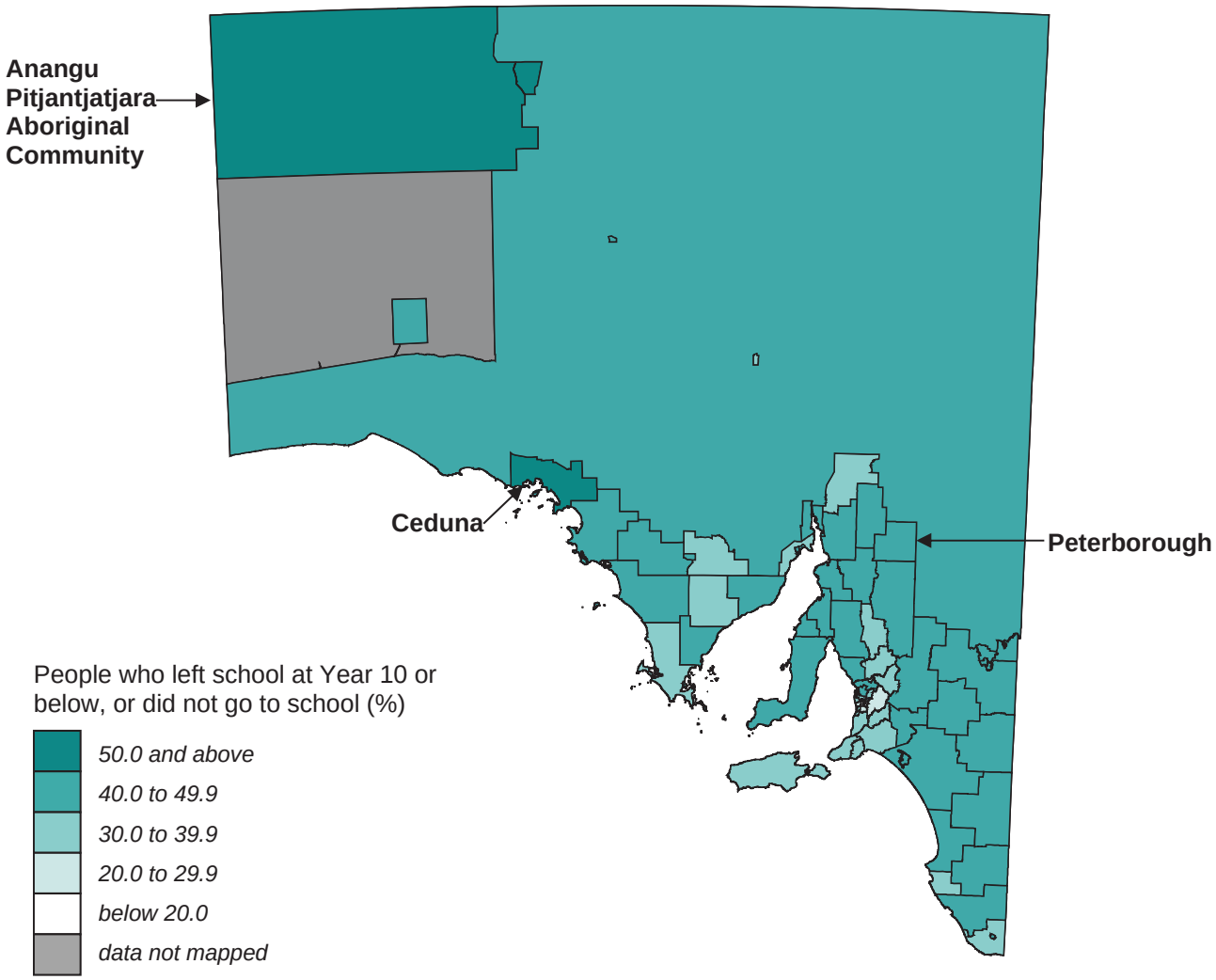


Table 9: Early school leavers, selected LGAs in Regional South Australia, 2011

LGA	No.	Rate^	RR*
Anangu Pitjantjatjara Aboriginal Community	1,222	93.1	2.23
Ceduna LGA	1,211	50.4	1.21
Peterborough LGA	684	46.5	1.11
Regional South Australia	117,601	41.7	1.00

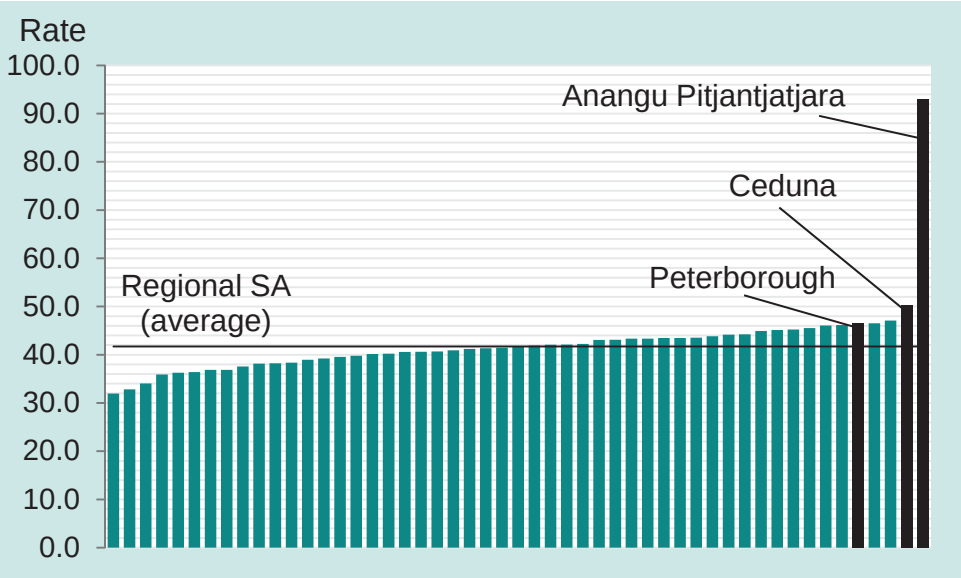
^Indirectly age-standardised rate per 100 population
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The chart below graphically illustrates the very poor outcome under this measure for the members of the Anangu Pitjantjatjara Aboriginal Community aged 15 years and over (Figure 18).

These data, together with the earlier data for the AEDC and NAPLAN, suggest that the inter-generational aspects of the low formal education levels in this community are unlikely to be reversed for some time to come.

Figure 18: Early school leavers, LGAs in Regional South Australia, 2011



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 and health. Children who live without an employed parent 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 so the joblessness of the parent(s) may mean that such children are more likely to have outcomes such as welfare dependency in the longer term. In some families, the reason the parent is without a job may be to care for children or to undertake study to try to improve the future economic prospects of the household. However, most of the children living without an employed parent live in lone-parent households with limited resources.[237]

Indicator definition: Children aged less than 15 years in families in which no parent is employed, expressed as a proportion of all children aged less than 15 years of age.

Key points

- Playford LGA had the highest proportion of children aged less than 15 years living in jobless families (32.3%) across Adelaide overall, with Salisbury LGA, having the next highest (21.5%).
- Onkaparinga LGA had a proportion of children in jobless families, which was just above the Adelaide average.
- In the Anangu Pitjantjatjara Aboriginal Community and Peterborough LGA, over forty per cent of children aged less than 15 years live in jobless families, well above the Regional SA average.

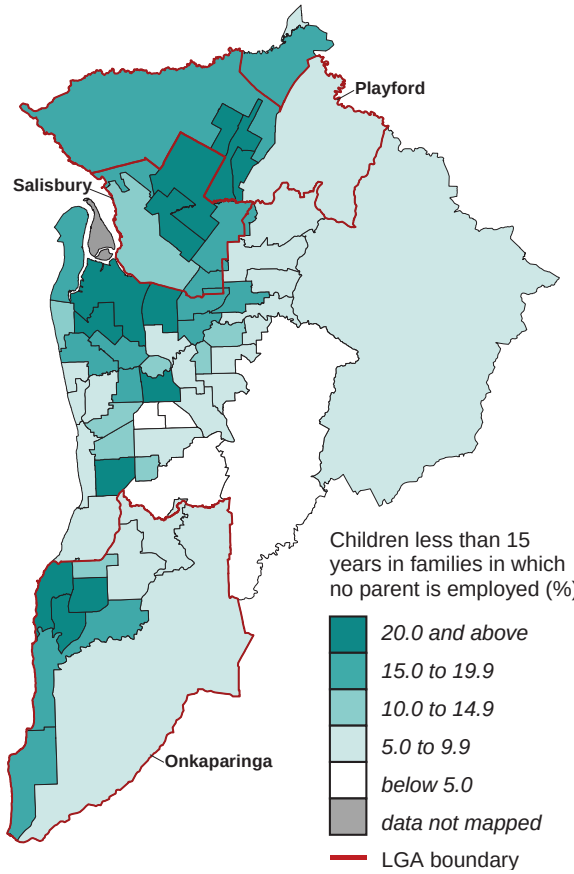
Geographic variation in Adelaide

At the 2011 Census, the proportion of children aged less than 15 years living in jobless families in the Playford LGA comprised over twice the level across Adelaide overall (32.3%, a rate ratio of 2.19) (Table 10). The PHAs of Elizabeth/ Smithfield - Elizabeth North (with a rate ratio of 3.37, or nearly three and a half times the Adelaide average), Davoren Park (2.78 times higher) and Elizabeth East (2.23 times higher), all have proportions substantially above the Adelaide average (Map 9). Children growing up in these communities face many barriers to achieving the level of wellbeing that the majority of children in Adelaide accept as normal. The proportion in Playford - West is slightly elevated (11% above average), whereas that in One Tree Hill is well below average.

Although lower than in Playford, the overall proportion in Salisbury was 46% above the Adelaide average, with the highest proportions in Salisbury/ Salisbury North (30.8% of children, and just over twice the Adelaide average) and Parafield/ Parafield Gardens/ Paralowie (22.1%, or 50% above the Adelaide average). Ingle Farm and Para Hills/ Salisbury East also had above-average proportions, of 18.3% and 16.2%.

In Onkaparinga, the overall proportion was just 3% above the Adelaide average, a rate

Map 9: Children in jobless families, PHAs in Adelaide, 2011



ratio of 1.03). However, the PHAs of Christie Downs/ Hackham West - Huntfield Heights and Christies Beach/ Lonsdale had substantially higher proportions, of 32.7% and 22.2%, respectively. In Reynella and Aldinga, the proportions were markedly above average, being 20.8% and 19.6%, respectively. However, in Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill, Happy Valley/ Happy Valley Reservoir/ Woodcroft and Clarendon/ McLaren Vale/ Willunga, there were around 60% fewer young children in this category, compared to Adelaide overall.

Table 10: Children in jobless families, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*1,597*	*41.1*	*2.78*
Elizabeth East	*780*	*32.9*	*2.23*
One Tree Hill	*25*	*6.1*	*0.41*
Playford - West	*1,018*	*16.3*	*1.11*
Elizabeth/ Smithfield - Elizabeth North	*2,138*	*49.7*	*3.37*
Playford LGA	**5,535**	**32.3**	**2.19**
Dry Creek - North/ Pooraka	*452*	*13.7*	*0.93*
Parafield/ Parafield Gardens/ Paralowie	*1,457*	*22.1*	*1.50*
Salisbury/ Salisbury North	*1,842*	*30.8*	*2.09*
Ingle Farm	*466*	*18.3*	*1.24*
Para Hills/ Salisbury East	*915*	*16.2*	*1.10*
Salisbury LGA	**5,227**	**21.5**	**1.46**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*306*	*6.0*	*0.41*
Aldinga	*624*	*19.6*	*1.33*
Christie Downs/ Hackham West - Huntfield Heights	*965*	*32.7*	*2.21*
Christies Beach/ Lonsdale	*349*	*22.2*	*1.51*
Clarendon/ McLaren Vale/ Willunga	*134*	*6.4*	*0.43*
Hackham - Onkaparinga Hills/ Seaford	*836*	*17.3*	*1.18*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*287*	*6.0*	*0.41*
Morphett Vale - East/ Morphett Vale - West	*790*	*20.8*	*1.41*
Reynella	*224*	*13.2*	*0.89*
Onkaparinga LGA	**4,492**	**15.1**	**1.03**
Adelaide	**30,451**	**14.8**	**1.00**

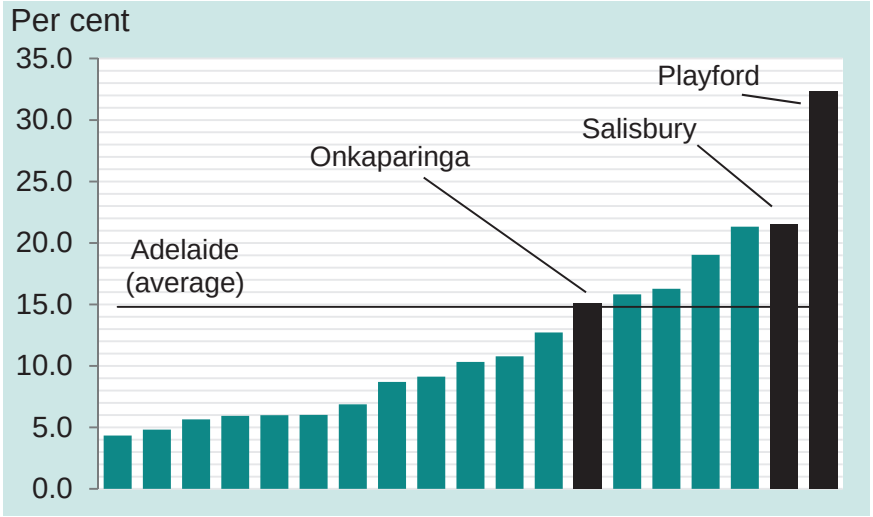
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Playford LGA had the highest proportion of the population aged less than 15 years who were living in jobless families (32.3%), with Salisbury having the second highest (21.5%), and just above the 21.3% in Port Adelaide Enfield (Figure 19). The lowest proportions were in the Adelaide Hills and Unley LGAs, with 4.3% and 4.8%, respectively.

Figure 19: Children in jobless families, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

In both the Anangu Pitjantjatjara Aboriginal Community and the Peterborough LGA, more than 40% of children aged less than 15 years live in jobless families (Map 10 and Table 11). These very high proportions are around two and a half times the Regional South Australian average, of 16.5%, and highlight the extent to which children growing up in these communities face substantial barriers in many aspects of their lives.

The proportion in Ceduna (14.9%) is below the Regional South Australian average.

Map 10: Children in jobless families, Regional South Australia by LGA, 2011

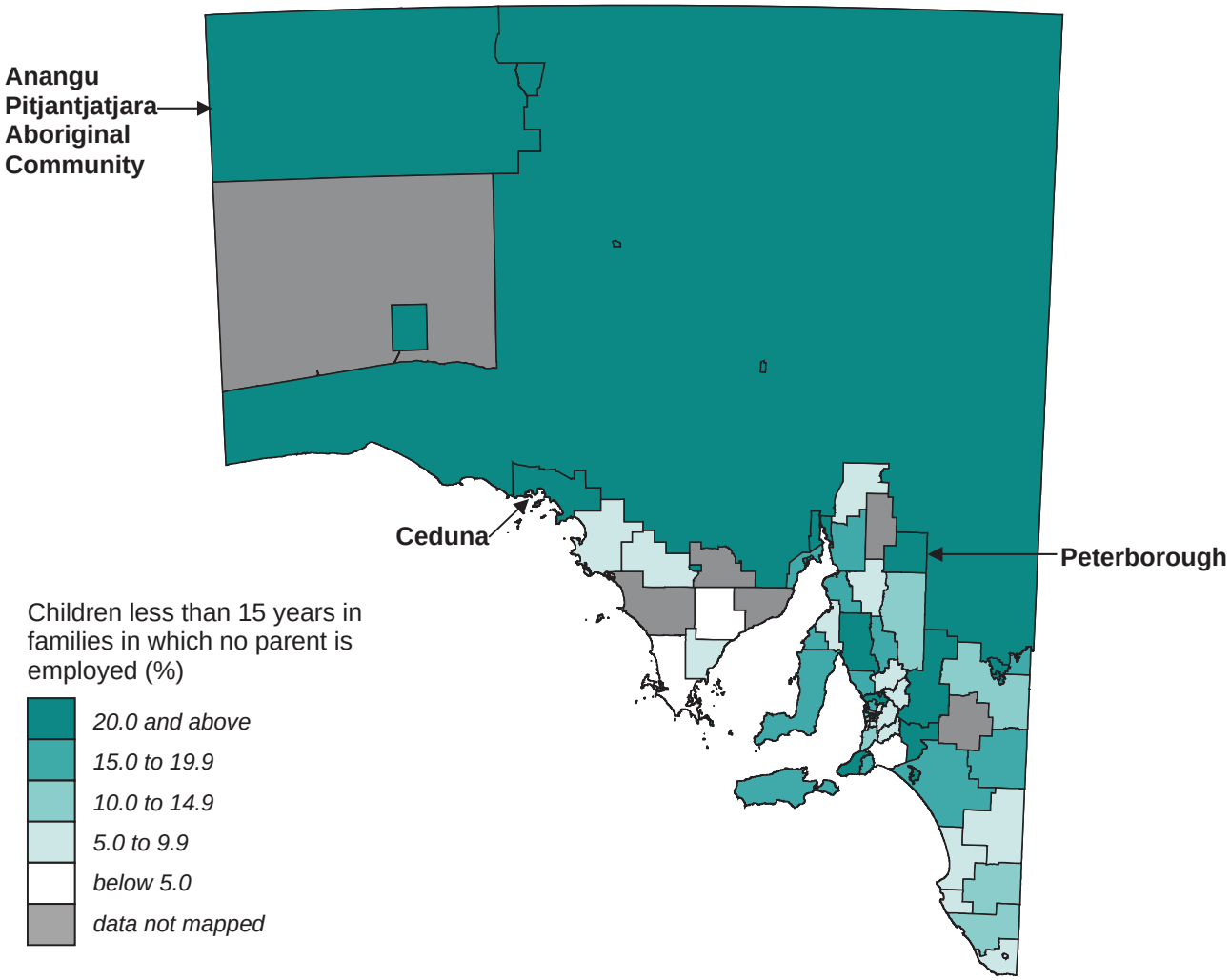


Table 11: Children in jobless families, selected LGAs in Regional South Australia, 2011

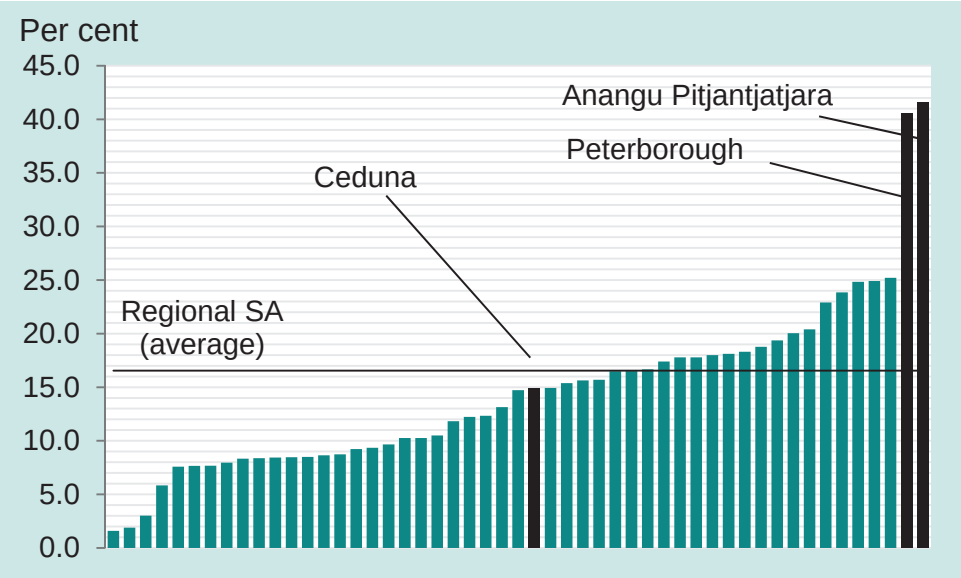
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	237	41.6	2.51
Ceduna LGA	106	14.9	0.90
Peterborough LGA	113	40.5	2.45
Regional South Australia	10,894	16.5	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

Figure 20 shows the substantially higher proportions of children in these families, over 50% above the next highest proportions in Port Pirie (25.2%), Berri and Renmark (24.9%), Port Augusta (24.8%), Whyalla (23.9%) and Murray Bridge (22.9%). The very low proportions in Roxby Downs (1.6%) and Wudinna (1.9%) show what can be achieved.

Figure 20: Children in jobless families, LGAs in Regional South Australia, 2011



Age Pension recipients

An Age Pension is a restricted income paid by the Australian Government to those who generally do not have (or do not have much) income from other sources and who have reached the qualifying age, with the amount paid subject to income and asset tests.

Although older people today, on average, are wealthier than they were in previous generations, these averages mask significant variation in economic circumstances. There are large differences in the distribution of income, wealth and home ownership between older people, with the most disadvantaged being those who live alone and do not own their own home. Those people who enter older age as renters, low paid workers, or who have been out of the labour market for long periods of time (due to unemployment, disability, family responsibilities or other reasons) are the most likely to be exposed to financial vulnerability in older age. Financial limitations may lead to social exclusion, which can result in reduced quality of life, preventable illness and disability, premature institutionalisation, and death.[238]

Indicator definition: People in receipt of an Age Pension from the Department of Human Services or a Service Pension (Age) from the Department of Veterans' Affairs, as a proportion of the population aged 65 years and over.

Key points

- The proportions of the population receiving an Age Pension in each of the three metropolitan LGAs are all over 80% and above the average across Adelaide.
- Both Peterborough and Ceduna have above-average proportions, of 77.6% and 81.1%, respectively.
- The proportion of the population aged 65 years and over in the Anangu Pitjantjatjara Aboriginal Community receiving the Age Pension is quite low (at 19% below the Regional SA average).

Geographic variation in Adelaide

The proportions of the population receiving an Age Pension in each of the three LGAs are all over 80% and above the average across Adelaide, varying from 11% above in Onkaparinga to 16% above in Playford (Table 12).

Within Playford LGA, the proportion of the population aged 65 years and over receiving the Age Pension is 21% above the Adelaide average in Elizabeth East (87.8%), 17% above in Playford - West (85.0%), and 16% above in both Elizabeth/ Smithfield - Elizabeth North (84.8%), and Davoren Park (84.7%) (Map 11). There is a markedly lower proportion in One Tree Hill, of 62.8%.

There is less variation in the proportion of the population in Salisbury LGA receiving the Age Pension, with proportions of 85.7% in Salisbury/ Salisbury North, 84.9% in Para Hills, and 83.2% in Parafield/ Parafield Gardens/ Paralowie; and 79.4% and 80.0% in Para Hills/ Salisbury East and Dry Creek - North/ Pooraka, respectively.

Map 11: Age Pension recipients, PHAs in Adelaide, 2014

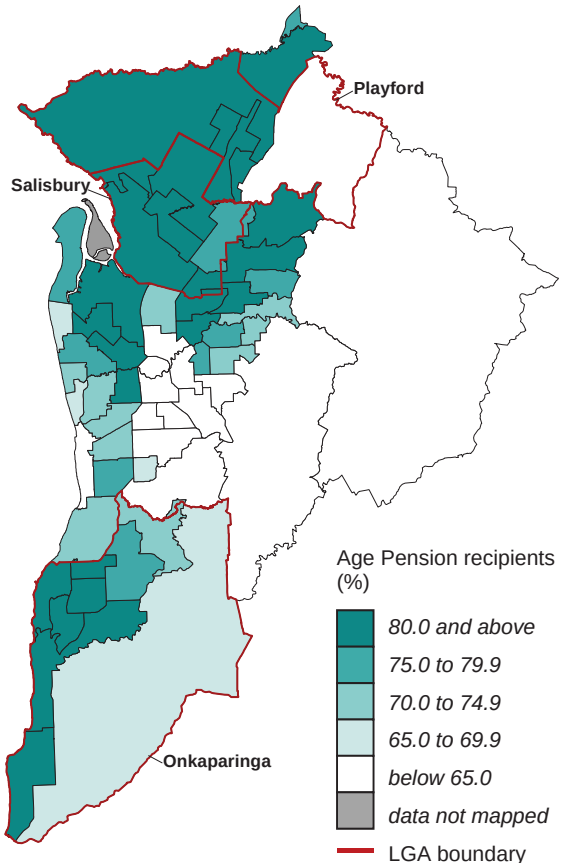


Table 12: Age Pension recipients, selected PHAs and LGAs in Adelaide, 2014

PHA and LGA	No.	%	RR*
Davoren Park	*1,116*	*84.7*	*1.16*
Elizabeth East	*1,636*	*87.8*	*1.21*
One Tree Hill	*218*	*62.8*	*0.86*
Playford - West	*2,505*	*85.0*	*1.17*
Elizabeth/ Smithfield - Elizabeth North	*3,144*	*84.8*	*1.16*
Playford LGA	**8,295**	**84.2**	**1.16**
Dry Creek - North/ Pooraka	*1,440*	*80.0*	*1.10*
Parafield/ Parafield Gardens/ Paralowie	*2,635*	*83.2*	*1.14*
Salisbury/ Salisbury North	*3,816*	*85.7*	*1.18*
Ingle Farm	*2,424*	*84.9*	*1.17*
Para Hills/ Salisbury East	*3,899*	*79.4*	*1.09*
Salisbury LGA	**14,743**	**83.1**	**1.14**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*2,474*	*70.7*	*0.97*
Aldinga	*1,480*	*84.0*	*1.15*
Christie Downs/ Hackham West - Huntfield Heights	*2,065*	*87.7*	*1.20*
Christies Beach/ Lonsdale	*1,632*	*83.6*	*1.15*
Clarendon/ McLaren Vale/ Willunga	*1,535*	*68.6*	*0.94*
Hackham - Onkaparinga Hills/ Seaford	*3,235*	*83.7*	*1.15*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*2,998*	*79.3*	*1.09*
Morphett Vale - East/ Morphett Vale - West	*3,351*	*84.8*	*1.16*
Reynella	*1,369*	*83.7*	*1.15*
Onkaparinga LGA	**20,008**	**80.5**	**1.11**
Adelaide	**150,104**	**72.9**	**1.00**

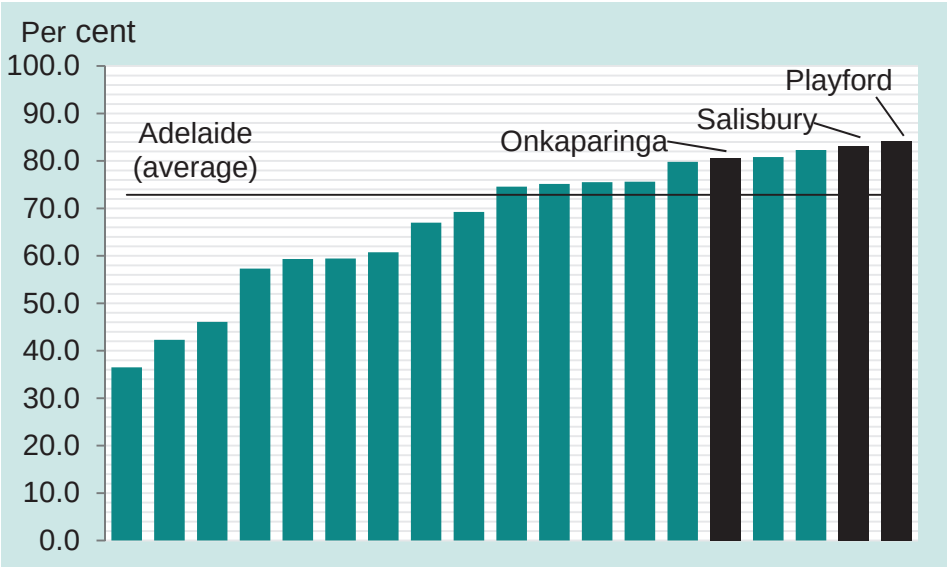
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see Appendix A)

Comparisons across Adelaide

Several LGAs with smaller proportions of their populations receiving an Age Pension have very low proportions, with the level in Adelaide LGA (36.5%) being less than half that in Playford (84.2%) (Figure 21).

Figure 21: Age Pension recipients, LGAs in Adelaide, 2014



Geographic variation in Regional South Australia

The proportion of the population aged 65 years and over in the Anangu Pitjantjatjara Aboriginal Community receiving the Age Pension is quite low, at 61.5%, or 19% below the Regional South Australian average; this figure is consistent with data from previous years but the reason for the lower proportion in this region is not clear to the authors (Figure 15, Map 6 and Table 13). Both Peterborough and Ceduna have above-average proportions, of 77.6% and 81.1%, respectively.

Map 12: Age Pension recipients, Regional South Australia by LGA, 2014

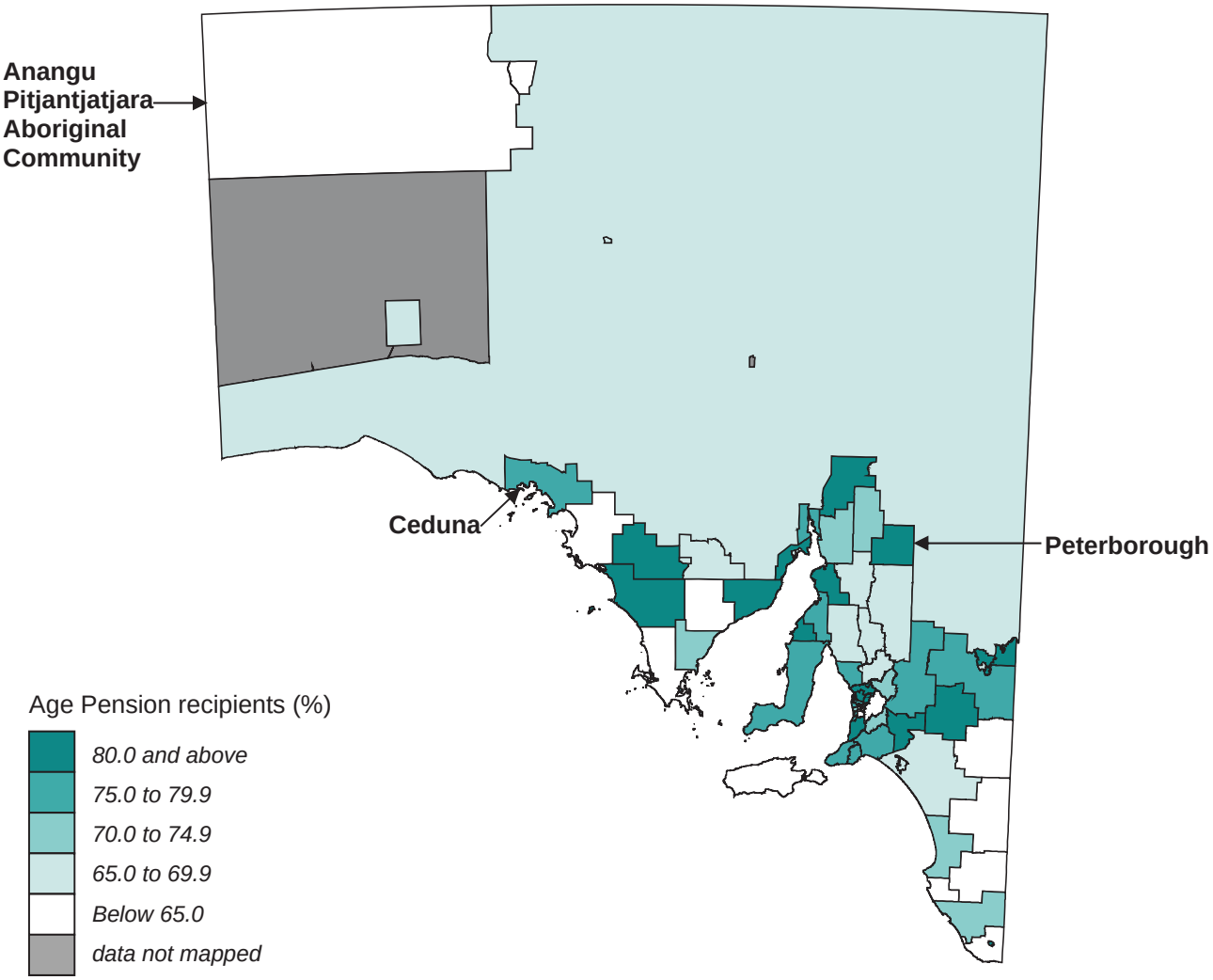


Table 13: Age Pension recipients, selected LGAs in Regional South Australia, 2014

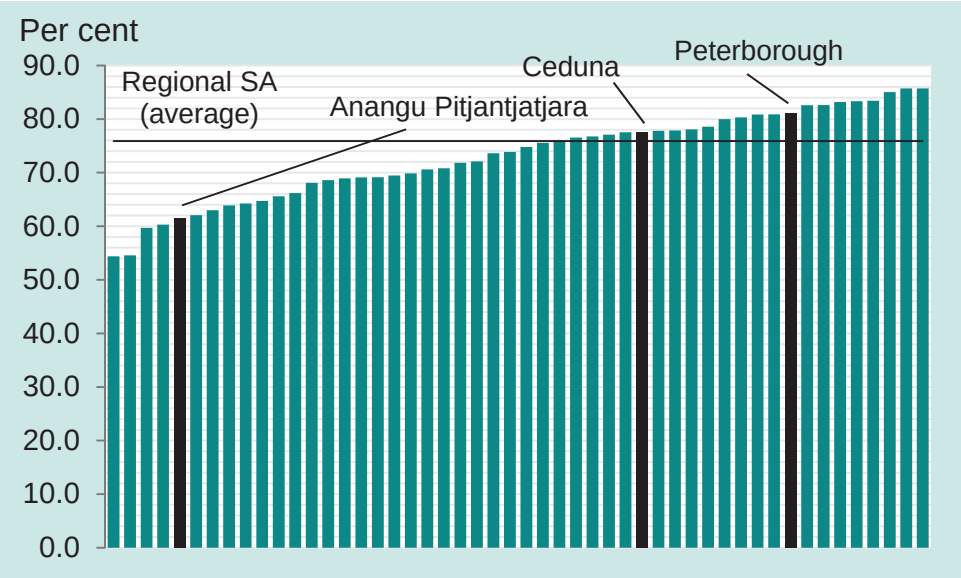
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	88	61.5	0.81
Ceduna LGA	364	77.6	1.02
Peterborough LGA	369	81.1	1.07
Regional South Australia	55,841	75.9	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The lowest proportions of the population in Regional South Australia receiving an Age Pension are in the south-east of the State, in the LGAs of Grant (54.4%) and Robe (54.6%); the highest are in Karoonda East Murray and Franklin Harbour, both at 85.7% (Figure 22).

Figure 22: Age Pension recipients, LGAs in Regional South Australia, 2014



Youth unemployment benefit recipients

The Youth Allowance (Other) is paid to unemployed young people aged 16 to 21 years. Unemployment and underemployment are generally associated with reduced life opportunities and poorer health and wellbeing. Although the relationship is complex and varies for different population groups, there is consistent evidence from research that unemployment is associated with adverse health outcomes; and unemployment has a direct effect on physical and mental wellbeing over and above the effects of socioeconomic status, poverty, risk factors, or prior ill-health.[92,242,243] Unemployment and its accompanying health effects are not distributed evenly through the population: rates in South Australia are highest among people aged less than 25 years, and are generally higher in rural and remote areas than in urban areas.

Indicator definition: People in receipt of a Newstart Allowance or Youth Allowance (Other) from the Department of Human Services, as a proportion of the population aged 15 to 24 years.

Key points

- The proportion of young people aged 15 to 24 years receiving unemployment benefits was above the Adelaide average for the LGAs of Playford (2.41 times), Salisbury (1.44 times) and Onkaparinga (1.31 times). These LGAs were ranked in the top five of the Adelaide LGAs for this indicator, with Playford ranked the highest.
- In the Anangu Pitjantjatjara Aboriginal Community, the proportion of young people in receipt of unemployment benefits was 2.16 times the average for Regional SA, and over three times the average for Adelaide overall. Ceduna had a proportion, which was 24% above the regional average.

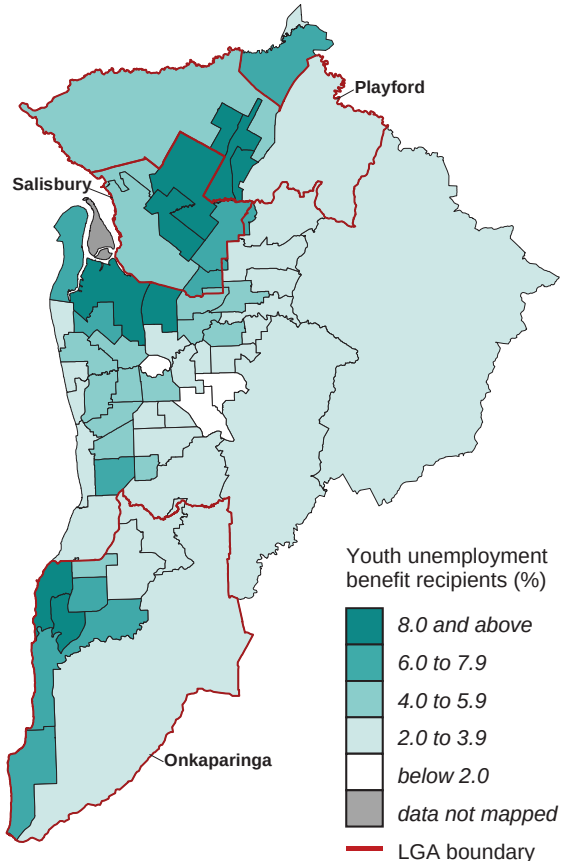
Geographic variation in Adelaide

The proportion of the population aged 15 to 24 years receiving unemployment benefits was above the average for Adelaide in each of the LGAs of Playford (2.41 times higher), Salisbury (1.44 times) and Onkaparinga (1.31 times) (Table 14).

Within Playford, proportions were around three times the Adelaide average in the PHAs of Elizabeth/ Smithfield - Elizabeth North (16.0% of the population aged 15 to 24 years receiving unemployment benefits, or 3.55 times) and Davoren Park (13.0%, 2.88 times) (Map 13). There are also elevated proportions in Elizabeth East (10.6%, 2.35 times) and Playford - West (6.5%, 1.44 times).

In Salisbury, proportions were also above average, with a substantially higher level of unemployment benefits paid to young people in Salisbury/ Salisbury North (8.6%, 1.90 times the Adelaide average), Parafield/ Parafield Gardens/ Paralowie (7.1%, 1.58 times), and Ingle Farm (6.2%, 1.37 times). Para Hills/ Salisbury East and Dry Creek North/ Pooraka had proportions of 19% above and 12% below the Adelaide average, respectively.

Map 13: Youth unemployment benefit recipients, PHAs in Adelaide, 2014



Over half of the PHAs in Onkaparinga LGA had substantially higher proportions of their young population receiving unemployment benefits: these were Christie Downs/

Hackham West - Huntfield Heights (10.7%, 2.37 times the Adelaide average), Christies Beach/ Lonsdale (9.4%, 2.07 times), Aldinga (8.1%, 1.79 times), Morphett Vale - East/ Morphett Vale - West (7.8%, 1.72 times) and Hackham - Onkaparinga Hills/ Seaford (7.3%, 1.61 times).

Table 14: Youth unemployment benefit recipients, selected PHAs and LGAs in Adelaide, 2014

PHA and LGA	No.	%	RR*
Davoren Park	*347*	*13.0*	*2.88*
Elizabeth East	*183*	*10.6*	*2.35*
One Tree Hill	*#*	*..*	*..*
Playford - West	*274*	*6.5*	*1.44*
Elizabeth/ Smithfield - Elizabeth North	*507*	*16.0*	*3.55*
Playford LGA	**1,313**	**10.9**	**2.41**
Dry Creek - North/ Pooraka	*112*	*4.0*	*0.88*
Parafield/ Parafield Gardens/ Paralowie	*331*	*7.1*	*1.58*
Salisbury/ Salisbury North	*389*	*8.6*	*1.90*
Ingle Farm	*105*	*6.2*	*1.37*
Para Hills/ Salisbury East	*216*	*5.4*	*1.19*
Salisbury LGA	**1,160**	**6.5**	**1.44**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*82*	*2.4*	*0.52*
Aldinga	*138*	*8.1*	*1.79*
Christie Downs/ Hackham West - Huntfield Heights	*220*	*10.7*	*2.37*
Christies Beach/ Lonsdale	*111*	*9.4*	*2.07*
Clarendon/ McLaren Vale/ Willunga	*28*	*2.2*	*0.48*
Hackham - Onkaparinga Hills/ Seaford	*229*	*7.3*	*1.61*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*82*	*2.8*	*0.62*
Morphett Vale - East/ Morphett Vale - West	*208*	*7.8*	*1.72*
Reynella	*56*	*5.0*	*1.11*
Onkaparinga LGA	**1,153**	**5.9**	**1.31**
Adelaide	**7,288**	**4.5**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

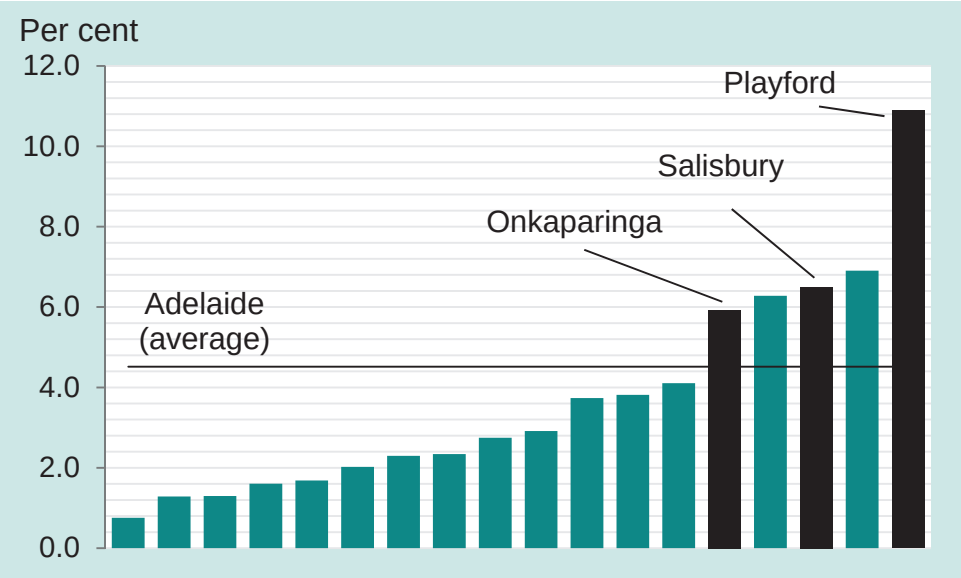
#Data suppressed due to small number of cases

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Youth unemployment benefit recipients are largely concentrated in a small number of LGAs, with Gawler and Port Adelaide Enfield also recording above-average proportions, of 6.9% and 6.3%, respectively (Figure 23).

