The community aged care model in rural and remote Australia

Analysis of supply and demand in relation to aged care and the aged care workforce: Report 2

presented to

Helping Hand Aged Care

by

The Australian Institute for Social Research

THE UNIVERSITY OF ADELAIDE AUSTRALIA
SUB CRUCE LUMEN

Project Team:

Dr Kate Barnett

Natasha Howard

Naomi Guiver

December 2009

CONTENTS

1   INTRODUCTION

This Report is part of a broader project exploring the viability of the community aged care model in the face of population and workforce ageing, increased demand for care services, and increasing challenges related to resource usage.

With these challenges in mind, Helping Hand Aged Care (HHAC) commissioned the Australian Institute for Social Research (AISR) to undertake research with a specific geographic focus on the Mid North of South Australia. The bulk of HHAC's rural workforce is located in this region, and given workforce efficiencies associated with travel time involved in community care provision, it makes sense to study the issue where distance and time are more pronounced – as occurs in a rural setting.

One of the Mid North region's greatest challenges over the next few decades will be to deal with issues arising from population ageing. The South Australian population as a whole is in the midst of transition from a population dominated by younger ages, to one in which older people will be predominant. According to Australian Bureau of Statistics (ABS) projections, by 2056 there will be less than two people of working age for every person aged 65 years and over (ABS: 2009)[1]. Furthermore there are indications that population ageing will be most significant in non-capital city areas (Hugo: 2001)[2].

The overall aim of this Report is to present current demographic and workforce data alongside indicators of future *demand* for aged care services (current and projected population of older people) and future *supply* of workers (current and projected working population) across the region studied. The report structure reflects this aim and has five main components –

o   A demographic profile of the population living in the region studied – by age, gender, people requiring care and unpaid carers, people of non English speaking backgrounds, all by Local Government Area, and based on 2006 Census data.
o   Projected population changes in relation to a) the older population (65 years and over) and b) the working population (15 to 65 years) across LGAs in the region studied, using Department of Health and Ageing Projections, 2007-2027.
o   Mapping of existing residential aged care services in the region studied, using 2006 Census data and 2008 Department of Health and Ageing data, and highlighting Helping Hand facilities. (It was not possible to map community aged care services with available data.)
o   An overview of key characteristics of the HHAC workforce located in the Mid North region – by work role and hours, by location and age group, by employment status, by hours worked, by age and gender, and in comparison with the HHAC workforce as a whole.
o   An analysis of future workforce supply, based on Department of Health and Ageing Projections, 2007-2027. This examines the projected age and gender of the population in the region studied and analyses

---

[1] Australian Bureau of Statistics (2009) *Future population and ageing*, ABS cat No. 4102.0
[2] Hugo, G. (2001) ' What is really happening in regional and rural populations', In: Rogers, M.F. and Collins, Y.MJ., Eds, 2001, *The Future of Australia's Country Towns*, La Trobe University, Bendigo, pp. 57–71

the projected ratio of working aged people to older people as a key indicator of future capacity to meet demand for aged care.

1.1 Guiding research questions

The report addresses the following research questions identified at the inception of the project.

1   *What will be the key features of population ageing over the next 10-20 years in the Mid North region of South Australia?*

2   *What will this mean in terms of future demand for care, and the future aged care workforce?*

3   *Are there other forms of demographic, economic, technological and social change that need to be taken into account in projecting aged care workforce requirements? For example, will the growing demand for mining sector workforce and the relative proximity of the Mid North to mining sites be a source of competition?*

4   *What impact will internal and overseas migration have on those projections?*

1.2 Definition of the region studied

The geographic boundaries of the region studied in this report have been defined by HHAC and include the area within which the organisation currently delivers care as well as some adjoining areas. While HHAC is primarily interested in the Mid North agricultural area of SA, the northern urban fringe area (Barossa region) is also of interest as a potential source of additional aged care clients and workers in the future. As urban fringe areas and agricultural areas tend to have quite different demographic compositions and also tend to differ in important drivers of population growth/decline, this Report presents information on each of these two zones as well on the *'Helping Hand Aged Care Study Region'* as a whole (which combines both).

The two zones comprising the *'Helping Hand Aged Care Study Region'* (the Study Region) consist of the following Local Government Areas (LGAs):

Zone A: Mid North Region (number of persons 46,171[1])

- Clare and Gilbert Valleys
- Goyder
- Mount Remarkable
- Northern Areas
- Orroroo/Carrieton
- Peterborough
- Port Pirie (City and Balance)
- Wakefield

Zone B: Barossa region (number of persons 40,813[1])

- Barossa (Angaston, Barossa and Tanunda)
- Light
- Mallala.

The Study Region offers a diversity in setting, from more densely populated areas such as Barossa LGA (20,548 persons) and large regional centres such as Port Pirie and surrounds (17,142 persons), down to more isolated rural environments such as Orroroo/Carrieton LGA (935 persons).

Figure 1 provides a map of the Study Region. Zone B (Barossa subset) is indicated in a **red** border and the Statistical Local Area (SLA) boundaries in light grey. *SLAs are based on the geographical boundaries of incorporated local government bodies (LGAs) and the SLA boundaries were utilised in this case to split the LGA into smaller units in the case of the Barossa (Angaston, Tanunda) and Port Pirie (City and Balance).* For further explanation of Local Government Areas (LGAs) and Statistical Local Areas (SLAs), please refer to *appendix 1: data sources* of this Report.

The map inset indicates the HHAC study region in **blue** and a **red border** for Zone B (Barossa) against South Australia as a whole. Metropolitan Adelaide Statistical District is also indicated (filled **red**) within the map inset. **Figure 1** also shows the location of current Mid North HHAC facilities (indicated in a red triangle ▲) at Clare, Jamestown and Port Pirie. There are a number of other rural centres within the study region; townships with a Census population (ABS Population Census, 2006) are also shown on the map.

Figure 1: Map of the Helping Hand Aged Care (HHAC) Study Region
Source: ABS 2006 Geographical boundaries (GISCA)
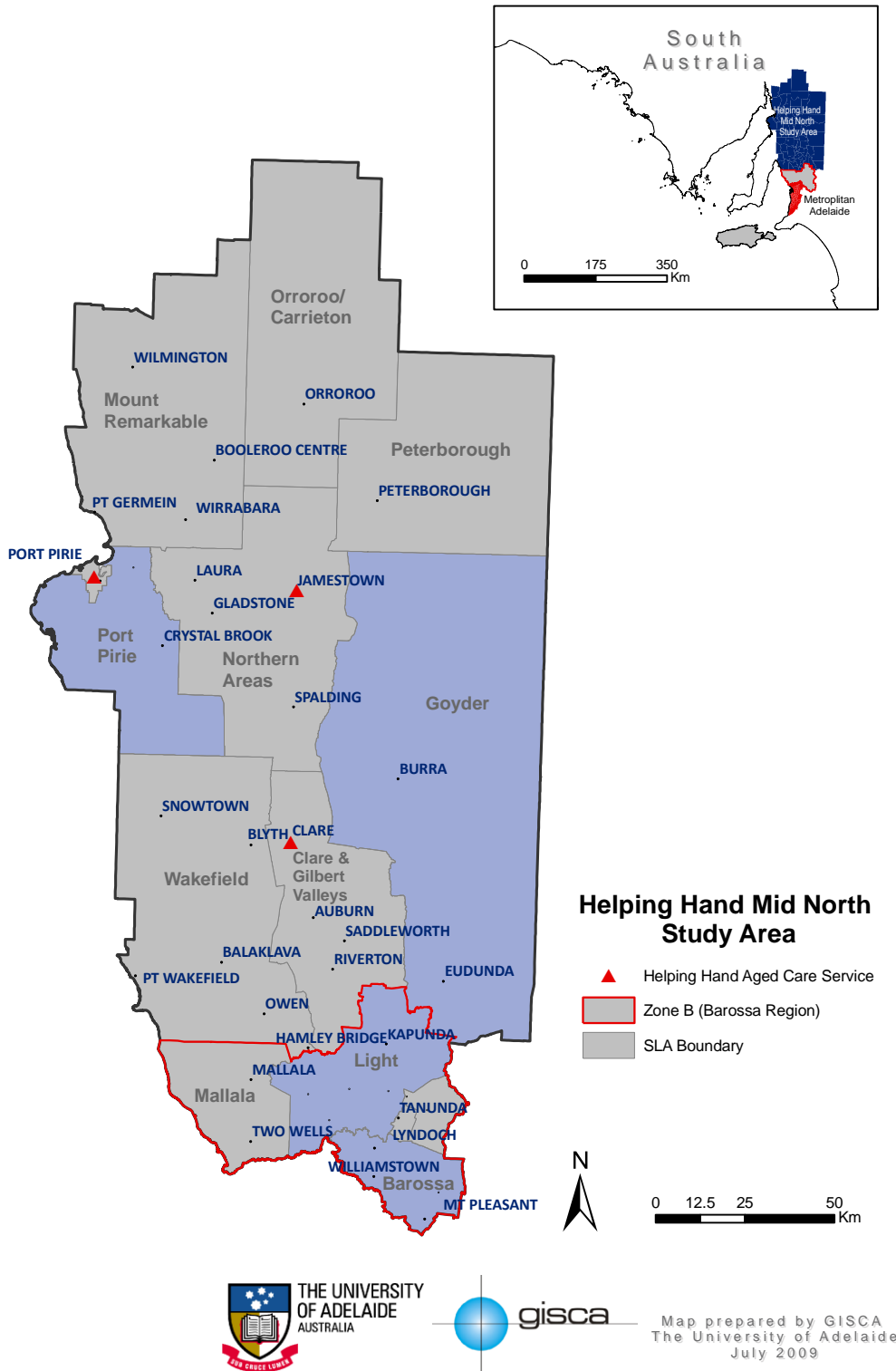
2   DEMOGRAPHIC PROFILE OF THE REGION