Figure 23: Youth unemployment benefit recipients, LGAs in Adelaide, 2014



Geographic variation in Regional South Australia

There were over 50% more recipients of youth unemployment benefits in Regional South Australia (7.0%) than in Adelaide (4.5%) in 2014.

A substantially higher proportion of the population aged 15 to 24 years in the Anangu Pitjantjatjara Aboriginal Community were receiving unemployment benefits in 2014, when compared with this population group in Regional South Australia overall, with a figure of 15.0%, or 2.16 times the average (Map 14 and Table 15).

Although it was much lower, at 8.6% of the youth population, the proportion of recipients in Ceduna was still 24% above the regional average.

The data for Peterborough were not available as there were fewer than 20 recipients of these benefits.

Map 14: Youth unemployment benefit recipients, Regional South Australia by LGA, 2014

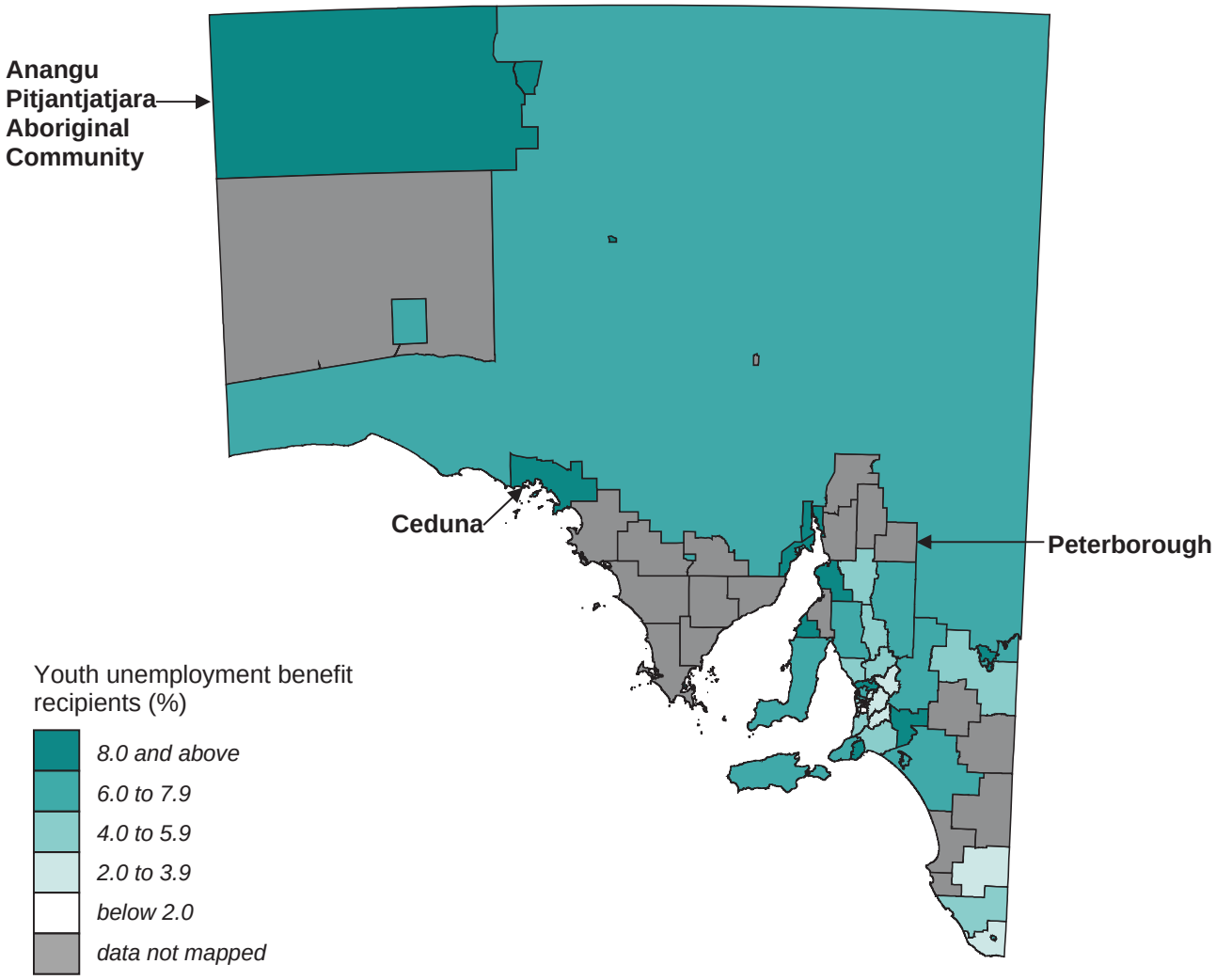


Table 15: Youth unemployment benefit recipients, selected LGAs in Regional South Australia, 2014

LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	75	15.0	2.16
Ceduna LGA	37	8.6	1.24
Peterborough LGA	#	..	..
Regional South Australia	2,618	7.0	1.00

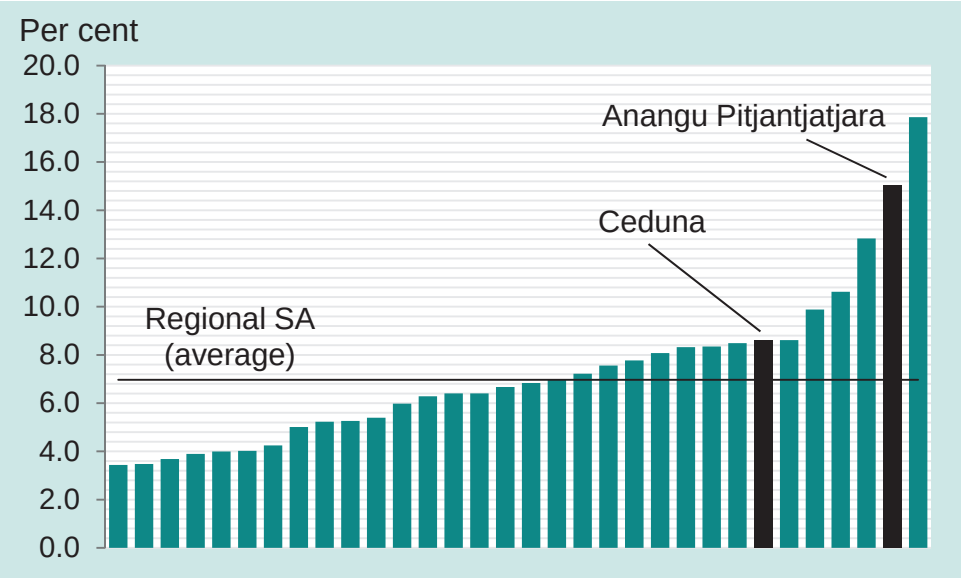
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

#Data suppressed due to small number of cases

Comparisons across Regional South Australia

The highest proportion of the population in Regional South Australia receiving an unemployment benefit is in Coober Pedy (17.9%), with the northern towns of Port Pirie, Port Augusta and Whyalla ranked after the Anangu Pitjantjatjara Aboriginal Community (Figure 24).

Figure 24: Youth unemployment benefit recipients, LGAs in Regional South Australia, 2014



Learning or earning

Young people who engage with school, work or further education and training run significantly less risk of school failure, unemployment, risky health behaviours, mental health problems, social exclusion, and economic and social disadvantage over the longer term.[244,245] The experience of unemployment harms a young person's psychological and financial wellbeing, and effects are felt most by those who experience long-term unemployment.[246] Those who experience unemployment while young are more likely to be unemployed, have poorer health and have lower educational attainment when they are older, than those who are not affected by unemployment while young.[246]

Indicator definition: Young people aged 15 to 24 years fully engaged in school, work or further education/ training, as a proportion of all young people at those ages: see notes in Appendix A for details.

Key points

- Just 59.7% of young people aged 15 to 24 years in Playford LGA were learning or earning, when compared with Adelaide overall. The lowest proportion, of just 49.0%, was in Elizabeth/ Smithfield - Elizabeth North.
- The LGAs of Salisbury and Onkaparinga were also ranked well below the Adelaide average.
- Just 30.3% of young people aged 15 to 24 years in the Anangu Pitjantjatjara Aboriginal Community were learning or earning. Ceduna and Peterborough also performed poorly under this measure, with rates 12% below the Regional South Australian average.

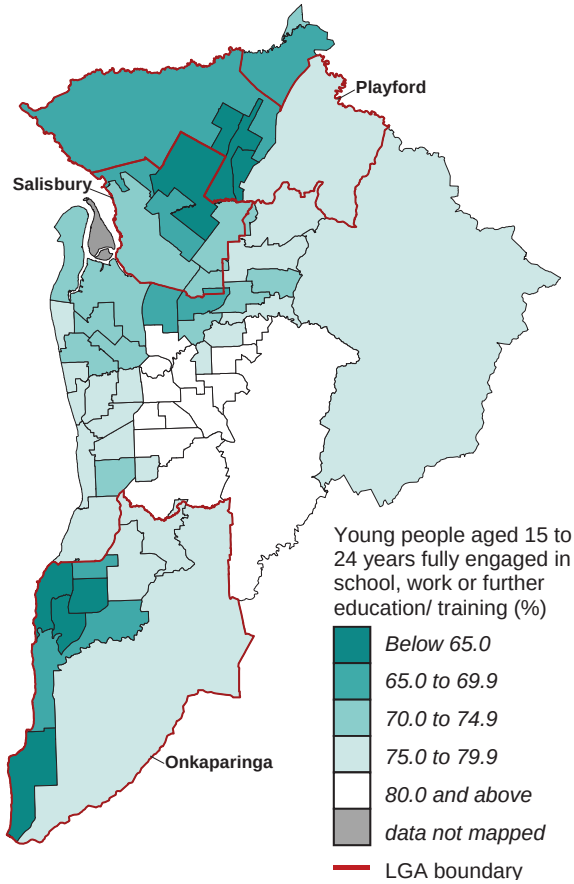
Geographic variation in Adelaide

Relatively fewer young people in Playford LGA aged 15 to 24 years were fully engaged in school, work or further education/ training, when compared with Adelaide overall (Table 16). Within Playford (with 59.7% of young people in this category, 19% fewer than in Adelaide), Elizabeth/ Smithfield - Elizabeth North (49.0%, 34% fewer) and Davoren Park (53.4%, 28% fewer) had the poorest outcomes under this measure, followed by Elizabeth East (61.2%, 17% fewer) (Map 15). One Tree Hill (8% above the Adelaide average) and Playford - West (6% below average), had outcomes consistent with those across Adelaide.

Proportions of the youth population in this category were relatively uniform across Salisbury LGA, and just below the Adelaide average, other than in Salisbury/ Salisbury North (61.9%, and 16% below the average) and, to a lesser extent, in Parafield/ Parafield Gardens/ Paralowie (66.4%, 10% below average).

In Onkaparinga, despite the near-average level of young people learning or earning (69.5%, 6% below the Adelaide average), there was much variation at the PHA level.

Map 15: Learning or earning, PHAs in Adelaide, 2011



In Christie Downs/ Hackham West - Huntfield Heights, participation was 57.5%, 42.5% below the Adelaide average. Similarly, participation in Aldinga was 60.8%, and 18% below average. In Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill and Clarendon/ McLaren Vale/ Willunga and Happy Valley/ Happy Valley Reservoir/ Woodcroft PHAs, participation rates were above the Adelaide average, by 8%, 7% and 5%, respectively.

Table 16: Learning or earning, selected PHAs and LGAs in Adelaide, 2011

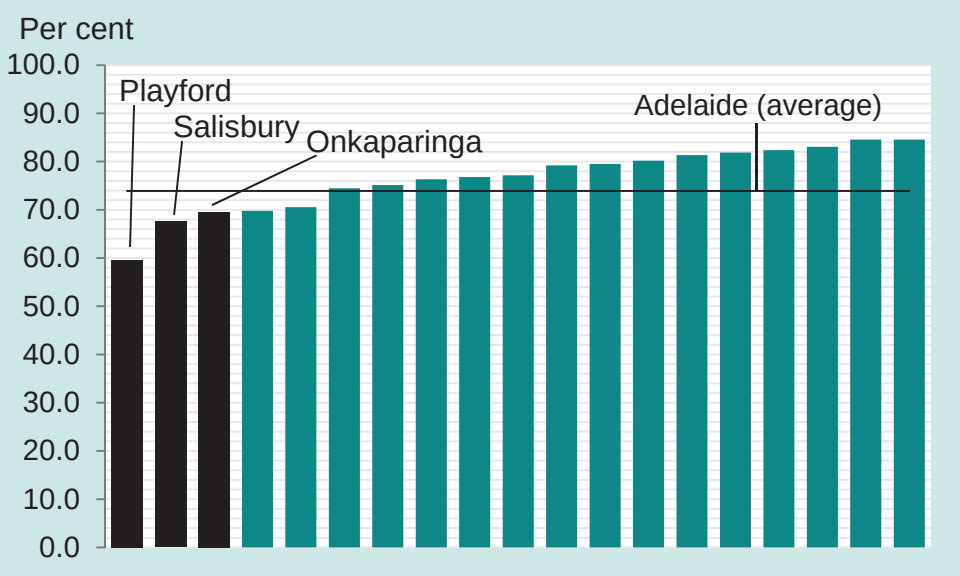
PHA and LGA	No.	%	RR*
Davoren Park	*1,444*	*53.4*	*0.72*
Elizabeth East	*1,076*	*61.2*	*0.83*
One Tree Hill	*277*	*79.6*	*1.08*
Playford - West	*2,901*	*69.7*	*0.94*
Elizabeth/ Smithfield - Elizabeth North	*1,608*	*49.0*	*0.66*
Playford LGA	**7,275**	**59.7**	**0.81**
Dry Creek - North/ Pooraka	*1,995*	*73.0*	*0.99*
Parafield/ Parafield Gardens/ Paralowie	*3,271*	*66.4*	*0.90*
Salisbury/ Salisbury North	*2,815*	*61.9*	*0.84*
Ingle Farm	*1,268*	*70.0*	*0.95*
Para Hills/ Salisbury East	*3,077*	*70.3*	*0.95*
Salisbury LGA	**12,489**	**67.6**	**0.91**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*2,995*	*79.7*	*1.08*
Aldinga	*1,106*	*60.8*	*0.82*
Christie Downs/ Hackham West - Huntfield Heights	*1,286*	*57.5*	*0.78*
Christies Beach/ Lonsdale	*756*	*62.6*	*0.85*
Clarendon/ McLaren Vale/ Willunga	*1,073*	*78.8*	*1.07*
Hackham - Onkaparinga Hills/ Seaford	*2,181*	*67.0*	*0.91*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*2,477*	*77.4*	*1.05*
Morphett Vale - East/ Morphett Vale - West	*1,874*	*64.6*	*0.87*
Reynella	*851*	*69.1*	*0.94*
Onkaparinga LGA	**14,480**	**69.5**	**0.94**
Adelaide	**123,872**	**73.9**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Figure 25: Learning or earning, LGAs in Adelaide, 2011



The outcomes for young people under this measure are poorest in the outer northern LGAs of Playford (59.7% engaged in these ways) and Salisbury (67.6%), with Onkaparinga (69.5%) ranked third lowest and on a similar level to Port Adelaide Enfield and Gawler (Figure 25). As noted above, these relatively lower levels of participation

do not auger well for the future wellbeing of these populations.

At the other end of the scale, 84.6% of young people in Burnside LGA were fully engaged in school, work or further education/ training.

Geographic variation in Regional South Australia

Less than one third (30.3%) of the young people aged 15 to 24 years in the Anangu Pitjantjatjara Aboriginal Community were fully engaged in school, work or further education/ training at the 2011 Census (Map 16 and Table 17). This is less than one half of the average participation rate across Regional South Australia, a rate that at 65.8% is below the level of participation in Adelaide, of 73.9%.

Ceduna and Peterborough LGAs also did poorly under this measure, with less than two thirds of their young people so engaged, with rates 12% below the Regional South Australian average in both cases.

Map 16: Learning or earning, Regional South Australia by LGA, 2011

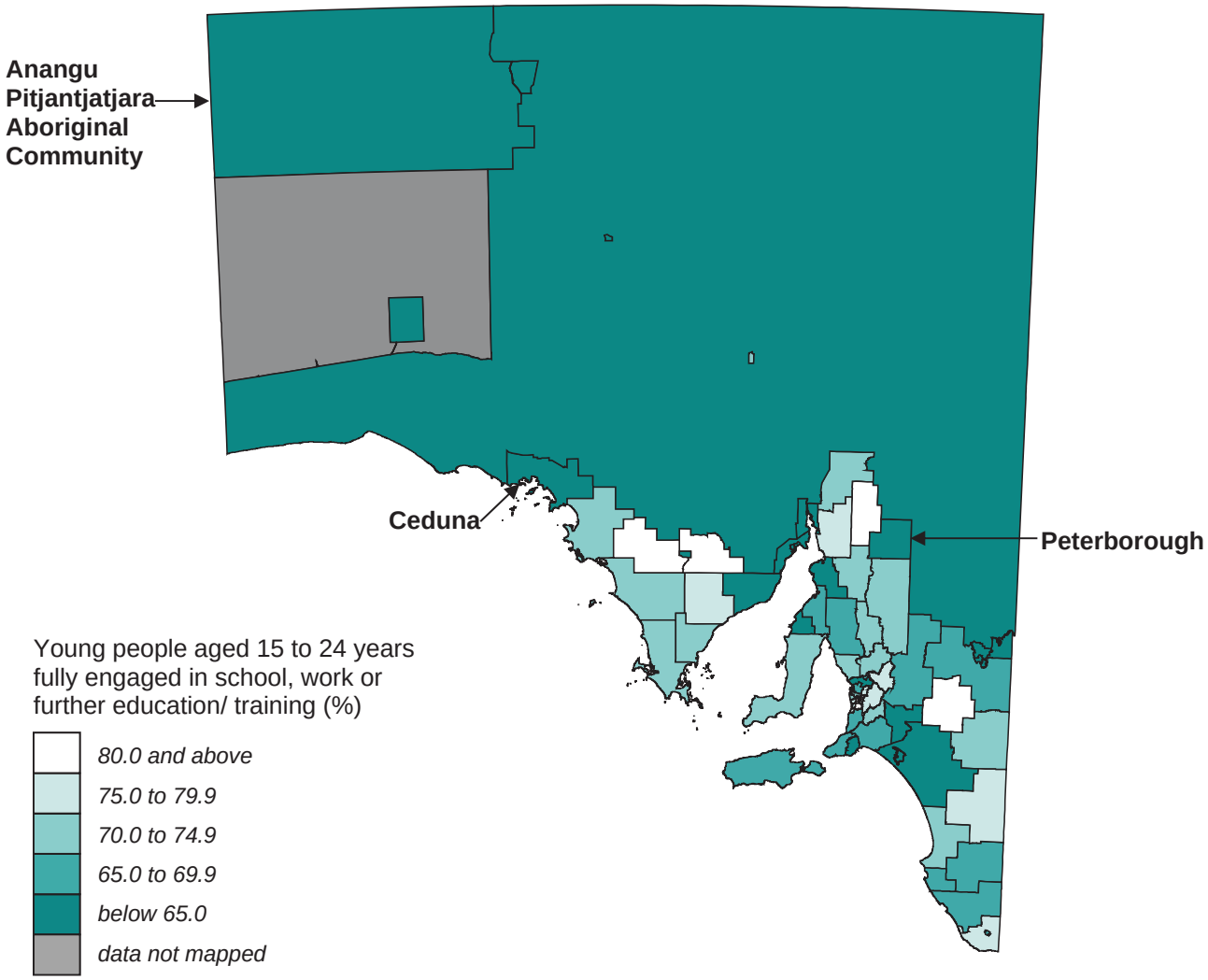


Table 17: Learning or earning, selected LGAs in Regional South Australia, 2011

LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	148	30.3	0.46
Ceduna LGA	247	57.8	0.88
Peterborough LGA	79	57.7	0.88
Regional South Australia	26,831	65.8	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

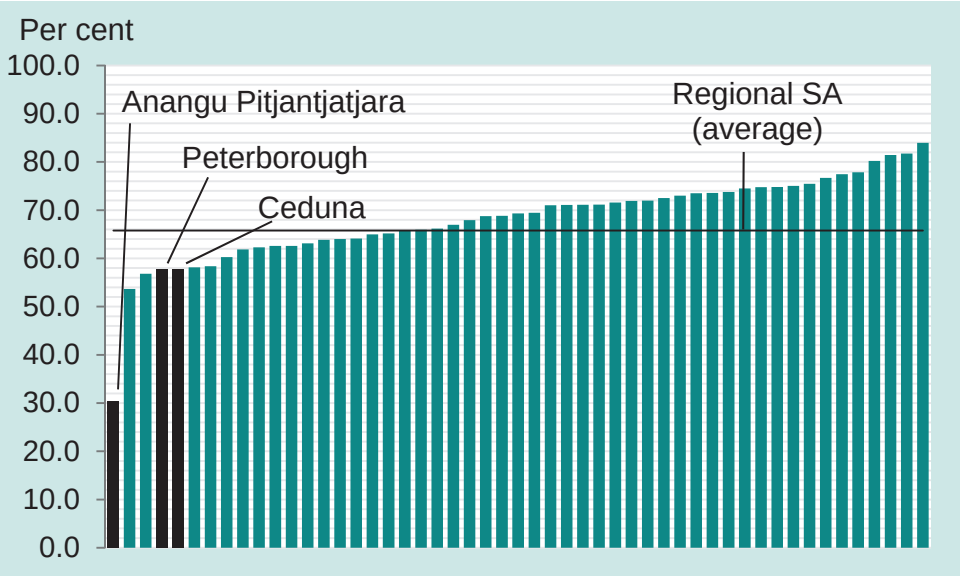
Comparisons across Regional South Australia

The figure below graphically shows the outcome for the Anangu Pitjantjatjara Aboriginal Community under this measure relative to other LGAs, as well as the ranking of Peterborough and Ceduna in fourth and fifth places (Figure 26).

The levels of participation in the LGAs below that of Peterborough were 53.7% in Franklin Harbour, and 56.8% in Port Augusta.

Orroroo/Carrieton, Wudinna, Karoonda East Murray and Kimba all had participation rates above 80%.

Figure 26: Learning or earning, LGAs in Regional South Australia, 2011



Unemployment benefit recipients

The Newstart Allowance is paid to unemployed people over the age of 22 years. Unemployment and underemployment are generally associated with reduced life opportunities and poorer health and wellbeing. Although the relationship is complex and varies for different population groups, there is consistent evidence from research that unemployment is associated with adverse health outcomes; and unemployment has a direct effect on physical and mental wellbeing over and above the effects of socioeconomic status, poverty, risk factors, or prior ill-health.[237-239]

In general, some 80% of those receiving unemployment benefits have been doing so for 6 months or more; for those on these benefits for 12 months or more, the proportion is 60%.

Indicator definition: People in receipt of a Newstart Allowance or Youth Allowance (Other) from the Department of Human Services, as a proportion of the population aged 15 to 64 years.

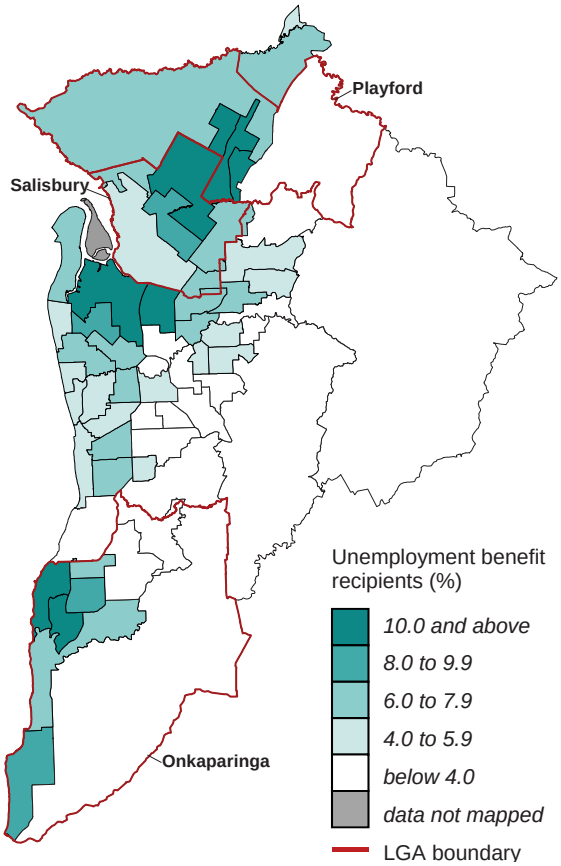
Key points

- The level of unemployment benefits paid to the population in Playford is the highest of any capital city LGA; and in the Anangu Pitjantjatjara Aboriginal Community, the level is among the highest in Regional Australia.
- In Playford, almost one quarter of the population aged 15 to 64 years was receiving an unemployment benefit or a Disability Support Pension - the comparable proportion in the PHA of Elizabeth/ Smithfield - Elizabeth North is 39.1%.
- In Regional South Australia, 40.2% of the population in the Anangu Pitjantjatjara Aboriginal Community, and 35.9% in Peterborough, were receiving an unemployment benefit or a Disability Support Pension.

Geographic variation in Adelaide

The level of unemployment benefits paid to the population in Playford LGA is the highest of any capital city LGA, with 12.9% of the population aged 15 to 64 years receiving these benefits (Table 18). This is twice the level in Adelaide overall, where the proportion is 6.3%. Within Playford, the concentration of people receiving these payments is again in three areas, in which there are relatively poor outcomes for a majority of the other indicators described in this atlas. These areas are Elizabeth/ Smithfield - Elizabeth North (with 20.4% of the population aged 15 to 64 years receiving an unemployment benefit, a rate which is 3.23 times that in Adelaide), Davoren Park (15.47%, 2.47 times), and Elizabeth East (13.0%, 2.06 times) (Map 17). The proportion in Playford - West was lower, at 7.1%, although this was still 13% above the Adelaide average; and that in One Tree Hill was 2.6%, the lowest of the areas in the three LGAs.

Map 17: Unemployment benefit recipients, PHAs in Adelaide, 2011



It is of note that the proportions of the populations in Playford receiving a Disability Support Pension are only slightly lower than the proportions shown here; as a result, almost one quarter (24.3%) of the population aged 15 to 64 years is in receipt of one of these income support payments (the figure in Elizabeth/ Smithfield - Elizabeth North is an astounding 39.1%); in addition, 11.1% of the female population in Playford receives the Parenting Payment (single). The high levels of the population on these income support payments, together with the 86.1% receiving the Age Pension, all add up to a community under stress, with relatively low financial resources. See: Comparison of the pension and benefit recipients, Table 45 in Appendix B, for further details of these pension and benefits at the PHA level.

In Salisbury, with 9.1% of the population receiving an unemployment benefit (44% above the Adelaide average, and ranked fifth across Australia's capital cities), there were substantially high percentages in Salisbury/ Salisbury North (13.0%, 2.06 times the Adelaide average) and in Parafield/ Parafield Gardens/ Paralowie (9.7%, 1.53 times). Markedly high rates were also recorded for the populations aged 15 to 64 years in Para Hills/ Salisbury East (7.8%, 23% above average) and Ingle Farm (7.5%, 18% above). Only Dry Creek - North/ Pooraka, with 5.4%, had a proportion below the Adelaide average (15% below).

There are also areas of concern in Onkaparinga LGA (with an overall proportion of 7.3% of the population aged 15 to 64 years receiving these benefits, 16% above the Adelaide average, and ranked 12th among capital city LGAs), with three PHAs having very high levels of unemployment beneficiaries. These are Christie Downs/ Hackham West - Huntfield Heights (13.1% of the population aged 15 to 64 years receiving an unemployment benefit, a rate which is just over twice that of Adelaide), Morphett Vale - East/ Morphett Vale – West (9.6%, 1.51 times), and Aldinga (9.5%, 1.5 times).

Table 18: Unemployment benefit recipients, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*1,692*	*15.7*	*2.47*
Elizabeth East	*1,056*	*13.0*	*2.06*
One Tree Hill	*45*	*2.6*	*0.42*
Playford - West	*1,448*	*7.1*	*1.13*
Elizabeth/ Smithfield - Elizabeth North	*2,856*	*20.4*	*3.23*
Playford LGA	**7,050**	**12.9**	**2.04**
Dry Creek - North/ Pooraka	*784*	*5.4*	*0.85*
Parafield/ Parafield Gardens/ Paralowie	*2,170*	*9.7*	*1.53*
Salisbury/ Salisbury North	*2,840*	*13.0*	*2.06*
Ingle Farm	*709*	*7.5*	*1.18*
Para Hills/ Salisbury East	*1,639*	*7.8*	*1.23*
Salisbury LGA	**8,243**	**9.1**	**1.44**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*639*	*3.5*	*0.55*
Aldinga	*915*	*9.5*	*1.50*
Christie Downs/ Hackham West - Huntfield Heights	*1,424*	*13.1*	*2.07*
Christies Beach/ Lonsdale	*760*	*12.0*	*1.89*
Clarendon/ McLaren Vale/ Willunga	*285*	*3.8*	*0.60*
Hackham - Onkaparinga Hills/ Seaford	*1,359*	*7.7*	*1.22*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*646*	*3.9*	*0.62*
Morphett Vale - East/ Morphett Vale - West	*1,424*	*9.6*	*1.51*
Reynella	*460*	*7.0*	*1.10*
Onkaparinga LGA	**7,896**	**7.3**	**1.16**
Adelaide	**53,478**	**6.3**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

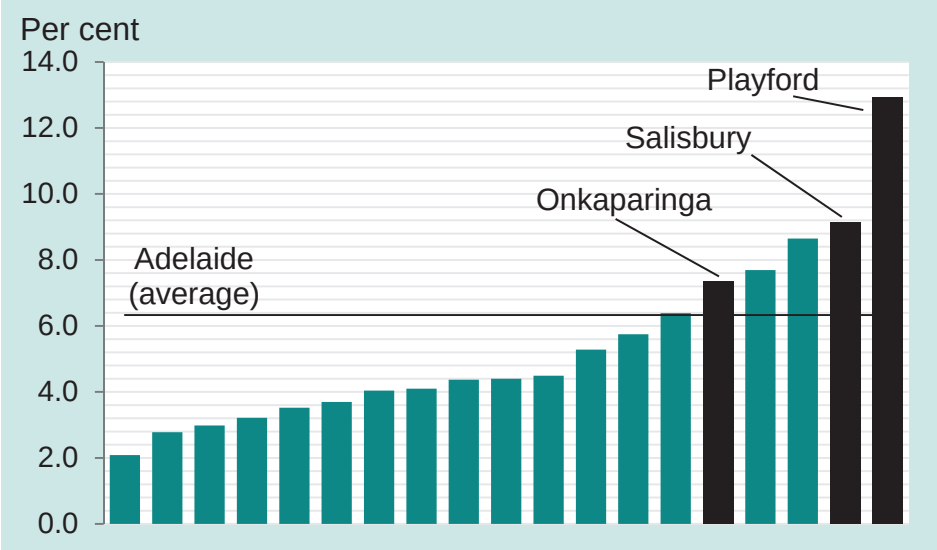
Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The outcomes for people in these areas in terms of getting employment are not good, as a majority of those receiving unemployment benefits have been doing so for six months or longer. For example, of the 12.9% of the population in Playford aged 15 to 64 years on unemployment benefits, over three quarters had been receiving the benefits for six months or more (9.9% of the population aged 15 to 64 years). The figures for Salisbury are 8.6% on unemployment benefits and 7.0% on these benefits for six months or more; for Onkaparinga, they are 6.9%, and 5.6%.

There is a substantial variation between the LGAs with high and those with low rates, as shown in the chart (Figure 27).

Figure 27: Unemployment benefit recipients, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

The proportion of the population aged 15 to 64 years receiving an unemployment benefit in Regional South Australia, at 8.2%, is markedly above the level in Adelaide, at 6.3% (Map 18 and Table 19). Each of the areas in this analysis has substantially more of their populations receiving these benefits than is shown by the Regional average, ranging from 25% more in Ceduna to 73% more in Peterborough. The proportion in the Anangu Pitjantjatjara Aboriginal Community is over three times the average, making it the 14th highest in Regional Australia.

Map 18: Unemployment benefit recipients, Regional South Australia by LGA, 2011

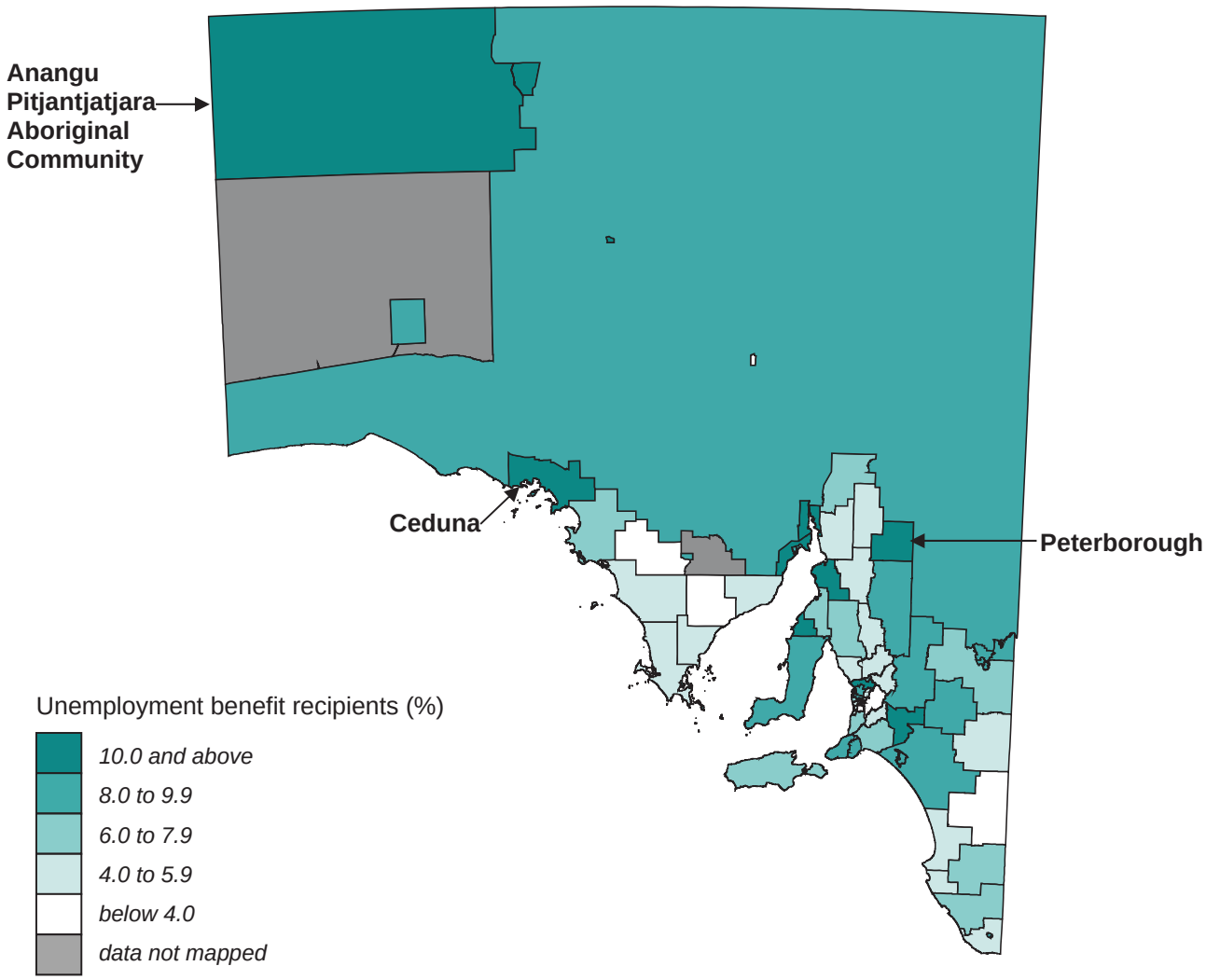


Table 19: Unemployment benefit recipients, selected LGAs in Regional South Australia, 2011

LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	**519**	**27.8**	**3.38**
Ceduna LGA	**245**	**10.3**	**1.25**
Peterborough LGA	**145**	**14.3**	**1.73**
Regional South Australia	**18,967**	**8.2**	**1.00**

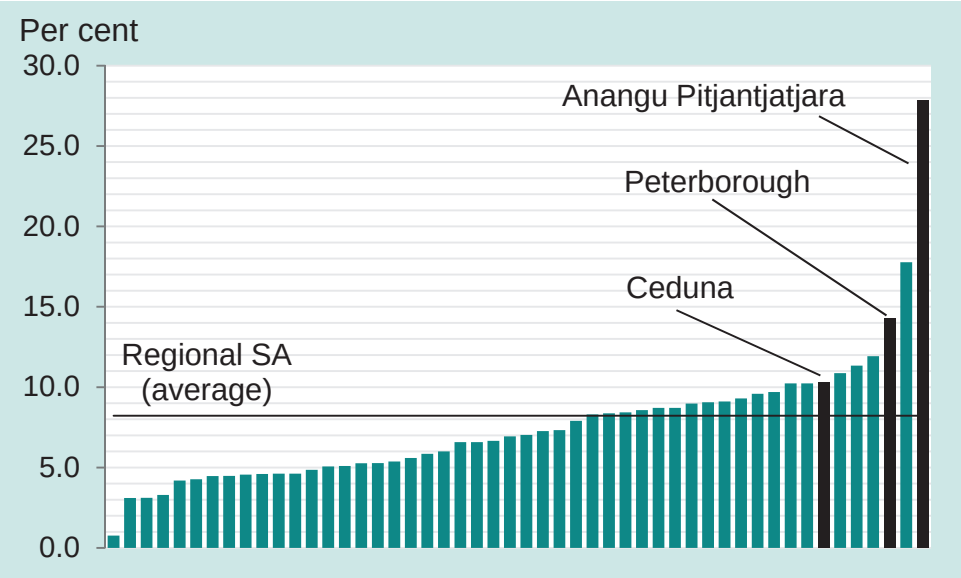
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The chart graphically shows the variation in the proportion of the population receiving unemployment benefits, from less than one per cent (0.8%) in Roxby Downs, to 27.8% in the Anangu Pitjantjatjara Aboriginal Community (Figure 28).

When these data are combined with those for the population receiving a Disability Support Pension, the proportions increase to 40.2% in the Anangu Pitjantjatjara Aboriginal Community, 15.7% in Ceduna and 35.9% in Peterborough, the largest proportion who are receiving a Disability Support Pension.

Figure 28: Unemployment benefit recipients, LGAs in Regional South Australia, 2011



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People living with disability

The likelihood of disability generally increases with age, but can also reflect people's life cycle, their changing environments and the risks they encounter.[247] In young adulthood, the onset of psychiatric disabilities is evident; and, from age 35, disability prevalence rates increase with age, as the risk of injury, including work-related injuries, becomes relatively high. Musculoskeletal and other conditions, such as arthritis and heart disease associated with physical disabilities, emerge in the later working age years. For people at older ages, limitations in functioning are more likely to be associated with diseases and long-term conditions such as cardiovascular diseases, cancers, dementia, arthritis, and hearing and vision impairments.[247]

Indicator definition: People aged 15 to 64 years with a profound or severe disability and living in the community, as a proportion of the population at those ages.

Key points

- Playford, Salisbury and Onkaparinga LGAs had above-average proportions of people with a profound or severe disability and living in the community. All were ranked in the top five metropolitan LGAs; and the proportion in Elizabeth/ Smithfield - Elizabeth North was nearly two and a half times (2.45 times) the Adelaide overall average.
- The overall proportion of people aged 15 to 64 years with a profound or severe disability and living in the community was higher in Regional South Australia (3.7%) than in Adelaide (2.9%). The highest proportion (8.4%) was in Peterborough, which was 2.29 times the regional average.

Geographic variation in Adelaide

Playford, Salisbury and Onkaparinga LGAs all had above-average proportions of their populations with a profound or severe disability and living in the community (Table 20).

In Playford (with 4.9% of its population aged 15 to 64 years in this category, a substantial 71% above the Adelaide average), there were substantially above-average proportions in the PHAs of Elizabeth/ Smithfield - Elizabeth North (7.0%, 2.45 times the average percentage), Davoren Park (5.7%, 1.98 times) and Elizabeth East (5.0%, 1.74 times) (Map 19 and Table 20).

Very high proportions were reported in Salisbury (where the LGA total of 3.7% was 29% above average), in Salisbury/ Salisbury North (4.7%, 64% above average), Ingle Farm (4.2%, 47% above average) and Parafield/ Parafield Gardens/ Paralowie (3.7%, 33% above average).

In Onkaparinga LGA (with 3.3% of its population aged 15 to 64 years in this category, 15% above average), Christie Downs/ Hackham West - Huntfield Heights (6.6%) had the highest proportion, being 2.29 times the Adelaide average.