Using 2006 Census data, the older population in the region studied is depicted by its location (at the level of Census Collection District (CD). The CD is the smallest spatial unit that information is collected by the Australian Bureau of Statistics (ABS) and thus supports detailed local level planning. (Refer *appendix 1:* data sourcesfor further information on Census geography).

The older population is defined as involving these three age groups -

- 65 to 74 year olds
- 75 to 84 year olds
- 85 and older.

2.1   Distribution of the older population

Figure 2*, *3 and 4 illustrate the current distribution of older people across the HHAC Study Region in percentage terms (as at the 2006 Census).

Figure 2 shows that there are several areas within the Study Region where more than **10 percent** of the population are aged **65 to 74 years**. In particular, there are three clusters around the rural centre of Port Pirie. However, many are still living on rural properties outside of town centres.

Figure 2: Distribution of the Population Aged 65 to 74 years, HHAC Study Region, 2006

Source: ABS Population and Housing Census, 2006 (GISCA)
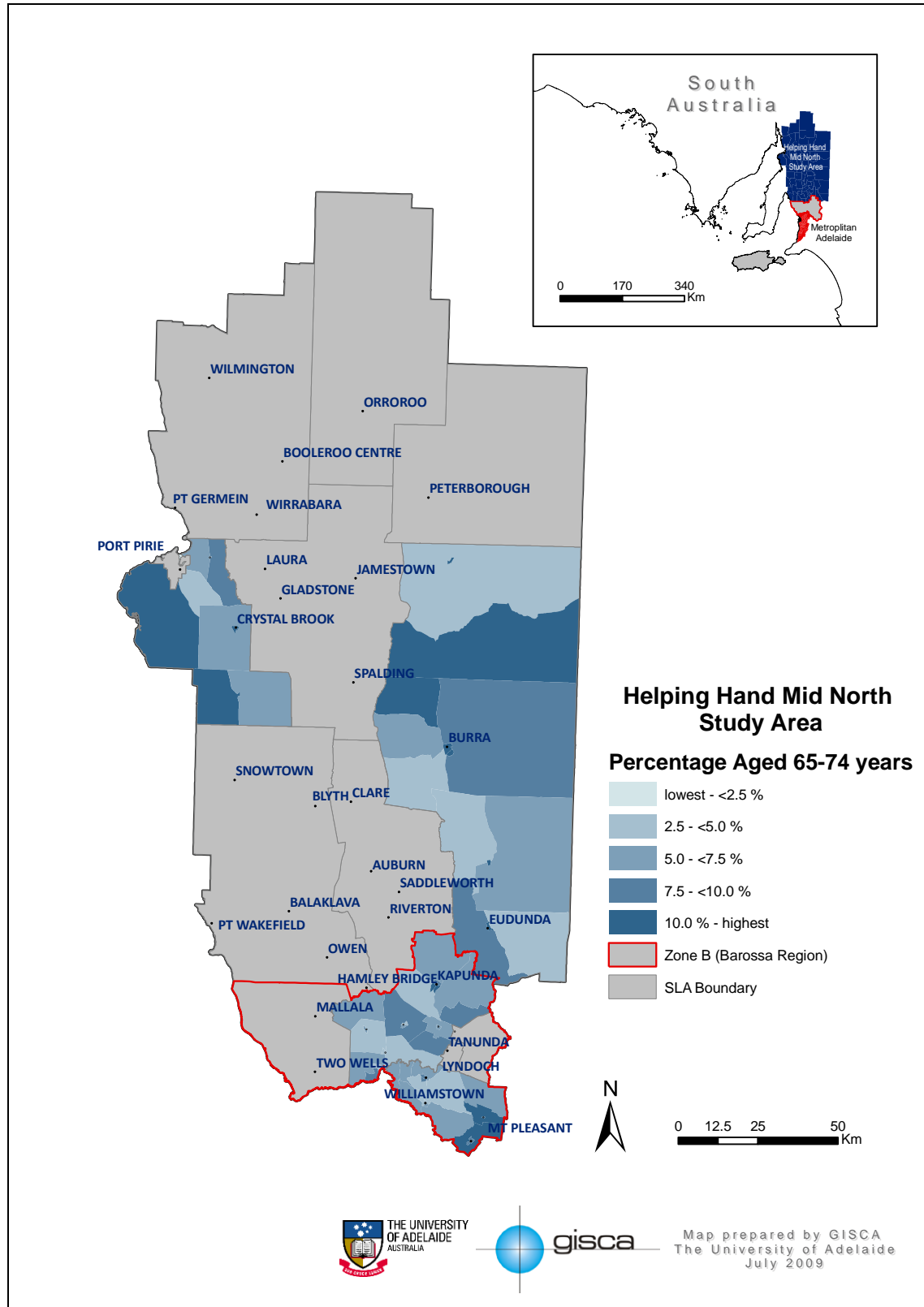
Figure 3 shows that the highest percentage of people aged **75 to 84** are concentrated in three CDs near rural centres, with Jamestown and Port Pirie being their nearest HHAC service delivery hubs.

Figure 3: Distribution of the Population Aged 75 to 84 years, HHAC Study Region, 2006
Source: ABS Population and Housing Census, 2006 (GISCA)

Error! Not a valid bookmark self-reference. shows that there is a concentration of people **aged 85 and over** in local areas around Peterborough, with Jamestown being the nearest HHAC service delivery centre.