Map 19: People aged 15 to 64 years with a profound or severe disability and living in the community, PHAs in Adelaide, 2011

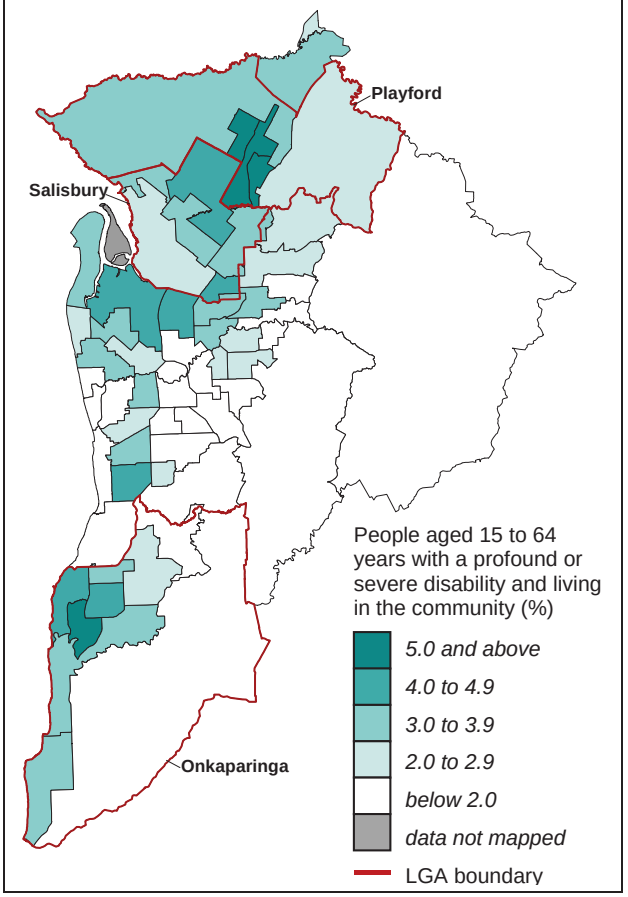


Table 20: People aged 15 to 64 years with a profound or severe disability and living in the community, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*544*	*5.7*	*1.98*
Elizabeth East	*380*	*5.0*	*1.74*
One Tree Hill	*33*	*2.1*	*0.72*
Playford - West	*561*	*3.2*	*1.10*
Elizabeth/ Smithfield - Elizabeth North	*930*	*7.0*	*2.45*
Playford LGA	**2,428**	**4.9**	**1.71**
Dry Creek - North/ Pooraka	*296*	*2.4*	*0.82*
Parafield/ Parafield Gardens/ Paralowie	*802*	*3.8*	*1.33*
Salisbury/ Salisbury North	*946*	*4.7*	*1.64*
Ingle Farm	*387*	*4.2*	*1.47*
Para Hills/ Salisbury East	*646*	*3.2*	*1.11*
Salisbury LGA	**3,095**	**3.7**	**1.29**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*283*	*1.6*	*0.56*
Aldinga	*308*	*3.5*	*1.24*
Christie Downs/ Hackham West - Huntfield Heights	*687*	*6.6*	*2.29*
Christies Beach/ Lonsdale	*241*	*4.1*	*1.42*
Clarendon/ McLaren Vale/ Willunga	*119*	*1.7*	*0.58*
Hackham - Onkaparinga Hills/ Seaford	*485*	*3.1*	*1.08*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*363*	*2.3*	*0.79*
Morphett Vale - East/ Morphett Vale - West	*662*	*4.6*	*1.60*
Reynella	*198*	*3.2*	*1.10*
Onkaparinga LGA	**3,346**	**3.3**	**1.15**
Adelaide	**22,555**	**2.9**	**1.00**

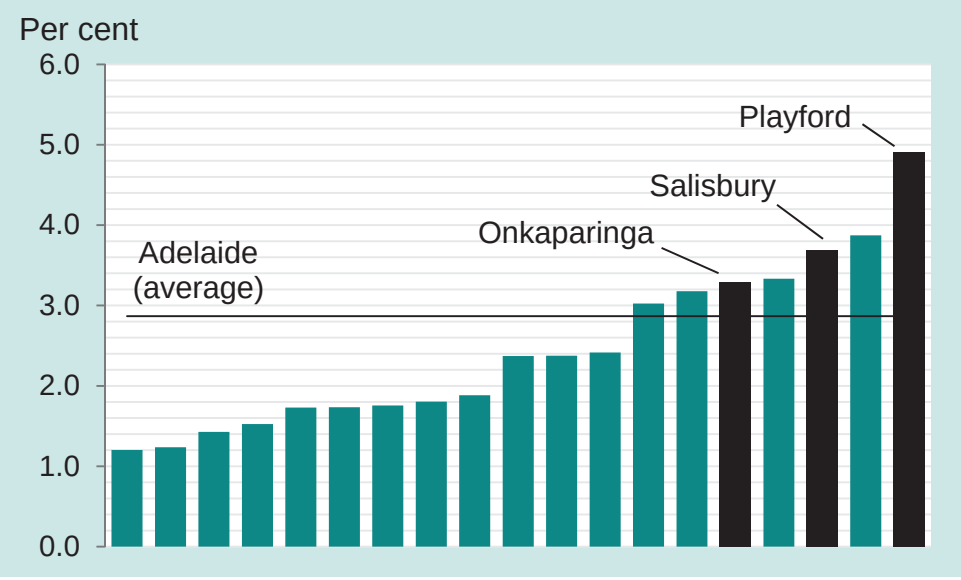
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see Appendix A)

Comparisons across Adelaide

The three LGAs have populations with a profound or severe disability and living in the community that place them in the top five metropolitan LGAs (Figure 29). Port Adelaide Enfield (3.9%) and Gawler (3.3%) fill the second and fourth ranked positions.

Figure 29: People aged 15 to 64 years with a profound or severe disability and living in the community, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

The overall level of people aged 15 to 64 years with a profound or severe disability and living in the community was higher in Regional South Australia (3.7%) than in Adelaide (2.9%) at the 2011 Census.

Proportions in Ceduna and the Anangu Pitjantjatjara Aboriginal Community were below the regional average (by 19% and 7%, respectively) (Map 20 and Table 21). However, Peterborough had a very high proportion of its population living with disability, being 8.4%, or 2.29 times the Regional South Australian average.

Map 20: People aged 15 to 64 years with a profound or severe disability and living in the community, Regional South Australia by LGA, 2011

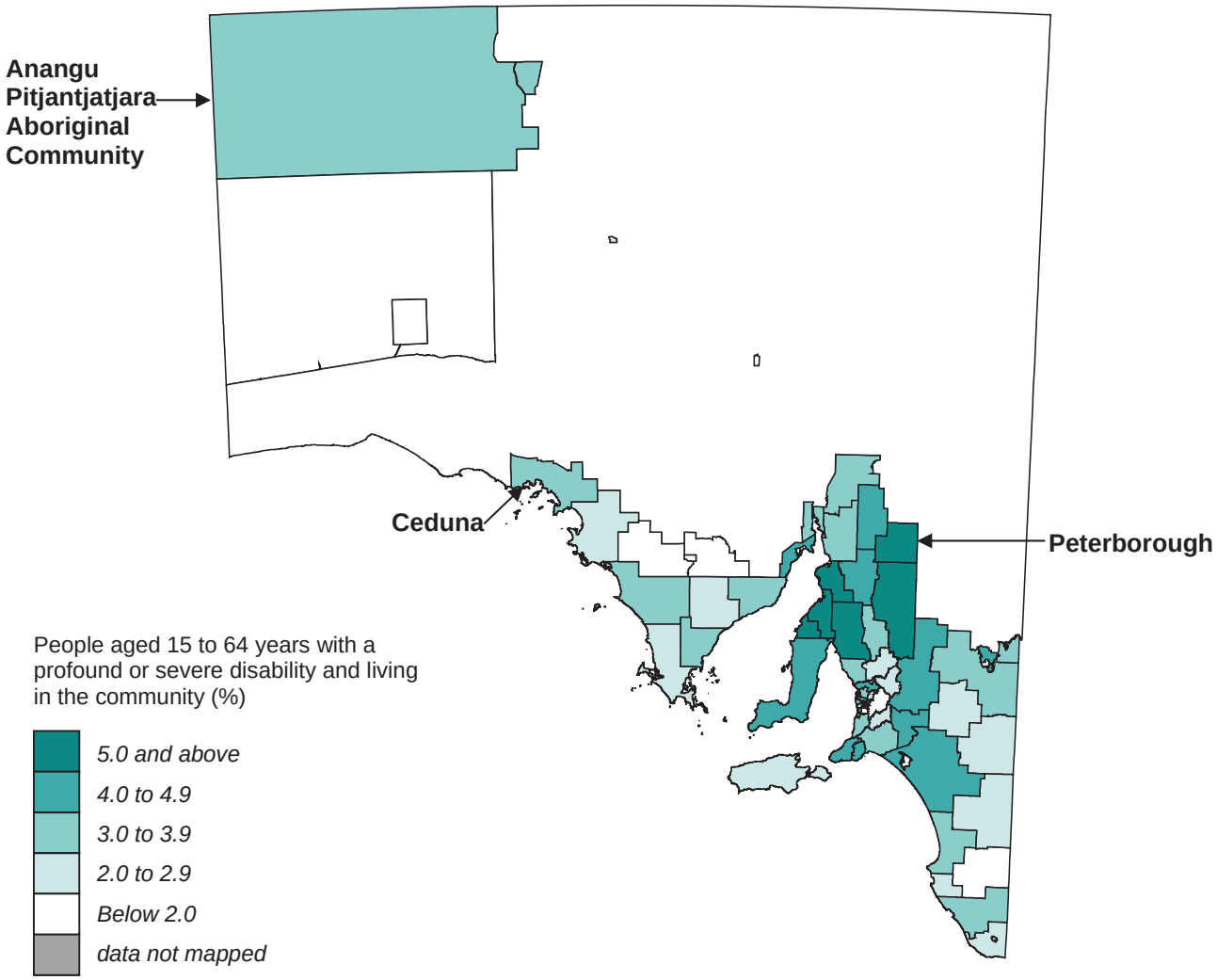


Table 21: People aged 15 to 64 years with a profound or severe disability and living in the community, selected LGAs in Regional South Australia, 2011

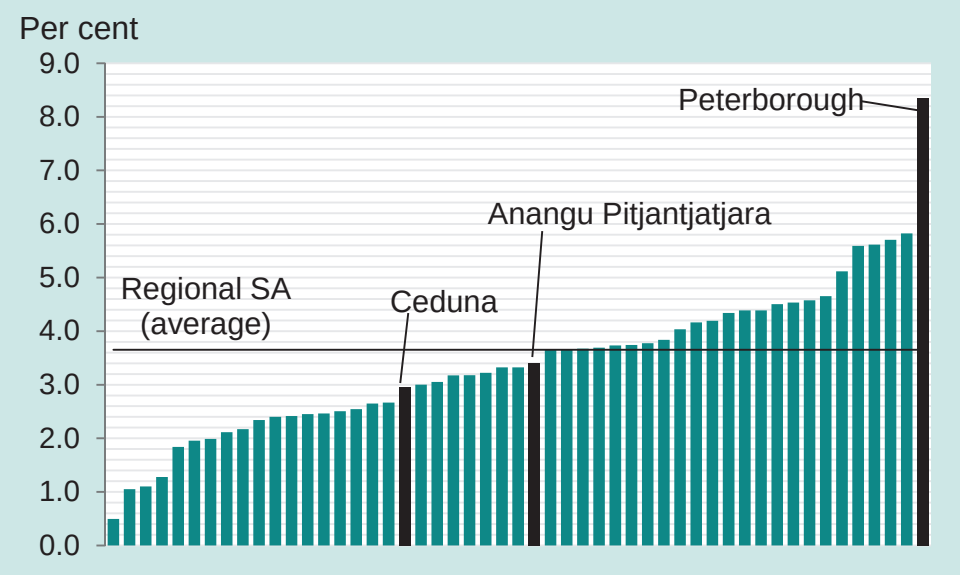
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	54	3.4	0.93
Ceduna LGA	67	3.0	0.81
Peterborough LGA	80	8.4	2.29
Regional South Australia	8,068	3.7	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

This is a relatively unusual distribution, when compared with most other indicators in this atlas, in that the populations in both the Anangu Pitjantjatjara Aboriginal Community and Ceduna LGAs have below-average levels of disability (Figure 30). This may, in part, reflect differences in reporting in the Population Census of such disabilities, related to differing perceptions of disability in Aboriginal and non-Indigenous communities.

Figure 30: People aged 15 to 64 years with a profound or severe disability and living in the community, LGAs in Regional South Australia, 2011



Households without Internet access

A household can be considered to be disadvantaged if it lacks the resources to participate fully in society.[248] Access to the outside world, through a telephone or the Internet provides a means of communicating with friends and family, as well as services, employers and schools, thereby increasing educational, employment and other opportunities, including social interaction.[249]

Socioeconomic characteristics of households continue to influence the rate of computer and Internet connectivity across Australia. Households which do not have children under 15 years, those 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 access to the Internet.[249] These socioeconomic factors also influence the take-up rate of broadband access (as opposed to dial-up access), in addition to the technical issues regarding service availability in certain locations.

Indicator definition: Private dwellings with no Internet connection, as a proportion of all private dwellings.

Key points

- The LGAs of Playford and Salisbury had higher proportions of households (18% and 5% respectively) without Internet access at home than the average for Adelaide overall.
- The highest proportion was recorded for Elizabeth/ Smithfield - Elizabeth North (over one third of dwellings without access (36.6%), and 68% above the Adelaide average).
- Access to the Internet is also affected by location, and the remote areas of the State have the lowest levels: for example, 71% of dwellings in the Anangu Pitjantjatjara Aboriginal Community did not have access to the Internet at home.

Geographic variation in Adelaide

One quarter of dwellings in Playford did not have Internet access at the 2011 Census, 18% more than across Adelaide overall (Table 22). Lack of access at levels substantially above average were found in Elizabeth/ Smithfield - Elizabeth North (over one third of dwellings (36.6%, and 68% above the Adelaide average), Elizabeth East (26.2%, 21% above average) and Davoren Park (26.1%, 20% above average) (Map 21). One Tree Hill (1.8%, 46% below average) and Playford - West (16.8%, 23% below) had below average proportions.

The overall level in Salisbury was five per cent above the Adelaide average, with only Salisbury/ Salisbury North recording a relatively high rate, of 28.6%, or 32% above average; and Dry Creek North/ Pooraka a relatively low rate, of 15.7%, or 28% below average.

In Onkaparinga LGA (with a below-average proportion of 19.0%, 12% below average), households in Christie Downs/ Hackham West - Huntfield Heights and Christies Beach/ Lonsdale had the poorest access, with proportions of 27.3% and 25.2%, respectively.

Map 21: Households without Internet access, PHAs in Adelaide, 2011

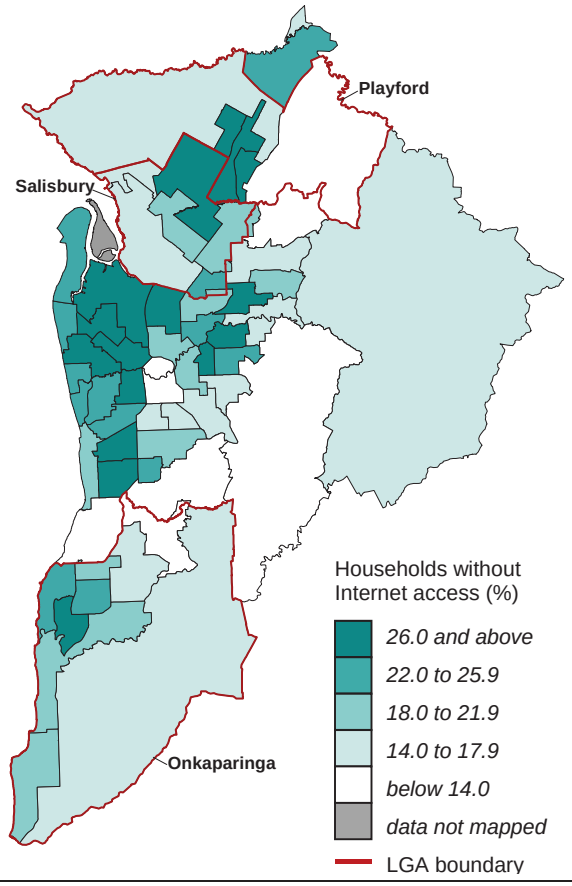


Table 22: Households without Internet access, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*1,412*	*26.1*	*1.20*
Elizabeth East	*1,220*	*26.2*	*1.21*
One Tree Hill	*94*	*11.8*	*0.54*
Playford - West	*1,582*	*16.8*	*0.77*
Elizabeth/ Smithfield - Elizabeth North	*3,320*	*36.6*	*1.68*
Playford LGA	**7,458**	**25.7**	**1.18**
Dry Creek - North/ Pooraka	*1,053*	*15.7*	*0.72*
Parafield/ Parafield Gardens/ Paralowie	*2,305*	*21.4*	*0.99*
Salisbury/ Salisbury North	*3,385*	*28.6*	*1.32*
Ingle Farm	*1,354*	*24.1*	*1.11*
Para Hills/ Salisbury East	*2,463*	*20.9*	*0.96*
Salisbury LGA	**10,836**	**22.9**	**1.05**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*1,029*	*11.0*	*0.51*
Aldinga	*1,072*	*20.2*	*0.93*
Christie Downs/ Hackham West - Huntfield Heights	*1,771*	*27.3*	*1.26*
Christies Beach/ Lonsdale	*1,014*	*25.2*	*1.16*
Clarendon/ McLaren Vale/ Willunga	*702*	*16.5*	*0.76*
Hackham - Onkaparinga Hills/ Seaford	*1,737*	*18.4*	*0.85*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*1,264*	*14.0*	*0.64*
Morphett Vale - East/ Morphett Vale - West	*2,166*	*23.6*	*1.09*
Reynella	*763*	*19.8*	*0.91*
Onkaparinga LGA	**11,505**	**19.0**	**0.88**
Adelaide	**103,229**	**21.7**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

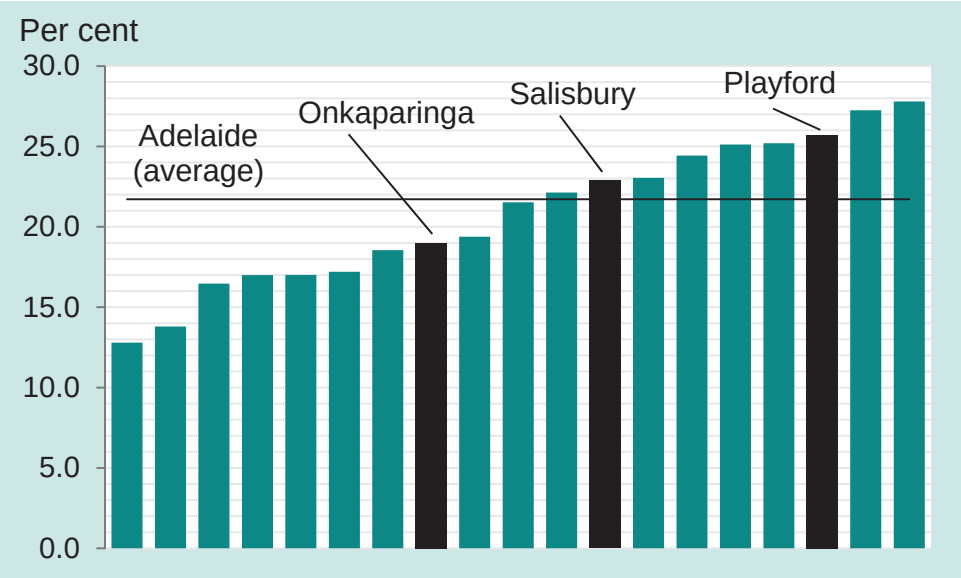
Note: LGA totals will not match the sum of the PHAs (see Appendix A)

Comparisons across Adelaide

There is a fairly even gradient in rates at the LGA level, from just 12.8% of dwellings in Adelaide, to 27.8% in Port Adelaide Enfield and 27.3% in Charles Sturt, without access to the Internet at home (Figure 31).

These data are clearly influenced by the age structure of the population in the LGA, with older populations less likely to have such access. However, it was not possible to obtain data to adjust for such differences in age.

Figure 31: Households without Internet access, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

Access to the Internet is also affected by location, with Regional South Australia having a lower overall level of access (29.3% of dwellings did not have such access), compared with Adelaide (21.7%) (Table 23).

The remote areas of the State have the lowest levels, such as in the Anangu Pitjantjatjara Aboriginal Community, where 71% of dwellings did not have such access in 2011 (Map 22 and Table 23). This rate is nearly two and a half times the average across Regional South Australia.

The low level of access in Peterborough is likely to reflect a mix of factors, including its location, level of disadvantage and older age profile.

One third of dwellings in Ceduna were also without access to the Internet.

Map 22: Households without Internet access, Regional South Australia by LGA, 2011

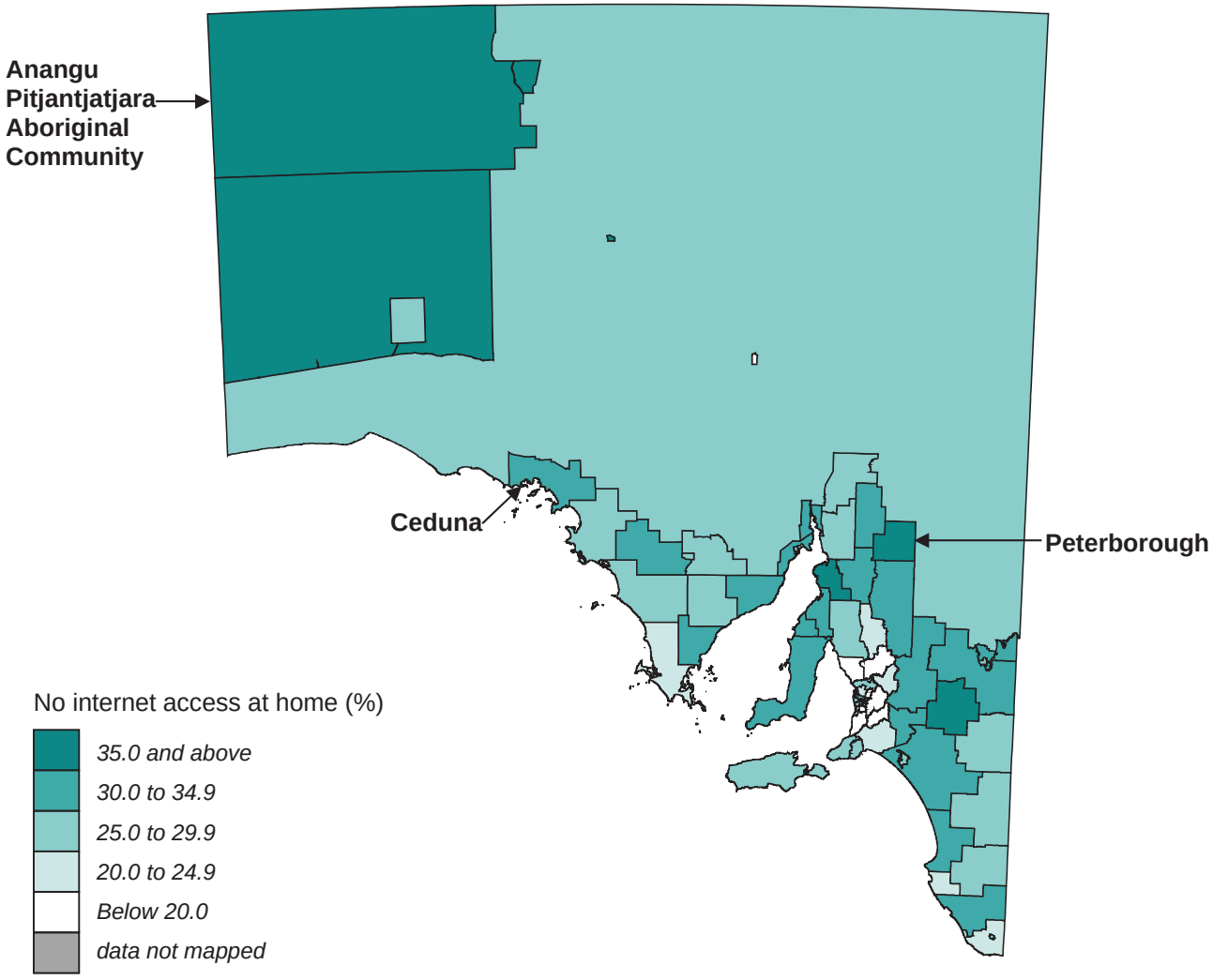


Table 23: Households without Internet access, selected LGAs in Regional South Australia, 2011

LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	374	71.0	2.42
Ceduna LGA	427	33.5	1.14
Peterborough LGA	342	43.8	1.49
Regional South Australia	42,135	29.3	1.00

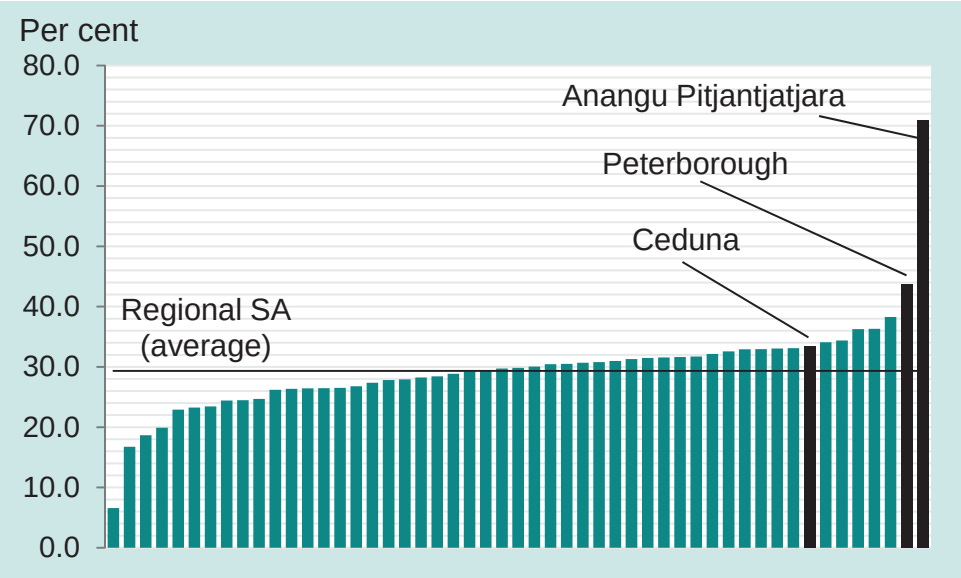
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The figure below graphically shows the lack of access in the Anangu Pitjantjatjara Aboriginal Community under this measure relative to other LGAs, as well as the ranking of Peterborough and Ceduna in second and eighth places (Figure 32).

The level of access in the LGAs below Peterborough was 38.3% in Coober Pedy, 36.3% in both Karoonda East Murray and Port Pirie City and Districts, and around 34% in both Port Augusta and Yorke Peninsula.

Figure 32: Households without Internet access, LGAs in Regional South Australia, 2011



Households without a motor vehicle

In the 2011 Census, there were 665,851 private dwellings (8.6% of all dwellings) which reported having no motor vehicle.[250] While some of these households may live in more affluent, inner city dwellings, the majority are more likely to be disadvantaged households. A household can be considered to be disadvantaged if it lacks the resources to participate fully in society.[251] Ready access to transport provides a means for social and work-related activities. While public transport can adequately provide this for some households, for others this access is achieved through owning a car. People living in households without a car face many disadvantages in gaining access to jobs, services and recreation, especially if they are in low-density outer suburbia, or in rural or remote areas, or in a country town. The ability to afford to run and maintain a vehicle in reliable condition to meet their transport needs, and the costs of registering and insuring a vehicle are other relevant factors.

Indicator definition: Households in occupied private dwellings with no motor vehicle garaged or parked there on Census 2011 night, as a proportion of all households in occupied private dwellings.

Key points

- Of the three LGAs, households in Playford were most likely not to have a motor vehicle, and those in Onkaparinga the least likely, with proportions of 12.1% in Playford (29% above the Adelaide average), and 8.0% in Salisbury and 6.0% in Onkaparinga.
- While the overall level of households without a motor vehicle in Regional South Australia (6.7%) is less than three quarters of that in Adelaide, the levels in these relatively disadvantaged communities are all above the Regional average, by 37% in Ceduna, 81% in Peterborough and over six times in the Anangu Pitjantjatjara Aboriginal Community.

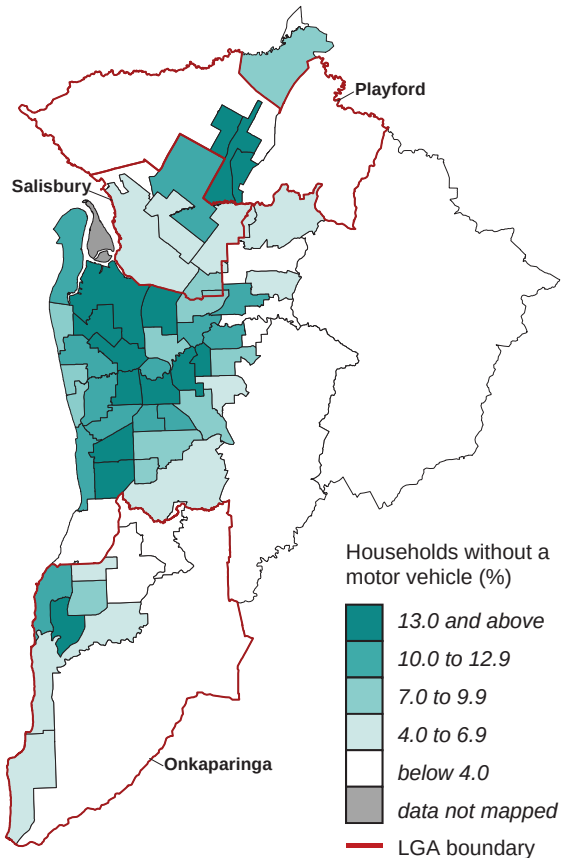
Geographic variation in Adelaide

Households in Playford are most likely not to have a motor vehicle readily available, and those in Onkaparinga the least likely, with proportions of 12.1% in Playford and 6.0% in Onkaparinga (Table 24). The figure in Salisbury is 8.0%. The high level in Playford (29% above Adelaide overall), was striking as the area has lower proportions of people at older ages, where fewer people, on average, have cars. In addition, access from outer suburban areas to other areas for work and for specialist services is not always easy without private transport.

Within Playford, the PHAs of Elizabeth/ Smithfield - Elizabeth North (20.8% without immediate access to a motor vehicle, 2.23 times the Adelaide average), and Elizabeth East and Davoren Park (both 13.3% and over 40% above the average) have substantially higher rates of households without access to a motor vehicle (Map 23).

In Salisbury LGA, only in Salisbury/ Salisbury North, with 12.4% of households without a motor vehicle garaged or parked there on Census night, was the proportion above the Adelaide average.

Map 23: Households without a motor vehicle, PHAs in Adelaide, 2011



A number of PHAs had very low proportions of households without such access.

Table 24: Households without a motor vehicle, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*717*	*13.3*	*1.42*
Elizabeth East	*621*	*13.3*	*1.43*
One Tree Hill	*9*	*1.1*	*0.12*
Playford - West	*365*	*3.9*	*0.41*
Elizabeth/ Smithfield - Elizabeth North	*1,888*	*20.8*	*2.23*
Playford LGA	**3,498**	**12.1**	**1.29**
Dry Creek - North/ Pooraka	*391*	*5.8*	*0.62*
Parafield/ Parafield Gardens/ Paralowie	*637*	*5.9*	*0.63*
Salisbury/ Salisbury North	*1,472*	*12.4*	*1.33*
Ingle Farm	*418*	*7.5*	*0.80*
Para Hills/ Salisbury East	*750*	*6.4*	*0.68*
Salisbury LGA	**3,785**	**8.0**	**0.86**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*210*	*2.2*	*0.24*
Aldinga	*222*	*4.2*	*0.45*
Christie Downs/ Hackham West - Huntfield Heights	*864*	*13.3*	*1.43*
Christies Beach/ Lonsdale	*433*	*10.8*	*1.15*
Clarendon/ McLaren Vale/ Willunga	*120*	*2.8*	*0.30*
Hackham - Onkaparinga Hills/ Seaford	*505*	*5.4*	*0.57*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*293*	*3.2*	*0.35*
Morphett Vale - East/ Morphett Vale - West	*792*	*8.6*	*0.92*
Reynella	*221*	*5.7*	*0.61*
Onkaparinga LGA	**3,654**	**6.0**	**0.65**
Adelaide	**44,377**	**9.3**	**1.00**

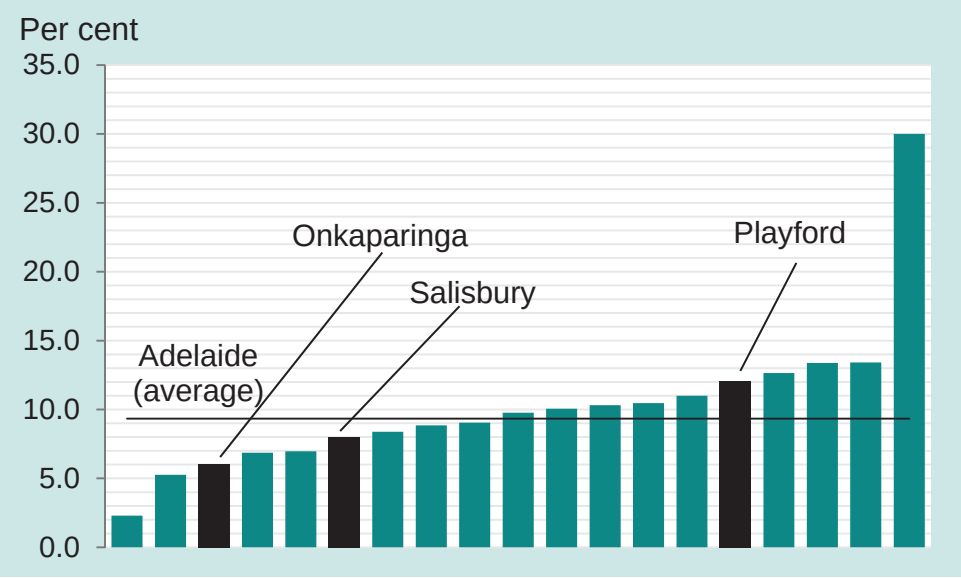
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see Appendix A)

Comparisons across Adelaide

When viewed across all LGAs in Adelaide, the Adelaide LGA has by far the highest proportion of its households without a motor vehicle, at 30.0% (Figure 33). This no doubt reflects the very high proportion of the population who are in the 20 to 29 year age group, and the high proportion resident in Australia for less than five years; that is, they are students, often from overseas. Of the three selected LGAs, only Playford has a proportion above the Adelaide average.

Figure 33: Households without a motor vehicle, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

At 6.7%, the overall level of households without a motor vehicle in Regional South Australia is less than three quarters of that in Adelaide (Map 24 and Table 25). However, the levels in these relatively disadvantaged communities are all above the Regional average, by 37% in Ceduna, 81% in Peterborough and over six times in the Anangu Pitjantjatjara Aboriginal Community.

Given the relatively poor levels of health and wellbeing in these communities, and their remoteness, lack of a motor vehicle to access the many specialist services located only in Adelaide is a major disadvantage.

Map 24: Households without a motor vehicle, Regional South Australia by LGA, 2011

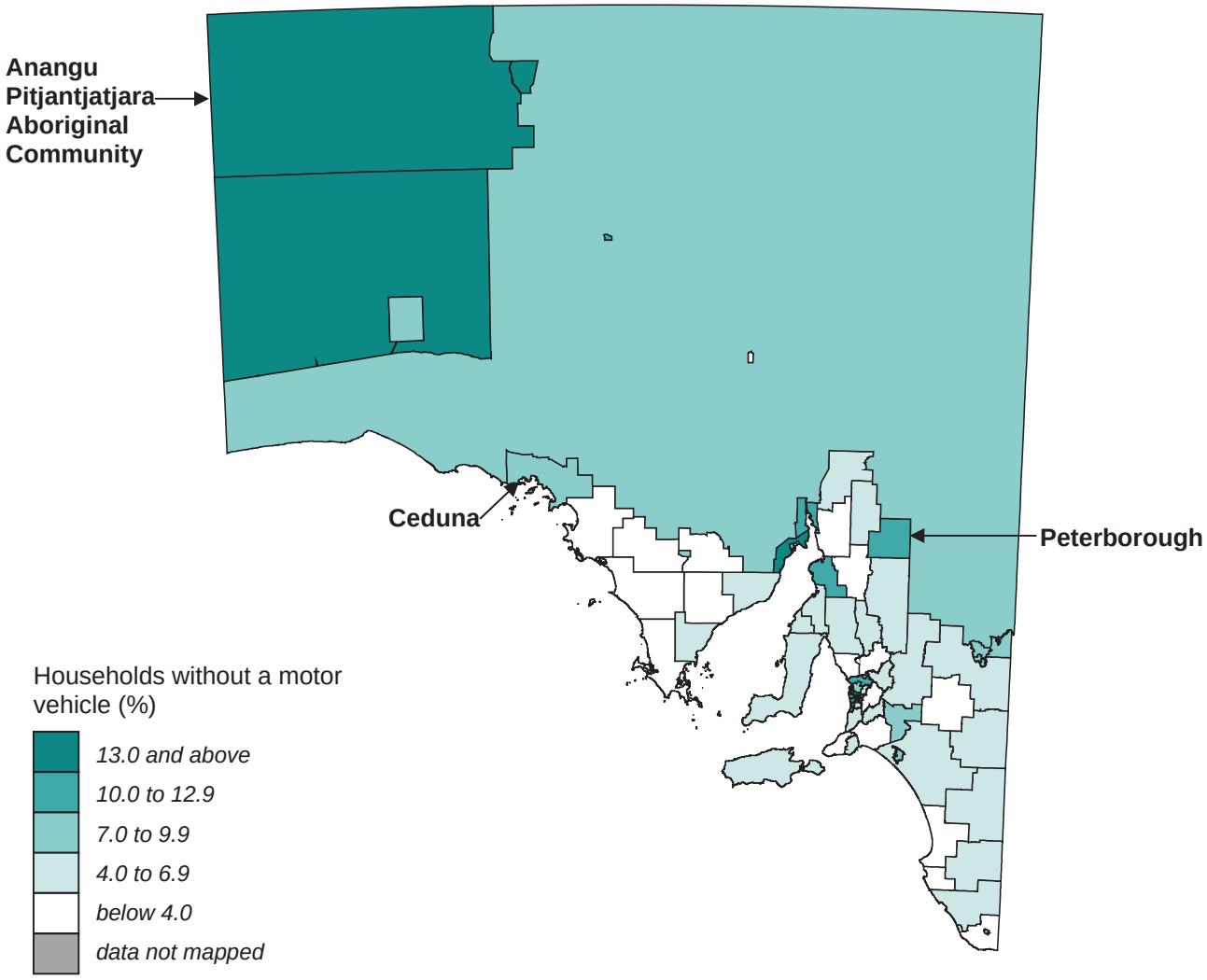


Table 25: Households without a motor vehicle, selected LGAs in Regional South Australia, 2011

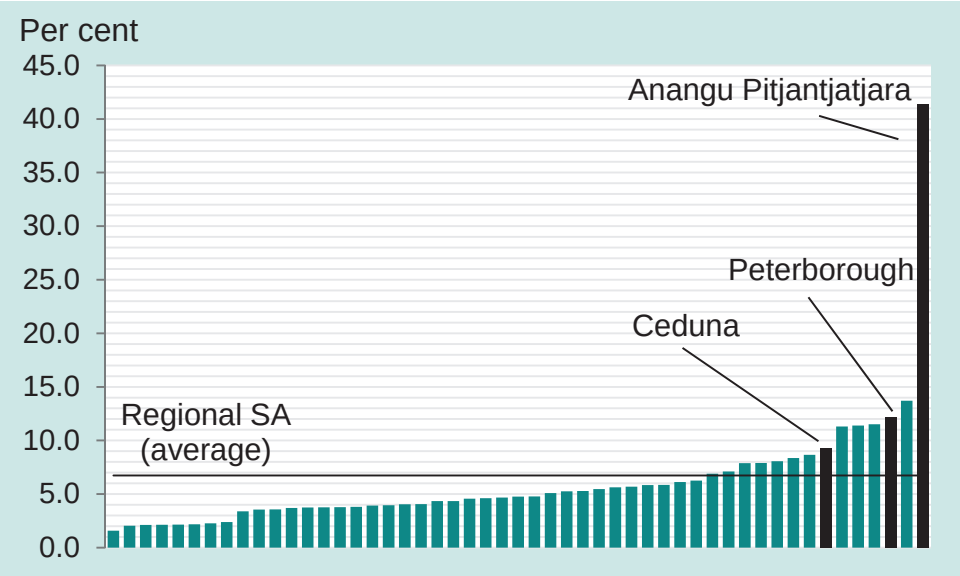
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	219	41.4	6.14
Ceduna LGA	118	9.3	1.37
Peterborough LGA	95	12.2	1.81
Regional South Australia	9,677	6.7	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

Figure 34 highlights the difference in access between the areas under discussion here, as well as other areas in the north of the State, which had poorer access to a motor vehicle at the 2011 Census. After the Anangu Pitjantjatjara Aboriginal Community, the next highest proportions were in Whyalla (13.7%), Peterborough (12.2%), Port Pirie (11.6%), Coober Pedy (11.4%), Port Augusta (11.3%) and Ceduna (9.2%). Some, but by no means all, of these proportions reflect the relatively older populations in the LGAs.

Figure 34: Households without a motor vehicle, LGAs in Regional South Australia, 2011



Low income households under financial stress from rent or mortgage

A family or individual is considered to be in housing stress if they are in a low-income bracket and pay more than 30% of their income on rent or mortgage repayments. High numbers of families experience housing stress, and are at increasing risk of homelessness. Housing stress is on the rise because of low investment in public housing; demographic shifts and increases in the number of households, including through family breakdown; and a tendency for affluent people to want to live close to the city centre.[252] As it is almost impossible for all but the most disadvantaged families to access public housing, renting privately has become the only housing option for low-income households. For many low-income households that rent, shortages of affordable rental housing, rising rents, and tight vacancy rates are factors that exacerbate their position and move them closer to the poverty line.[253]

Indicator definition: Low income households spending more than 30% of income on rent or mortgage repayments, as a proportion of all low income households: see Appendix A for details.

Note: These data exclude households living in houses rented from Housing SA, for whom rent is capped at 25% of income (20% in remote areas).

Key points

- The LGAs of Playford, Salisbury and Onkaparinga were all ranked in the top five across Adelaide, with higher than average levels of low income households in financial stress from rent or mortgage. The highest levels were recorded for the PHAs of Davoren Park (39% above the Adelaide average) and Aldinga (38% above).
- None of the regional LGAs had levels above the regional average; but this likely reflects the relatively high proportion of dwellings rented from Housing SA in these LGAs.

Geographic variation in Adelaide

Almost one third of low income households in Adelaide were estimated to be under financial stress from rental or mortgage payments in 2011, with a higher proportion, of 37.7%, in Playford LGA (Table 26).

Within Playford, the highest level of financial from rent or mortgage payments was found in Davoren Park (43.6%, 39% above the Adelaide average), with other relatively high levels in Elizabeth/ Smithfield - Elizabeth North (37.4%, 19% above average) and Playford West (36.8%, 17% above) (Map 25).

One third of the low income households in Salisbury were similarly under housing stress, with higher proportions in Dry Creek North/ Pooraka (37.5%), Salisbury/ Salisbury North (37.1%) and Parafield/ Parafield Gardens/ Paralowie (35.5%). Of these three LGAs, the lowest level of financial stress from rent or mortgage payments, was in Onkaparinga (32.4% of low income households). Only Aldinga and Christies Beach/ Lonsdale had relatively large numbers of low income households under such stress, with 43.2% and 36.6%, respectively.

Map 25: Low income households under financial stress from rent or mortgage, PHAs in Adelaide, 2011

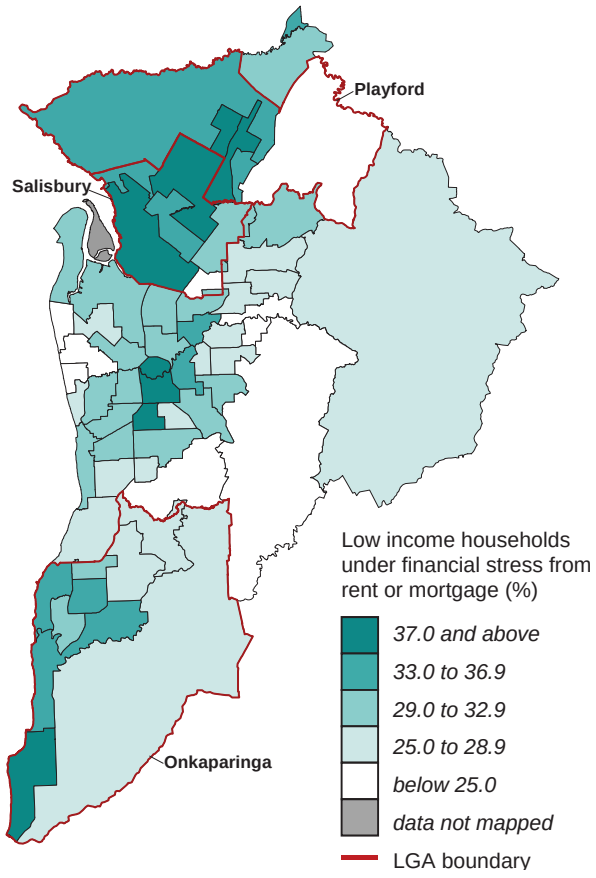


Table 26: Low income households under financial stress from rent or mortgage, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*1,108*	*43.6*	*1.39*
Elizabeth East	*732*	*35.2*	*1.12*
One Tree Hill	*27*	*16.4*	*0.52*
Playford - West	*1,107*	*36.8*	*1.17*
Elizabeth/ Smithfield - Elizabeth North	*1,946*	*37.4*	*1.19*
Playford LGA	**4,818**	**37.7**	**1.20**
Dry Creek - North/ Pooraka	*687*	*37.5*	*1.19*
Parafield/ Parafield Gardens/ Paralowie	*1,456*	*35.5*	*1.13*
Salisbury/ Salisbury North	*1,987*	*37.1*	*1.18*
Ingle Farm	*527*	*24.4*	*0.78*
Para Hills/ Salisbury East	*1,201*	*29.4*	*0.94*
Salisbury LGA	**6,032**	**33.6**	**1.07**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*608*	*28.8*	*0.92*
Aldinga	*898*	*43.2*	*1.38*
Christie Downs/ Hackham West - Huntfield Heights	*1,041*	*32.6*	*1.04*
Christies Beach/ Lonsdale	*647*	*36.6*	*1.16*
Clarendon/ McLaren Vale/ Willunga	*328*	*25.6*	*0.81*
Hackham - Onkaparinga Hills/ Seaford	*1,115*	*33.2*	*1.06*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*643*	*25.7*	*0.82*
Morphett Vale - East/ Morphett Vale - West	*1,273*	*33.3*	*1.06*
Reynella	*395*	*29.0*	*0.92*
Onkaparinga LGA	**6,931**	**32.4**	**1.03**
Adelaide	**51,088**	**31.4**	**1.00**

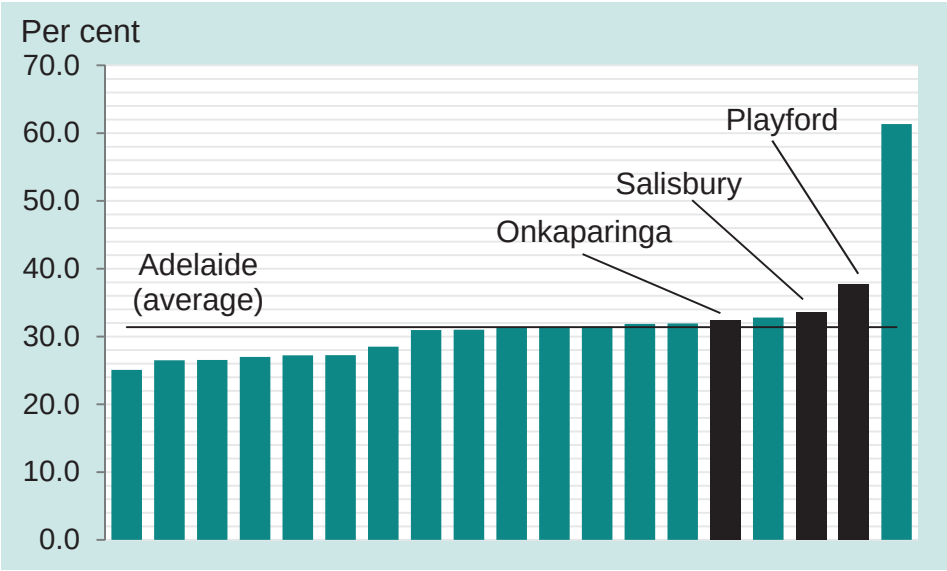
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Although the three LGAs under discussion here had among the highest proportions of low income households under financial stress from rent or mortgage, the proportion in Adelaide LGA was much higher, at 61.3%. The lowest proportion was in Adelaide Hills, at 25.1% (Figure 35).

Figure 35: Low income households under financial stress from rent or mortgage, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

When using these data, note that, as stated above, they exclude households in dwellings rented from Housing SA, where rent is capped at 20% in remote areas.

None of the LGAs had proportions of low income households under financial stress from rent or mortgage above the regional average (Map 26 and Table 27). This outcome may reflect the relatively high proportion of dwellings rented from Housing SA in the Anangu Pitjantjatjara Aboriginal Community and Ceduna.

For example, in the Anangu Pitjantjatjara Aboriginal Community, 179 dwellings (34.0% of all dwellings) were rented from Housing SA; the comparable figure in Ceduna was 139 dwellings (10.9%), and in Peterborough, it was 26 dwellings (3.3%).

Note also that the number '3' shown in the table for the Anangu Pitjantjatjara Aboriginal Community is a data item randomly generated by the ABS.

Map 26: Low income households under financial stress from rent or mortgage, Regional South Australia by LGA, 2011

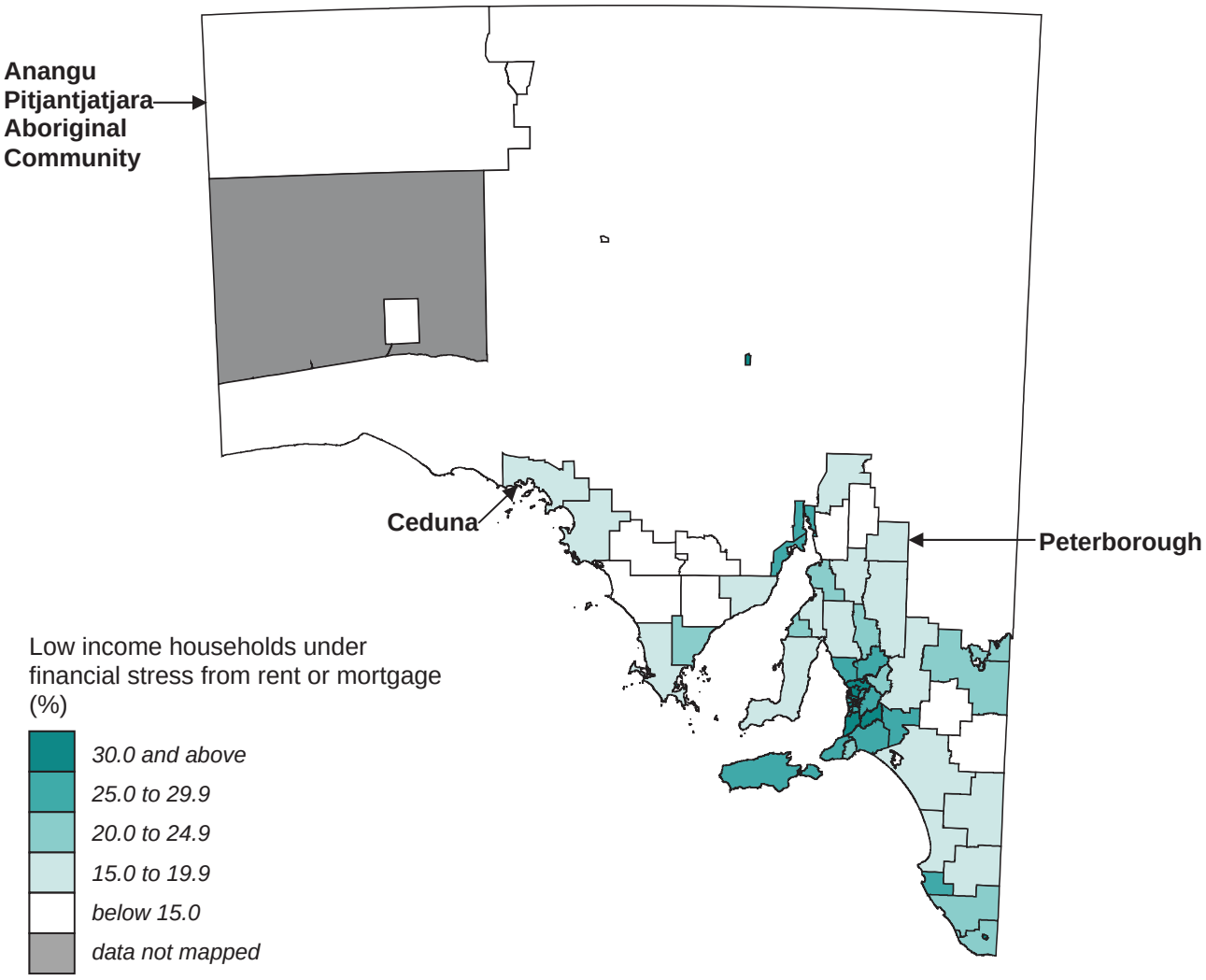


Table 27: Low income households under financial stress from rent or mortgage, selected LGAs in Regional South Australia, 2011

LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	3	0.9	0.04
Ceduna LGA	83	19.5	0.85
Peterborough LGA	81	16.8	0.73
Regional South Australia	14,127	23.1	1.00

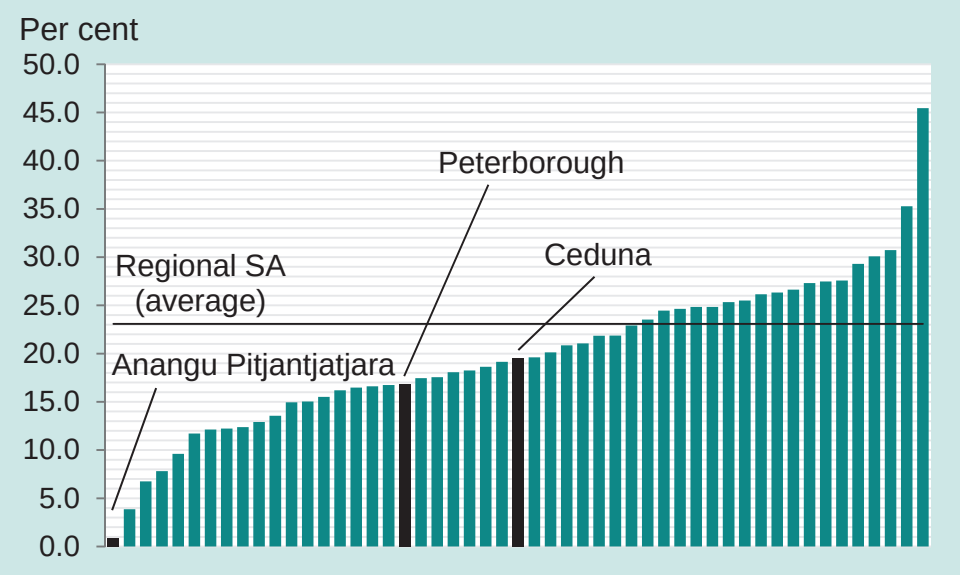
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

There is a substantial variation in the proportions of low income households under financial stress from rent or mortgage across Regional South Australia: from 0.9% in the Anangu Pitjantjatjara Aboriginal Community, to 45.5% in Roxby Downs, and 35.3% in Mount Barker (Figure 36).

Port Lincoln, Mount Gambier and Whyalla all had proportions of around 30% of their low income households under financial stress from rent or mortgage repayments.

Figure 36: Low income households under financial stress from rent/mortgage, LGAs in Regional South Australia, 2011



Positive assessment of the local environment

Information was collected from South Australians who were asked in a telephone survey about their perceptions of, and involvement in, their local community. Respondents were asked to rate their local environment in terms of planning, open spaces and lack of pollution.

Indicator definition: People who rated their local environment as good, very good or excellent, in terms of planning, open space and lack of pollution, as a proportion of the population aged 18 years and over.

Note: These data were not available for the Population Health Areas used elsewhere in this atlas: consequently, the areas are groupings of Statistical Local Areas (SLAs) or of Local Government Areas (LGAs).

Key points

- The LGAs of Playford, Salisbury and Onkaparinga were all ranked below the average for Adelaide by their residents, in terms of planning, open space and lack of pollution. The highest levels were recorded for the PHAs of Playford East Central and Elizabeth & Hills region, with 87.5% giving a positive rating.
- Data for Regional South Australia were not available at LGA level for this indicator. The proportion of the population in the Eyre Peninsula Region, in which Ceduna sits, who rated their local environment positively, was notably lower than the Regional South Australian average, at 81.9%.

Geographic variation in Adelaide

There was little difference in the proportion of the populations in the Playford, Salisbury and Onkaparinga LGAs who rated their local environment positively in terms of planning, open space and lack of pollution (Table 28). However, the lowest ratings were 6% and 5% below the average for Adelaide (89.1%), with 83.4% in Salisbury and 84.3% in Playford, respectively.

Within these three LGAs, both the highest and lowest proportions were in Playford: the Playford East Central, Elizabeth & Hills region had the highest proportion, with 87.5% giving a positive rating, 2.5% below the Adelaide average. Playford West & West Central region had the lowest proportion at 81.2%, or 9% below average (Map 27).

The Onkaparinga region, which was comprised entirely of the Onkaparinga LGA, had a proportion of 87.0%, just 2% below the Adelaide average.

The two regions within the Salisbury LGA, Salisbury Central & Inner North, and Salisbury North East, South East & Balance, had proportions consistent with the South Australian average, with 82.7% and 84.0% respectively.

Map 27: Positively rate the local environment in terms of planning, open space and lack of pollution, community regions in Adelaide, 2013

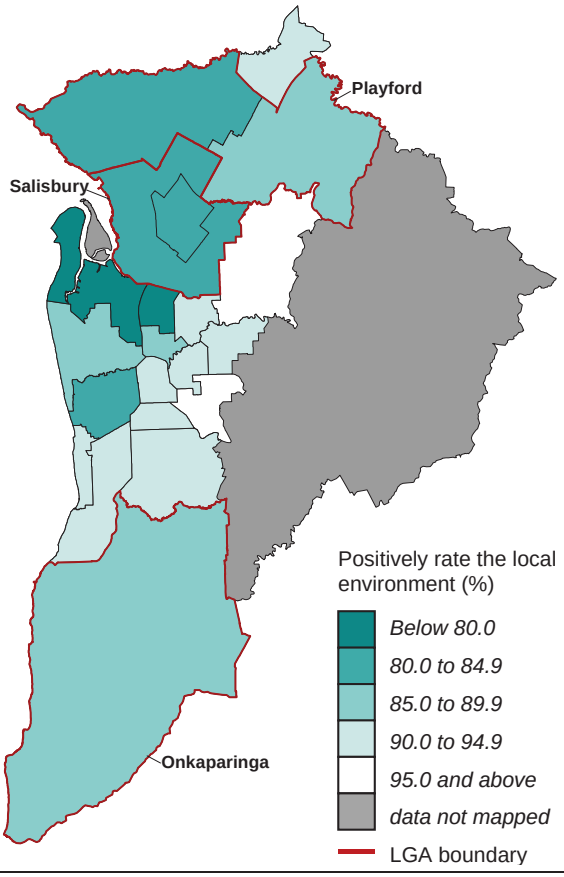


Table 28: People who positively rate the local environment in terms of planning, open space and lack of pollution, selected community regions and LGAs in Adelaide, 2013

Region and LGA	No.	%	RR*
Playford West & West Central	..	*81.2*	*0.91*
Playford East Central, Elizabeth & Hills	..	*87.5*	*0.98*
Playford LGA	**..**	**84.3**	**0.95**
Salisbury Central & Inner North	..	*82.7*	*0.93*
Salisbury North East, South East & Balance	..	*84.0*	*0.94*
Salisbury LGA	**..**	**83.4**	**0.94**
Onkaparinga	..	*87.0*	*0.98*
Onkaparinga LGA	**..**	**87.0**	**0.98**
Adelaide	**..**	**89.1**	**1.00**

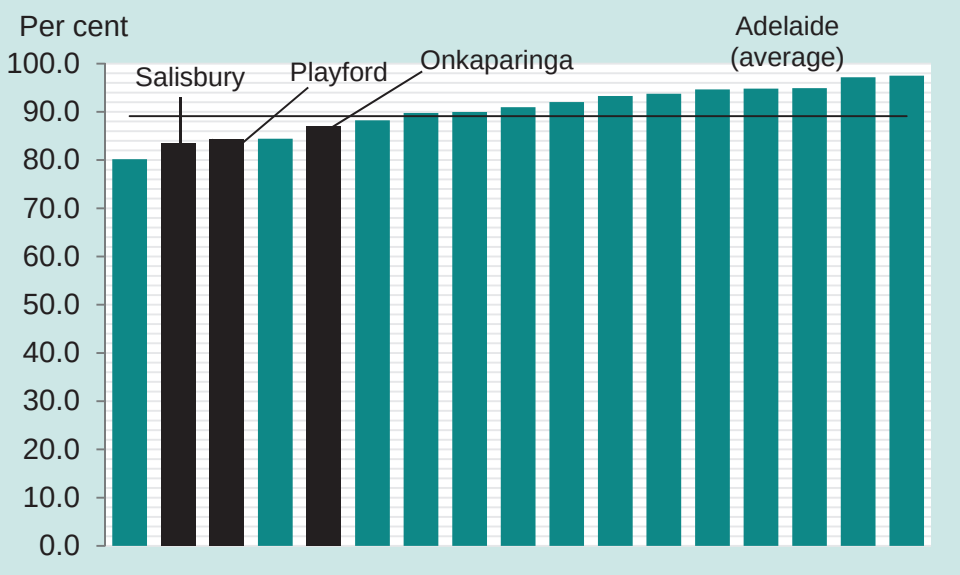
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Comparisons across Adelaide

Across the LGAs in Adelaide, the proportion of the population who positively rated their local environment ranged from 80.2% in Port Adelaide Enfield, to 97.5% in Burnside (Figure 37).

As noted above, Salisbury LGA had the second lowest proportion in Adelaide, with 83.4%; the proportion in Playford LGA was the third lowest, at 84.3%; and in Onkaparinga LGA, the proportion was 97.0%.

Figure 37: People who positively rate the local environment in terms of planning, open space and lack of pollution, LGAs in Adelaide, 2013



Geographic variation in Regional South Australia

The Anangu Pitjantjatjara Aboriginal Community and Peterborough both sit within the Central Region; the proportion of the population in this Region who rated their local environment positively terms of planning, open space and lack of pollution was 90.7%, consistent with the South Australian average (Map 28 and Table 29).

The proportion of the population in the Eyre Peninsula Region, in which Ceduna sits, who rated their local environment positively, was notably lower than the Regional South Australian average, at 81.9%.

Map 28: People who positively rate the local environment in terms of planning, open space and lack of pollution, community regions in Regional South Australia, 2013

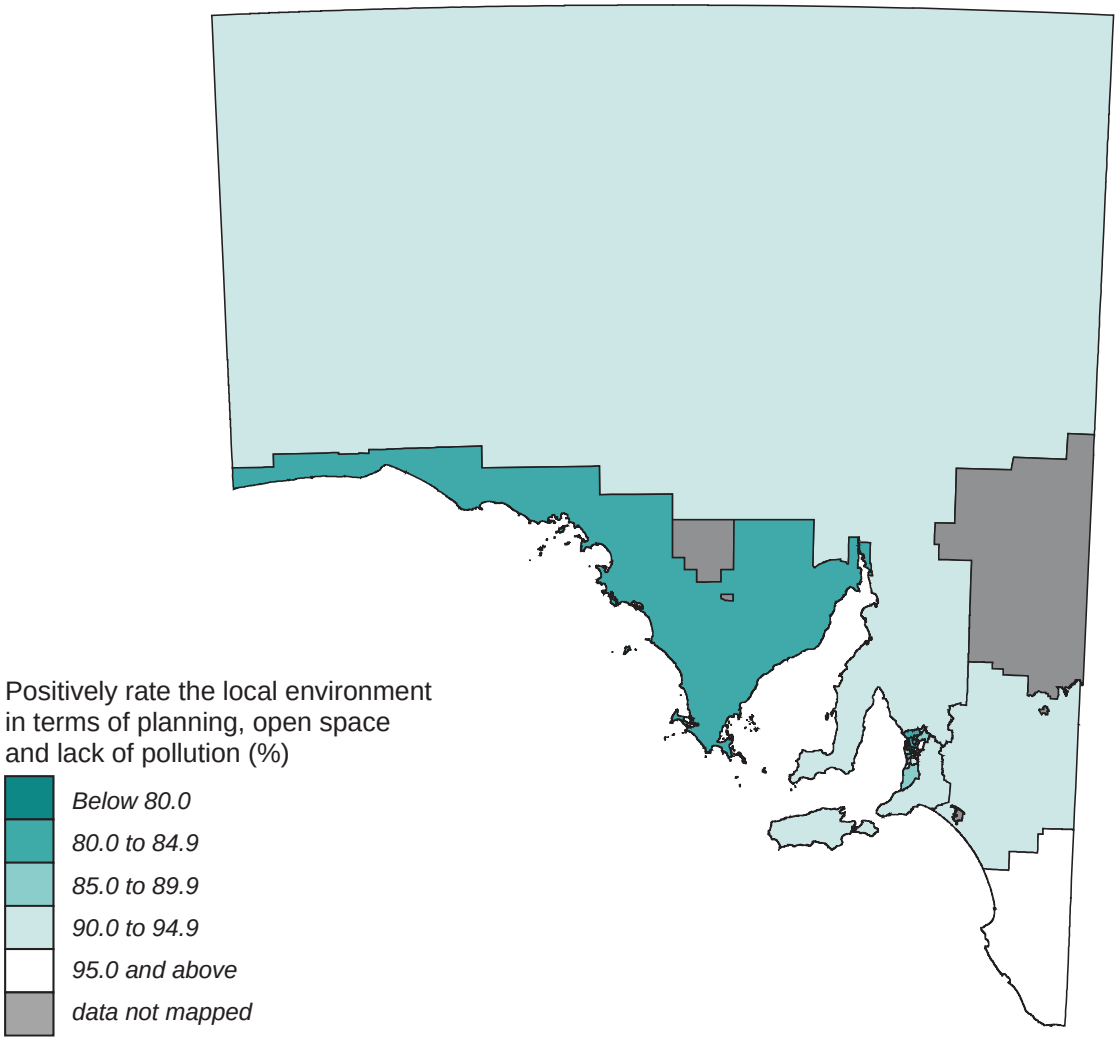


Table 29: People who positively rate the local environment in terms of planning, open space and lack of pollution, selected community regions in Regional South Australia, 2013

Region and LGA	No.	%	RR*
Central^	..	90.7	0.99
Eyre Peninsula^^	..	81.9	0.90
Regional South Australia	..	91.4	1.00

^ Includes the Anangu Pitjantjatjara Aboriginal Community and Peterborough LGAs,
^^ Includes Ceduna LGA
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

Data for Regional South Australia were not available at LGA level for this indicator.

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Voluntary work

Volunteering can improve the health and wellbeing of individual volunteers by enhancing support networks, self-esteem and quality of life. It has been estimated that volunteering directly contributes $42 billion each year to the Australian economy, and also has substantial social benefits.[254]

In the year before the 2011 Census, 17.8% of people reported undertaking voluntary work through an organisation or a group.[255] These data are useful for the planning of local facilities and services, and in understanding the way individuals and families balance paid work with other aspects of their lives, such as community commitments.

Indicator definition: Persons aged 15 years and over who participated in voluntary work for an organisation or group, as a proportion of the population aged 15 years and over.

Key points

- Markedly fewer people in the Playford and Salisbury LGAs were involved in voluntary work than across Adelaide overall, while the level in Onkaparinga was consistent with Adelaide.
- Clarendon/ McLaren Vale/ Willunga (26.1%), Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill (22.1%), and One Tree Hill (21.6%) had high participation rates, above the Adelaide average.
- The overall level of participation in Regional South Australia, of 26.8%, is over 50% higher than the rate in Adelaide, of 17.7%.

Geographic variation in Adelaide

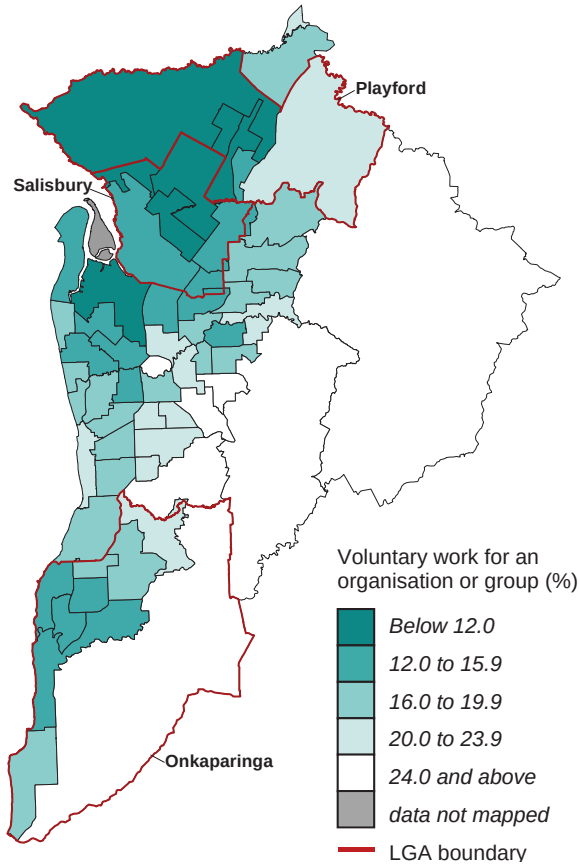
Markedly fewer people in Playford and Salisbury were involved in voluntary work than across Adelaide overall; the level in Onkaparinga was consistent with the Adelaide average (Table 30).

In Playford, 11.7% of the population aged 15 years and over reported in the 2011 Census that they participated in voluntary work; this was some two thirds of the level in Adelaide overall. Participation rates at the PHA level were even lower in Davoren Park (9.7%, 45% below the Adelaide average), Elizabeth/ Smithfield - Elizabeth North (11.4%, 36% below), Playford - West (11.6%, 35% below) and Elizabeth East (12.7%, 29% below) (Map 29). One Tree Hill had a participation rate of 21.6%, or 22% above average.

The participation rate in Salisbury (11.9%) was also two thirds that in Adelaide, with no PHA having a participation rate above average. Rates in Parafield/ Parafield Gardens/ Paralowie (10.2%), and Salisbury/ Salisbury North (10.3%) were the lowest, at 42% below average.

In Dry Creek - North/ Pooraka the rate was 12.4%, or 30% below the Adelaide average, with rates of 13.7% in Para Hills/ Salisbury East (22% below average) and 14.2% in Ingle Farm (20% below average). In Onkaparinga LGA, with 17.8% of the population aged 15 years and over participating in voluntary work, participation at the PHA level ranged from 26.1% (47% above the Adelaide average) in Clarendon/

Map 29: Voluntary work for an organisation or group, PHAs in Adelaide, 2011



McLaren Vale/ Willunga and 22.1% in Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill (25% above average), to 13.4% in Christie Downs/ Hackham West - Huntfield Heights (24% below average).

Table 30: Voluntary work, selected PHAs and LGAs in Adelaide, 2011

PHA and LGA	No.	%	RR*
Davoren Park	*1,096*	*9.7*	*0.55*
Elizabeth East	*1,228*	*12.7*	*0.71*
One Tree Hill	*425*	*21.6*	*1.22*
Playford - West	*2,452*	*11.6*	*0.65*
Elizabeth/ Smithfield - Elizabeth North	*1,971*	*11.4*	*0.64*
Playford LGA	**7,108**	**11.7**	**0.66**
Dry Creek - North/ Pooraka	*1,830*	*12.4*	*0.70*
Parafield/ Parafield Gardens/ Paralowie	*2,514*	*10.2*	*0.58*
Salisbury/ Salisbury North	*2,604*	*10.3*	*0.58*
Ingle Farm	*1,714*	*14.2*	*0.80*
Para Hills/ Salisbury East	*3,525*	*13.7*	*0.78*
Salisbury LGA	**12,317**	**11.9**	**0.67**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*4,719*	*22.1*	*1.25*
Aldinga	*1,853*	*17.1*	*0.97*
Christie Downs/ Hackham West - Huntfield Heights	*1,744*	*13.4*	*0.76*
Christies Beach/ Lonsdale	*1,277*	*15.6*	*0.88*
Clarendon/ McLaren Vale/ Willunga	*2,465*	*26.1*	*1.47*
Hackham - Onkaparinga Hills/ Seaford	*3,169*	*15.7*	*0.89*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*3,701*	*18.7*	*1.05*
Morphett Vale - East/ Morphett Vale - West	*2,837*	*15.3*	*0.86*
Reynella	*1,323*	*16.5*	*0.93*
Onkaparinga LGA	**22,811**	**17.8**	**1.00**
Adelaide	**178,583**	**17.7**	**1.00**

*RR is the ratio of the percentage in the area to the percentage for Adelaide

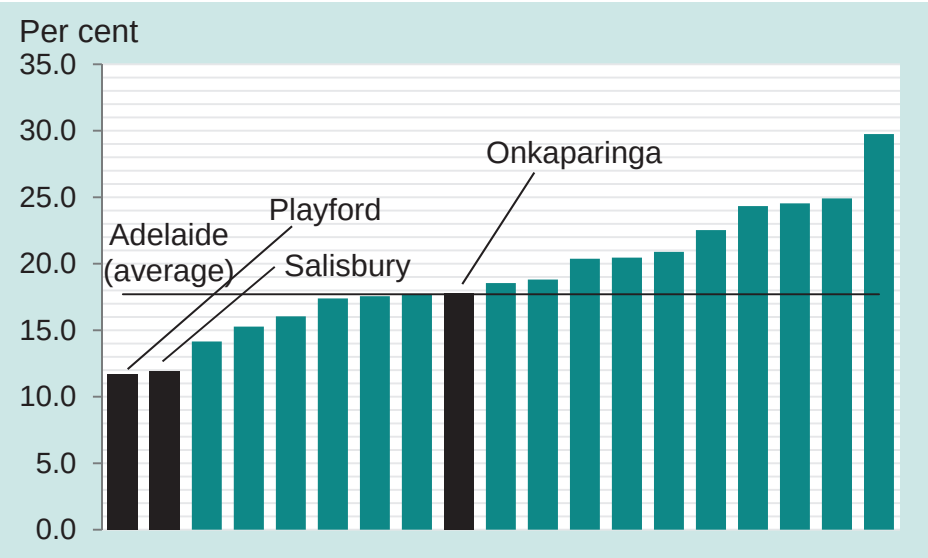
Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

Playford and Salisbury LGAs had the lowest levels of participation in voluntary work across Adelaide, with participation ranging from 11.7% in Playford, to 29.8% in Adelaide Hills (Figure 38).

Onkaparinga LGA's rate was consistent with the Adelaide average overall, with higher than average rates particularly evident in Clarendon/ McLaren Vale/ Willunga (47% above), and Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill (25% above).

Figure 38: Voluntary work for an organisation or group, LGAs in Adelaide, 2011



Geographic variation in Regional South Australia

Participation in voluntary work in the Anangu Pitjantjatjara Aboriginal Community was extremely low, with fewer than one in ten people reporting doing so (Map 30 and Table 31).

However, in both Peterborough and Ceduna, participation rates were above the regional South Australian average, at 29.6% and 28.0%, respectively.

It is of note that the overall level of participation in Regional South Australia of 26.8% is over 50% higher than the rate in Adelaide, of 17.7%.

Map 30: Voluntary work for an organisation or group, Regional South Australia by LGA, 2011

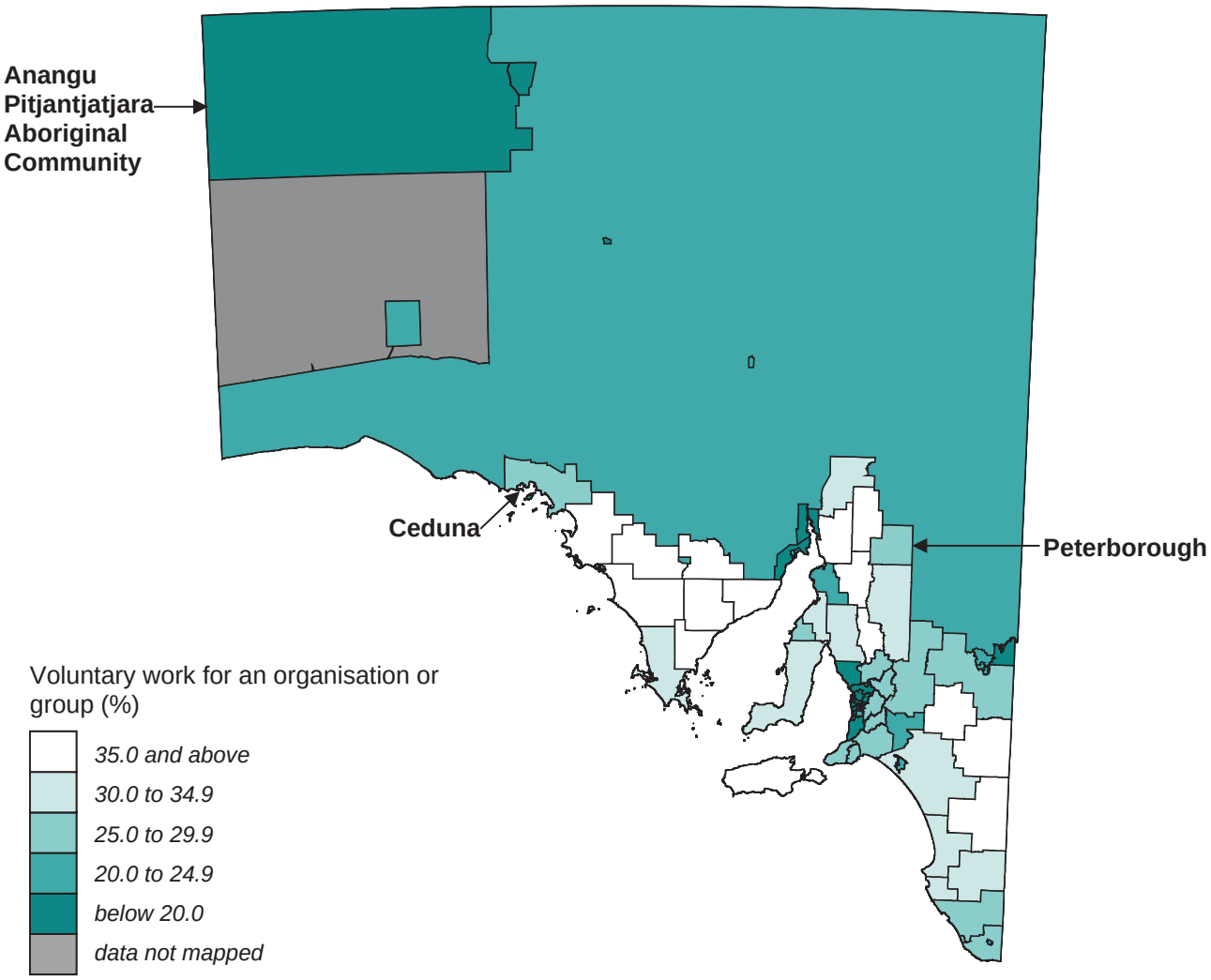


Table 31: Voluntary work, selected LGAs in Regional South Australia, 2011

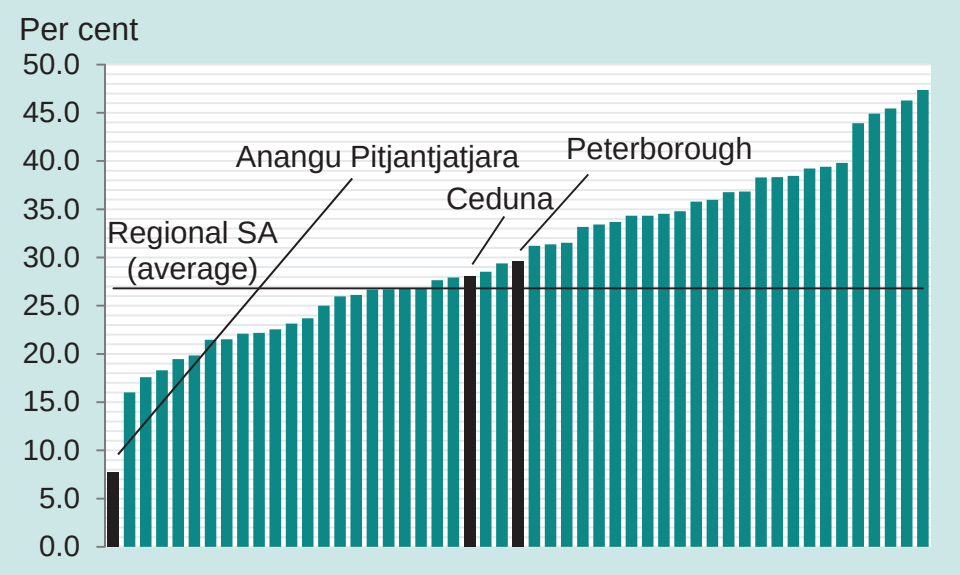
LGA	No.	%	RR*
Anangu Pitjantjatjara Aboriginal Community	139	7.7	0.29
Ceduna LGA	761	28.0	1.05
Peterborough LGA	422	29.6	1.10
Regional South Australia	79,908	26.8	1.00

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Comparisons across Regional South Australia

The chart shows the wide range in the proportion of the population who reported participating in voluntary work across LGAs in Regional South Australia, with rates of over 40% in Kimba (47.4%), Cleve (46.3%), Wudinna (45.4%), Orroroo/ Carrieton (44.9%) and Elliston (43.9%) (Figure 39).

Figure 39: Voluntary work for an organisation or group, LGAs in Regional South Australia, 2011



Can get support in times of crisis from outside the household

A strong community is one that is sustainable over generations, supportive in times of crisis, and with assets other than material ones: the resources, skills, and strengths of the people within the community.[241] Providing support to relatives outside the household includes assistance to one's own children, or a partner's children who are living with another relative or parent, or to an ageing family member. This support may be financial (for example, child support payments or help to pay for education or other expenses), or physical support, such as providing transport or care for the elderly.[206]

Indicator definition: Estimated number of people aged 18 years and over who could get support in times of crisis from outside the household, as an indirectly age-standardised rate per 100 people.

Key points

- Rates of adults who reported being able to access support from others outside their household in the LGAs of Playford, Salisbury and Onkaparinga were consistent with the rate for Adelaide overall.
- Small differences in Playford and Onkaparinga were consistent with variations in levels of disadvantage, with areas of greater disadvantage having fewer people reporting they could access such support.
- The level for Regional South Australia was similar to that for Adelaide overall.

Geographic variation in Adelaide

The number of people aged 18 years and over in Playford, Salisbury and Onkaparinga LGAs estimated to be able to get support in times of crisis from outside the household were consistent with the rate across Adelaide (Table 32).

There was little variation in rates within LGAs, with a majority of people reporting that they could get support in times of crisis from persons outside of the household. However, the small variations in Playford and Onkaparinga were consistent with variations in levels of disadvantage, with areas of greater disadvantage having fewer people reporting they could access such support (Map 31).