Figure 4: Distribution of the Population Aged 85 and over, HHAC Study Region, 2006
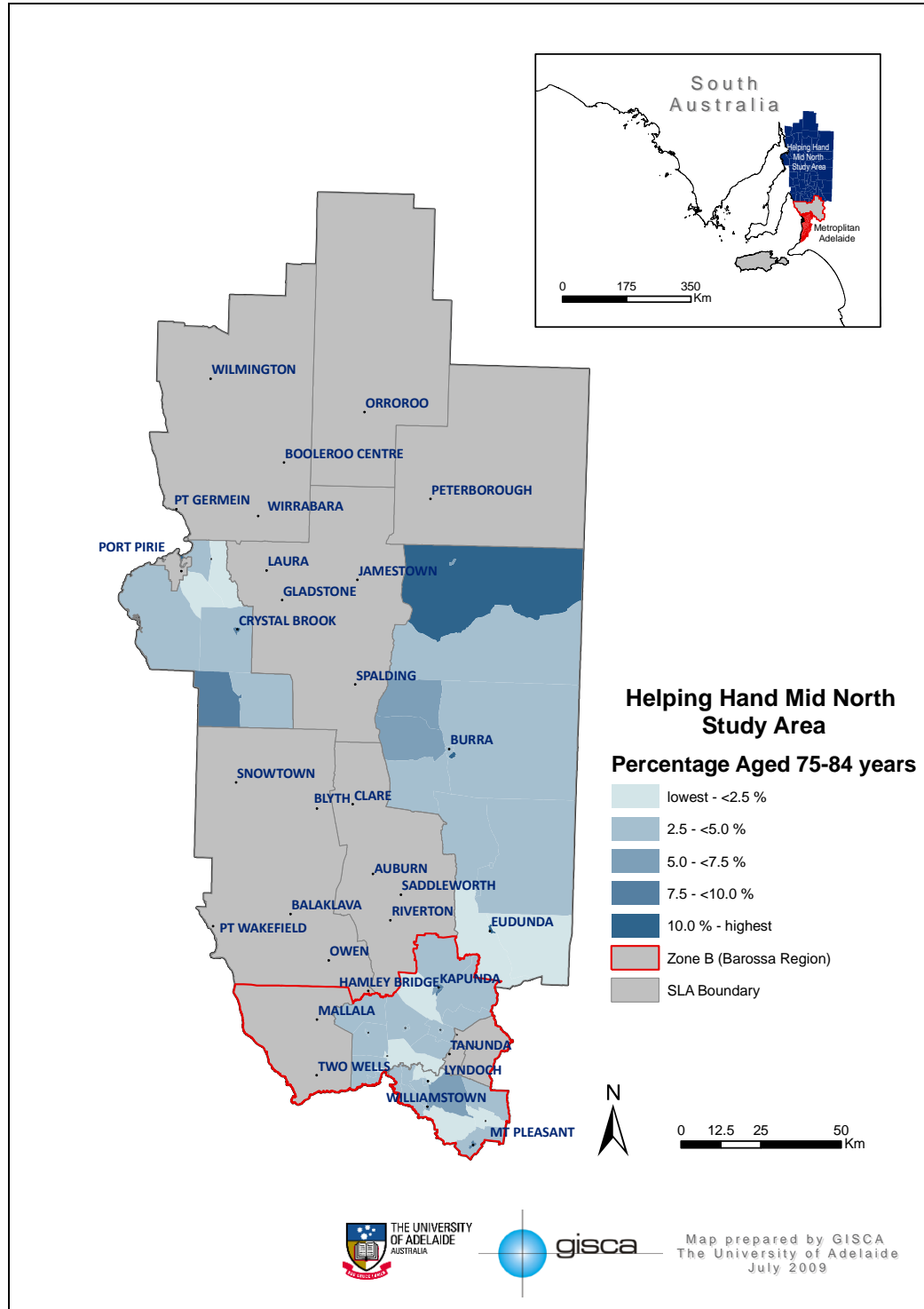Source: ABS Population and Housing Census, 2006 (GISCA)
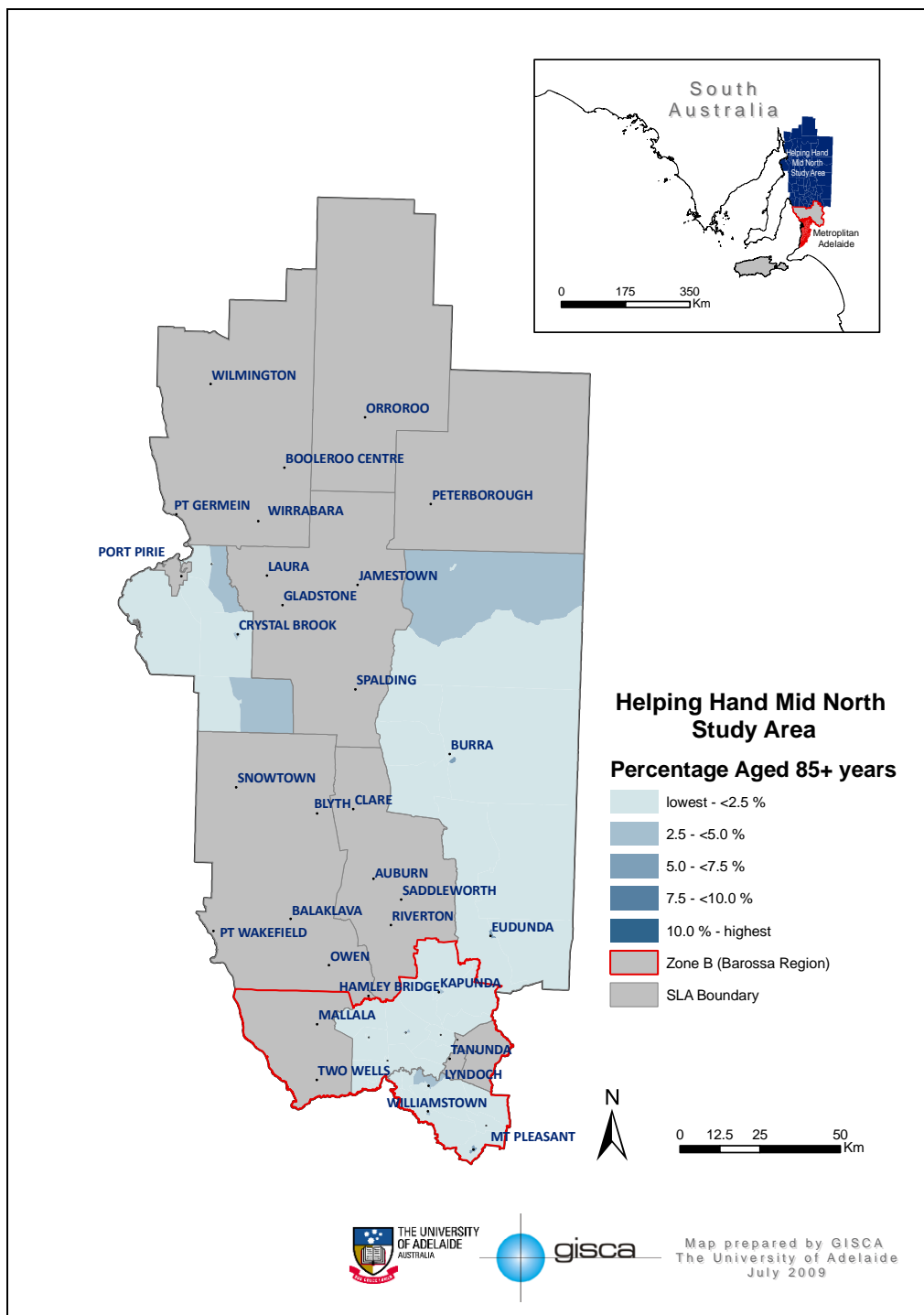
2.2 Age profile of Local Government Areas (LGAs)

Table 1 presents an age profile of each LGA within the HHAC Study Region, based on 2006 ABS Census data. The main points of interest are listed below.

o   Overall, **20.9 percent** of the HHAC Study Region Population are aged 0-14 years, **63.7 percent** are in the working age group 15 to 64, and **15.3 percent** are aged 65 and over.

o   The LGAs within the 'Zone A' Mid North region have **61.7 percent** of their population in the working age groups (15 to 64 years), compared with **66.0 percent** for the 'Zone B' Barossa region.

o   The LGAs within the 'Zone A' Mid North region have **18.0 percent** of their population in the older age groups of 65 and over, compared with **12.5 percent** for the younger 'Zone B' Barossa region.

o   Mallala has the **highest** proportion of those aged 15-64 years with **68.4 percent** of the population. The **lowest** proportion was found in Orroroo/Carrieton with **58.5 percent** of the population.

o   **Peterborough LGA** has the highest proportion of those aged **65-74 years** with **11.5 percent** of the population. The lowest proportion was found in Mallala with **5.5 percent** of the population.

o   **Orroroo/Carrieton** has the highest proportion of those aged **75-84 years** with **10.7 percent** of the population. The lowest proportion was found in Mallala with **2.5 percent** of the population.

o   **Orroroo/Carrieton** also has the highest proportion of those aged **over 85 years** with **3.7 percent** of the population. The lowest proportion was found in Light and Mallala with **1.0 percent** of the population.

Table 1: Age profile for the HHAC Study Region, by Local Government Area (LGA), 2006

Source: Australian Bureau of Statistics (ABS) CData, 2006

Local Government Area (LGA)	0-14 years		15-64 years		65-74 years		75-84 years		85+ years		Total Population	
	n	%	n	%	n	%	n	%	n	%	n	%
Barossa	4,102	20.0	13,353	65.0	1,558	7.6	1,109	5.4	426	2.1	20,548	100.0
Clare & Gilbert Valleys	1,582	19.4	5,180	63.6	718	8.8	490	6.0	174	2.1	8,144	100.0
Goyder	816	19.5	2,603	62.2	419	10.0	254	6.1	90	2.2	4,182	100.0
Light	2,901	23.5	8,185	66.2	739	6.0	410	3.3	126	1.0	12,361	100.0
Mallala	1,786	22.6	5,408	68.4	435	5.5	194	2.5	81	1.0	7,904	100.0
Mount Remarkable	527	18.5	1,783	62.7	295	10.4	180	6.3	59	2.1	2,844	100.0
Northern Areas	981	21.1	2,798	60.1	421	9.0	311	6.7	141	3.0	4,652	100.0
Orroroo/Carrieton	167	17.9	547	58.5	86	9.2	100	10.7	35	3.7	935	100.0
Peterborough	361	19.0	1,142	60.0	219	11.5	141	7.4	40	2.1	1,903	100.0
Port Pirie City & Dists	3,632	21.2	10,465	61.0	1,575	9.2	1,119	6.5	351	2.0	17,142	100.0
Wakefield	1,311	20.6	3,978	62.5	518	8.1	390	6.1	172	2.7	6,369	100.0
Mid North Region (Zone A)	*9,377*	*20.3*	*28,496*	*61.7*	*4,251*	*9.2*	*2,985*	*6.5*	*1,062*	*2.3*	*46,171*	*100.0*
Barossa region (Zone B)	*8,789*	*21.5*	*26,946*	*66.0*	*2,732*	*6.7*	*1,713*	*4.2*	*633*	*1.6*	*40,813*	*100.0*
HHAC Mid North Region	**18,166**	**20.9**	**55,442**	**63.7**	**6,983**	**8.0**	**4,698**	**5.4**	**1,695**	**1.9**	**86,984**	**100.0**

2.2.1   Gender by age profile of LGAs

Table 2 presents a gender by age profile of the HHAC Study Region, using 2006 ABS Census information. It shows that –

o   Overall, **8.2 percent** of males and **7.8 percent** of females in the HHAC Study Region are aged are aged **65 to 74**. A further **4.8 percent** of males and **6.0 percent** of females are aged between **75 and 84.** Just **1.3 percent** of males and **2.6 percent** of females are aged **over 85 years**.

o   In 'Zone A' (Mid North), **16.8 percent** of the male population and **19.2 percent** of the female population are in the older age groups of **65 and over**. This compares with **11.5 percent** of males and **13.4 percent** of females for the younger 'Zone B' Barossa region.

o   Mallala has the highest proportion of working age people (15-64 years) for both males (**68.4 percent**) and females (**68.5 percent**). The lowest proportion was found in Peterborough with 59.1 percent of the population.

o   **Peterborough** has the highest proportion of those aged **65-74 years** for both males (**11.9 percent**) and females (**11.1 percent**). The lowest proportion was found in Mallala for both males (**6.0 percent**) and females (**5.0 percent**).

o   **Orroroo/Carrieton** has the highest proportion of those aged **75-84 years** for both males (**9.6 percent**) and females (**11.7 percent**). The lowest proportion was found in Mallala for both males (**2.2 percent**) and females (**2.7 percent**).

o   **Orroroo/Carrieton** has the highest proportion of those aged **85 years and over** for both males (**3.3 percent**) and females (**4.2 percent**). The lowest proportion was found in Mallala for both males (**2.2 percent**) and females (**2.7 percent**).

Table 2: Age groups by gender in the HHAC Study Region, 2006

Source: Australian Bureau of Statistics (ABS) CData, 2006

Local Government Area (LGA)	Males										Females									
	15-64 years		65-74 years		75-84 years		85+ years		Total Population		15-64 years		65-74 years		75-84 years		85+ years		Total Population	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Barossa	6,733	65.8	779	7.6	469	4.6	139	1.4	10,230	100.0	6,620	64.2	779	7.5	640	6.2	287	2.8	10,318	100.0
Clare & Gilbert Valleys	2,584	63.7	391	9.6	221	5.4	52	1.3	4,057	100.0	2,596	63.5	327	8.0	269	6.6	122	3.0	4,087	100.0
Goyder	1,342	63.8	217	10.3	119	5.7	20	1.0	2,105	100.0	1,261	60.7	202	9.7	135	6.5	70	3.4	2,077	100.0
Light	4,163	66.2	381	6.1	201	3.2	35	0.6	6,286	100.0	4,022	66.2	358	5.9	209	3.4	91	1.5	6,075	100.0
Mallala	2,761	68.4	243	6.0	90	2.2	29	0.7	4,039	100.0	2,647	68.5	192	5.0	104	2.7	52	1.3	3,865	100.0
Mount Remarkable	922	62.4	167	11.3	87	5.9	30	2.0	1,478	100.0	861	63.0	128	9.4	93	6.8	29	2.1	1,366	100.0
Northern Areas	1,436	60.9	213	9.0	147	6.2	49	2.1	2,358	100.0	1,362	59.4	208	9.1	164	7.1	92	4.0	2,294	100.0
Orroroo/Carrieton	280	61.1	37	8.1	44	9.6	15	3.3	458	100.0	267	56.0	49	10.3	56	11.7	20	4.2	477	100.0
Peterborough	567	59.1	114	11.9	65	6.8	20	2.1	959	100.0	575	60.9	105	11.1	76	8.1	20	2.1	944	100.0
Port Pirie City & Dists	5,183	62.0	767	9.2	462	5.5	114	1.4	8,359	100.0	5,282	60.1	808	9.2	657	7.5	237	2.7	8,783	100.0
Wakefield	2,043	63.7	275	8.6	179	5.6	50	1.6	3,206	100.0	1,935	61.2	243	7.7	211	6.7	122	3.9	3,163	100.0
Mid North Region (Zone A)	*14,357*	*62.5*	*2,181*	*9.5*	*1,324*	*5.8*	*350*	*1.5*	*22,980*	*100.0*	*14,139*	*61.0*	*2,070*	*8.9*	*1,661*	*7.2*	*712*	*3.1*	*23,191*	*100.0*
Barossa Region (Zone B)	*13,657*	*66.4*	*1,403*	*6.8*	*760*	*3.7*	*203*	*1.0*	*20,555*	*100.0*	*13,289*	*65.6*	*1,329*	*6.6*	*953*	*4.7*	*430*	*2.1*	*20,258*	*100.0*
HHAC Mid North Region	**28,014**	**64.3**	**3,584**	**8.2**	**2,084**	**4.8**	**553**	**1.3**	**43,535**	**100.0**	**27,428**	**63.1**	**3,399**	**7.8**	**2,614**	**6.0**	**1,142**	**2.6**	**43,449**	**100.0**

2.3 Unpaid carers and people requiring assistance (due to disability, illness or old age), by LGA

Unpaid carers make a critical contribution to the community aged care system, and it is therefore important to quantify their supply in the region studied.

The 2006 Census (ABS) collected information about the provision of unpaid care, and the need for assistance - according to the following definitions:

o   **Unpaid carers (Unpaid assistance to a person with a disability)**
     Persons reporting that they spent time providing unpaid help, care or assistance to other person(s) *because of a disability, a long-term health condition, or old age*.

o   **Persons requiring assistance with core activities (Core Activity Need for Assistance)**
     Persons reporting a need for assistance in self-care, body movements or communication *because of a disability, a long-term health condition, or old age.*

Table 3 shows the number of unpaid carers and people requiring assistance, living in LGAs within the HHAC Study Region. It shows that –

- Across the Study Region, **12.1 percent** of all people aged 15 to 64 and **9.5 percent** of people aged 65 or over provide unpaid care to a person with a disability. 'Zone A' (Mid North) and 'Zone B' (Barossa region) had almost the same proportions.

- The LGAs with the highest proportion of older people (aged 65 or over) undertaking unpaid carer work were Orroroo/Carrieton (**11.3 percent**) and Northern Areas (**11.0 percent**).

- In 'Zone A' (Mid North) **14.6 percent** of people aged 65 or over require assistance with core activities due to a disability, long-term health condition or old age. This is a slightly higher incidence than in the younger 'Zone B' Barossa region (**13.0 percent**).

- The LGAs with the highest proportion of older people (aged 65 or over) who require assistance were Light (**19.8 percent**) and Northern Areas (**18.7 percent**).

Table 3: Unpaid carers and Persons requiring assistance in the HHAC Study Region, 2006

Source: Australian Bureau of Statistics (ABS) CData, 2006

Local Government Area (LGA)	Unpaid Carers										Persons requiring assistance									
	15-64 years		65-74 years		75-84 years		85+ years		Total aged 15+		15-64 years		65-74 years		75-84 years		85+ years		Total aged 15+	
	n	%*	n	%*	n	%*	n	%*	n	%*	n	%*	n	%*	n	%*	n	%*	n	%*
Barossa	1,554	11.6	165	10.6	99	8.9	14	3.3	1,832	11.1	245	1.8	45	7.0	187	16.9	200	46.6	329	4.2
Clare & Gilbert Valleys	589	11.4	89	12.4	39	8.0	12	7.0	729	11.1	131	2.5	15	2.7	97	19.7	97	56.1	217	2.7
Goyder	324	12.5	47	11.2	17	6.7	5	5.4	393	11.7	124	4.8	25	6.9	44	17.3	48	52.2	249	5.3
Light	936	11.4	87	11.8	43	10.5	8	6.3	1,074	11.4	209	2.6	85	5.4	91	22.1	76	60.8	795	3.9
Mallala	589	10.9	47	10.8	14	7.3	6	7.3	656	10.7	180	3.3	36	5.0	39	20.2	45	54.9	393	4.8
Mount Remarkable	247	13.8	18	6.1	21	11.7	3	5.3	289	12.5	62	3.5	32	7.6	29	16.1	28	48.3	256	6.1
Northern Areas	410	14.6	57	13.6	36	11.6	3	2.1	506	13.8	90	3.2	49	6.6	54	17.4	60	42.9	480	3.9
Orroroo/Carrieton	78	14.3	12	14.1	13	12.7	-	-	103	13.4	21	3.8	48	11.0	22	21.8	18	51.4	354	4.5
Peterborough	155	13.6	28	12.7	12	8.6	-	-	195	12.6	84	7.3	16	5.4	20	14.6	21	48.8	141	5.0
Port Pirie City & Dists	1,328	12.7	186	11.8	84	7.5	14	4.0	1,612	11.9	457	4.4	21	5.0	219	19.5	154	44.5	244	5.2
Wakefield	507	12.7	45	8.7	35	9.0	8	4.6	595	11.8	151	3.8	5	5.9	78	20.0	91	53.2	66	7.1
Mid North Region (Zone A)	*3,638*	*12.8*	*482*	*11.3*	*257*	*8.6*	*45*	*4.3*	*4,422*	*12.0*	*1,120*	*3.9*	*130*	*10.1*	*563*	*18.9*	*517*	*48.9*	*863*	*6.3*
Barossa Region (Zone B)	*3,079*	*11.4*	*299*	*10.9*	*156*	*9.1*	*28*	*4.4*	*3,562*	*11.1*	*634*	*2.4*	*23*	*10.5*	*317*	*18.5*	*321*	*50.5*	*160*	*8.4*
HHAC Mid North Region	**6,717**	**12.1**	**781**	**11.2**	**413**	**8.8**	**73**	**4.3**	**7,984**	**11.6**	**1,754**	**3.2**	**27**	**9.2**	**880**	**18.7**	**838**	**49.5**	**191**	**5.4**