Map 31: Support available in times of crisis from persons outside of the household, PHAs in Adelaide, 2010

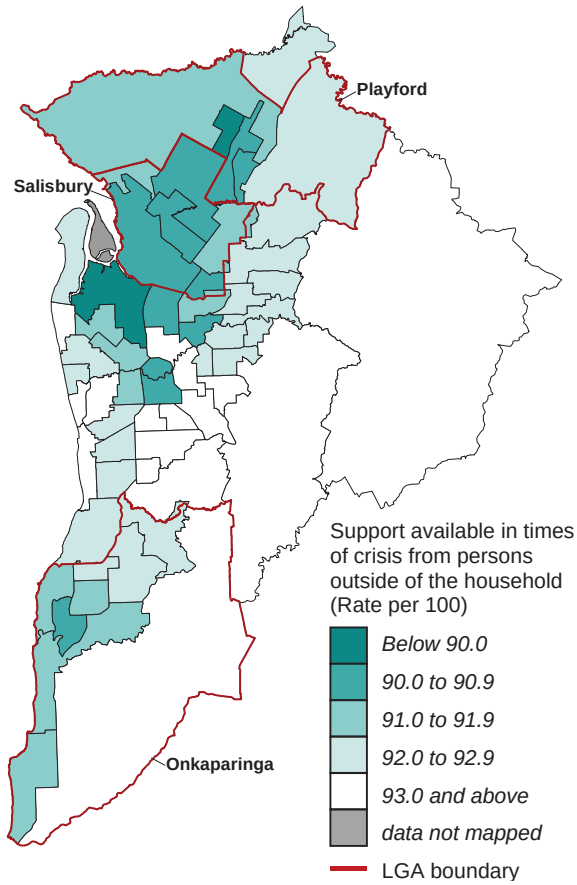


Table 32: Support available in times of crisis from persons outside of the household, selected PHAs and LGAs in Adelaide, 2010

PHA and LGA	No.	Rate^	RR*
Davoren Park	*9,203*	*89.6*	*0.97*
Elizabeth East	*8,540*	*90.8*	*0.99*
One Tree Hill	*1,788*	*92.8*	*1.01*
Playford - West	*18,554*	*91.1*	*0.99*
Elizabeth/ Smithfield - Elizabeth North	*15,134*	*90.3*	*0.98*
Playford LGA	**52,702**	**90.6**	**0.98**
Dry Creek - North/ Pooraka	*12,192*	*90.7*	*0.98*
Parafield/ Parafield Gardens/ Paralowie	*21,815*	*90.2*	*0.98*
Salisbury/ Salisbury North	*21,678*	*90.4*	*0.98*
Ingle Farm	*10,919*	*90.9*	*0.99*
Para Hills/ Salisbury East	*23,672*	*91.5*	*0.99*
Salisbury LGA	**91,279**	**90.7**	**0.98**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*19,292*	*92.7*	*1.01*
Aldinga	*9,204*	*91.7*	*0.99*
Christie Downs/ Hackham West - Huntfield Heights	*11,645*	*90.9*	*0.99*
Christies Beach/ Lonsdale	*7,236*	*91.0*	*0.99*
Clarendon/ McLaren Vale/ Willunga	*8,690*	*93.3*	*1.01*
Hackham - Onkaparinga Hills/ Seaford	*16,835*	*91.4*	*0.99*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*18,372*	*92.9*	*1.01*
Morphett Vale - East/ Morphett Vale - West	*17,008*	*91.6*	*0.99*
Reynella	*7,278*	*92.9*	*1.01*
Onkaparinga LGA	**114,597**	**92.0**	**1.00**
Adelaide	**909,613**	**92.2**	**1.00**

^Indirectly age-standardised rate per 100 population

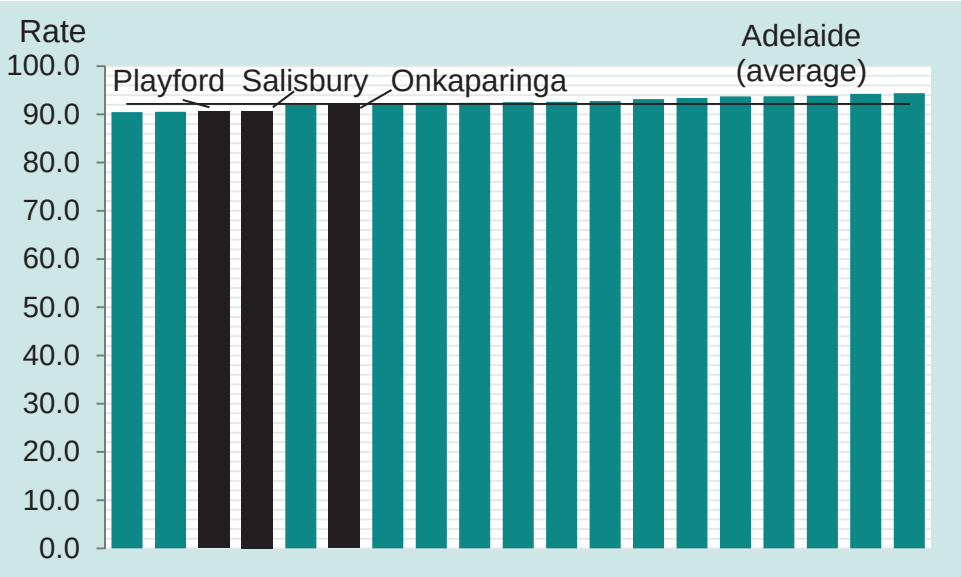
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

There was only marginal variation in rates across the LGAs in Adelaide, with a majority of people reporting that they could get support in times of crisis from persons outside of the household (Figure 40).

Figure 40: Support available in times of crisis from persons outside of the household, LGAs in Adelaide, 2010



Geographic variation in Regional South Australia

The extent to which people in Regional South Australia could get support in times of crisis from outside the household was estimated to be consistent with that in Adelaide (Table 33).

Estimates could not be made for the Anangu Pitjantjatjara Aboriginal Community or for Coober Pedy as the ABS survey, from which the estimates were produced, did not sample the populations of these areas.

The rate for adults in Peterborough was estimated to be consistent with the level in Regional South Australia (Map 32).

Map 32: Support available in times of crisis from persons outside of the household, Regional South Australia by LGA, 2010

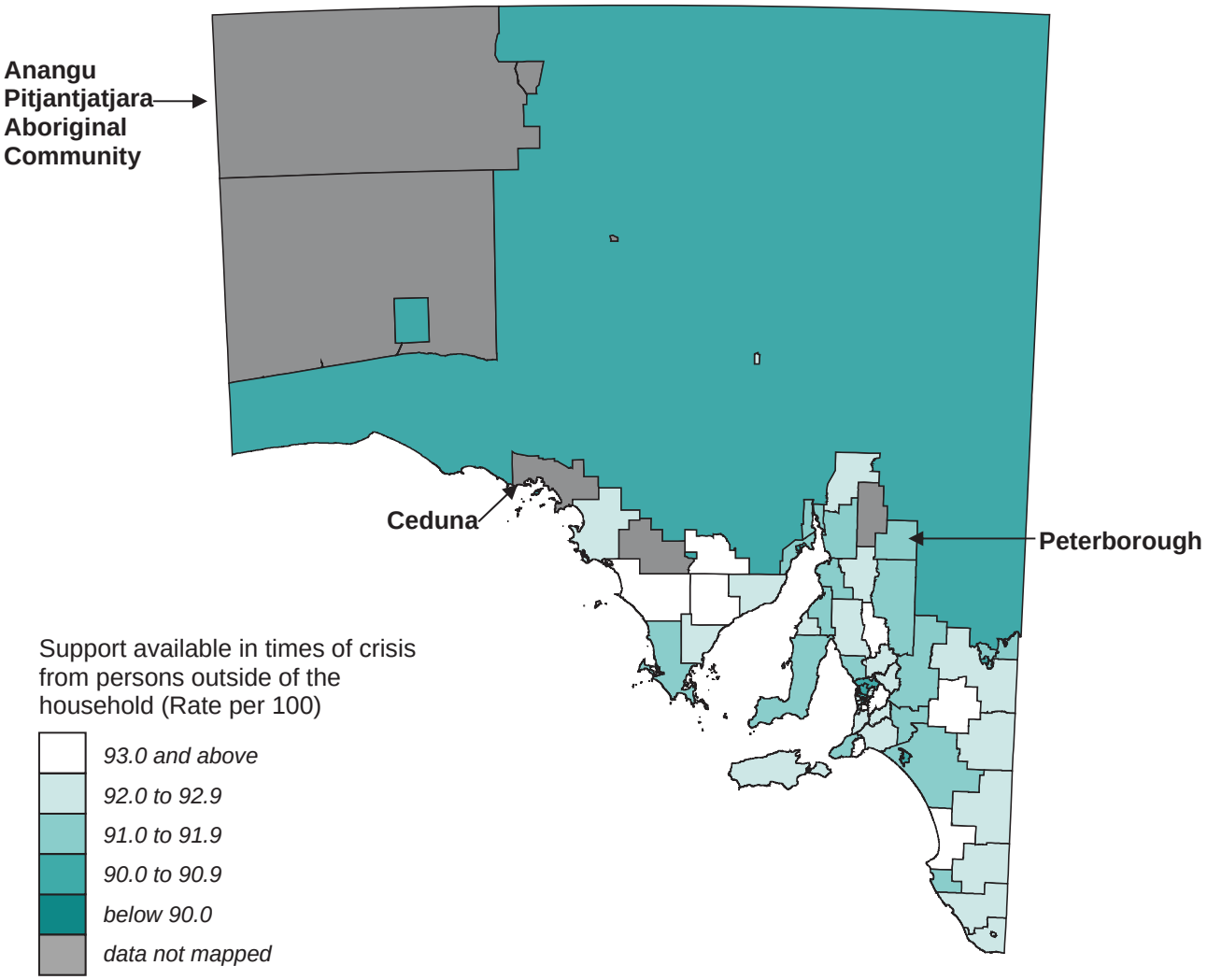


Table 33: Support available in times of crisis from persons outside of the household, selected LGAs in Regional South Australia, 2010

LGA	No.	Rate^	RR*
Anangu Pitjantjatjara Aboriginal Community	##	..	..
Ceduna LGA	##	..	..
Peterborough LGA	1,382	91.1	0.99
Regional South Australia	259,508	92.1	1.00

^Indirectly age-standardised rate per 100 population

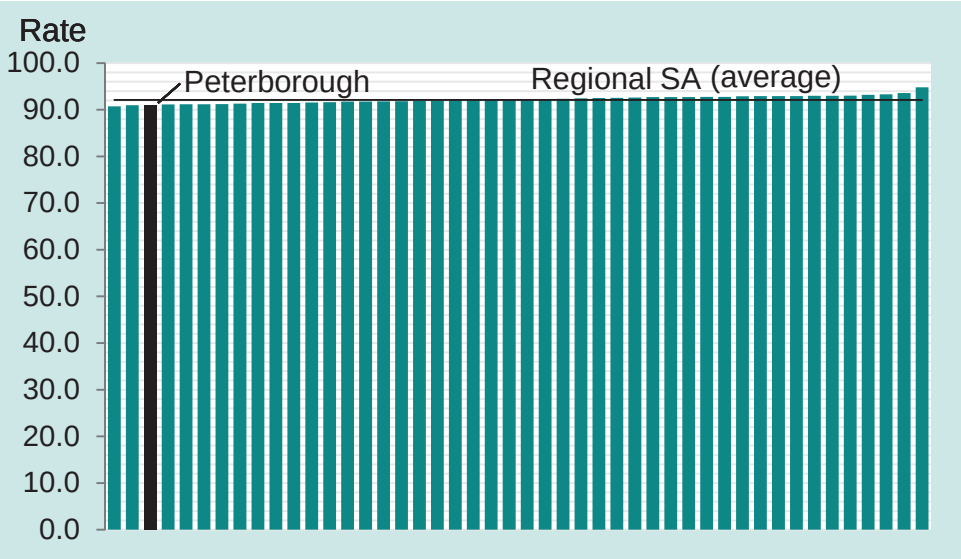
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Modelled estimates not produced for these Very Remote areas, Aboriginal communities or where the total population is less than 1,000

Comparisons across Regional South Australia

There was only marginal variation in rates across the LGAs in Regional South Australia, with a majority of people reporting that they could get support in times of crisis from persons outside of the household (Figure 41).

Figure 41: Support available in times of crisis from persons outside of the household, LGAs in Regional South Australia, 2010



Adult obesity

Being obese has significant health, social and economic impacts, and is closely related to lack of exercise and to diet.[256] Obesity increases the risk of suffering from a range of health conditions, including coronary heart disease, type 2 diabetes, some cancers, knee and hip problems, and sleep apnoea.[256] In 2011-12, more than one in four adult Australians were estimated to be obese.[257] Rates of obesity were the same for men and women (both 27.5%). The proportion of people who are obese has increased across all age groups over time, up from 18.7% in 1995 to 27.5% in 2011-12.[257]

Indicator definition: Estimated number of people aged 18 years and over who were assessed as being obese, based on their measured height and weight, as an indirectly age-standardised rate per 100 population.

Key points

- In the LGAs of Playford, Salisbury and Onkaparinga, the levels of adult obesity are well above the average for Adelaide overall, and all are ranked in the top four metropolitan LGAs.
- The highest levels of adult obesity are in Davoren Park (35.7%) and Salisbury/ Salisbury North (34.7%), with above-average levels of obesity found across most of the LGAs.
- The overall rate of adult obesity estimated for Regional South Australia (30.9 per 100) is above that in Adelaide (26.5 per 100).

Geographic variation in Adelaide

Adult obesity is more prevalent in each of these LGAs than in Adelaide overall (Table 34). In Playford, almost one third of adults aged 18 years and over (a rate of 32.7 per 100) were estimated to be obese, some 23% above the figure for Adelaide (26.5 per 100); the estimated rates were 31.6 per 100 for Salisbury, and 29.0 per 100 for Onkaparinga.

Within Playford, 35.7% of adults were estimated to be obese in Davoren Park, as were 32.7% in Playford - West, 32.6% in Elizabeth/ Smithfield - Elizabeth North and 31.3% in Elizabeth East (Map 33).

The rate in Salisbury, of 31.6, was 19% above the Adelaide average, with around one third of adults in Salisbury/ Salisbury North (34.7 per 100) and Parafield/ Parafield Gardens/ Paralowie (32.7) estimated to be obese. The rates were slightly lower in Para Hills/ Salisbury East (31.3 per 100) and in Ingle Farm (30.3 per 100).

Aldinga (with 34.1 per 100), Christie Downs/ Hackham West - Huntfield Heights (33.8) and Morphett Vale - East/ Morphett Vale - West (31.5) were the only PHAs in Onkaparinga with more than 30% of their adult population estimated to be obese. The rate of obesity for males and females is similarly distributed across Adelaide, although the female rates cover a wider range, from over one third higher, to less than half the male rate: for these data, see http://www.publichealth.gov.au/phidu/current/maps/sha-aust/pha-double-map/atlas.html.

Map 33: Obese adults, PHAs in Adelaide, 2011-13

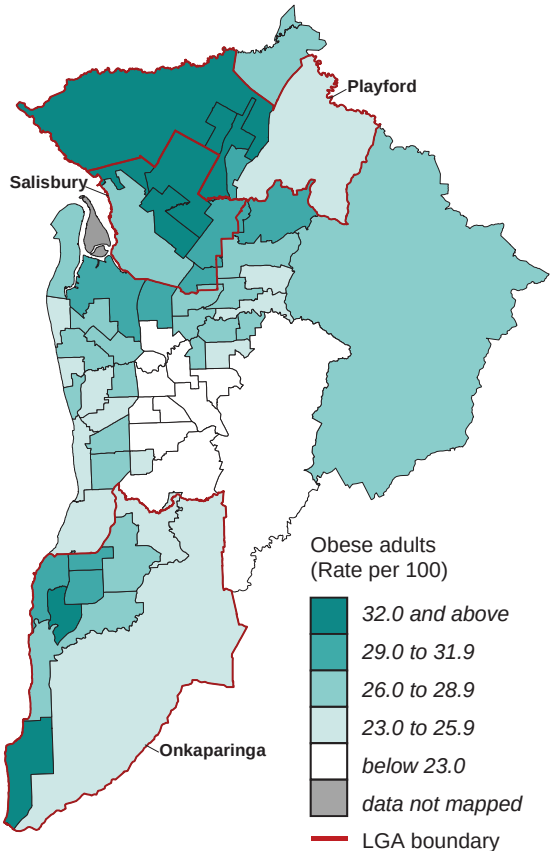


Table 34: Obese adults, selected PHAs and LGAs in Adelaide, 2011-13

PHA and LGA	No.	Rate^	RR*
Davoren Park	*3,282*	*35.7*	*1.35*
Elizabeth East	*2,605*	*31.3*	*1.18*
One Tree Hill	*474*	*25.2*	*0.95*
Playford - West	*5,922*	*32.7*	*1.23*
Elizabeth/ Smithfield - Elizabeth North	*4,824*	*32.6*	*1.23*
Playford LGA	**16,944**	**32.7**	**1.23**
Dry Creek - North/ Pooraka	*3,450*	*26.8*	*1.01*
Parafield/ Parafield Gardens/ Paralowie	*6,963*	*32.7*	*1.23*
Salisbury/ Salisbury North	*7,467*	*34.7*	*1.31*
Ingle Farm	*3,247*	*30.3*	*1.14*
Para Hills/ Salisbury East	*7,189*	*31.3*	*1.18*
Salisbury LGA	**28,529**	**31.6**	**1.19**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*4,667*	*24.1*	*0.91*
Aldinga	*3,223*	*34.1*	*1.29*
Christie Downs/ Hackham West - Huntfield Heights	*3,802*	*33.8*	*1.27*
Christies Beach/ Lonsdale	*2,122*	*29.5*	*1.11*
Clarendon/ McLaren Vale/ Willunga	*2,245*	*25.6*	*0.96*
Hackham - Onkaparinga Hills/ Seaford	*5,157*	*28.7*	*1.08*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*4,968*	*27.7*	*1.05*
Morphett Vale - East/ Morphett Vale - West	*5,248*	*31.5*	*1.19*
Reynella	*2,102*	*29.6*	*1.12*
Onkaparinga LGA	**33,315**	**29.0**	**1.09**
Adelaide	**234,968**	**26.5**	**1.00**

^Indirectly age-standardised rate per 100 adult population

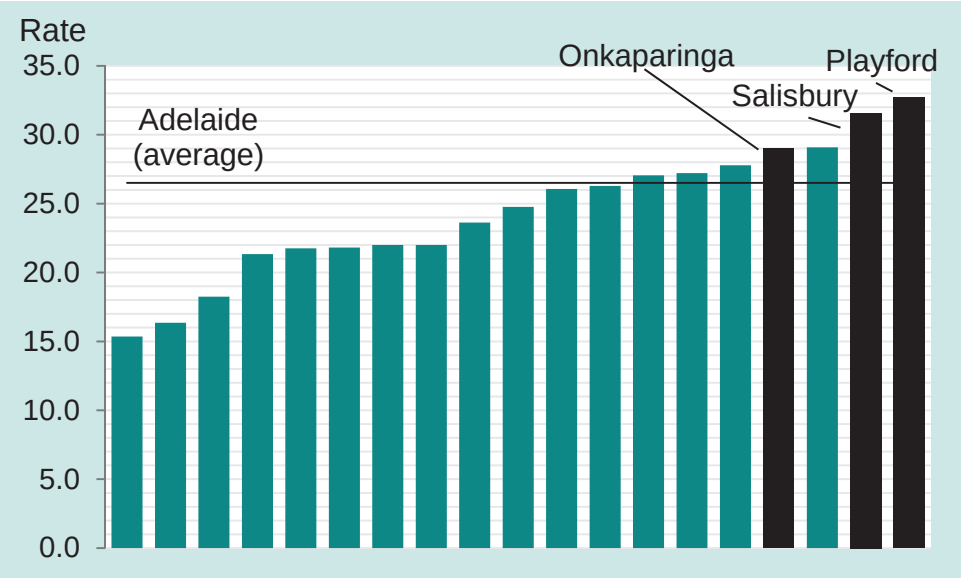
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The estimated level of obesity more than doubles across LGAs in Adelaide, from a rate of 15.3 per 100 for the adult population in Adelaide, to 32.7 in Playford (Figure 42). Port Adelaide Enfield is the third-ranked LGA, with 29.1 per 100 estimated to be obese.

Figure 42: Obese adults, LGAs in Adelaide, 2011-13



Geographic variation in Regional South Australia

The overall rate of adult obesity estimated for Regional South Australia (30.9) is above that for Adelaide (26.5) (Table 35).

Estimates could not be made for the Anangu Pitjantjatjara Aboriginal Community or for Coober Pedy as the ABS survey, from which the estimates were produced, did not sample the populations of these areas.

The level of obesity among adults in Peterborough was estimated to be consistent with the level in Regional South Australia (Map 34).

The rate of obesity for adult males and females is similarly distributed across Regional South Australia, although the female rates are almost always higher.

Map 34: Obese adults, Regional South Australia by LGA, 2011-13

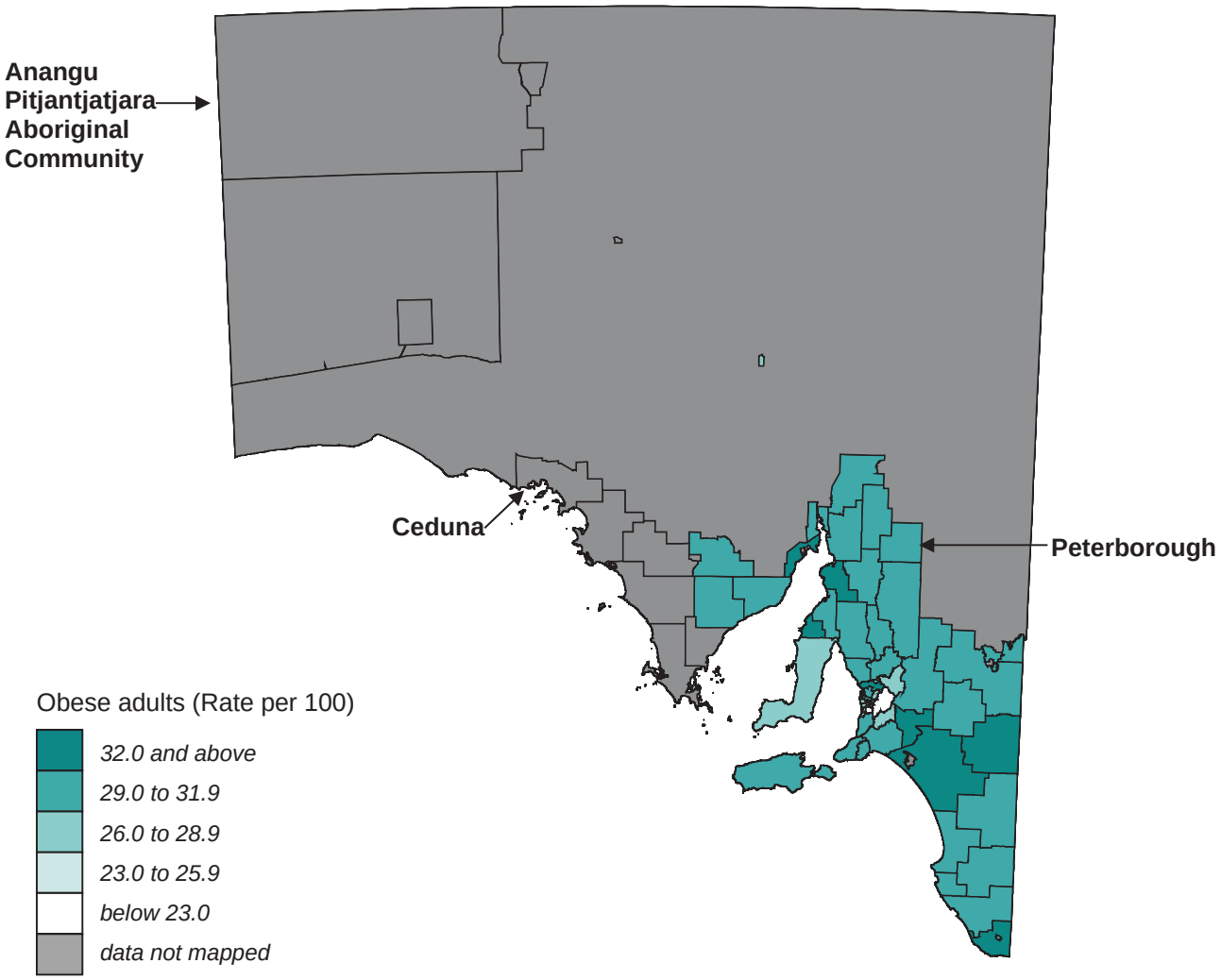


Table 35: Obese adults, selected LGAs in Regional South Australia, 2011-13

LGA	No.	Rate^	RR*
Anangu Pitjantjatjara Aboriginal Community	##	..	..
Ceduna LGA	##	..	..
Peterborough LGA	409	30.5	0.99
Regional South Australia	79,575	30.9	1.00

^Indirectly age-standardised rate per 100 adult population

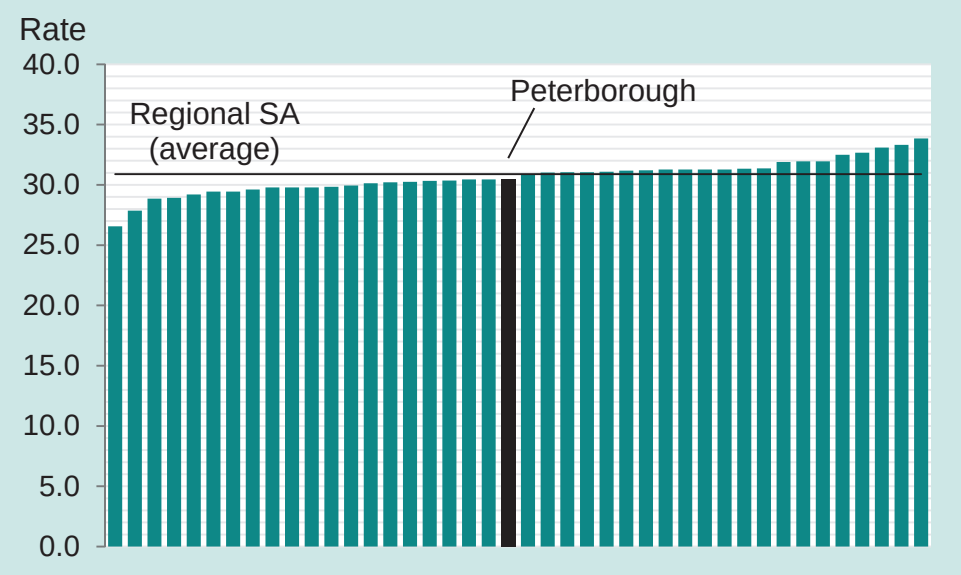
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Modelled estimates not produced for these Very Remote areas, Aboriginal communities or where the total population is less than 1,000

Comparisons across Regional South Australia

The range in adult obesity varies from an estimated 26.6 per 100 adult population in Roxby Downs, to 33.8 per 100 in Murray Bridge (Figure 43).

Figure 43: Obese adults, LGAs in Regional South Australia, 2011-13



Adult smokers

Tobacco smoking is recognised as the largest single preventable cause of death and disease in Australia.[258] It is associated with an increased risk of heart disease, stroke, cancer, emphysema, bronchitis, asthma, renal disease and eye disease.[259] In 2011-12, the Australian Health Survey estimated that 3.1 million Australian adults aged 18 years and over were current smokers, with the vast majority (90%) of these people smoking daily.[258] The negative effects of passive smoking indicate that the risks to health of smoking affect more than just the smoker. Passive smoking increases the risk of heart disease, asthma, and some cancers; and may increase the risk of Sudden Infant Death Syndrome (SIDS).[260] Rates of smoking differ between males and females and across age groups; and between 2001 and 2011-12, overall rates of smoking decreased for both males and females.

Indicator definition: Estimated number of people aged 18 years and over who reported being a current, daily or at least once weekly smoker, as an indirectly age-standardised rate per 100 population.

Key points

- For each of the three metropolitan LGAs, smoking rates are above the average for Adelaide overall, with all the LGAs ranked in the top four across Adelaide. The highest estimated rate was in Playford (25.1% of adults, 86% above the average).
- Within the LGAs, the highest rates were in Elizabeth/ Smithfield - Elizabeth North (31.6 per 100), Davoren Park (28.1), and Christie Downs/ Hackham West - Huntfield Heights (27.0).
- The overall smoking rate estimated for Regional South Australia (21.4 per 100) is markedly above that for Adelaide overall (17.0).

Geographic variation in Adelaide

Smoking rates in each of these LGAs are above the Adelaide average; and by a substantial 47% in Playford, where a quarter of adults (25.1 per 100) were estimated be smokers (Table 36). In Salisbury and Onkaparinga LGAs, around one fifth of adults were estimated to be smokers, with rates of 20.2 and 19.3, respectively.

Rates were above-average in all but One Tree Hill (where an estimated 13.0 per 100 adults were smokers, 24% below the Adelaide average) (Map 35). In Elizabeth/ Smithfield - Elizabeth North, 31.6 per 100 adults were estimated to be smokers, a rate which is 86% above the Adelaide average. Very high rates were also estimated for Davoren Park (28.1, 65% above the average) and Elizabeth East (24.5, 44% above). Even in Playford West, with 19.7 per 100 adults estimated to be smokers, the rate is 16% above the Adelaide average.

Smoking rates for males and females are similarly distributed across Adelaide, although the male rates are generally higher – and the highest are some 50% above the female rates: for these data, see http://www.publichealth.gov.au/phidu/current/maps/sha-aust/pha-double-map/atlas.html.

Map 35: Adult smokers, PHAs in Adelaide, 2011-13

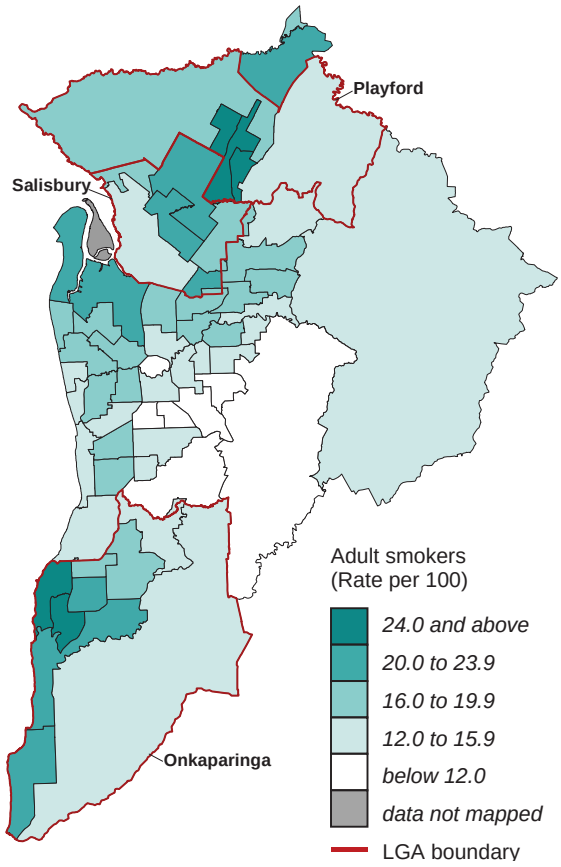


Table 36: Adult smokers, selected PHAs and LGAs in Adelaide, 2011-13

PHA and LGA	No.	Rate^	RR*
Davoren Park	*3,402*	*28.1*	*1.65*
Elizabeth East	*2,327*	*24.5*	*1.44*
One Tree Hill	*261*	*13.0*	*0.76*
Playford - West	*4,441*	*19.8*	*1.16*
Elizabeth/ Smithfield - Elizabeth North	*5,356*	*31.6*	*1.86*
Playford LGA	**15,634**	**25.1**	**1.47**
Dry Creek - North/ Pooraka	*2,568*	*15.4*	*0.90*
Parafield/ Parafield Gardens/ Paralowie	*5,467*	*20.8*	*1.22*
Salisbury/ Salisbury North	*6,084*	*23.7*	*1.39*
Ingle Farm	*2,351*	*20.0*	*1.18*
Para Hills/ Salisbury East	*5,116*	*19.7*	*1.16*
Salisbury LGA	**21,780**	**20.2**	**1.19**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*2,954*	*13.5*	*0.79*
Aldinga	*2,406*	*21.4*	*1.25*
Christie Downs/ Hackham West - Huntfield Heights	*3,530*	*27.0*	*1.59*
Christies Beach/ Lonsdale	*1,859*	*24.1*	*1.41*
Clarendon/ McLaren Vale/ Willunga	*1,353*	*15.0*	*0.88*
Hackham - Onkaparinga Hills/ Seaford	*4,115*	*20.1*	*1.18*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*3,234*	*16.0*	*0.94*
Morphett Vale - East/ Morphett Vale - West	*4,060*	*21.8*	*1.28*
Reynella	*1,531*	*19.0*	*1.12*
Onkaparinga LGA	**24,905**	**19.3**	**1.13**
Adelaide	**171,665**	**17.0**	**1.00**

^Indirectly age-standardised rate per 100 adult population

*RR is the ratio of the percentage in the area to the percentage for Adelaide

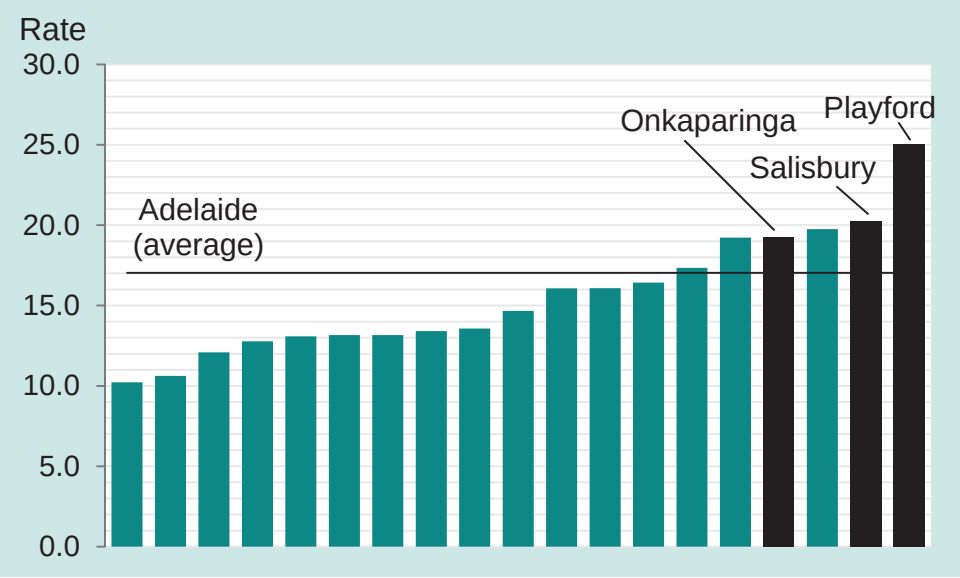
Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The estimated rate of smoking in Playford (25.1 per 100) is two and a half times that in Burnside (10.2) (Figure 44).

The LGAs of Gawler (19.8) and Port Adelaide Enfield (19.2) have similar rates to those in Salisbury and Onkaparinga.

Figure 44: Adult smokers, LGAs in Adelaide, 2011-13



Geographic variation in Regional South Australia

The overall smoking rate estimated for Regional South Australia (21.4 per 100) is markedly above that in Adelaide (17.0) (Table 37).

The estimates could not be made for the Anangu Pitjantjatjara Aboriginal Community or for Coober Pedy as the ABS survey, from which the estimates were produced, did not survey the populations of these areas.

The level of smoking among adults in Peterborough was estimated to be slightly above the level in Regional South Australia (Map 36).

The smoking rates for males and females (not shown) are similarly distributed across Regional South Australia, although the male rates are almost always higher.

Map 36: Adult smokers, Regional South Australia by LGA, 2011-13

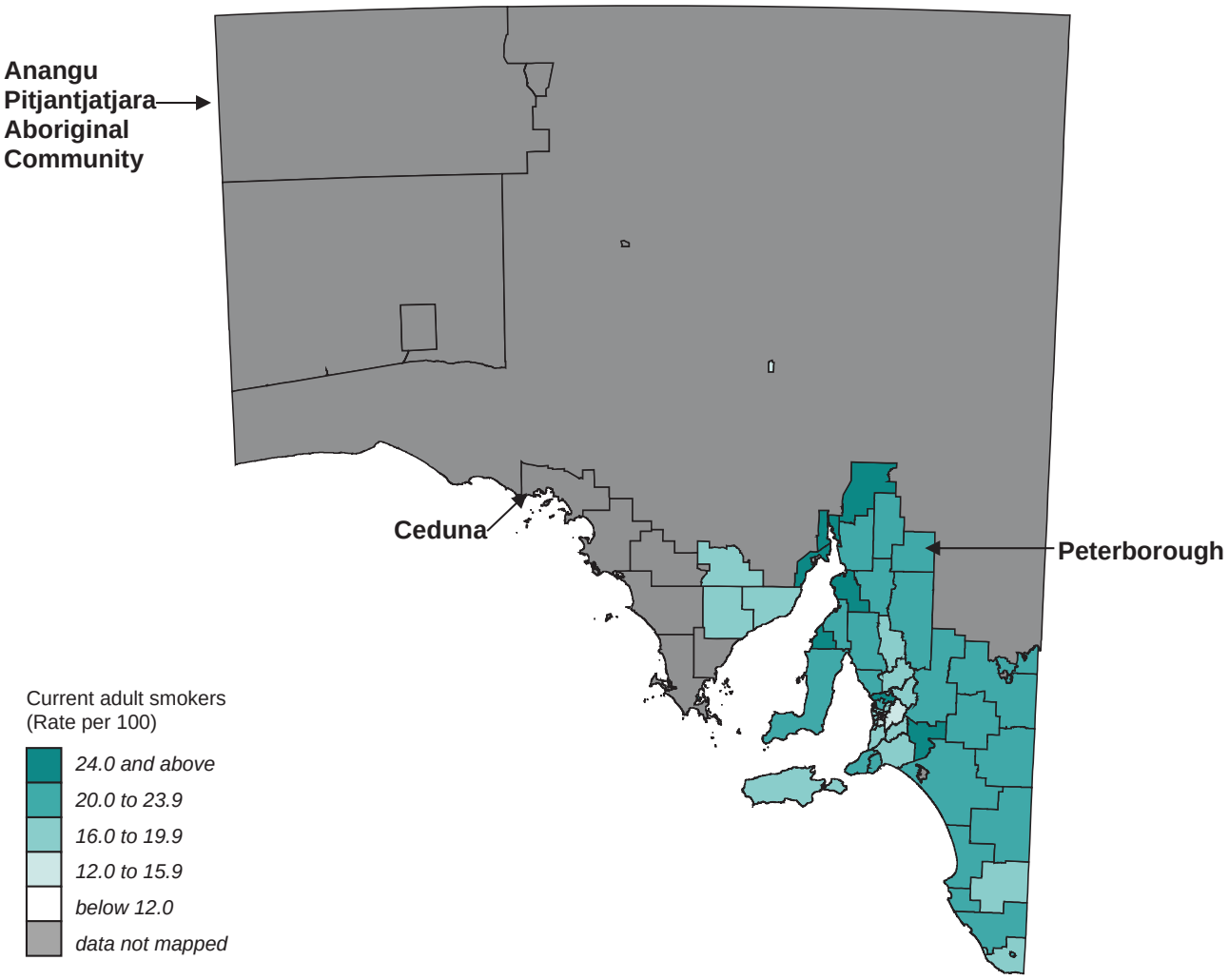


Table 37: Adult smokers, selected LGAs in Regional South Australia, 2011-13

LGA	No.	Rate^	RR*
Anangu Pitjantjatjara Aboriginal Community	##	..	..
Ceduna LGA	##	..	..
Peterborough LGA	282	22.3	1.04
Regional South Australia	57,199	21.4	1.00

^Indirectly age-standardised rate per 100 adult population

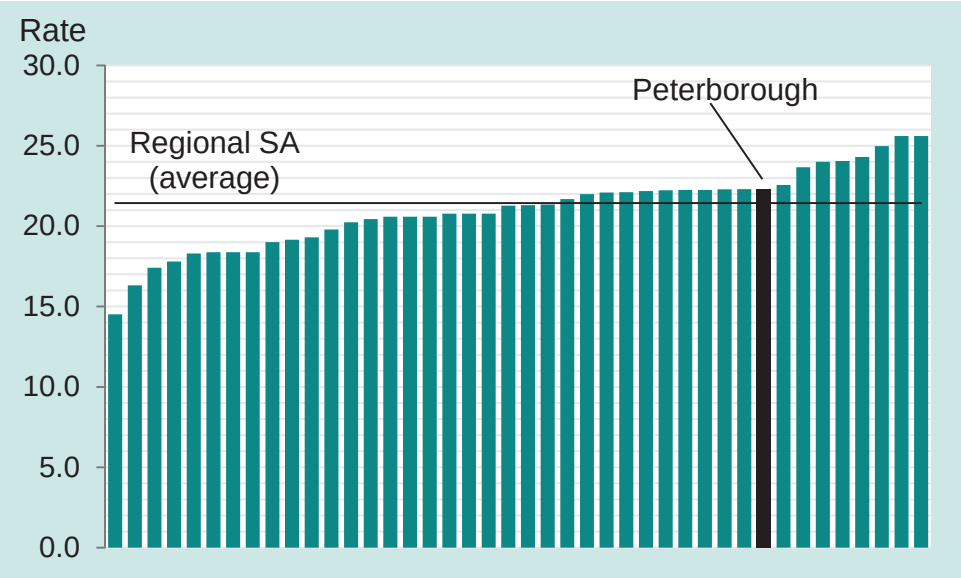
*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

Modelled estimates not produced for these Very Remote areas, Aboriginal communities or where the total population is less than 1,000

Comparisons across Regional South Australia

The highest smoking rates were estimated for the populations in Flinders Ranges and Port Augusta LGAs, both at 25.6 per 100 adults (Figure 45). The lowest rate was in Roxby Downs (14.5).

Figure 45: Adult smokers, LGAs in Regional South Australia, 2011-13



Psychological distress

Mental health is fundamental to the wellbeing of individuals, their families and the community as a whole. An indication of the mental health and wellbeing of a population is provided by measuring levels of psychological distress using the Kessler Psychological Distress Scale-10 items (K10). The K10 questionnaire is a scale of non-specific psychological distress based on ten questions about negative emotional states in the four weeks prior to interview, asked of respondents 18 years and over.[261] Based on previous research, a very high K10 score may indicate a need for professional help.[262]

In 2011-12, 11.4% of South Australians aged 18 years and over were estimated to have experienced 'high' or 'very high' levels of psychological distress according to the K10. In Australia, persons aged 25-34 years of age experienced significantly higher levels of high or very high levels of psychological distress (16%) than persons aged 65 years and over (9%).[263] Persons with a disability or condition that profoundly or severely limits their activity experience higher levels of psychological distress than the general South Australian population.[263] Proportionally more females than males experienced 'high' or 'very high' psychological distress in 2011-12 (14.0% and 12.0% respectively).[263]

Indicator definition: Estimated number of people aged 18 years and over assessed as having a high or very high level of psychological stress under the K10, as an indirectly age-standardised rate per 100 population.

Key points

- Relatively high rates of high or very high psychological distress were reported by adults in the LGAs of Playford (21% above the Adelaide average) and Salisbury (14% above). Both were ranked in the top three LGAs for this indicator across the Adelaide metropolitan area.
- The highest rates were for Elizabeth/ Smithfield - Elizabeth North (16.2 per 100 population) and Davoren Park (15.4 per 100).
- The estimated rate for Ceduna, of 12.2 per 100 population, was 10% above the rate for Regional South Australia (11.1 per 100).

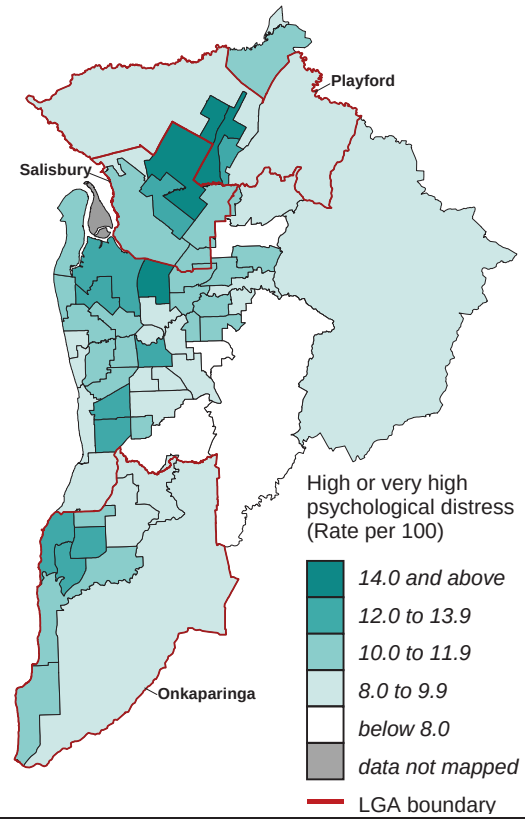
Geographic variation in Adelaide

A relatively high proportion of adults in both the Playford and Salisbury LGAs were estimated to have high or very high levels of psychological distress, a rate of 13.0 (or 21% above the Adelaide average) and 12.1 (14% above), respectively (Table 38).

The highest rates in Playford were estimated for adults in Elizabeth/ Smithfield - Elizabeth North (16.2, 51% above the Adelaide average) and Davoren Park (15.4, 44% above) (Map 37). In Elizabeth East, the rate was 12.6, 18% above average, with below-average rates in One Tree Hill (17% below) and Playford - West (10% below).

The highest rate in Salisbury LGA was in Salisbury/ Salisbury North (14.4, 35% above the Adelaide average), with rates of 12.3 and 11.8 in Parafield/ Parafield Gardens/ Paralowie and Ingle farm, respectively. In Onkaparinga, rates varied from 24% below average in Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill to 24% above average

Map 37: High or very high psychological distress, PHAs in Adelaide, 2011-13



in Christie Downs/ Hackham West - Huntfield Heights; the rate in Christies Beach/ Lonsdale was 21% above average.

Table 38: High or very high psychological distress, selected PHAs and LGAs in Adelaide, 2011-13

PHA and LGA	No.	Rate^	RR*
Davoren Park	*1,808*	*15.4*	*1.44*
Elizabeth East	*1,237*	*12.6*	*1.18*
One Tree Hill	*184*	*8.9*	*0.83*
Playford - West	*2,116*	*9.6*	*0.90*
Elizabeth/ Smithfield - Elizabeth North	*2,870*	*16.2*	*1.51*
Playford LGA	**8,137**	**13.0**	**1.21**
Dry Creek - North/ Pooraka	*1,685*	*10.5*	*0.98*
Parafield/ Parafield Gardens/ Paralowie	*3,183*	*12.3*	*1.16*
Salisbury/ Salisbury North	*3,736*	*14.4*	*1.35*
Ingle Farm	*1,449*	*11.8*	*1.11*
Para Hills/ Salisbury East	*2,912*	*10.9*	*1.02*
Salisbury LGA	**13,113**	**12.1**	**1.14**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*1,806*	*8.1*	*0.76*
Aldinga	*1,327*	*11.9*	*1.11*
Christie Downs/ Hackham West - Huntfield Heights	*1,755*	*13.2*	*1.24*
Christies Beach/ Lonsdale	*1,068*	*12.9*	*1.21*
Clarendon/ McLaren Vale/ Willunga	*894*	*9.3*	*0.87*
Hackham - Onkaparinga Hills/ Seaford	*2,325*	*11.1*	*1.04*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*2,032*	*9.8*	*0.92*
Morphett Vale - East/ Morphett Vale - West	*2,356*	*12.2*	*1.14*
Reynella	*841*	*10.1*	*0.95*
Onkaparinga LGA	**14,321**	**10.8**	**1.01**
Adelaide	**111,106**	**10.7**	**1.00**

^Indirectly age-standardised rate per 100 population

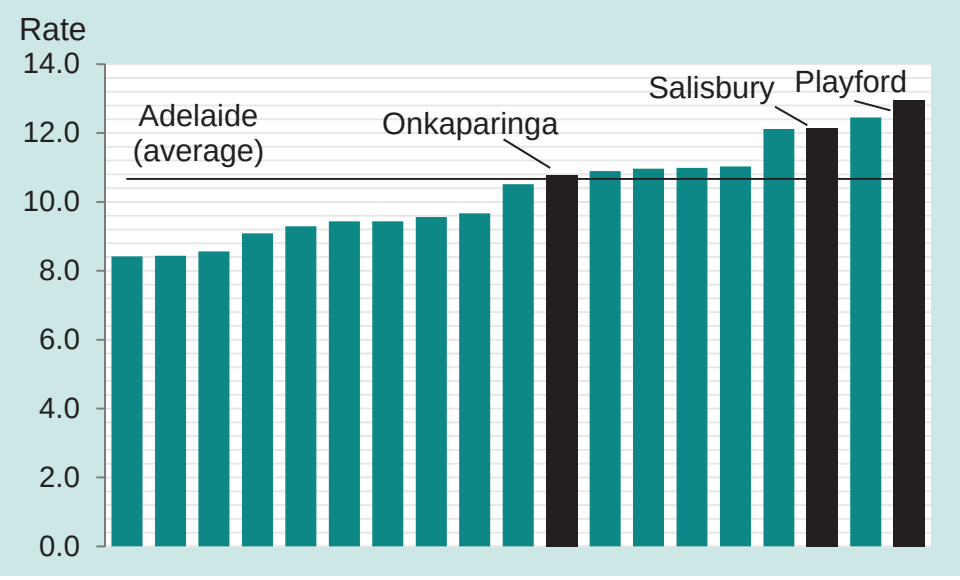
*RR is the ratio of the percentage in the area to the percentage for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Comparisons across Adelaide

The level of high or very high psychological distress in Playford, estimated at a rate of 13.0 per 100 population aged 18 years and over, is 50% higher than in Burnside and Adelaide Hills (both with 8.4 per 100) (Figure 46). Port Adelaide Enfield and Adelaide also have over 12% of their populations in this category.

Figure 46: High or very high psychological distress, LGAs in Adelaide, 2011-13



Geographic variation in Regional South Australia

The overall rate of high or very high psychological distress estimated for Regional South Australia (11.1 per 100) is slightly above that in Adelaide (10.7) (Table 39).

Estimates could not be made for the Anangu Pitjantjatjara Aboriginal Community or for Coober Pedy as the ABS survey, from which the estimates were produced, did not sample the populations of these areas.

The estimate for Ceduna was that 12.2 per 100 population aged 18 years and over were under high or very high psychological distress; this was 10% above the rate for Regional South Australia.

Map 38: High or very high psychological distress, Regional South Australia by LGA, 2011-13

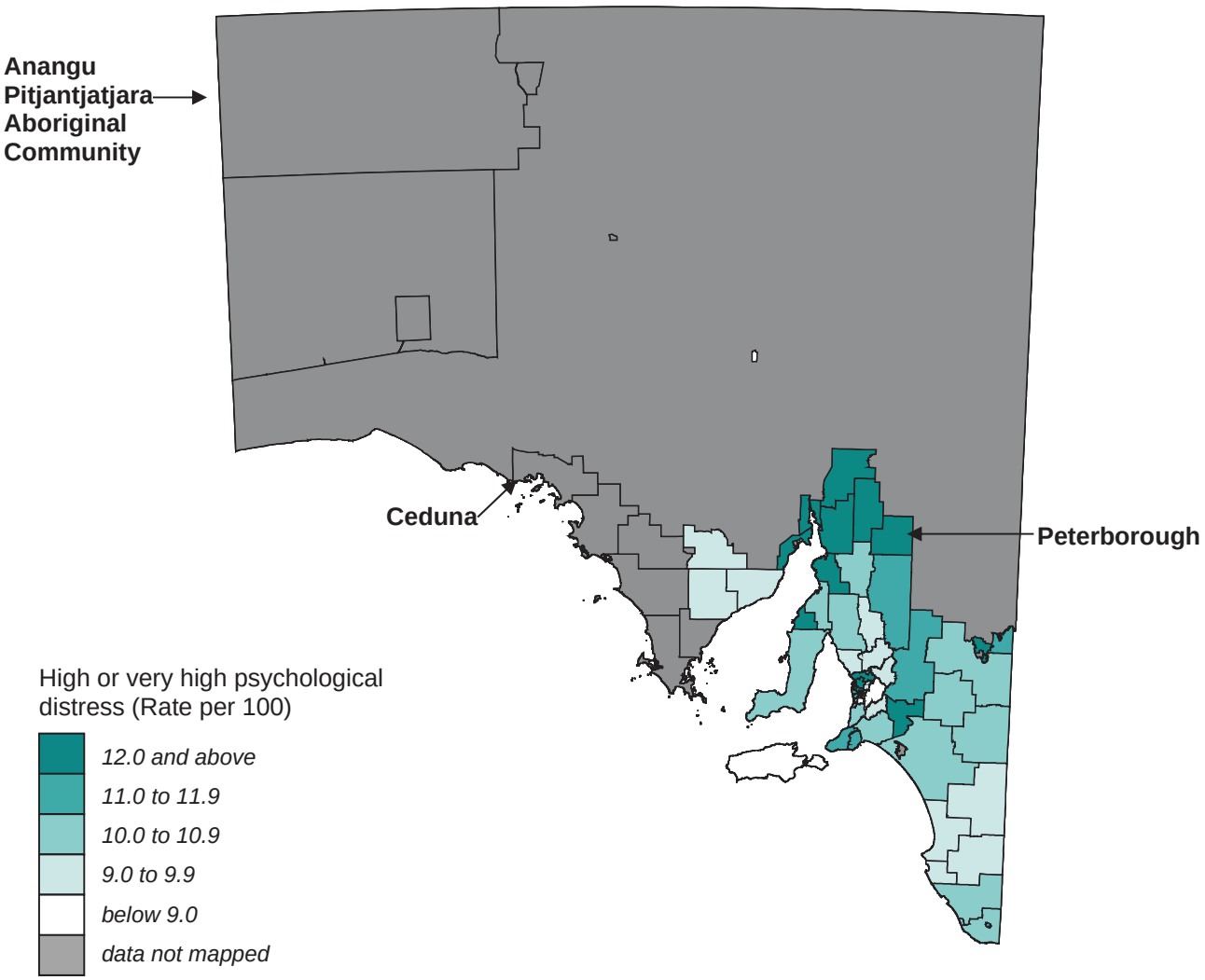


Table 39: High or very high psychological distress, selected LGAs in Regional South Australia, 2011-13

LGA	No.	Rate^	RR*
Anangu Pitjantjatjara Aboriginal Community	##	..	..
Ceduna LGA	##	..	..
Peterborough LGA	174	12.2	1.10
Regional South Australia	31,784	11.1	1.00

^Indirectly age-standardised rate per 100 population

*RR is the ratio of the percentage in the area to the percentage for Regional South Australia

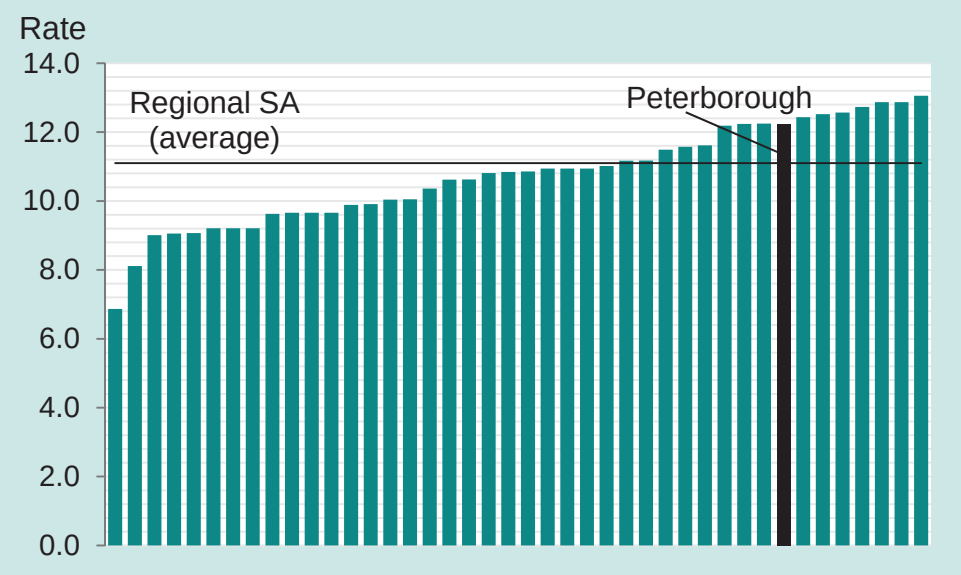
Modelled estimates not produced for these Very Remote areas, Aboriginal communities or where the total population is less than 1,000

Comparisons across Regional South Australia

The variation in rates of high or very high psychological distress at the LGA level was from an estimated 6.9 per 100 in Roxby Downs, to almost twice that level, with 13.1 per 100 in Port Pirie City and Districts (Figure 47).

As noted earlier, the rate in Peterborough was above the regional average.

Figure 47: High or very high psychological distress, LGAs in Regional South Australia, 2011-13



Premature mortality

Deaths before the age of 75 years are deemed premature, given the life expectancy of South Australians of 80.1 years for males and 84.3 years for females for the period, 2011 to 2013.[264] Intentional self-harm, ischaemic heart disease and malignant neoplasms (cancer), were the main causes of premature death of Australians in 2013.[265] From a societal view point, the cost of premature mortality can be measured directly through the increased burden of health care or, indirectly through the premature loss of individuals' contributions to their communities over their lifetimes.[84] For families, the costs are substantial: emotional, cultural and social as well as financial, and are less easily measured.

Indicator definition: Deaths at ages 0 to 74 years, expressed as an age-standardised rate per 100,000 population.

Key points

- Both the Anangu Pitjantjatjara Aboriginal Community and Playford LGA have poor outcomes when compared to other areas in their regions, with a premature death rate in Anangu Pitjantjatjara Aboriginal Community which is three times the regional average.
- High premature mortality rates are evident in a number of communities within Playford LGA and, to a lesser but still marked extent, in parts of Onkaparinga and Salisbury.
- Thus, in each of these areas, premature death is a reality, and the consequent impacts on families, communities and the State as a whole represents a substantial loss of human capacity.

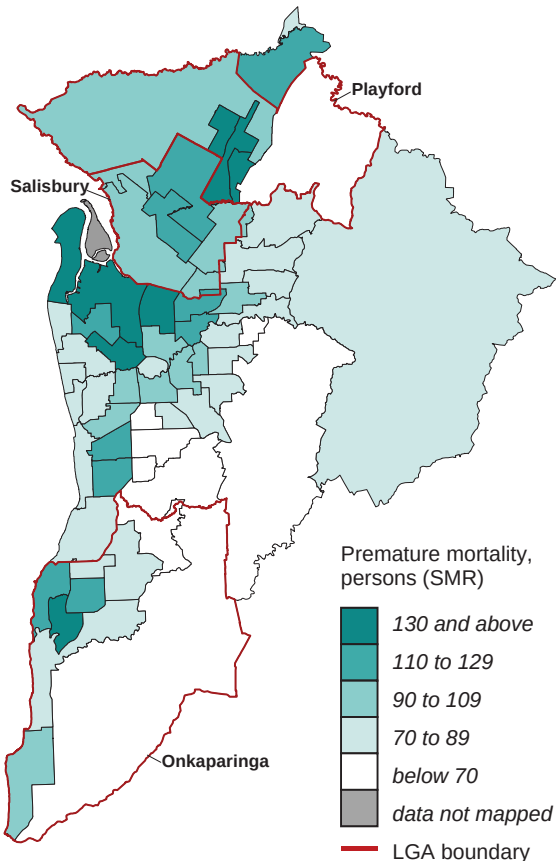
Geographic variation in Adelaide

The premature mortality rate in Playford LGA was markedly above the level in Adelaide overall, with a standardised mortality rate (SMR) of 144, 44% above the SMR in Adelaide (Map 39 and Table 40). SMRs substantially above the Adelaide average were recorded in the PHAs of Davoren Park (82% higher), Elizabeth/ Smithfield - Elizabeth North (73% above), and Elizabeth East (61% above); these areas bear a huge burden from premature deaths. The SMR in One Tree Hill was 76% below the Adelaide average, with an SMR just 8% above average in Playford - West.

The SMR in Salisbury LGA was 14% above the Adelaide average, with other markedly elevated SMRs in Parafield/ Parafield Gardens/ Paralowie (27% above), Salisbury/ Salisbury North and Northgate - Oakden - Gilles Plains (both with SMRs elevated by 22%). Only in Para Hills/ Salisbury East were there fewer premature deaths than expected, with a rate just 4% below the Adelaide average.

In Onkaparinga LGA, markedly elevated rates were in Christie Downs/ Hackham West - Huntfield Heights (45% above), Christies Beach/ Lonsdale (28% above), and Morphett Vale - East/ Morphett Vale - West (19% above).

Map 39: Premature mortality, PHAs in Adelaide, 2009-2012



Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill and Clarendon/ McLaren Vale/ Willunga had the lowest SMRs, being 37% and 32% below the Adelaide average, respectively. The premature death rate for males and females is similarly distributed across Adelaide, although the female rates cover a slightly wider range than the male rates: for these data, see http://www.publichealth.gov.au/phidu/current/maps/sha-aust/pha-double-map/atlas.html.

Table 40: Premature mortality, selected PHAs and LGAs in Adelaide, 2009-2012

PHA and LGA	No.	SMR^	RR*
Davoren Park	*186*	*175.0*	*1.82*
Elizabeth East	*177*	*155.2*	*1.61*
One Tree Hill	*7*	*22.9*	*0.24*
Playford - West	*226*	*103.2*	*1.07*
Elizabeth/ Smithfield - Elizabeth North	*335*	*166.6*	*1.73*
Playford LGA	**919**	**138.7**	**1.44**
Dry Creek - North/ Pooraka	*138*	*102.0*	*1.06*
Parafield/ Parafield Gardens/ Paralowie	*318*	*122.7*	*1.27*
Salisbury/ Salisbury North	*341*	*117.3*	*1.22*
Ingle Farm	*171*	*108.0*	*1.12*
Para Hills/ Salisbury East	*297*	*92.9*	*0.96*
Salisbury LGA	**1,289**	**109.4**	**1.14**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*155*	*60.7*	*0.63*
Aldinga	*115*	*95.0*	*0.99*
Christie Downs/ Hackham West - Huntfield Heights	*218*	*139.8*	*1.45*
Christies Beach/ Lonsdale	*132*	*123.4*	*1.28*
Clarendon/ McLaren Vale/ Willunga	*85*	*65.3*	*0.68*
Hackham - Onkaparinga Hills/ Seaford	*215*	*88.9*	*0.92*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*185*	*77.4*	*0.80*
Morphett Vale - East/ Morphett Vale – West	*275*	*114.8*	*1.19*
Reynella	*79*	*81.3*	*0.84*
Onkaparinga LGA	**1,452**	**92.2**	**0.96**
Adelaide	**11,577**	**96.3**	**1.00**

^SMR is the directly age-standardised mortality ratio

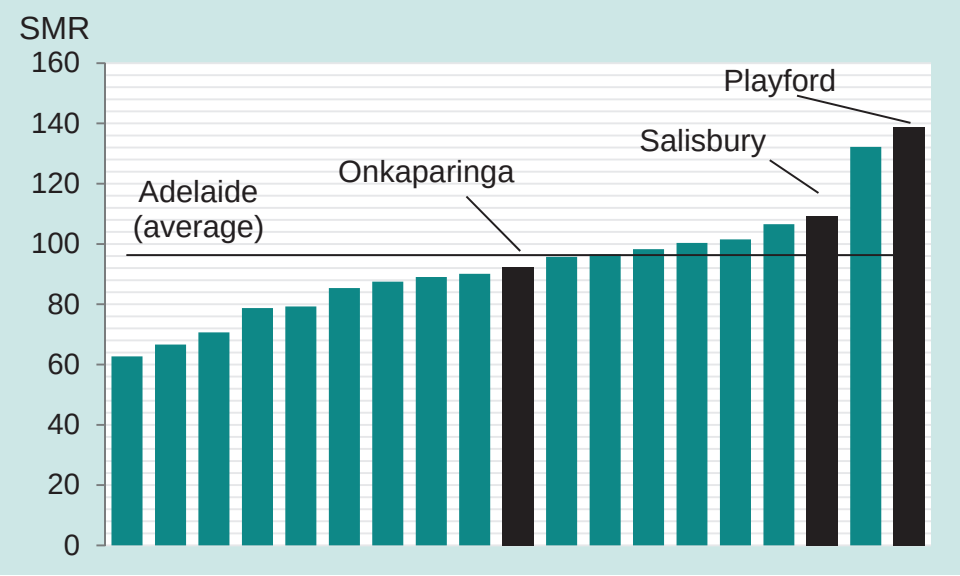
*RR is the ratio of the SMR in the area to the SMR for Adelaide

Note: LGA totals will not match the sum of the PHAs (see 'Measures used' in Appendix A)

Regional comparisons in Adelaide

Playford LGA, just above second-ranked Port Adelaide Enfield, has the highest SMR in Adelaide, with Salisbury LGA ranked third (Figure 48). Onkaparinga LGA has an SMR for premature deaths slightly below the Adelaide average (just 4% below).

Figure 48: Premature mortality, LGAs in Adelaide, 2009-2012



Geographic variation in Regional South Australia

The premature mortality rate in Peterborough LGA is slightly (4%) above the Regional South Australian average, which itself is 14% above the State average (Map 40 and Table 41).

However, the rate in the Anangu Pitjantjatjara Aboriginal Community, where almost 90% of the population is Aboriginal, was some three times the Regional South Australian average, illustrating the very great burden of premature mortality for this community. The SMR in Ceduna, where a quarter of the population is Aboriginal, was 45% above the Regional South Australian average, also representing an unacceptably high rate of premature deaths.

Map 40: Premature mortality, Regional South Australia by LGA, 2009-2012

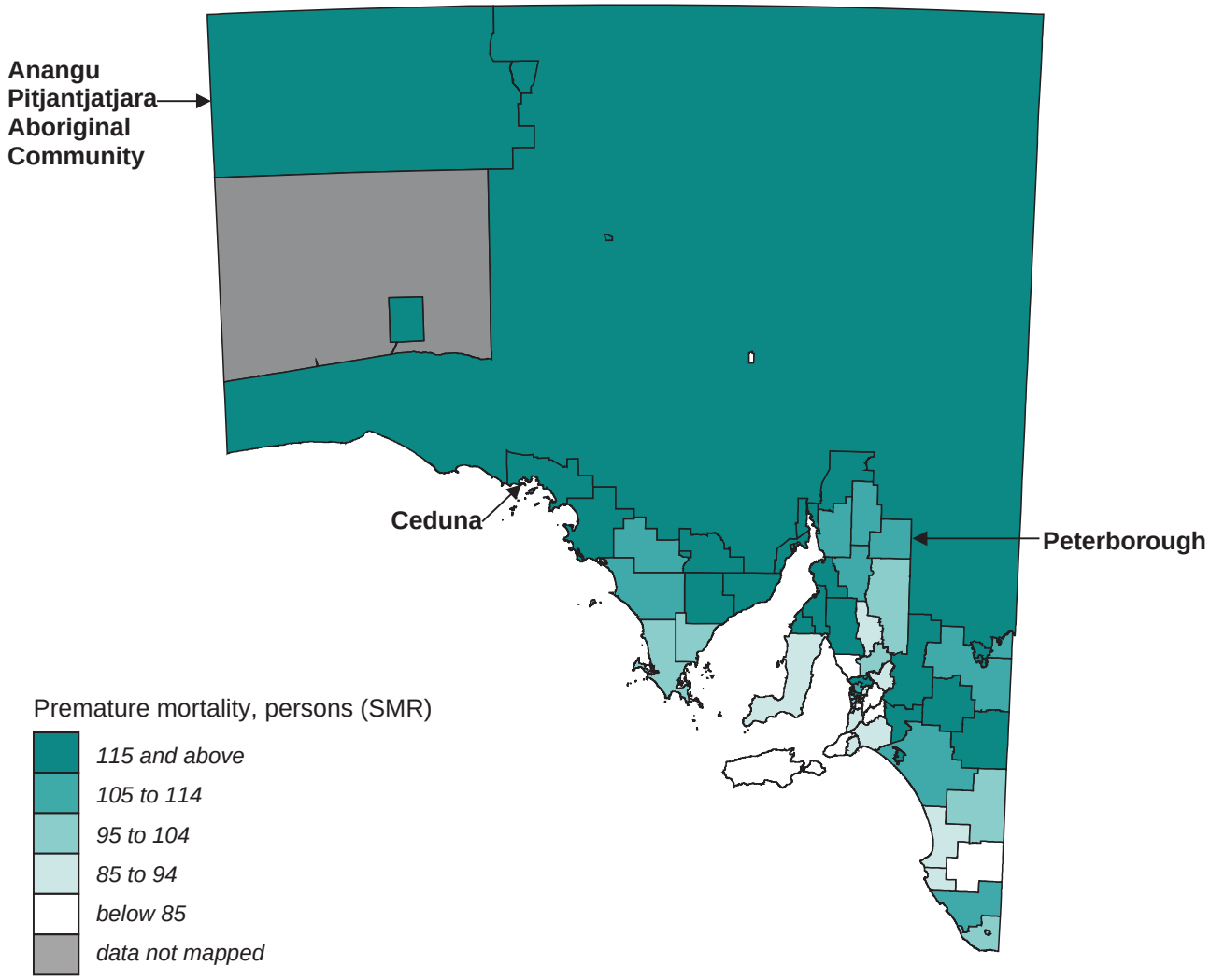


Table 41: Premature mortality, selected LGAs in Regional South Australia, 2009-2012

LGA	No.	SMR	RR*
Anangu Pitjantjatjara Aboriginal Community	**58**	**331.4**	**3.03**
Ceduna	**54**	**158.0**	**1.44**
Peterborough LGA	**26**	**114.4**	**1.05**
Regional South Australia	**4,471**	**109.3**	**1.00**

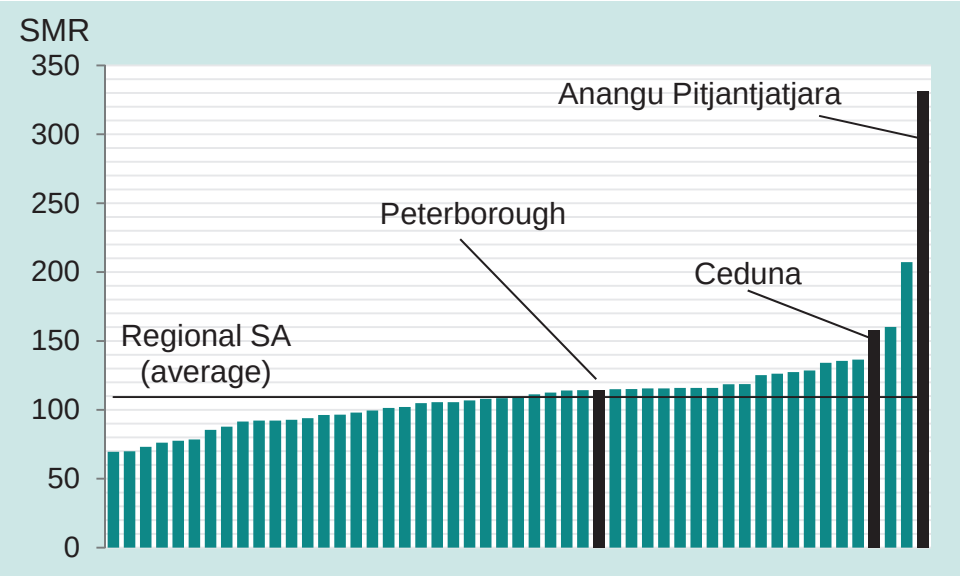
*SMR is the directly age-standardised mortality ratio

*RR is the ratio of the SMR in the area to the SMR for Regional South Australia

Comparisons across Regional South Australia

The extreme range in premature death rates across Regional South Australia is graphically illustrated in Figure 49, with 27% fewer deaths in Yankalilla when compared with the Regional South Australian average, and over three times more deaths in the Anangu Pitjantjatjara Aboriginal Community. The top six places in this chart are taken by locations in the far north and west of the State, all of which have substantial Aboriginal communities. Peterborough sits just above the Regional South Australian average.

Figure 49: Premature mortality, LGAs in Regional South Australia, 2009-2012



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Summary

Populations of concern

There is a great deal of information in the text, tables, maps and graphs describing the indicators that the Department for Communities and Social Inclusion, the Department for Health and Ageing and members of the six communities may wish to respond to, or use to set up new projects or expand supportive initiatives already in place. Having worked with these data for some time, we suggest focusing on the following groups across the populations in these communities, where there is some clustering of the indicators:

- children (including children who live in jobless families; developmental vulnerability in the first year of school; and low NAPLAN scores in numeracy in Year 3 of school);

- young people (including early school leavers, and those who are unemployed; without Internet access at home; those not participating in secondary school or VET programs; and those not learning or earning);

- adults (without access to the Internet at home; relatively large numbers of people living with a disability, or dependent on the Age Pension; high or very high prevalence of psychological distress, and obesity; and premature mortality);

- disadvantaged households (under financial stress from rent or mortgage payments; welfare dependent; high levels of disability; high or very high prevalence of psychological distress; no Internet access at home in up to one in three households; inability to get support in times of crisis from outside the household, and limited participation in volunteering in the community).

Opportunities and strengths

This atlas provides little direct encouragement by way of positive data in the indicators presented. However, as noted elsewhere, each of the numbers, percentages or rates for an area is comprised of data about many individuals, whose outcomes under these measures range from below the average, to above the average. There are, therefore, positive outcomes for many people living in these communities, showing what can be achieved, given the appropriate family, community, government and societal support; and evidence of many residents contributing actively to their communities through employment and business, sport and leisure activities, and volunteering informally and with organisations.

Challenges where further effort needed

The extent of developmental vulnerability on one or more domains of the AEDC is substantially higher in a number of these communities. Opportunities to improve the early development of young children further, especially through targeted, subsidised, high quality preschool programs should be considered, and are likely to improve their readiness to learn at school entry and beyond. Psychosocial support early in pregnancy, extending to parenting and related support for families in need should be available in the home and in culturally responsive and inclusive settings. Similarly, the number of students in Year 3 with NAPLAN numeracy scores below the national minimum standard is generally higher than the average for the State, an outcome that needs addressing.

Women with low educational attainment and no Internet access at home, face substantial barriers to finding employment. Increased rates of high or very high levels of psychological distress and obesity, and above-average rates of premature mortality also contribute to their poorer health and wellbeing, the likelihood of living in low income, welfare-dependent and jobless households, and financial stress from rent or mortgage payments. Interventions to increase women's proficiency in English, and improve their educational outcomes, skills and training, should enhance their chances to participate in the workforce, if also supported by affordable, good quality child care. Access to the Internet and better health literacy will also provide greater understanding of their health and that of their children, as will timely access to culturally responsive primary health care. Other services to reduce social isolation and the stress of unsupported parenthood, and to respond to family

violence will also be needed to overcome women's loneliness, psychological distress and mental health problems.

Men who are unemployed and unskilled, and have poor proficiency in English and no access to the Internet at home, also face additional challenges in finding employment. Rates of poorer health and wellbeing are reflected in higher than average rates of smoking, risky alcohol use, and obesity, which contribute to high rates of premature mortality, chronic physical and mental ill health and disability for men.

There are higher proportions of households, which are significantly disadvantaged because of lack of employment, welfare dependency, lack of transport, insecure housing, financial stress from rent or mortgage payments, and high levels of disability. We know that such households are also more likely to experience difficulty in accessing services, and delay attending medical consultations or purchasing prescribed medications because of the costs, compared to the State average. Wider economic factors such as the development of new industries and technologies that will provide employment, income support, bulk-billing for health services, and rent and housing subsidies are all critical components to assist communities, who are currently 'doing it tough'.

Inequalities in outcomes span generations and populations, so it is important to consider the differences across all population subgroups. Examining patterns in disaggregated data, such as those represented by the indicators in this atlas, helps to identify the most appropriate approaches to tackling avoidable inequalities. Interventions, particularly those that focus on the determinants of health, learning, development and wellbeing, and which address the lack of opportunities that many other households in the State already enjoy, are needed across the life course, to ensure that all residents can lead flourishing, productive and fulfilled lives, and contribute to a sustainable and prosperous future for these and other South Australian communities.

Findings from the correlation analysis

A correlation analysis was undertaken at the PHA level in Adelaide, and at the Local Government Area (LGA) level: one for LGAs in Adelaide, and another for LGAs in Regional South Australia. The tables containing the correlation coefficients can be found at the end of this Summary section.

The first impression of the results of the correlation analysis for PHAs in Adelaide is the dark shading across much of the table, indicating the extent of the very strong associations across the majority of indicators (Table 42). Of particular note is the strong association between poor outcomes in measures of wellbeing and health (high rates premature mortality, of smoking and of obesity) and of indicators of disadvantage (high rates of unemployment; high proportions of children in jobless families, of children facing difficulties on starting school and in their early school years; and of adults with low educational levels). Table 43 shows a similar outcome for LGAs in Adelaide.

At the LGA level in Regional South Australia, there are fewer very strong associations, in part as a result of the smaller populations in these sparsely settled areas. However, many of the associations noted above for Adelaide are also evident at the LGA level in Regional South Australia (Table 44).

Changes over time

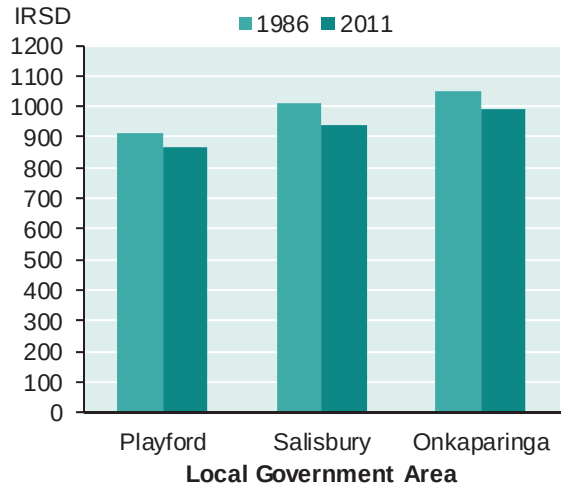
Figure 50 through to Figure 53, below, present selected indicators from the 1986 and 2011 Censuses, and deaths' registrations, to provide a snapshot of changes that have occurred over time in the Playford, Salisbury and Onkaparinga LGAs. It is interesting to note that, although the proportions and rates have increased or decreased over time for each indicator, the overall difference between the areas for each indicator remains much the same (i.e., the area with the highest rate in the first period remains the highest in the latter period).

Most clearly, we can see:

- a marked increase in the participation of 16 year olds in full-time education;

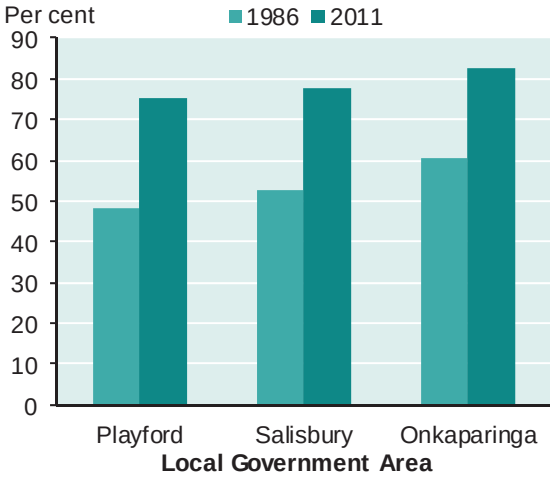
From 1986 to 2011, the IRSD scores for Playford, Salisbury and Onkaparinga LGAs have decreased, indicating a decrease, relative to the level in Australia, in the overall level of socioeconomic disadvantage in these areas over this period.

Figure 50: Index of Relative Socio-economic Disadvantage, 1986 and 2011



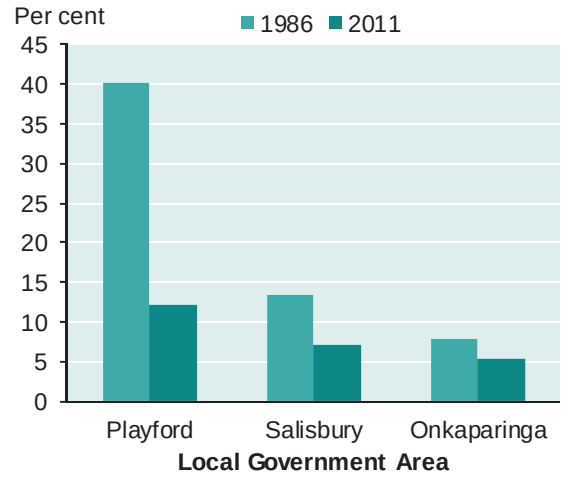
Full-time participation in education increased substantially in the Playford, Salisbury and Onkaparinga LGAs between 1986 and 2011. Playford had the largest increase during this period with 57%, followed by Salisbury (48%) and Onkaparinga (36%).

Figure 51: Full-time participation in education at 16 years old, 1986 and 2011



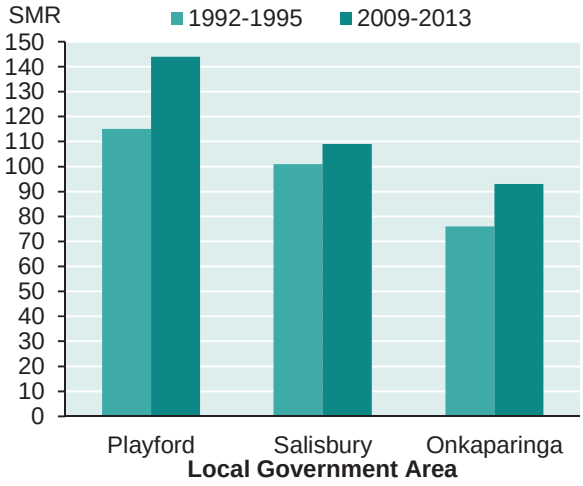
A decrease in the proportion of houses being rented from Housing SA was evident for all three LGAs between 1986 and 2011. The decrease in the Playford LGA was a substantial 70%, with marked decreases of 48% in Salisbury, and 33% in Onkaparinga.

Figure 52: Housing rented from Housing SA, 1986 and 2011



An increase in the standardised mortality ratio (SMR) for premature mortality from all causes is evident across the three LGAs. Between 1992-95 and 2009-13, the SMRs have increased by 25% in Playford, 22% in Onkaparinga and 8% in Salisbury.

Figure 53: Premature mortality (0.74 years) from all causes, 1992-95 and 2009-13



Sources: Data for 1986 and 2011 from ABS Population Censuses; premature mortality rates calculated from death registration data

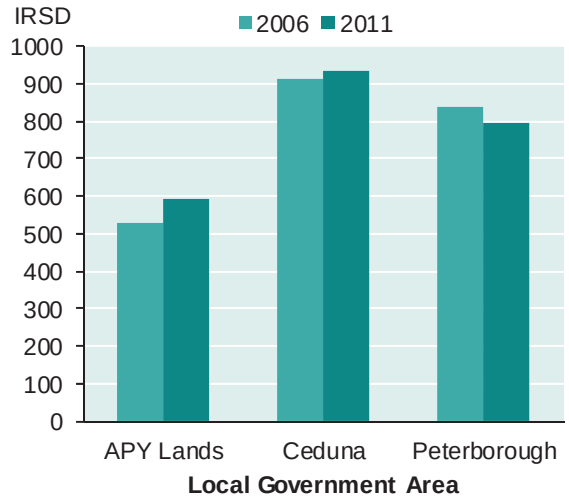
- a substantial reduction in the stock of rental accommodation provided by the State Government; and

- a notable increase in premature mortality in these three communities (in comparison with the State as a whole), despite there being an overall reduction in premature mortality over this period of 40% in South Australia.

The same indicators are shown for the Anangu Pitjantjatjara Aboriginal Community and the Ceduna and Peterborough LGAs in Figure 54 to Figure 57. These show that the Anangu Pitjantjatjara Aboriginal Community is the most disadvantaged of these three areas, and has the highest premature mortality rate, a rate which has shown a marked increase.