* % of total persons in that age group (see Table 2).

2.4   Non English speaking background people by LGA

Table 4 shows the proportion of people speaking English and those for whom English is their second language. It can be seen that –

- In 'Zone A' (Mid North) **3.5 percent** of people aged 65 or over reported that English is their second language. This compares with **6.4 percent** for the younger and more culturally diverse 'Zone B' Barossa region.

- The LGAs with the highest proportion of older people (aged 65 or over) for whom English is their second language are Mallala (**11.0 percent**) and Port Pirie (**6.9 percent**).

- The LGAs with the lowest proportion of older people (aged 65 or over) for whom English is their second language are the primarily agricultural areas such as Clare & Gilbert Valleys, Goyder, Wakefield and Northern Areas (all **1.6 percent**).

In light of the higher representation in 'Zone B' (Barossa) of people with English as their second language, and likely patterns of settlement of overseas migrants in urban fringe areas, the Barossa region may experience an increasing proportion of older people with English as their second language. This would bring new challenges in delivery of services arising from the management of linguistic and cultural diversity.

Table 4: English speaking and English as a Second Language in the HHAC Study Region, 2006

Source: Australian Bureau of Statistics (ABS) CData, 2006

Local Government Area (LGA)	English speaking										English as a Second Language									
	15-64 years		65-74 years		75-84 years		85+ years		Total Population		15-64 years		65-74 years		75-84 years		85+ years		Total Population	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Barossa	12,761	95.7	1,443	92.5	1,002	90.4	352	82.2	19,501	95.1	256	1.9	65	4.2	48	4.3	32	7.5	444	2.2
Clare & Gilbert Valleys	4,941	95.4	673	94.3	452	92.1	158	91.3	7,727	95.0	75	1.4	10	1.4	11	2.2	1	0.6	107	1.3
Goyder	2,470	94.9	409	96.9	229	90.9	81	87.1	3,962	94.8	40	1.5	6	1.4	4	1.6	2	2.2	61	1.5
Light	7,778	95.1	670	91.0	367	89.1	116	91.3	11,707	94.8	148	1.8	31	4.2	32	7.8	8	6.3	237	1.9
Mallala	4,879	90.3	355	81.6	151	79.1	71	87.7	7,127	90.3	233	4.3	50	11.5	25	13.1	3	3.7	343	4.3
Mount Remarkable	1,668	93.4	265	89.8	163	91.6	46	75.4	2,643	93.2	31	1.7	17	5.8	0	0.0	7	11.5	50	1.8
Northern Areas	2,697	96.4	397	93.9	292	93.6	118	84.9	4,439	95.4	19	0.7	6	1.4	5	1.6	3	2.2	40	0.9
Orroroo/Carrieton	537	98.5	76	89.4	94	93.1	33	97.1	905	97.1	0	0.0	3	3.5	4	4.0	1	2.9	7	0.8
Peterborough	1,059	93.1	209	94.1	121	85.2	34	85.0	1,728	91.2	10	0.9	7	3.2	9	6.3	3	7.5	35	1.8
Port Pirie City & Dists	9,765	93.4	1,384	88.0	976	86.9	307	88.2	15,864	79.5	351	3.4	133	8.5	68	6.1	9	2.6	3,319	16.6
Wakefield	3,752	94.3	487	94.4	357	91.8	160	92.5	5,989	94.1	40	1.0	8	1.6	8	2.1	1	0.6	60	0.9
Mid North Region (Zone A)	*26,889*	*94.4*	*3,900*	*91.8*	*2,684*	*89.8*	*937*	*88.3*	*43,257*	*88.4*	*637*	*2.4*	*146*	*5.3*	*105*	*6.1*	*43*	*6.8*	*3,679*	*7.5*
Barossa Region (Zone B)	*25,418*	*94.4*	*2,468*	*90.4*	*1,520*	*88.8*	*539*	*84.7*	*38,335*	*94.1*	*566*	*2.0*	*190*	*4.5*	*109*	*3.6*	*27*	*2.5*	*1,024*	*2.5*
HHAC Mid North Region	**52,307**	**94.4**	**6,368**	**91.2**	**4,212**	**89.6**	**1,476**	**87.0**	**81,592**	**93.9**	**1,203**	**2.2**	**336**	**4.8**	**206**	**4.4**	**70**	**4.1**	**2,028**	**2.3**

3   FUTURE DEMAND FOR AGED CARE SERVICES - POPULATION PROJECTIONS

This section presents information on projected population changes in the HHAC Study Region, to illustrate the likely growth or decline of a) the aged population and b) the working population across LGAs in the region. It incorporates information about the impact of internal (within Australia) and immigration on population numbers. (Refer to *appendix 1: data sources* for further detail).

Population projections are based on a set of assumptions covering aspects of population change, including the ageing of the existing population, future fertility rates and death rates, net migration from all sources (intra-regional, intrastate, interstate and overseas) and information about likely local developments (eg. housing, social and economic changes).

The recent rapid changes in economic activities and policies, including immigration policies, which have resulted from the global financial crisis were largely unforeseen at the time of preparation of the currently available projection data. These changes may have noticeable effects on the characteristics of the rural workforce and on patterns and composition of migration into and out of the study region, that may not be reflected by the current projections. This should be taken into account when viewing the data presented in this section.

After an evaluation of available population projection data sources it was decided that the most optimal and recent were those released in early 2009 by the Commonwealth Department of Health and Ageing. These projections are based on 2006 Census data and prepared by the ABS as a consultant to the Commonwealth Department of Health and Ageing. Further analysis was undertaken by the AISR.

3.1   Population change from 1996 through to 2027 (projected) in the HHAC Study Region

Figure 5 utilises both historical ABS Census and projections from the Department of Health and Ageing to illustrate the increase in the number of people of all ages in the HHAC Study Region between **1996 and 2027**. The total population in the urban fringe 'Zone A' (Barossa region) is projected to increase quite dramatically over the next twenty years, overtaking the projected population for the rural 'Zone B' (Mid North) area. The study region as a whole (Zones A and B) will experience a steady increase in its population between 2007 and 2027.
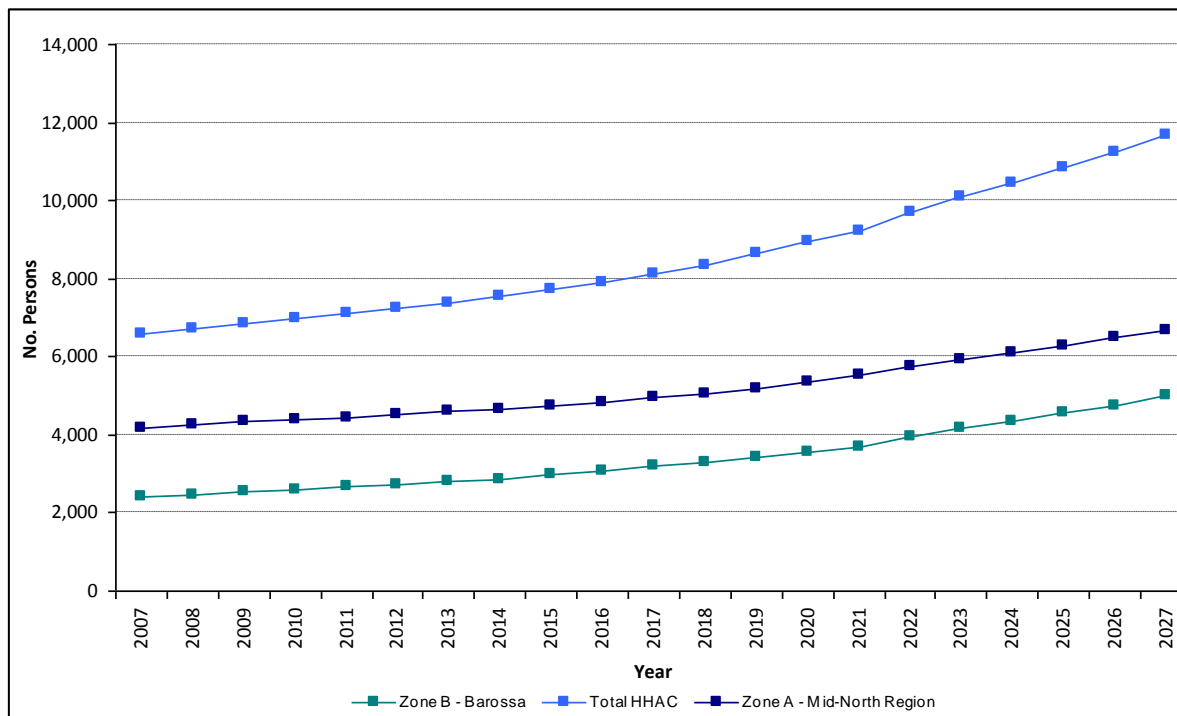
Figure 6 shows that the number of people aged **over 75 years** is expected to increase steadily across the HHAC Study Region.