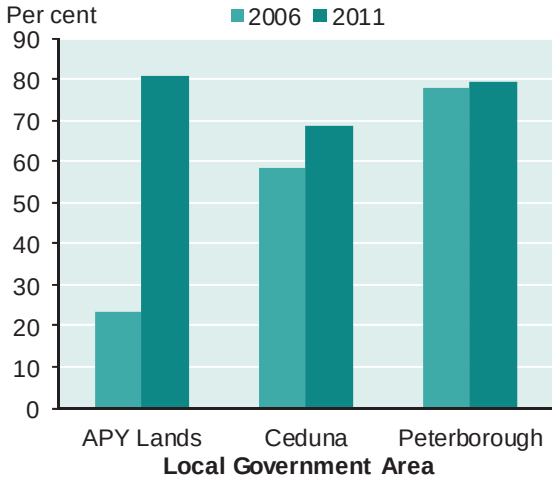
From 1986 to 2011, the IRSD scores for the APY Lands and Ceduna have increased slightly, indicating a reduction, relative to the level in Australia, in the overall level of socioeconomic disadvantage in these areas. In Peterborough, the graph indicates a small relative increase in disadvantage.

Figure 54: Index of Relative Socio-economic Disadvantage, 2006 and 2011



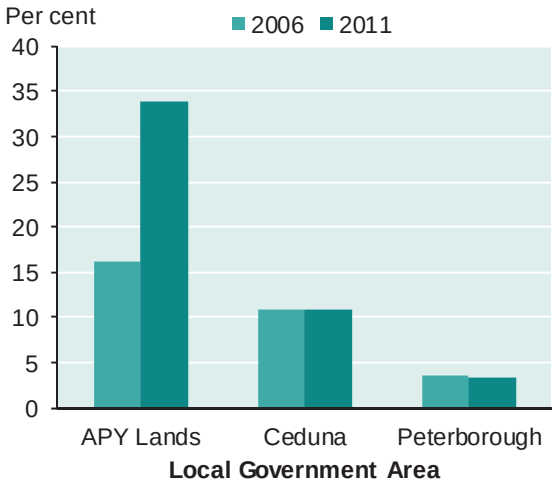
Full-time participation in education at age 16 increased substantially (by over three times the 1986 level) in the APY Lands, with smaller increases in Ceduna (18%) and Peterborough (2%); both of these LGAs had higher rates in 1986 than was the case for the APY Lands.

Figure 55: Full-time participation in education at 16 years old, 2006 and 2011



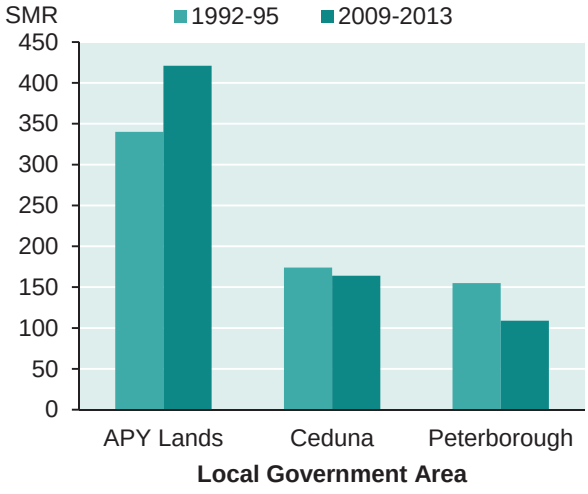
The proportion of houses being rented from Housing SA in the APY Lands more than doubled between 1986 and 2011. The proportions in Ceduna remained the same, whereas there was a small (8%) decline in Peterborough.

Figure 56: Housing rented from Housing SA, 2006 and 2011



There has been a marked increase (24%) in the standardised mortality ratio (SMR) for premature mortality from all causes in the APY Lands. The SMRs in Ceduna and Peterborough decreased by 6% and 30%, respectively.

Figure 57: Premature mortality (0-74 years) from all causes, 1992-95 and 2009-13



Sources: Data for 1986 and 2011 from ABS Population Censuses; premature mortality rates calculated from death registration data

The substantial increases in full-time participation in secondary education of young people at 16 years of age, and in the proportion of dwellings rented from Housing SA are positive indicators for the Anangu Pitjantjatjara Aboriginal Community, and for others who have worked to achieve these outcomes.

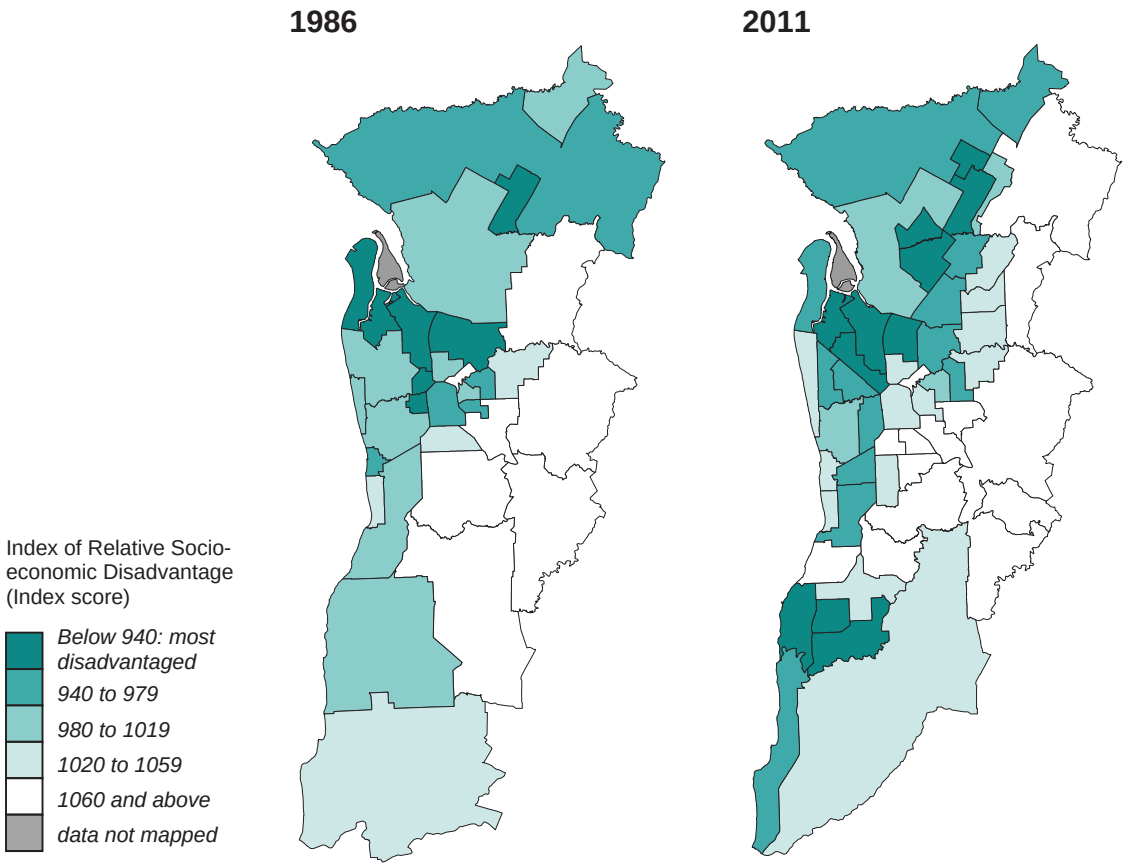
The maps for Adelaide reinforce the findings in this atlas that, after twenty-five years or more, these LGAs, and particular areas within the LGAs, remain the ones with the greatest level of disadvantage, and with the poorest outcomes in health and wellbeing (as measured by premature mortality).

The increase in full-time participation in secondary education of young people at 16 years of age shows the widespread nature of this major improvement across Adelaide; however, despite these substantial improvements, a few areas in the outer north, north-west and outer south of Adelaide continue to have the poorest outcomes under this measure.

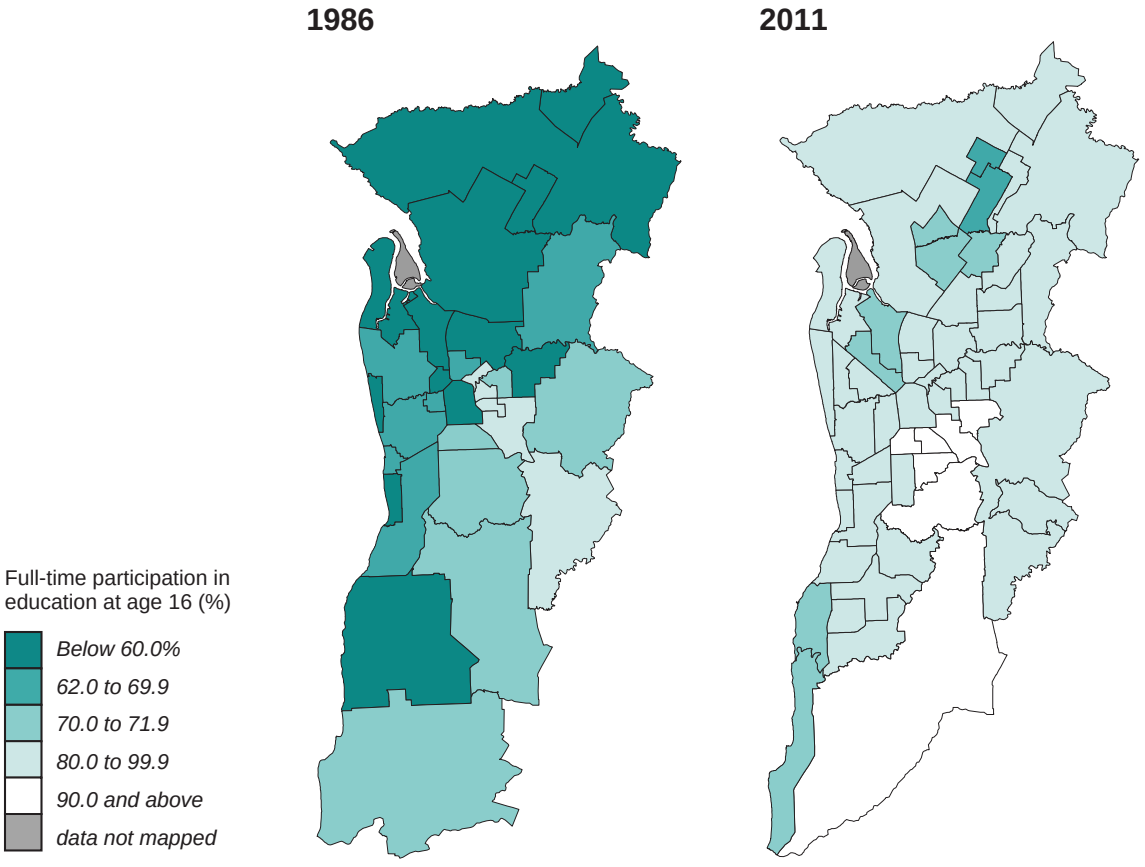
Further, despite the overall lower premature mortality rates, a larger area of Adelaide has rates in the highest range mapped. This shows that the gap between areas with high and those with low premature mortality rates has widened.

These time series' data remind us that approaches that lead to improvements in wellbeing for communities and across generations require sustained, long-term approaches within a clear, overall policy framework. They also show that beneficial change is possible, and can and does occur.

Map 41: Index of Relative Socio-economic Disadvantage, 1986 and 2011

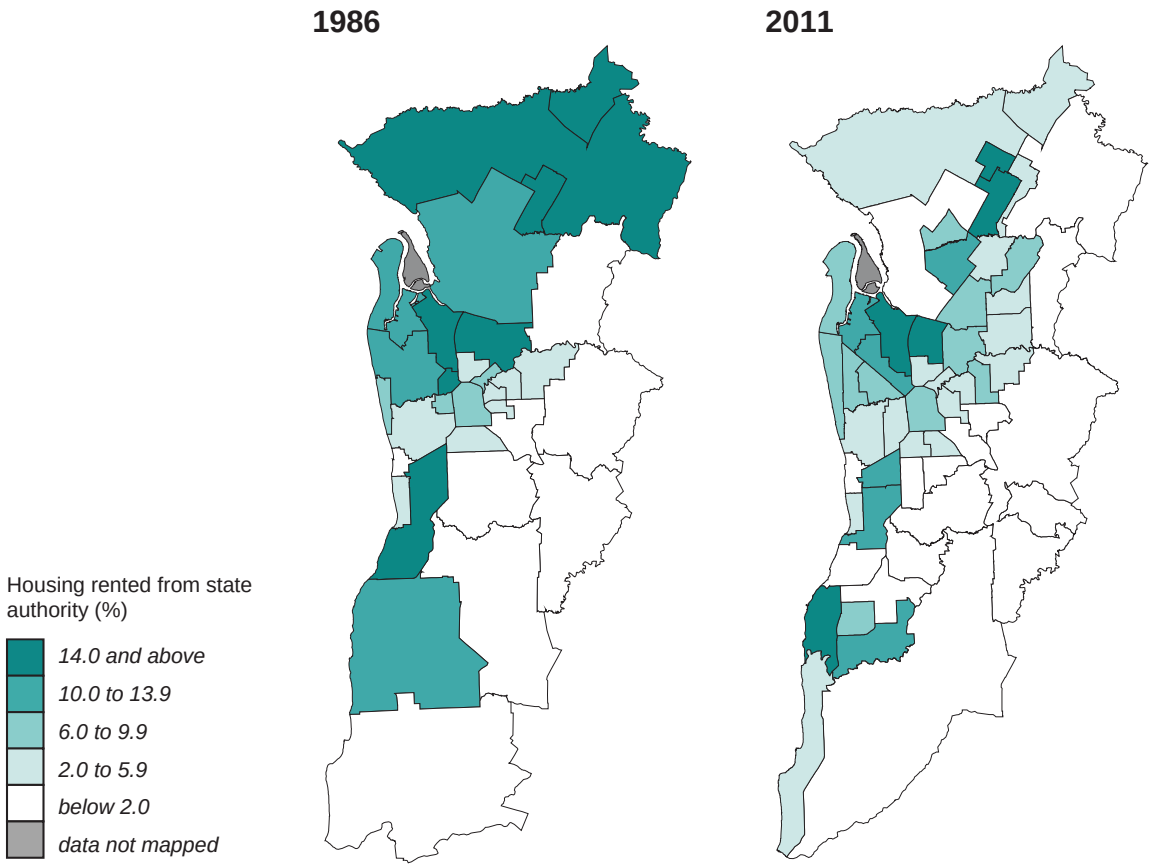


Map 42: Full-time participation in education at age 16, 1986 and 2011

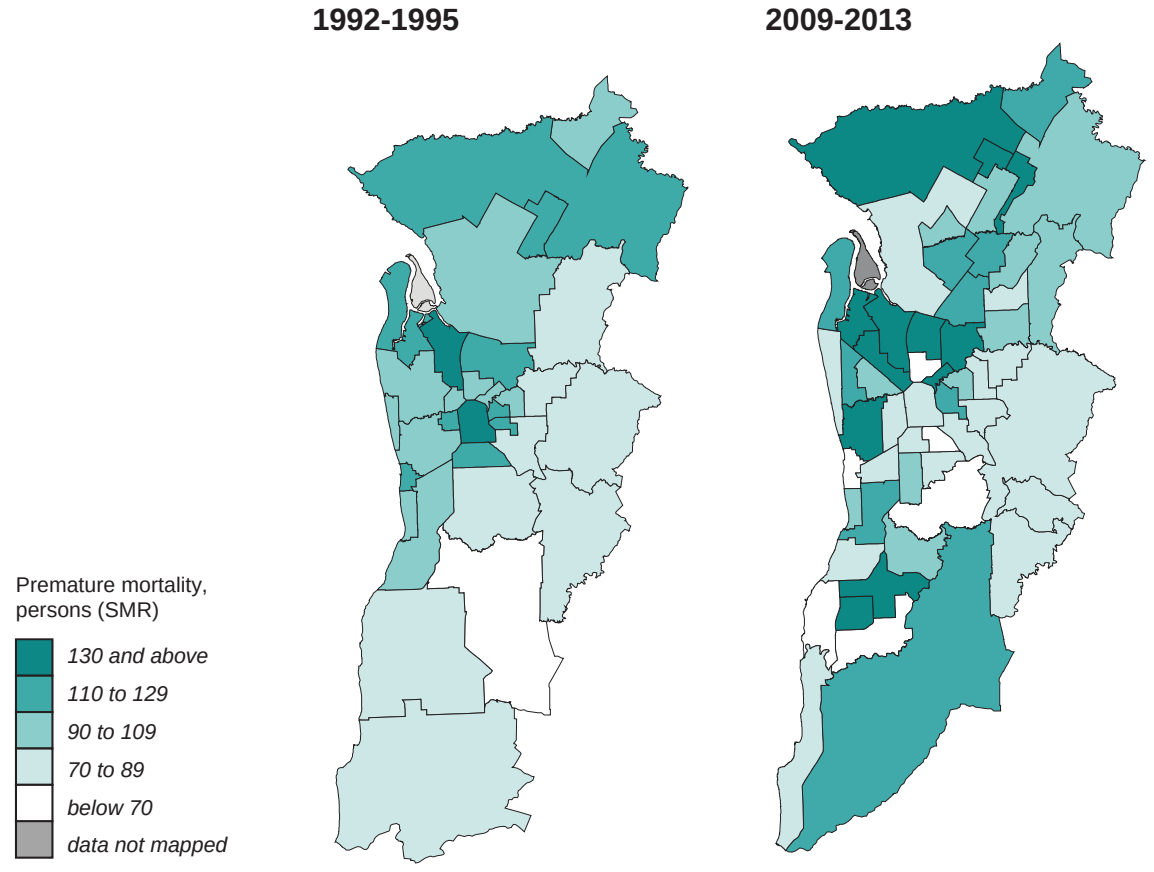


Sources: Data for 1986 and 2011 from ABS Population Censuses; premature mortality rates calculated from death registration data

Map 43: Housing rented from Housing SA, 1986 and 2011



Map 44: Premature mortality from all causes, 1992-1995 and 2009-2013



Sources: Data for 1986 and 2011 from ABS Population Censuses; premature mortality rates calculated from death registration data

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Table 42: Correlations matrix of the indicator data at the Population Health Area level in Metropolitan Adelaide

	Index of Relative Socio-economic Disadvant-age	Children aged less than 15 years living in jobless families	Age Pension recipients	AEDC: young children develop-mentally vulnerable on one or more domains	NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	Early school leavers	Unemploy-ment benefit recipients	Youth unemploy-ment benefit recipients	Young people aged 15 to 24 years engaged in learning or earning	People aged 15 to 64 years living in the community with disability	No Internet access at home	Households without a motor vehicle	Low income households under financial stress from rent/ mortgage	Participated in voluntary work for an organisation or group	Can get support in times of crisis from outside the household	Adult obesity#	Adult smokers#	High or very high levels of psychologi-cal distress#	Premature mortality
Index of Relative Socio-economic Disadvantage	1.00	-0.96**	-0.61**	-0.80**	-0.47**	-0.80**	-0.96**	-0.90**	0.87**	-0.94**	-0.79**	-0.54**	-0.35**	0.79**	0.77**	-0.71**	-0.91**	-0.93**	-0.89**
Children aged less than 15 years living in jobless families	-0.96**	1.00	0.49**	0.86**	0.49**	0.66**	0.95**	0.91**	-0.85**	0.91**	0.33**	0.60**	0.49**	-0.74**	0.10	0.61**	0.87**	0.91**	0.84**
Age Pension recipients	-0.61**	0.49**	1.00	0.30*	0.44**	0.87**	0.62**	0.67**	-0.74**	0.69**	0.50**	-0.12	-0.14	-0.71**	-0.50**	0.89**	0.75**	0.47**	0.53**
AEDC: young children developmentally vulnerable on one or more domains	-0.80**	0.86**	0.30*	1.00	0.50**	0.59**	0.79**	0.81**	-0.68**	0.73**	0.50**	0.53**	0.49**	-0.62**	-0.75**	0.48**	0.73**	0.76**	0.68**
NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	-0.47**	0.49**	0.44**	0.50**	1.00	0.62**	0.52**	0.80**	-0.59**	0.55**	0.19	-0.08	-0.02	-0.43**	-0.43**	0.58**	0.57**	0.40**	0.28*
Early school leavers	-0.80**	0.66**	0.87**	0.59**	0.62**	1.00	0.81**	0.86**	-0.88**	0.85**	0.50**	-0.04	-0.06	-0.70**	-0.21	0.96**	0.91**	0.64**	0.63**
Unemployment benefit recipients	-0.96**	0.95**	0.62**	0.79**	0.52**	0.81**	1.00	0.97**	-0.94**	0.93**	0.69**	0.42**	0.34**	-0.73**	-0.74**	0.74**	0.94**	0.87**	0.84**
Youth unemployment benefit recipients	-0.90**	0.91**	0.67**	0.81**	0.80**	0.86**	0.97**	1.00	-0.97**	0.93**	0.59**	0.25	0.31*	-0.67**	-0.74**	0.78**	0.96**	0.79**	0.81**
Young people aged 15 to 24 years engaged in learning or earning	0.87**	-0.85**	-0.74**	-0.68**	-0.59**	-0.88**	-0.94**	-0.97**	1.00	-0.91**	-0.56**	-0.18	-0.26*	0.69**	0.66**	-0.83**	-0.96**	-0.75**	-0.75**
People aged 15 to 64 years living in the community with disability	-0.94**	0.91**	0.69**	0.73**	0.55**	0.85**	0.93**	0.93**	-0.91**	1.00	0.70**	0.35**	0.21	-0.74**	-0.73**	0.78**	0.93**	0.84**	0.80**
No Internet access at home	-0.79**	0.33**	0.50**	0.50**	0.19	0.50**	0.69**	0.59**	-0.56**	0.70**	1.00	0.22	-0.36**	-0.31*	-0.74**	0.50**	0.62**	0.78**	0.72**
Households without a motor vehicle	-0.54**	0.60**	-0.12	0.53**	-0.08	-0.04	0.42**	0.25	-0.18	0.35**	0.22	1.00	0.61**	-0.38**	0.15	-0.09	0.25*	0.66**	0.56**
Low income households under financial stress from rent/mortgage	-0.35**	0.49**	-0.14	0.49**	-0.02	-0.06	0.34**	0.31*	-0.26*	0.21	-0.36**	0.61**	1.00	-0.29*	0.44**	-0.01	0.25*	0.41**	0.39**
Participated in voluntary work for an organisation or group	0.79**	-0.74**	-0.71**	-0.62**	-0.43**	-0.70**	-0.73**	-0.67**	0.69**	-0.74**	-0.31*	-0.38**	-0.29*	1.00	-0.10	-0.72**	-0.74**	-0.74**	-0.73**
Can get support in times of crisis from outside the household	0.77**	0.10	-0.50**	-0.75**	-0.43**	-0.21	-0.74**	-0.74**	0.66**	-0.73**	-0.74**	0.15	0.44**	-0.10	1.00	-0.61**	-0.72**	-0.73**	-0.71**
Adult obesity	-0.71**	0.61**	0.89**	0.48**	0.58**	0.96**	0.74**	0.78**	-0.83**	0.78**	0.50**	-0.09	-0.01	-0.72**	-0.61**	1.00	0.85**	0.57**	0.57**
Adult smokers	-0.91**	0.87**	0.75**	0.73**	0.57**	0.91**	0.94**	0.96**	-0.96**	0.93**	0.62**	0.25*	0.25*	-0.74**	-0.72**	0.85**	1.00	0.78**	0.78**
High or very high levels of psychological distress	-0.93**	0.91**	0.47**	0.76**	0.40**	0.64**	0.87**	0.79**	-0.75**	0.84**	0.78**	0.66**	0.41**	-0.74**	-0.73**	0.57**	0.78**	1.00	0.83**
Premature mortality	-0.89**	0.84**	0.53**	0.68**	0.28*	0.63**	0.84**	0.81**	-0.75**	0.80**	0.72**	0.56**	0.39**	-0.73**	-0.71**	0.57**	0.78**	0.83**	1.00

Notes:

 # Data based on modelled estimates: see Appendix A for details.

** Correlation is statistically significant, at the 95% confidence level*

***Correlation is statistically significant, at the 99% confidence level*

Indicator 'Positively rate the local environment in terms of planning, open space and lack of pollution' is excluded from correlation as PHA level data not available

Weak or no correlation:	< ± 0.30
Moderate correlation:	± 0.30 to ± 0.49
Strong correlation:	± 0.50 to ± 0.70
Very strong correlation:	> ± 0.70
Not applicable:	1.00

Table 43: Correlations matrix of the indicator data at the Local Government Area level in Metropolitan Adelaide

	Index of Relative Socio-economic Disadvant-age	Children aged less than 15 years living in jobless families	Age Pension recipients	AEDC: young children develop-mentally vulnerable on one or more domains	NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	Early school leavers	Unemploy-ment benefit recipients	Youth unemploy-ment benefit recipients	Young people aged 15 to 24 years engaged in learning or earning	People aged 15 to 64 years living in the community with disability	Households without Internet access	Households without a motor vehicle	Low income households under financial stress from rent/ mortgage	Positively rate local environment for planning, open space and lack of pollution	Participated in voluntary work for an organisation or group	Can get support in times of crisis from outside the household	Adult obesity#	Adult smokers#	High or very high levels of psychologi-cal distress#	Premature mortality
Index of Relative Socio-economic Disadvantage	1.00	-0.95**	-0.69**	-0.81**	-0.75**	-0.85**	-0.97**	-0.90**	0.89**	-0.96**	-0.73**	-0.24	-0.22	0.73**	0.88**	0.84**	-0.80**	-0.93**	-0.92**	-0.90**
Children aged less than 15 years living in jobless families	-0.95**	1.00	0.49*	0.91**	0.66*	0.72**	0.94**	0.85**	-0.83**	0.90**	0.52*	0.38	0.43	-0.76**	-0.79**	-0.89**	0.66**	0.88**	0.93**	0.83**
Age Pension recipients	-0.69**	0.49*	1.00	0.22	0.70**	0.92**	0.70**	0.75**	-0.79**	0.79**	0.72**	-0.36	-0.38	-0.25	-0.73**	-0.48*	0.91**	0.79**	0.46*	0.58**
AEDC: young children developmentally vulnerable on one or more domains	-0.81**	0.91**	0.22	1.00	0.47	0.48*	0.79**	0.70**	-0.62**	0.69**	0.33	0.55*	0.61**	-0.80**	-0.60**	-0.83**	0.44	0.72**	0.88**	0.75**
NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	-0.75**	0.66*	0.70**	0.47	1.00	0.86**	0.84**	0.91**	-0.89**	0.84**	0.53	-0.21	-0.09	-0.26	-0.55*	-0.36	0.77**	0.88**	0.50	0.71**
Early school leavers	-0.85**	0.72**	0.92**	0.48*	0.86**	1.00	0.89**	0.93**	-0.94**	0.93**	0.73**	-0.27	-0.23	-0.40	-0.78**	-0.60**	0.97**	0.94**	0.63**	0.71**
Unemployment benefit recipients	-0.97**	0.94**	0.70**	0.79**	0.84**	0.89**	1.00	0.97**	-0.95**	0.97**	0.65**	0.10	0.16	-0.68**	-0.82**	-0.78**	0.85**	0.97**	0.85**	0.88**
Youth unemployment benefit recipients	-0.90**	0.85**	0.75**	0.70**	0.91**	0.93**	0.97**	1.00	-0.98**	0.95**	0.60**	-0.10	-0.01	-0.55*	-0.73**	-0.67**	0.87**	0.97**	0.72**	0.81**
Young people aged 15 to 24 years engaged in learning or earning	0.89**	-0.83**	-0.79**	-0.62**	-0.89**	-0.94**	-0.95**	-0.98**	1.00	-0.94**	-0.60**	0.12	0.00	0.52*	0.76**	0.68**	-0.90**	-0.96**	-0.71**	-0.77**
People aged 15 to 64 years living in the community with disability	-0.96**	0.90**	0.79**	0.69**	0.84**	0.93**	0.97**	0.95**	-0.94**	1.00	0.71**	0.02	0.03	-0.61**	-0.84**	-0.77**	0.89**	0.97**	0.82**	0.84**
Households without Internet access	-0.73**	0.52*	0.72**	0.33	0.53	0.73**	0.65**	0.60**	-0.60**	0.71**	1.00	-0.03	-0.28	-0.41	-0.74**	-0.40	0.72**	0.66**	0.59**	0.71**
Households without a motor vehicle	-0.24	0.38	-0.36	0.55*	-0.21	-0.27	0.10	-0.10	0.12	0.02	-0.03	1.00	0.88**	-0.57*	-0.22	-0.50*	-0.30	-0.01	0.53*	0.28
Low income households under financial stress from rent/mortgage	-0.22	0.43	-0.38	0.61**	-0.09	-0.23	0.16	-0.01	0.00	0.03	-0.28	0.88**	1.00	-0.54*	-0.16	-0.53*	-0.30	0.04	0.49*	0.19
Positively rate local environment for planning, open space and lack of pollution	0.73**	-0.76**	-0.25	-0.80**	-0.26	-0.40	-0.68**	-0.55*	0.52*	-0.61**	-0.41	-0.57*	-0.54*	1.00	0.65**	0.83**	-0.41	-0.60**	-0.88**	-0.74**
Participated in voluntary work for an organisation or group	0.88**	-0.79**	-0.73**	-0.60**	-0.55*	-0.78**	-0.82**	-0.73**	0.76**	-0.84**	-0.74**	-0.22	-0.16	0.65**	1.00	0.77**	-0.77**	-0.80**	-0.82**	-0.80**
Can get support in times of crisis from outside the household	0.84**	-0.89**	-0.48*	-0.83**	-0.36	-0.60**	-0.78**	-0.67**	0.68**	-0.77**	-0.40	-0.50*	-0.53*	0.83**	0.77**	1.00	-0.55*	-0.74**	-0.91**	-0.74**
Adult obesity	-0.80**	0.66**	0.91**	0.44	0.77**	0.97**	0.85**	0.87**	-0.90**	0.89**	0.72**	-0.30	-0.30	-0.41	-0.77**	-0.55*	1.00	0.92**	0.60**	0.70**
Adult smokers	-0.93**	0.88**	0.79**	0.72**	0.88**	0.94**	0.97**	0.97**	-0.96**	0.97**	0.66**	-0.01	0.04	-0.60**	-0.80**	-0.74**	0.92**	1.00	0.79**	0.82**
High or very high levels of psychological distress	-0.92**	0.93**	0.46*	0.88**	0.50	0.63**	0.85**	0.72**	-0.71**	0.82**	0.59**	0.53*	0.49*	-0.88**	-0.82**	-0.91**	0.60**	0.79**	1.00	0.83**
Premature mortality	-0.90**	0.83**	0.58**	0.75**	0.71**	0.71**	0.88**	0.81**	-0.77**	0.84**	0.71**	0.28	0.19	-0.74**	-0.80**	-0.74**	0.70**	0.82**	0.83**	1.00

Notes:

 # Data based on modelled estimates: see Appendix A for details.

** Correlation is statistically significant, at the 95% confidence level*

***Correlation is statistically significant, at the 99% confidence level*

Weak or no correlation:	< ± 0.30
Moderate correlation:	± 0.30 to ± 0.49
Strong correlation:	± 0.50 to ± 0.70
Very strong correlation:	> ± 0.70
Not applicable:	1.00

Table 44: Correlations matrix of the indicator data at the Local Government Area level in Regional South Australia

	Index of Relative Socio-economic Disadvant-age	Children aged less than 15 years living in jobless families	Age Pension recipients	AEDC: young children develop-mentally vulnerable on one or more domains	NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	Early school leavers	Unemploy-ment benefit recipients	Youth unemploy-ment benefit recipients	Young people aged 15 to 24 years engaged in learning or earning	People aged 15 to 64 years living in the community with disability	Households without Internet access	Households without a motor vehicle	Low income households under financial stress from rent/ mortgage	Participated in voluntary work for an organisation or group	Can get support in times of crisis from outside the household	Adult obesity#	Adult smokers#	High or very high levels of psychologi-cal distress#	Premature mortality
Index of Relative Socio-economic Disadvantage	1.00	-0.91**	-0.18	-0.78**	-0.82**	-0.83**	-0.95**	-0.75**	0.81**	-0.48**	-0.89**	-0.91**	0.28*	0.57**	0.58**	-0.50**	-0.75**	-0.75**	-0.81**
Children aged less than 15 years living in jobless families	-0.91**	1.00	0.29*	0.68**	0.62**	0.61**	0.84**	0.74**	-0.75**	0.66**	0.72**	0.75**	-0.05	-0.63**	-0.56**	0.38*	0.68**	0.70**	0.58**
Age Pension recipients	-0.18	0.29*	1.00	0.05	-0.17	0.01	0.14	0.14	-0.14	0.44**	0.11	0.03	0.25	-0.25	-0.22	0.28	0.47**	0.61**	-0.05
AEDC: young children developmentally vulnerable on one or more domains	-0.78**	0.68**	0.05	1.00	0.81**	0.73**	0.80**	0.66**	-0.81**	0.17	0.65**	0.78**	-0.30*	-0.59**	-0.54**	0.17	0.36*	0.36*	0.73**
NAPLAN: children below national minimum standard in numeracy outcomes in Year 3	-0.82**	0.62**	-0.17	0.81**	1.00	0.91**	0.84**	0.70**	-0.75**	0.00	0.76**	0.92**	-0.35	-0.59**	-0.49**	0.46*	0.69**	0.58**	0.92**
Early school leavers	-0.83**	0.61**	0.01	0.73**	0.91**	1.00	0.75**	0.50**	-0.62**	0.19	0.84**	0.85**	-0.44**	-0.37**	-0.24	0.62**	0.60**	0.51**	0.82**
Unemployment benefit recipients	-0.95**	0.84**	0.14	0.80**	0.84**	0.75**	1.00	0.86**	-0.82**	0.37**	0.84**	0.89**	-0.27	-0.64**	-0.58**	0.49**	0.69**	0.74**	0.82**
Youth unemployment benefit recipients	-0.75**	0.74**	0.14	0.66**	0.70**	0.50**	0.86**	1.00	-0.75**	0.20	0.71**	0.70**	-0.39*	-0.59**	-0.51**	0.43*	0.83**	0.81**	0.77**
Young people aged 15 to 24 years engaged in learning or earning	0.81**	-0.75**	-0.14	-0.81**	-0.75**	-0.62**	-0.82**	-0.75**	1.00	-0.31*	-0.61**	-0.81**	-0.06	0.70**	0.60**	-0.21	-0.32*	-0.34*	-0.65**
People aged 15 to 64 years living in the community with disability	-0.48**	0.66**	0.44**	0.17	0.00	0.19	0.37**	0.20	-0.31*	1.00	0.40**	0.21	0.01	-0.18	-0.43**	0.32*	0.61**	0.65**	0.07
Households without Internet access	-0.89**	0.72**	0.11	0.65**	0.76**	0.84**	0.84**	0.71**	-0.61**	0.40**	1.00	0.82**	-0.59**	-0.23	-0.24	0.53**	0.72**	0.68**	0.82**
Households without a motor vehicle	-0.91**	0.75**	0.03	0.78**	0.92**	0.85**	0.89**	0.70**	-0.81**	0.21	0.82**	1.00	-0.23	-0.56**	-0.42**	0.38*	0.58**	0.65**	0.87**
Low income households under financial stress from rent/mortgage	0.28*	-0.05	0.25	-0.30*	-0.35	-0.44**	-0.27	-0.39*	-0.06	0.01	-0.59**	-0.23	1.00	-0.45**	-0.21	-0.29	-0.24	-0.19	-0.48**
Participated in voluntary work for an organisation or group	0.57**	-0.63**	-0.25	-0.59**	-0.59**	-0.37**	-0.64**	-0.59**	0.70**	-0.18	-0.23	-0.56**	-0.45**	1.00	0.57**	-0.12	-0.25	-0.29	-0.41**
Can get support in times of crisis from outside the household	0.58**	-0.56**	-0.22	-0.54**	-0.49**	-0.24	-0.58**	-0.51**	0.60**	-0.43**	-0.24	-0.42**	-0.21	0.57**	1.00	-0.28	-0.50**	-0.45**	-0.21
Adult obesity	-0.50**	0.38*	0.28	0.17	0.46*	0.62**	0.49**	0.43*	-0.21	0.32*	0.53**	0.38*	-0.29	-0.12	-0.28	1.00	0.65**	0.62**	0.66**
Adult smokers	-0.75**	0.68**	0.47**	0.36*	0.69**	0.60**	0.69**	0.83**	-0.32*	0.61**	0.72**	0.58**	-0.24	-0.25	-0.50**	0.65**	1.00	0.87**	0.76**
High or very high levels of psychological distress	-0.75**	0.70**	0.61**	0.36*	0.58**	0.51**	0.74**	0.81**	-0.34*	0.65**	0.68**	0.65**	-0.19	-0.29	-0.45**	0.62**	0.87**	1.00	0.72**
Premature mortality	-0.81**	0.58**	-0.05	0.73**	0.92**	0.82**	0.82**	0.77**	-0.65**	0.07	0.82**	0.87**	-0.48**	-0.41**	-0.21	0.66**	0.76**	0.72**	1.00

Notes:

 # Data based on modelled estimates: see Appendix A for details.

** Correlation is statistically significant, at the 95% confidence level*

***Correlation is statistically significant, at the 99% confidence level*

Indicator 'Positively rate the local environment in terms of planning, open space and lack of pollution' is excluded from correlation as LGA level data not available

Weak or no correlation:	< ± 0.30
Moderate correlation:	± 0.30 to ± 0.49
Strong correlation:	± 0.50 to ± 0.70
Very strong correlation:	> ± 0.70
Not applicable:	1.00

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Appendices

In this section …

- Appendix A: Notes on the indicators and data sources, and Glossary
- Appendix B: Details of modelled estimates
- Appendix C: Correlation analysis
- Appendix D: Sources of information
- Appendix E: Key maps

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Appendix A: Notes on the indicators and data sources

Background details

Measures used

Data are presented as percentages, rates per population, or ratios. Where it was considered that variations in the age distribution of the population in an area for a particular variable could affect the analysis, the data have been indirectly age-standardised.

Indirectly age-standardised rates compare the actual number of events in an area (e.g., in the LGA of Salisbury) with the expected number of events based on rates in a reference population (in this atlas, South Australia). These rates are generally based on the five-year age group and sex data in the reference population. The standardised ratios are the ratios of the observed (actual) to expected number of events. The observed figure comes from the local area, and the expected, from applying the rate in the reference population to the local population.

This effectively means any differences in age-standardised rates between areas reflect the influence of factors other than age.

Geography

Data are presented by two geographic areas, the PHA and LGA level in Adelaide, and the LGA level in Regional South Australia. PHAs are comprised of a combination of whole SA2s and multiple (aggregates of) SA2s, where the SA2 is an area in the new ABS structure - the Australian Statistical Geographical Standard (ASGS), July 2011. LGAs are based on the ABS Australian Standard Geographical Classification (ASGC), July 2011.

In the tables where data are presented by both geographies, i.e., by both PHA and LGA, the LGA totals will not match the sum of the PHAs within the corresponding LGA, due to a combination of random perturbation (for ABS Census data), and the boundaries of the PHAs not aligning precisely with the LGA boundaries.

Maps

The maps show data for the PHA or LGA of the usual resident address of the person to whom the statistic refers (e.g., of children living in jobless families; of adult smokers).

Some areas have not been mapped where there was only a small number of cases for a particular indicator: in general, this was fewer than five cases or events. For income support data, data less than 20 are not mapped.

For AEDC, data are not shown for areas where one or more of the following conditions have been met:

- three or fewer children had been assessed;
- less than fifteen children had valid AEDC scores;
- less than two teachers had completed the AEDC instrument for children in that location; and
- the AEDC instrument was completed for less than 80% of all non-special needs children.

Data could also not be mapped for Very Remote areas or discrete Aboriginal communities, as modelled estimates were not published for these regions.

Glossary

Terminology

Adelaide	The area mapped that shows the built-up area of Adelaide, extending from Gawler in the north, to Sellicks Beach in the south.
Aboriginal	Aboriginal and Torres Strait Islander peoples
AEDC	Australian Early Development Census
Community regions	Geographical areas based on groupings of Statistical Local Areas or of Local Government Areas
ERP	Estimated Resident Population
Indigenous status	People identifying as Aboriginal and/or Torres Strait Islander
IRSD	Index of Relative Socio-economic Disadvantage
LGA	Local Government Area
Modelled estimate	The numbers and rates provided are the likely value of an indicator for an area, based on specific characteristics of the population in that area. (See Appendix B, for further details).
NAPLAN	National Assessment Program – Literacy and Numeracy
Not mapped	Areas have not been mapped where data were likely to be unreliable due to there being a small number of cases for a particular indicator, low population numbers, or no estimates available for the area.
PHA	Population Health Area
PHIDU	Public Health Information Development Unit
Rate	Indirectly age-standardised rate per 100 population
Rate ratio/RR	The ratio of the rate (i.e., the percentage or the standardised rate) in one area to that in another: in this report, it is generally the ratio of the PHA and/or LGA figure to the metropolitan Adelaide or to the Regional South Australia total.
Regional South Australia	The whole state, other than Adelaide (see above)
SA2	Statistical Area Level 2
SMR	Standardised Mortality Ratio

Symbols used

.. not applicable

% per cent

(a) not shown: for NAPLAN indicators, replaces numbers between 1 and 4.

(b) not shown: for AEDC indicators, when one or more of the following have been met:

- three or fewer children had been assessed
- fewer than fifteen children had valid AEDC scores
- less than two teachers had completed the AEDC instrument for children in that location; or
- the AEDC instrument was completed for less than 80% of all non-special needs children.

(c) not shown (numbers including true zeros): for Income support, replaces numbers from 0 to 19.

not shown: modelled estimates not produced for Very Remote areas and Aboriginal communities, and replaces numbers where the total population is less than 1,000.

Notes and data sources

The following notes and data sources provide more detailed information to that included on the indicator pages in Section 4.

Age distribution

Estimated Resident Population, 2013

The ABS Estimated Resident Population (ERP) is the most accurate representation of the population living in an area. It is based on the Usual Resident Population (URP) – the ABS count of people in Australia on Census night – but includes adjustments for overseas visitors, undercounting, and Australian residents who were temporarily overseas on Census night.

The data presented are the total population by five year age groups: 0-4 years to 85+ years, expressed as a proportion of the total population.

Compiled by PHIDU based on the ABS Estimated Resident Population, 30 June 2013.

Indigenous status and age, 2015

The Australian Government Department of Health (through the Indigenous and Rural Health Division (IRHD)) contracted Prometheus Information Pty. Ltd. to develop a set of population estimates by Indigenous status for 2011, and projections to 2015 at the Statistical Areas Level 2 (SA2) across Australia, adapting the model and approach they had previously developed for the former Office for Aboriginal and Torres Strait Islander Health (OATSIH).

The population estimates sum to published 2012 and 2013 ABS ERPs for the Indigenous population at the SA2, Indigenous Region and State/Territory level, and to the published 2014 and 2015 ABS projections 2014 and 2015 for the Indigenous population, at the Indigenous Region level.

The data presented are the total Aboriginal population by five year age groups: 0-4 years to 65+ years, expressed as a proportion of the total Aboriginal population.

Compiled by PHIDU using data developed by Prometheus Information Pty. Ltd., under a contract with the Australian Government Department of Health.

Socioeconomic status

Index of Relative Socio-economic Disadvantage, 2011

The Index of Relative Socio-economic Disadvantage is one of four socioeconomic indexes produced by the ABS from the 2011 Census. The Index has a base value of 1000 for Australia: scores above 1000 indicate relative advantage, and those below 1000 indicate relative disadvantage.

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, which 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 Technical Paper, *Socio-Economic Indexes for Areas (SEIFA), 2011* (ABS Cat. no. 2033.0.55.001).

The data present the Index of Relative Socio-economic Disadvantage (IRSD).

Source: Compiled by PHIDU using data from ABS SEIFA, 2011 Census.

Children aged less than 15 years living in jobless families, 2011

The data presented are the number of children aged less than 15 years living in families in which no parent is employed, expressed as a proportion of all children aged less than 15 years of age.

Compiled by PHIDU using data from the ABS Census 2011 (unpublished) data.

Age pension recipients, June 2014

The data presented are the number of people in receipt of an Age Pension from the Department of Human Services, expressed as a proportion of all persons aged 65 years and over.

Compiled by PHIDU using data from the Department of Social Services, June 2014; and ABS Estimated Resident Population, 30 June 2013

Child development and education

Australian Early Development Census (AEDC)

Children developmentally vulnerable in one or more domains, 2012

The AEDC results are presented as the number of children who are considered to be 'developmentally vulnerable' (children who score in the lowest ten per cent) on one or more of the five domains (or areas of early childhood development, which are: physical health and wellbeing; social competence; emotional maturity; language and cognitive skills (school-based); and communication skills and general knowledge), as a proportion of all children who were assessed using the AEDC.

Source: Compiled by PHIDU using data from the 2012 Australian Early Development Census

National Assessment Program - Literacy and Numeracy (NAPLAN)

Numeracy outcomes of children in Year 3 attending government schools, 2014

The NAPLAN results are presented as the number of children in Year 3 in government schools who are considered to have scores below the national minimum standard for numeracy, as a proportion of students assessed.

Source: Compiled by PHIDU using data supplied by the Department of Education and Childhood Development, South Australia.

Early school leavers who left school at Year 10 or below, or did not go to school, 2011

The data presented are the number of people who left school at Year 10 or below, or did not go to school, expressed as an age-standardised rate per 100,000 population aged 15 years and over.

Rates of completion of schooling beyond Year 10 have increased over the years: for example, the population aged 80 years had lower rates of completion of Year 10 than did the population aged 40 years. The data have, therefore, been age-standardised (to the population aged 15 years and over) to remove any cohort influence.

Source: Compiled by PHIDU using data from the ABS Census 2011 data.

Labour force

Unemployment benefits recipients, June 2014

The data presented are the number of people in receipt of the *Newstart Allowance* or *Youth Allowance (Other)* from the Department of Human Services, expressed as a proportion of the population aged 16 to 64 years.

Compiled by PHIDU using data from the Department of Human Services, June 2014; and ABS Estimated Resident Population, 30 June 2013.

Young people aged 16 to 24 years receiving an unemployment benefit, June 2014

The data presented are the number of people in receipt of the *Newstart Allowance* (people aged 16 to 24 years) or *Youth Allowance (Other)* paid by the Department of Human Services, expressed as a proportion of the population aged 16 to 24 years.

Youth Allowance (Other) is largely comprised of unemployed people aged 16 to 21 looking for full-time work or undertaking approved activities, such as part-time study or training. It excludes Youth Allowance customers who are full-time students or undertaking an apprenticeship/ traineeship.

Compiled by PHIDU using data from the Department of Human Services, June 2014; and ABS Estimated Resident Population, 30 June 2013.

Young people aged 15 to 24 years engaged in learning or earning, 2011

The data presented are the number of 15 to 19 year olds fully engaged in school, work or further education/training, expressed as a proportion of the population aged 15 to 19 years.

'Fully engaged' includes people who reported at the 2011 Census that they were in full-time work or in full-time education, or in part-time work combined with part-time education. The remaining youth population, those who are 'not fully engaged' includes people who were working part-time (but not studying), unemployed (regardless of whether studying part-time), studying part-time (and not working) and not in the labour force (excluding full-time students).

Compiled by PHIDU using data from the ABS Census 2011.

Disability

People aged 15 to 64 years with a disability who are living in the community

The data presented are the number people aged 15 to 64 years with a profound or severe disability and living in the community, as a proportion of the population aged 15 to 64 years.

The 'Core Activity Need for Assistance' variable was developed by the Australian Bureau of Statistics (ABS) for use in the five-yearly population Census 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, because 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 as are measured in the ABS Survey of Disability, Ageing and Carers (SDAC). The reasons for this are definitional (the SDAC approach, which uses a filtering approach to determine whether the respondent has a disability, and the severity) as compared to the self-report approach in the Census; and the 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 gaining an understanding of the geographic distribution of this population group.

The ABS data include people of all ages, including those 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 figure in this atlas excludes people living in these accommodation types, in order to provide an estimate of the number 'living in the community'. People aged 65 years and over have also been excluded.

Source: Compiled by PHIDU using data from the ABS 2011 Census.

Access

Households without Internet access, 2011

The data presented are the number of private dwellings with no Internet connection, expressed as a proportion of total private dwellings.

Source: Compiled by PHIDU using data from the ABS 2011 Census.

Households without a motor vehicle, 2011

The data presented are the number of occupied private dwellings with no motor vehicle parked or garaged there on Census night, expressed as a proportion of all occupied private dwellings.

Source: Compiled by PHIDU using data from the ABS 2011 Census.

Housing

Low income households under financial stress from rent or mortgage repayments, 2011

The data presented are the proportion of low income households, those households in the bottom 40% of income distribution (having less than 80% of median equivalised income), spending more than 30% of income on mortgage repayments, or on rent.

Equivalised total household income is total household income adjusted by the application of an equivalence scale to facilitate comparison of income levels between households of differing size and composition. Equivalised household income per week can be viewed as an indicator of the economic resources available to a standardised household. For a lone person household, it is equal to household income. For a household comprising more than one person, it is an indicator of the household income that would be needed by a lone person household to enjoy the same level of economic wellbeing.

Equivalised income varies by State/ Territory - NSW: $633; Victoria: $640; Qld.: $649; SA: $551; WA: $699; Tasmania: $488; NT: $853; ACT: $987.

Source: Compiled by PHIDU using data from the ABS 2011 Census.

Community strengths

Proportion who positively rate the local environment in terms of planning, open spaces and lack of pollution

The data presented are the number of persons aged 18 years and over, who rated their local community as excellent, very good or good in terms of planning, open spaces and lack of pollution, as a proportion of the population aged 18 years and over.

For further information on the Indicators of Community Strength study 2013, see: http://www.dcsi.sa.gov.au/__data/assets/pdf_file/0013/15061/Community-Strength-Survey-Report-2013-FINAL-PDF.pdf

Source: Compiled by PHIDU using data supplied by the Department for Communities and Social Inclusion, South Australia.

Participated in voluntary work for an organisation of group, 2011

The data presented are the number of persons aged 15 years and over who participated in voluntary work for an organisation or group, expressed as a proportion of persons aged 15 years and over.

The 2011 Census variable 'Voluntary work for an organisation or group' records people who spent time doing unpaid voluntary work through an organisation or group in the twelve months prior to Census night.

Compiled by PHIDU using data from the ABS Census 2011.

Can get support in times of crisis from outside of the household, 2010 (modelled estimates)

The data presented are the number of persons aged 18 years and over who are able to get support in times of crisis from persons outside the household, expressed as an indirectly age-standardised rate per 100 population aged 18 years and over.

'Support in a time of crisis' refers to whether there is someone outside the person's household that could be asked for support in a time of crisis. Support could be in the form of emotional, physical or financial help. Potential sources of support could be family members, friends, neighbours, work colleagues and various community, government and professional organisations.

This indicator is a modelled estimate from the ABS 2010 General Social Survey. For details on this indicator and the survey please refer to the General Social Survey: User Guide, Australia, 2010 (ABS Cat. No. 4159.0.55.002) at http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4159.0.55.002?OpenDocument. For further information on modelled estimates, refer to Appendix B.

Source: Compiled by PHIDU using data estimated from the 2010 General Social Survey, ABS (unpublished); and ABS Estimated Resident Population, 30 June 2010.

Health and wellbeing

Health status: modelled estimates from the 2011-13 Australian Health Survey

The Australian Health Survey (AHS), conducted by the Australian Bureau of Statistics in 2011-13, is made up of three components:

- the National Health Survey (NHS);
- the National Nutrition and Physical Activity Survey (NNPAS); and
- the National Health Measures Survey (NHMS).

All people selected in the AHS were selected in either the NHS or the NNPAS; however, data items in the core were common to both surveys and therefore information for these data items is available for all persons in the AHS. All people aged 5 years and over were then invited to participate in the voluntary NHMS.

Around 20,500 people participated in the NHS, answering questions about items such as detailed health conditions, health risk factors and medications as well as all items in the core content. For the NHS component (those items collected only in the NHS and not the core), the sample size is similar to that of previous National Health Surveys and the results are therefore comparable. However, for those items collected in the core, the sample size (32,000 people – results for which are published in *Australian Health Survey: Updated Results, 2011-12* [ABS Cat. no. 4364.0.55.003]) is approximately 1.5 times that in the past and the estimates for core items such as smoking and Body Mass Index are more accurate, particularly at finer disaggregations, than in previous surveys.

For full details, refer to the *Australian Health Survey: Users' Guide, 2011-13* (ABS Cat. no. 4363.0.55.001) at http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/74D87E30B3539C53CA257BBB0014BB36?opendocument.

For further information on modelled estimates, refer to Appendix B.

Prevalence of high or very high psychological distress, 2011-13

The data presented are the estimated number of people aged 18 years and over assessed as having a 'high' or 'very high' level of psychological stress under the Kessler Psychological Distress Scale-10, expressed as an indirectly age-standardised rate per 100 population aged 18 years and over.

With regard to psychological distress, information was collected from respondents aged 18 years and over using the Kessler Psychological Distress Scale-10 (K10). The ten-item questionnaire yields a measure of psychological distress based on questions about negative emotional states (with different degrees of severity) experienced in the four weeks prior to interview. For each question, there is a five-level response scale based on the amount of time that a respondent experienced those particular feelings. The response options are 'none of the time'; 'a little of the time'; 'some of the time'; 'most of the time'; or 'all of the time'.

Each of the items is scored from 1 for 'none' to 5 for 'all of the time'. Scores for the ten items are summed, yielding a minimum possible score of 10 and a maximum possible score of 50, with low scores indicating low levels of psychological distress and high scores indicating high levels of psychological distress.

K10 results are commonly grouped for output. Results from the 2011-13 AHS are grouped into the following four levels of psychological distress: 'low' (scores of 10-15, indicating little or no psychological distress); 'moderate' (scores of 16-21); 'high' (scores of 22-29); and 'very high' (scores of 30-50). Based on research from other population studies, a 'very high' level of psychological distress shown by the K10 may indicate a need for professional help.

Smoking: persons, 2011-13

With regard to smoking, this refers to tobacco smoking, and includes manufactured (packet) cigarettes, roll-your-own cigarettes, cigars, and pipes; and excludes chewing tobacco and smoking of

non-tobacco products. As part of the AHS, respondents aged 15 years and over were asked to describe their smoking status at the time of interview:

- current smokers: daily, weekly, other;
- ex-smokers;
- never smoked (those who had never smoked 100 cigarettes, nor pipes, cigars or other tobacco products at least 20 times, in their lifetime).

The data presented are the estimated number of people aged 18 years and over who reported being a current, daily or at least once weekly smoker, expressed as an indirectly age-standardised rate per 100 population aged 18 years and over.

Obesity: adults, 2011-13

The Body Mass Index (BMI) (or Quetelet's index) is a measure of relative weight based on an individual's mass and height. The height (in cm) and weight (in kg) of respondents, as measured during the AHS interview, were used to calculate the BMI; and obesity was determined where a person's BMI was 30 or greater. The BMI is a useful tool, at a population level, for measuring trends in body weight and helping to define population groups who are at higher risk of developing long-term medical conditions associated with a high BMI, such as type 2 diabetes and cardiovascular disease.

The data presented are the estimated number of people aged 18 years and over who were assessed as being obese, based on their measured height and weight, expressed as an indirectly age-standardised rate per 100 population aged 18 years and over.

Compiled by PHIDU using on modelled estimates from the 2011-13 Australian Health Survey, ABS (unpublished); and the average of the ABS Estimated Resident Population, 30 June 2011 and 30 June 2012, based on the Australian standard.

Premature mortality: Deaths at ages 0 to 74 years from all causes, 2009-2012

The data presented are the number of deaths at ages 0 to 74 years from all causes, expressed as an indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2009 to 2012 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the South Australian Attorney-General's Department, on behalf of the Registry of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level (Statistical Area Level 2) is the ABS Estimated Resident Population (ERP), 30 June 2009 to 30 June 2012; the population standard is the ABS ERP for Australia at 30 June 2011.

Comparison of the pension and benefit recipients

Table 45: Comparison of income support payments, selected PHAs and LGAs in Adelaide and Regional South Australia, June 2014

Area	Unemployment benefit		Disability Support Pension		TOTAL			Parenting payment (single females)	
PHA and LGA	**No.**	**%**	**No.**	**%**	**No.**	**Pop 15-64**	**%**	**No.**	**%**
Davoren Park	*1,692*	*15.7*	*1,449*	*13.4*	*3,141*	*10,808*	*29.1*	*798*	*15.8*
Elizabeth East	*1,056*	*13.0*	*947*	*11.7*	*2,003*	*8,093*	*24.7*	*308*	*9.2*
One Tree Hill	*45*	*2.6*	*44*	*2.6*	*89*	*1,704*	*5.2*	*#*	*..*
Playford - West	*1,448*	*7.1*	*1,237*	*6.1*	*2,685*	*20,310*	*13.2*	*746*	*8.2*
Elizabeth/ Smithfield - Elizabeth North	*2,856*	*20.4*	*2,607*	*18.7*	*5,463*	*13,966*	*39.1*	*804*	*13.4*
Playford LGA	**7,050**	**12.9**	**6,218**	**11.4**	**13,268**	**54,505**	**24.3**	**2,659**	**11.1**
Dry Creek - North/ Pooraka	*784*	*5.4*	*693*	*4.7*	*1,477*	*14,600*	*10.1*	*214*	*3.5*
Parafield/ Parafield Gardens/ Paralowie	*2,170*	*9.7*	*1,755*	*7.8*	*3,925*	*22,366*	*17.5*	*631*	*6.6*
Salisbury/ Salisbury North	*2,840*	*13.0*	*2,377*	*10.9*	*5,217*	*21,780*	*24.0*	*789*	*8.8*
Ingle Farm	*709*	*7.5*	*761*	*8.0*	*1,470*	*9,505*	*15.5*	*198*	*5.1*
Para Hills/ Salisbury East	*1,639*	*7.8*	*1,497*	*7.1*	*3,136*	*21,015*	*14.9*	*427*	*4.9*
Salisbury LGA	**8,243**	**9.1**	**7,197**	**8.0**	**15,440**	**90,133**	**17.1**	**2,276**	**6.1**
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	*639*	*3.5*	*486*	*2.7*	*1,125*	*18,317*	*6.1*	*143*	*1.9*
Aldinga	*915*	*9.5*	*725*	*7.5*	*1,640*	*9,662*	*17.0*	*317*	*7.4*
Christie Downs/ Hackham West - Huntfield Heights	*1,424*	*13.1*	*1,895*	*17.4*	*3,319*	*10,881*	*30.5*	*404*	*8.8*
Christies Beach/ Lonsdale	*760*	*12.0*	*624*	*9.8*	*1,384*	*6,352*	*21.8*	*224*	*8.8*
Clarendon/ McLaren Vale/ Willunga	*285*	*3.8*	*257*	*3.4*	*542*	*7,506*	*7.2*	*73*	*2.4*
Hackham - Onkaparinga Hills/ Seaford (SA)	*1,359*	*7.7*	*1,171*	*6.6*	*2,530*	*17,619*	*14.4*	*424*	*5.7*
Happy Valley/ Happy Valley Reservoir/ Woodcroft	*646*	*3.9*	*620*	*3.7*	*1,266*	*16,545*	*7.7*	*218*	*3.2*
Morphett Vale - East/ Morphett Vale - West	*1,424*	*9.6*	*1,551*	*10.4*	*2,975*	*14,908*	*20.0*	*426*	*7.1*
Reynella	*460*	*7.0*	*381*	*5.8*	*841*	*6,589*	*12.8*	*116*	*4.3*
Onkaparinga LGA	**7,896**	**7.3**	**7,698**	**7.2**	**15,594**	**107,587**	**14.5**	**2,339**	**5.2**
Adelaide	**53,478**	**6.3**	**54,417**	**6.4**	**107,895**	**844,575**	**12.8**	**13,810**	**3.9**
LGA	**No.**	**%**	**No.**	**%**	**No.**	**Pop 15-64**	**%**	**No.**	**%**
Anangu Pitjantjatjara Aboriginal Community	**519**	**27.8**	**231**	**12.4**	**750**	**1,865**	**40.2**	**74**	**8.4**
Ceduna LGA	**245**	**10.3**	**130**	**5.4**	**375**	**2,386**	**15.7**	**76**	**7.9**
Peterborough LGA	**145**	**14.3**	**220**	**21.6**	**365**	**1,017**	**35.9**	**33**	**8.7**
Regional South Australia	**18,967**	**8.2**	**19,822**	**8.6**	**38,789**	**230,661**	**16.8**	**4,742**	**5.3**

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Appendix B: Details of modelled estimates

The modelled estimates, included as part of the data presented in this atlas, include:

- Access to support in times of crisis from persons outside the household;
- Prevalence of obesity;
- Prevalence of smoking; and
- Prevalence of psychological distress.

Further information on the indicators is contained in Appendix A.

The modelled estimates in this atlas were produced at the Population Health Area (PHA) level by the ABS from the 2010 General Social Survey (GSS) and the 2011-13 Australian Health Survey (AHS), and from known characteristics of the area. The estimates provide data at the PHA level for the prevalence of 'high' or 'very high' psychological distress, smoking and obesity.

A modelled estimate can be interpreted as the likely value for a 'typical' area (in this case, the PHA) with those characteristics. This work was undertaken by the ABS, as they hold the unit record files on which the models were based.

The approach used is to undertake an analysis of the survey data for Australia to identify associations in the data between the variables that we wish to predict at the small area level (e.g., prevalence of chronic conditions and risk factors) and the data we have at the small area level (e.g., socioeconomic status, use of health services). The relationship between these variables for which we have area-level data (the predictors) and the reporting of e.g., smoking in the AHS, or people reporting being able to get support in times of crisis in the GSS, is also a part of the model developed by the ABS. For example, such associations might be between the number of people reporting smoking in the AHS and:

- the number of visits to a general medical practitioner;
- the proportion of the population receiving a pension or benefit; and
- socioeconomic status (as indicated by a range of variables from Census data).

The results of the modelling exercise are then applied to the PHA counts of the predictors. The prediction is, effectively, the likely value for a typical area with those characteristics. This modelling technique can be considered as a sophisticated prorating of Australian estimates to the small area level.

The numbers are estimates for an area, not measured events as are, for example, death statistics. As such, they should be viewed as a tool that, when used in conjunction with local area knowledge and taking into consideration the prediction reliability, can provide useful information that can assist with decision making for small geographic regions.

The raw numbers were then age-standardised in PHIDU, to adjust for the effects of differences in the age profiles of the populations in the PHAs.

Although the data were modelled at the PHA (and not at the LGA) level, the PHA data have been allocated to each LGA to produce weighted estimates for LGAs in Adelaide and Regional South Australia; these data are shown in the bar chart. This involved splitting data, for some PHAs, between LGAs.

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Appendix C: Correlation analysis

A correlation analysis has been undertaken to illustrate the extent of association at the small area level between the indicators of disadvantage and those for poor outcomes in health and wellbeing.

Separate analyses were undertaken for:

- the PHAs in Adelaide;
- for the 19 LGAs in Adelaide; and
- for the 50 LGAs (and Unincorporated South Australia) in Regional South Australia.

As a general rule, correlation coefficients of plus or minus 0.71 or above are of substantial statistical significance, because this higher value represents at least fifty per cent shared variation (r^2 greater than or equal to 0.5): these are referred to in this atlas as being 'very strong' correlations, while those of 0.50 to 0.70 are of meaningful statistical significance, and are referred to as being 'strong' correlations.

Readers should note that correlations between the IRSD and poor health outcomes (e.g., high rates of premature death) appear in the tables as negative numbers. This occurs because low scores (under 1000) indicate relatively high levels of relative socioeconomic disadvantage under the IRSD, and high scores (above 1000) indicate relatively low levels of relative socioeconomic disadvantage.

The correlation matrices are available in the Summary section, above.

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Appendix D: Sources of information

The following resources underpin the information presented in the atlas.

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Appendix E: Key maps

The key maps on the following A3 sheets provide details of the Population Health Areas, Local Government Areas and Community Regions in metropolitan Adelaide mapped in Section 4. Local Government Areas and Community Regions mapped for Regional South Australia in Section 4 are also shown.

These sheets can be printed and used as a reference when viewing the maps in Section 4. If the whole report is printed, these key maps can be printed on A3 sheets and folded out to lie alongside the maps in Section 4.

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Numerical key to Population Health Areas and selected Local Government Areas in Adelaide

Map ref.	Population Health Area
1	Adelaide
2	North Adelaide
3	Adelaide Hills/ Lobethal - Woodside
4	Aldgate - Stirling/ Uraidla - Summertown
5	Burnside - Wattle Park
6	Glenside - Beaumont/ Toorak Gardens
7	Athelstone
8	Paradise - Newton
9	Rostrevor - Magill
10	Norwood (SA)/ St Peters - Marden
11	Payneham - Felixstow
12	Nailsworth - Broadview/ Prospect/ Walkerville
13	Goodwood - Millswood
14	Unley - Parkside
15	Gawler - North
16	Gawler - South
17	Playford - West
18	Davoren Park
19	Elizabeth East
20	Elizabeth/ Smithfield - Elizabeth North
21	One Tree Hill
22	Enfield - Blair Athol
23	Northgate - Oakden - Gilles Plains
24	Windsor Gardens
25	Dry Creek - North/ Pooraka
26	Ingle Farm
27	Para Hills/ Salisbury East
28	Parafield/ Parafield Gardens/ Paralowie
29	Salisbury/ Salisbury North
30	Golden Grove/ Greenwith
31	Highbury - Dernancourt
32	Hope Valley - Modbury
33	Modbury Heights/ Redwood Park
34	St Agnes - Ridgehaven
35	Brighton (SA)/ Glenelg (SA)
36	Edwardstown/ Morphettville
37	Marion - South
38	Mitchell Park/ Warradale
39	Belair/ Bellevue Heights/ Blackwood
40	Colonel Light Gardens/ Mitcham (SA)
41	Panorama
42	Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill
43	Aldinga
44	Christie Downs/ Hackham West - Huntfield Heights
45	Christies Beach/ Lonsdale
46	Clarendon/ McLaren Vale/ Willunga
47	Hackham - Onkaparinga Hills/ Seaford (SA)
48	Happy Valley/ Happy Valley Reservoir/ Woodcroft
49	Morphett Vale - East/ Morphett Vale - West
50	Reynella
51	Beverley/ Hindmarsh - Brompton
52	Flinders Park/ Seaton - Grange
53	Henley Beach
54	Charles Sturt - North West
55	West Lakes
56	Dry Creek - South/ Port Adelaide/ The Parks
57	Largs Bay - Semaphore/ North Haven
58	Adelaide Airport/ Lockleys
59	Fulham/ West Beach
60	Plympton
61	Richmond (SA)
62	Unincorporated Adelaide

Population Health Areas by Local Government Areas

Playford Local Government Area

17 Playford - West
18 Davoren Park
19 Elizabeth East
20 Elizabeth/ Smithfield - Elizabeth North
21 One Tree Hill

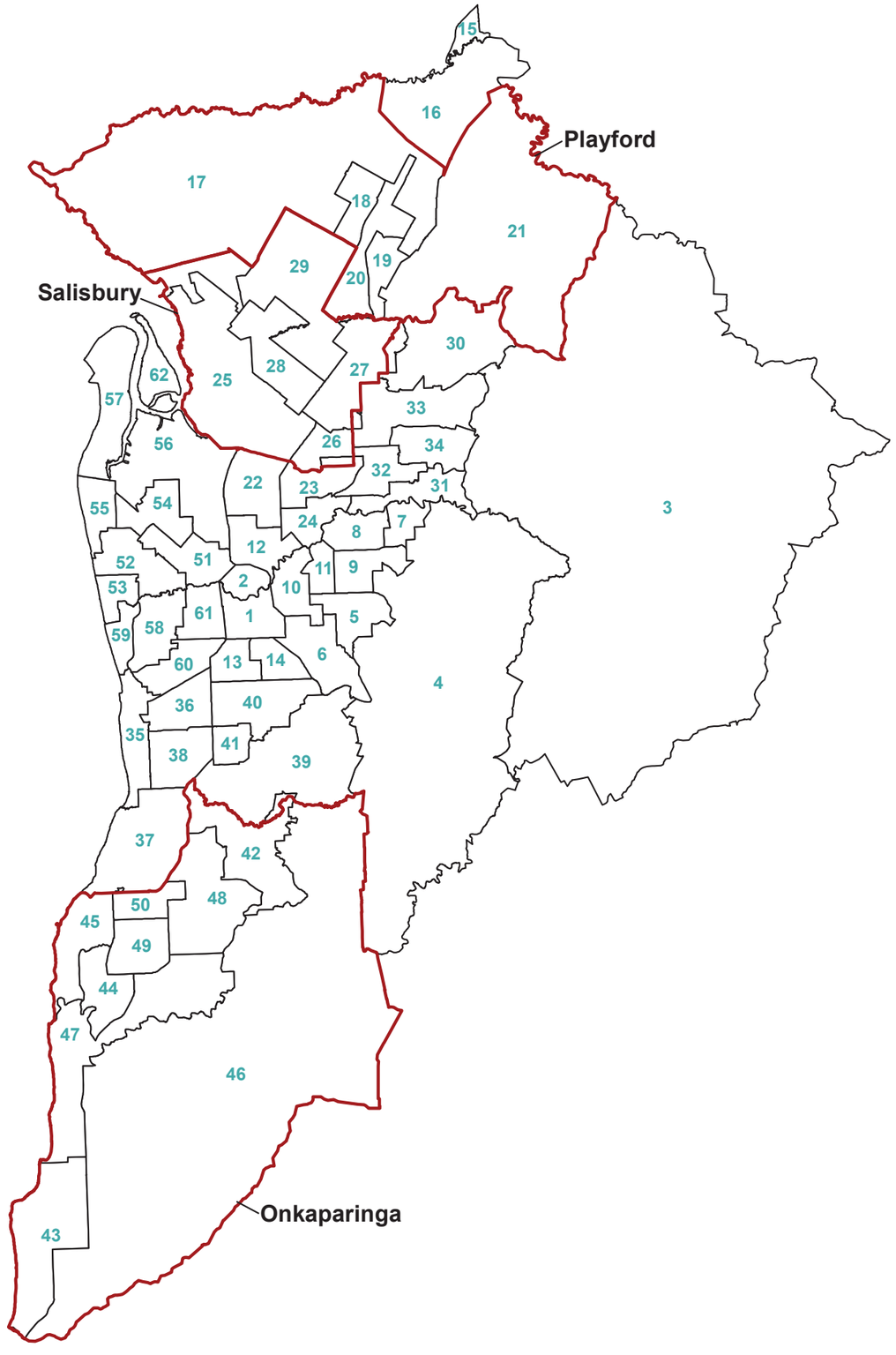
Salisbury Local Government Area

25 Dry Creek - North/ Pooraka
26 Ingle Farm
27 Para Hills/ Salisbury East
28 Parafield/ Parafield Gardens/ Paralowie
29 Salisbury/ Salisbury North

Onkaparinga Local Government Area

42 Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill
43 Aldinga
44 Christie Downs/ Hackham West - Huntfield Heights
45 Christies Beach/ Lonsdale
46 Clarendon/ McLaren Vale/ Willunga
47 Hackham - Onkaparinga Hills/ Seaford (SA)
48 Happy Valley/ Happy Valley Reservoir/ Woodcroft
49 Morphett Vale - East/ Morphett Vale - West
50 Reynella

Map 45: Population Health Areas and selected Local Government Areas, Adelaide



Alphabetical key to Population Health Areas and selected Local Government Areas in Adelaide

Population Health Area	Map ref.
Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	42
Adelaide	1
Adelaide Airport/ Lockleys	58
Adelaide Hills/ Lobethal - Woodside	3
Aldgate - Stirling/ Uraidla - Summertown	4
Aldinga	43
Athelstone	7
Belair/ Bellevue Heights/ Blackwood	39
Beverley/ Hindmarsh - Brompton	51
Brighton (SA)/ Glenelg (SA)	35
Burnside - Wattle Park	5
Charles Sturt - North West	54
Christie Downs/ Hackham West - Huntfield Heights	44
Christies Beach/ Lonsdale	45
Clarendon/ McLaren Vale/ Willunga	46
Colonel Light Gardens/ Mitcham (SA)	40
Davoren Park	18
Dry Creek - North/ Pooraka	25
Dry Creek - South/ Port Adelaide/ The Parks	56
Edwardstown/ Morphettville	36
Elizabeth East	19
Elizabeth/ Smithfield - Elizabeth North	20
Enfield - Blair Athol	22
Fleurieu	62
Flinders Park/ Seaton - Grange	52
Fulham/ West Beach	59
Gawler - North	15
Gawler - South	16
Glenside - Beaumont/ Toorak Gardens	6
Golden Grove/ Greenwith	30
Goodwood - Millswood	13
Hackham - Onkaparinga Hills/ Seaford (SA)	47
Happy Valley/ Happy Valley Reservoir/ Woodcroft	48
Henley Beach	53
Highbury - Dernancourt	31
Hope Valley - Modbury	32
Ingle Farm	26
Largs Bay - Semaphore/ North Haven	57
Marion - South	37
Mitchell Park/ Warradale	38
Modbury Heights/ Redwood Park	33
Morphett Vale - East/ Morphett Vale - West	49
Nailsworth - Broadview/ Prospect/ Walkerville	12
North Adelaide	2
Northgate - Oakden - Gilles Plains	23
Norwood (SA)/ St Peters - Marden	10
One Tree Hill	21
Panorama	41
Para Hills/ Salisbury East	27
Paradise - Newton	8
Parafield/ Parafield Gardens/ Paralowie	28
Payneham - Felixstow	11
Playford - West	17
Plympton	60
Reynella	50
Richmond (SA)	61
Rostrevor - Magill	9
Salisbury/ Salisbury North	29
St Agnes - Ridgehaven	34
Unincorporated Adelaide	62
Unley - Parkside	14
West Lakes	55
Windsor Gardens	24

Population Health Areas by Local Government Areas

Playford Local Government Area

Davoren Park	18
Elizabeth East	19
Elizabeth/ Smithfield - Elizabeth North	20
One Tree Hill	21
Playford - West	17

Salisbury Local Government Area

Dry Creek - North/ Pooraka	25
Ingle Farm	26
Para Hills/ Salisbury East	27
Parafield/ Parafield Gardens/ Paralowie	28
Salisbury/ Salisbury North	29

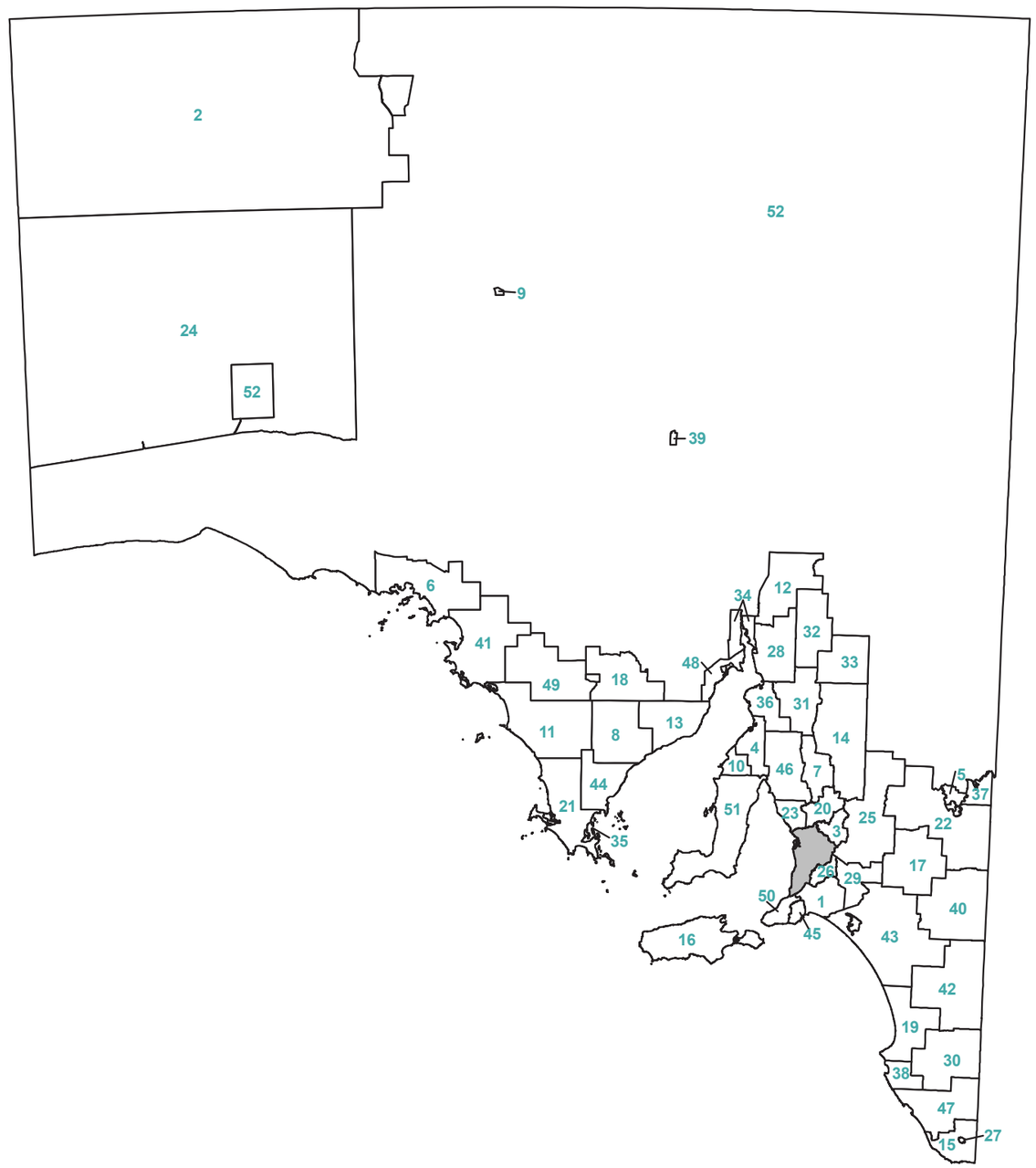
Onkaparinga Local Government Area

Aberfoyle Park/ Coromandel Valley/ Flagstaff Hill	42
Aldinga	43
Christie Downs/ Hackham West - Huntfield Heights	44
Christies Beach/ Lonsdale	45
Clarendon/ McLaren Vale/ Willunga	46
Hackham - Onkaparinga Hills/ Seaford (SA)	47
Happy Valley/ Happy Valley Reservoir/ Woodcroft	48
Morphett Vale - East/ Morphett Vale - West	49
Reynella	50

Alphabetical and numerical key to Local Government Areas in Regional South Australia

Alphabetical key		Numerical key	
Local Government Area	**Map ref.**	**Map ref.**	**Local Government Area**
Alexandrina (DC)	1	1	Alexandrina (DC)
Anangu Pitjantjatjara (AC)	2	2	Anangu Pitjantjatjara (AC)
Barossa (DC)	3	3	Barossa (DC)
Barunga West (DC)	4	4	Barunga West (DC)
Berri and Barmera (DC)	5	5	Berri and Barmera (DC)
Ceduna (DC)	6	6	Ceduna (DC)
Clare and Gilbert Valleys (DC)	7	7	Clare and Gilbert Valleys (DC)
Cleve (DC)	8	8	Cleve (DC)
Coober Pedy (DC)	9	9	Coober Pedy (DC)
Copper Coast (DC)	10	10	Copper Coast (DC)
Elliston (DC)	11	11	Elliston (DC)
Flinders Ranges (DC)	12	12	Flinders Ranges (DC)
Franklin Harbour (DC)	13	13	Franklin Harbour (DC)
Goyder (DC)	14	14	Goyder (DC)
Grant (DC)	15	15	Grant (DC)
Kangaroo Island (DC)	16	16	Kangaroo Island (DC)
Karoonda East Murray (DC)	17	17	Karoonda East Murray (DC)
Kimba (DC)	18	18	Kimba (DC)
Kingston (DC)	19	19	Kingston (DC)
Light (RegC)	20	20	Light (RegC)
Lower Eyre Peninsula (DC)	21	21	Lower Eyre Peninsula (DC)
Loxton Waikerie (DC)	22	22	Loxton Waikerie (DC)
Mallala (DC)	23	23	Mallala (DC)
Maralinga Tjarutja (AC)	24	24	Maralinga Tjarutja (AC)
Mid Murray (DC)	25	25	Mid Murray (DC)
Mount Barker (DC)	26	26	Mount Barker (DC)
Mount Gambier (C)	27	27	Mount Gambier (C)
Mount Remarkable (DC)	28	28	Mount Remarkable (DC)
Murray Bridge (RC)	29	29	Murray Bridge (RC)
Naracoorte and Lucindale (DC)	30	30	Naracoorte and Lucindale (DC)
Northern Areas (DC)	31	31	Northern Areas (DC)
Orroroo/Carrieton (DC)	32	32	Orroroo/Carrieton (DC)
Peterborough (DC)	33	33	Peterborough (DC)
Port Augusta (C)	34	34	Port Augusta (C)
Port Lincoln (C)	35	35	Port Lincoln (C)
Port Pirie City and Dists (M)	36	36	Port Pirie City and Dists (M)
Renmark Paringa (DC)	37	37	Renmark Paringa (DC)
Robe (DC)	38	38	Robe (DC)
Roxby Downs (M)	39	39	Roxby Downs (M)
Southern Mallee (DC)	40	40	Southern Mallee (DC)
Streaky Bay (DC)	41	41	Streaky Bay (DC)
Tatiara (DC)	42	42	Tatiara (DC)
The Coorong (DC)	43	43	The Coorong (DC)
Tumby Bay (DC)	44	44	Tumby Bay (DC)
Victor Harbor (C)	45	45	Victor Harbor (C)
Wakefield (DC)	46	46	Wakefield (DC)
Wattle Range (DC)	47	47	Wattle Range (DC)
Whyalla (C)	48	48	Whyalla (C)
Wudinna (DC)	49	49	Wudinna (DC)
Yankalilla (DC)	50	50	Yankalilla (DC)
Yorke Peninsula (DC)	51	51	Yorke Peninsula (DC)
Unincorporated SA	52	52	Unincorporated SA

Map 46: Local Government Areas, Regional South Australia



Community Regions in Adelaide and Regional South Australia

Alphabetical and numerical key to Community Regions in South Australia

Alphabetical key		Numerical key	
Community Regions	**Map ref.**	**Map ref.**	**Community Regions**
Adelaide	1	1	Adelaide
Burnside	2	2	Burnside
Campbelltown	3	3	Campbelltown
Central	4	4	Central
Charles Sturt	5	5	Charles Sturt
Eyre Peninsula	6	6	Eyre Peninsula
Gawler	7	7	Gawler
Holdfast Bay	8	8	Holdfast Bay
Marion	9	9	Marion
Mitcham	10	10	Mitcham
Murray & Mallee	11	11	Murray & Mallee
Norwood, Payneham & St Peters	12	12	Norwood, Payneham & St Peters
Onkaparinga	13	13	Onkaparinga
Playford East Central, Elizabeth & Hills	14	14	Playford East Central, Elizabeth & Hills
Playford West & West Central	15	15	Playford West & West Central
Port Adelaide Enfield - Coast	16	16	Port Adelaide Enfield - Coast
Port Adelaide Enfield - East	17	17	Port Adelaide Enfield - East
Port Adelaide Enfield - Inner	18	18	Port Adelaide Enfield - Inner
Port Adelaide Enfield - Port	19	19	Port Adelaide Enfield - Port
Prospect & Walkerville	20	20	Prospect & Walkerville
Salisbury Central & Inner North	21	21	Salisbury Central & Inner North
Salisbury North East, South East & Balance	22	22	Salisbury North East, South East & Balance
South East	23	23	South East
Southern & Hills	24	24	Southern & Hills
Tea Tree Gully	25	25	Tea Tree Gully
Unincorporated SA	28	26	Unley
Unley	26	27	West Torrens
West Torrens	27	28	Unincorporated SA

Map 47: Community Regions, Adelaide and Regional South Australia