Figure 5: Historical and projected population (total persons), HHAC Study Region, 1996-2027
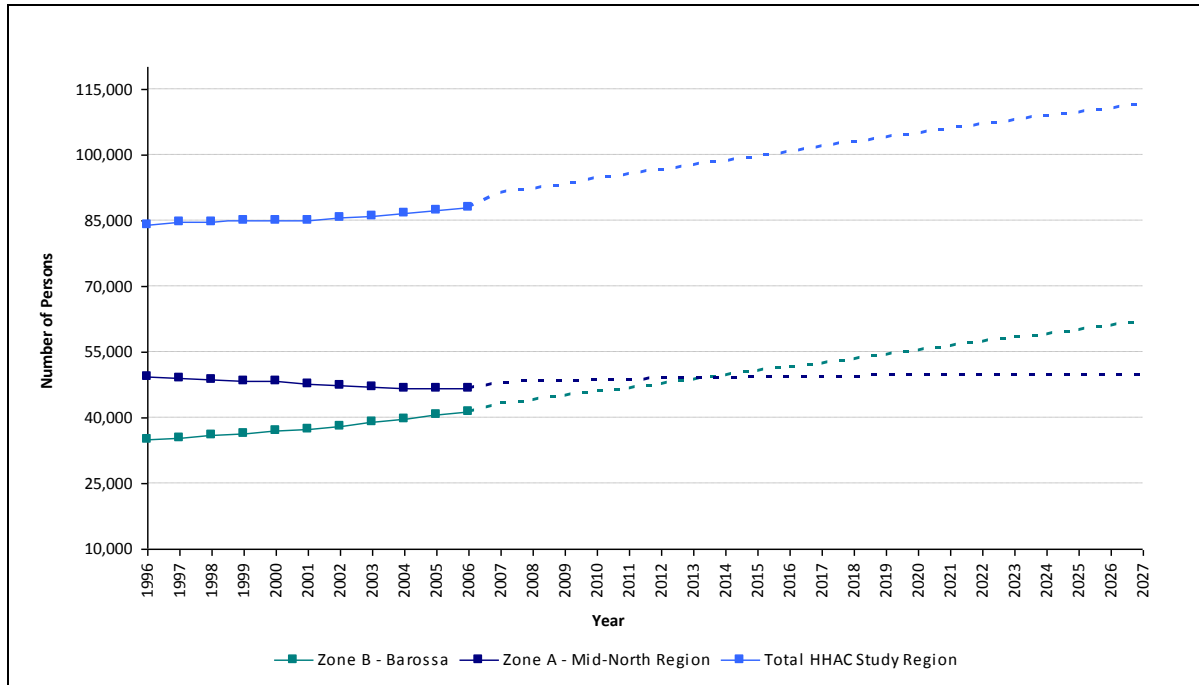
Sources: Historical ABS Census Data, Department of Health and Ageing Projections 2007-2027

Figure 6: Number of projected persons aged 75 years and over for the Helping Hand Mid North Study Region

Source: Department of Health and Ageing Projections 2007-2027

AISR (2009) The community aged care model in rural and remote Australia: Report 2,   *18*

Table 5 shows the growth between 2007 and 2027 in the total population and in the three older age groups (65 to 74, 75 to 84, 85 and over) within the HHAC study region. The following trends are evident.

- Overall, population projections for the HHAC Study Region estimate a growth of **20,291 persons** between 2007 and 2027. In 'Zone B' (Barossa) the population is expected to increase by around **10,709 persons** compared to 'Zone A' (Mid North) where the growth is only expected to represent **1,582 persons**.

- The main LGAs that are expected to decrease in population size are **Goyder** (-200 persons), **Mount Remarkable** (-190 persons), **Peterborough** (-167 persons) and **Orroroo/Carrieton**   (-151 persons). The LGAs with the greatest net growth are expected to be **Barossa** (7,947) and **Light** (8,028).

- Overall, the entire HHAC Study Region is expected to experience a **1.0 percent** growth in the number of persons aged over **85 years** between 2007 and 2027. **'**Zone A' (Mid North) is estimated to have an increase **of 1.6 percent** and 'Zone B' (Barossa) **0.6 percent**.

- The highest percentage change in the population aged **85 years and over** is expected to occur within the LGAs of **Peterborough** (2.6 percent), **Mount Remarkable** and **Wakefield** (2.1 percent). The LGAs with population projections predicting a decrease in the population are in combination with an increasing aged population.

- The smallest growth in the ageing sector (85 years and over) is projected to be within the LGAs of **Mallala** and **Light** (both 0.4percent).

Table 6 profiles the HHAC Study Region's projected 2027 population by age and gender.

- Within 'Zone A' (Mid North), **25.7 percent** of all males in the region will be aged over 65 years in 2027. For females, **28.3 percent** will be aged over 65 years in 2027.

- In contrast, in 'Zone B' (Barossa), males aged over 65 years are projected to comprise around **18.9 percent** of the entire male population in 2027. This is slightly higher than for females (**19.4 percent**) within the same region.

- The disparity between the proportion of males and females aged 65+ will continue to increase in line with the ageing of the population, particularly in the Mid North region (Zone A).

Figure 7 illustrates the distribution of people aged **75 years or more** across the HHAC Study Region in 2007 versus 2027 (projected). This map shows that the proportion of people aged 75 and over is expected to reach **10%** or more in most areas (particularly in the Mid North zone) by 2027. The proportion of people aged 75 and over in **Orroroo/Carrieton** is expected to exceed **15%** by 2027.

Table 5: Growth in total population and proportion aged 65-74, 75-84 and 85+, Mid North South Australia, 2007 to 2027

Local Government Area (LGA)	Total Population Number of persons			Population 65-74 years Number of persons				Population 75-84 years Number of persons				Population 85+ years Number of persons			
	2007	2027	Total Increase	2007	2027	% change*	Total increase	2007	2027	% change*	Total increase	2007	2027	% change*	Total increase
Barossa	21,778	29,725	7,947	1,654	3,510	4.2	1,856	1,127	2,236	2.3	1,109	451	839	0.8	388
Clare & Gilbert Valleys	8,548	9,598	1,050	787	1,307	4.4	520	494	900	3.6	406	186	351	1.5	165
Goyder	4,304	4,104	-200	442	570	3.6	128	252	355	2.8	103	86	163	2.0	77
Light	13,144	21,172	8,028	785	1,879	2.9	1,094	410	914	1.2	504	138	315	0.4	177
Mallala	8,327	11,061	2,734	470	1,169	4.9	699	196	521	2.4	325	88	164	0.4	76
Mount Remarkable	2,943	2,753	-190	278	473	7.7	195	199	282	3.5	83	59	112	2.1	53
Northern Areas	4,865	5,228	363	442	797	6.2	355	325	489	2.7	164	141	234	1.6	93
Orroroo/Carrieton	958	807	-151	90	149	9.1	59	99	126	5.3	27	36	44	1.7	8
Peterborough	1,991	1,824	-167	225	294	4.8	69	139	182	3.0	43	45	88	2.6	43
Port Pirie City & Dists	17,882	18,476	594	1,597	2,291	3.5	694	1,183	1,857	3.4	674	370	680	1.6	310
Wakefield	6,639	6,992	283	529	493	-0.9	-36	205	329	1.6	176	85	233	2.1	75
Mid North Region (Zone A)	48,130	49,712	1,582	4,390	6,727	4.4	2,337	3,089	4,765	3.2	1,676	1,081	1,905	1.6	824
Barossa Region (Zone B)	43,249	61,958	18,709	2,909	6,558	3.9	3,649	1,733	3,671	1.9	1,938	677	1,318	0.6	641
HHAC Mid North Region	91,379	111,670	20,291	7,299	13,285	3.9	5,986	4,822	8,436	2.3	3,614	1,758	3,223	1.0	1,465

* % change is the annual average change over the 20 year projection period.

Source: Department of Health and Ageing Projections 2007-2027

Table 6: Age groups by gender, Mid North South Australia, 2027

Source: Department of Health and Ageing Projections 2007-2027

Local Government Area (LGA)	Males										Females									
	15-64 years		65-74 years		75-84 years		85+ years		Total Population		15-64 years		65-74 years		75-84 years		85+ years		Total Population	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Barossa	9,134	60.8	1,789	11.9	1,062	7.1	343	2.3	15,030	100.0	8,762	59.6	1,721	11.7	1,174	8.0	496	3.4	14,695	100.0
Clare & Gilbert Valleys	2,656	55.2	664	13.8	434	9.0	143	3.0	4,811	100.0	2,595	54.2	643	13.4	466	9.7	208	4.3	4,787	100.0
Goyder	1,179	56.5	273	13.1	178	8.5	63	3.0	2,088	100.0	1,089	54.0	297	14.7	177	8.8	100	5.0	2,016	100.0
Light	6,917	64.0	937	8.7	446	4.1	143	1.3	10,809	100.0	6,560	63.3	942	9.1	468	4.5	172	1.7	10,363	100.0
Mallala	3,664	64.8	599	10.6	244	4.3	64	1.1	5,656	100.0	3,443	63.7	570	10.5	277	5.1	100	1.9	5,405	100.0
Mount Remarkable	745	52.5	259	18.3	142	10.0	44	3.1	1,418	100.0	700	52.4	214	16.0	140	10.5	68	5.1	1,335	100.0
Northern Areas	1,461	54.2	420	15.6	234	8.7	86	3.2	2,697	100.0	1,324	52.3	377	14.9	255	10.1	148	5.8	2,531	100.0
Orroroo/Carrieton	184	46.2	71	17.8	61	15.3	19	4.8	398	100.0	188	46.0	78	19.1	65	15.9	25	6.1	409	100.0
Peterborough	503	55.0	156	17.0	88	9.6	29	3.2	915	100.0	465	51.2	138	15.2	94	10.3	59	6.5	909	100.0
Port Pirie City & Dists	5,197	56.7	1,133	12.4	845	9.2	256	2.8	9,161	100.0	5,076	54.5	1,158	12.4	1,012	10.9	424	4.6	9,315	100.0
Wakefield	2,062	59.0	409	11.7	284	8.1	100	2.9	3,492	100.0	1,961	57.2	437	12.7	290	8.5	133	3.9	3,430	100.0
Barossa Region (Zone A)	**19,715**	**62.6**	**3,325**	**10.6**	**1,752**	**5.6**	**550**	**1.7**	**31,495**	**100.0**	18,765	61.6	3,233	10.6	1,919	6.3	768	2.5	30,463	**100.0**
Other Region (Zone B)	**13,987**	**56.0**	**3,385**	**13.6**	**2,266**	**9.1**	**740**	**3.0**	**24,980**	**100.0**	13,398	54.2	3,342	13.5	2,499	10.1	1,165	4.7	24,732	**100.0**
HHAC Mid North Region	**33,702**	**59.7**	**6,710**	**11.9**	**4,018**	**7.1**	**1,290**	**2.3**	**56,475**	**100.0**	32,163	58.3	6,575	11.9	4,418	8.0	1,933	3.5	55,195	**100.0**

Figure 7: Distribution of current and projected population aged 75 years and over, by SLA, HHAC Study Region, 2007-2027

Source: Department of Health and Ageing Projections, 2007-2027 (GISCA)
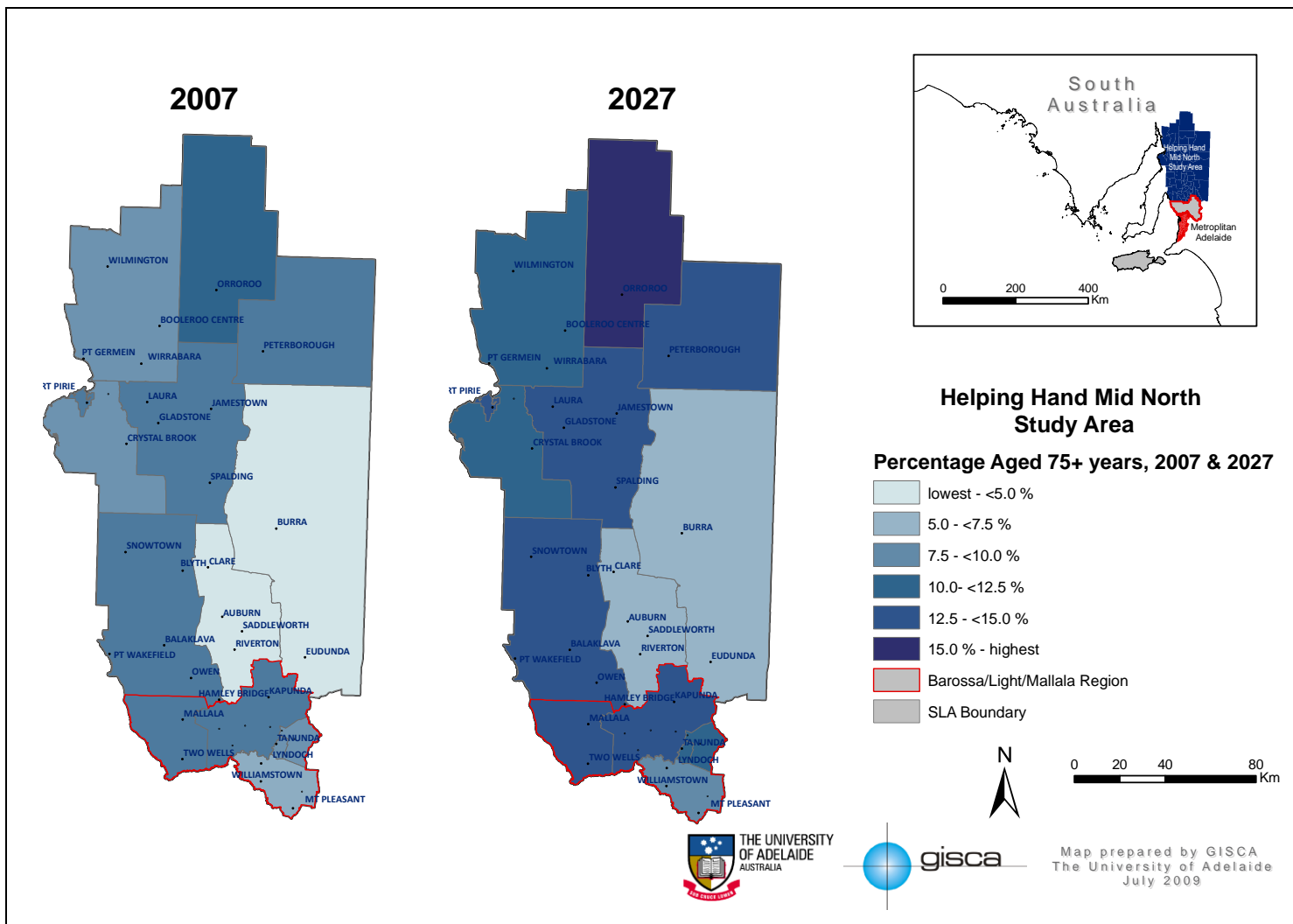
4 RESIDENTIAL AGED CARE FACILITIES IN THE HHAC STUDY REGION

A number of rural centres within the HHAC Study Region provide both hospital and residential aged care facilities, in particular within the Barossa zone. **Table 7** lists these facilities and the towns where they are based. (This information was obtained from GISCA, who in turn originally obtained it from the Commonwealth Department of Health and Ageing based on the location of all residential aged care facilities in South Australia.) The data were current for **2008.**

Table 7: Residential Aged Care and Community Care Facilities, Mid North Region

Facility	Town
Abbeyfield Hostel	WILLIAMSTOWN
Tanunda Lutheran Home	TANUNDA
Tanunda Lutheran Nursing Home	TANUNDA
Lumeah Homes	SNOWTOWN
Gilbert Valley Senior Citizens Homes	RIVERTON
Mid North Community Care Packages	PORT PIRIE
Helping Hand Aged Care - Senate Road Residential Care Facility	PORT PIRIE
St Joseph's House	PORT PIRIE
Helping Hand Aged Care - Halliday Street Residential Care Facility	PORT PIRIE
St Joseph's House	PORT PIRIE
Mid North Community Care	PORT PIRIE
Mid North Community Care EACHP (Dementia Specific)	PORT PIRIE
Nalya Lodge Hostel	PETERBOROUGH
Orroroo Community Home	ORROROO
Barossa Valley Community Aged Care Packages	NURIOOTPA
CHAP Community Care Program	NURIOOTPA
Barossa Village Incorporated	NURIOOTPA
Barossa Valley Nursing Home	NURIOOTPA
Rural Extended Care	NURIOOTPA
Rural Extended Care	NURIOOTPA
Mallala Community Hospital	MALLALA
Kapunda Homes	KAPUNDA
Belalie Lodge	JAMESTOWN
Hamley Bridge Rest Home	HAMLEY BRIDGE
Wheatfields Incorporated	FREELING
Eudunda Senior Citizens Hostel	EUDUNDA
The Willochra Home	CRYSTAL BROOK
Kara House	CLARE
Helping Hand Aged Care - Carinya	CLARE
Wakefield Aged Care Service	CLARE
Holder Home	BURRA
"Mt. View" Homes Inc	BOOLEROO CENTRE
Ira Parker Nursing Home	BALAKLAVA
Balaklava Millcourt Homes	BALAKLAVA

Source: Department of Health and Ageing, 2008 (GISCA)

Figure 8 maps the distribution of these facilities against the percentage of the population aged 65 and over within Census Collection Districts. Towns with a hospital are highlighted in **blue** and capitalised. Towns with an aged care facility are indicated in **green** and lower case. HHAC facilities are also identified as are other residential aged care centres.

Figure 8: Distribution of Residential Aged Care Facilities, HHAC Study Region, 2008
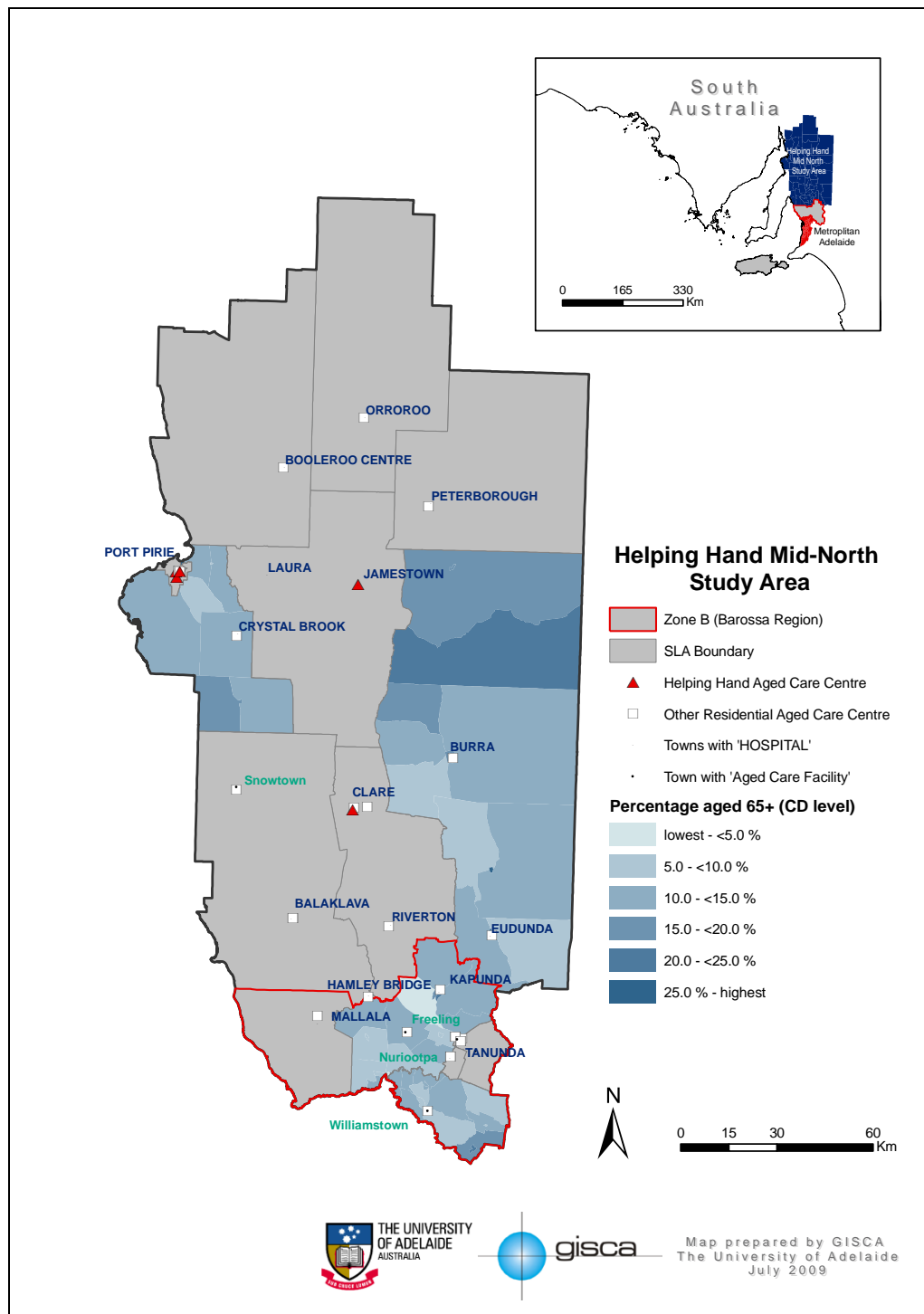
Source: ABS 2006 Census, and Department of Health and Ageing, 2008 (GISCA)

5   HELPING HAND WORKFORCE PROFILE FOR THE MID NORTH REGION

Information on the Helping Hand workforce was obtained from the organisation for active employees **(n=305)** employed in the Mid North region, and then analysed by the AISR. The data were current at **21st April 2009.** (For further information about this data source, please see *appendix 1: data sources.*)

Current service delivery by HHAC includes 200 residential care beds, 160 community aged care packages and a growing investment in independent living. Predicted future allocations of packages indicate no expansion in the mid North or Yorke Lower Barossa in 2009, the addition of 5 EACH Dementia packages in the Mid North in 2010. With HACC funding, HHAC is providing Diverse Home Care Support for 34 clients across the Mid North region.

5.1   Helping Hand Workforce Profile

A substantial proportion (**28.8 percent**) of the Helping Hand Aged Care (HHAC) workforce is located within the Mid North region of South Australia which is the focus of the organisation's rural service provision. The following sections provide an overview of key characteristics of that HHAC workforce.

Table 8 provides a summary profile of the Mid North workforce, depicting –

- Gender
- Age group
- Employment status
- Location
- Work role
- Hours worked.

This shows the following trends –

➢ The majority of staff are women (94.4%).
➢ Most are aged between 35 and 60 years (60.7%).
➢ Slightly more are employed on a full time, permanent basis (51.1%) with the remainder (49.9%) being employed on a casual basis.
➢ The highest numbers are employed in Port Pirie (44.3%), followed by Claire (32.1%) and Jamestown (23.5%).
➢ The most common work role is Care Worker (60.0%) followed by Nurse (19.3%).
➢ The workforce are employed for different amounts of time ranging from up to 7 hours a week (19.3%) to more than 35 hours (7.9%). However, part-time employment is the predominant mode.

Table 8: Helping Hand Aged Care (HHAC) Workforce Socio-Demographic Profile, Mid North South Australia, 2009

Workforce Feature	Helping Hand Workforce	
	n	%
Gender		
Male	17	5.6
Female	288	94.4
Age group		
Up to 34 years	56	18.4
35-54 years	185	60.7
Over 55 years	64	21.0
Employment status		
Casual	149	48.9
Permanent / Full-time	156	51.1
Location		
Clare	98	32.1
Jamestown	72	23.5
Port-Pirie	135	44.3
Work role		
Domestic or Home Maintenance Worker	38	12.5
Care Worker	183	60.0
Nurse (EN or RN)	59	19.3
Other staff	25	8.2
Hours worked		
Up to 7 hours	59	19.3
7 to 14 hours	41	13.4
14 to 21 hours	48	15.7
21 to 28 hours	71	23.3
28 to 35 hours	62	20.3
Over 35 hours	24	7.9
Total Staff	**305**	**100.0**

Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.1 *Age and Gender Profile*

Typical of most aged care workforces, the HHAC Mid North workforce is predominantly **female** (94.4 per cent). Male employees represent only 5.6 percent of this workforce. Due to the small numbers of males (n=17) it was possible to undertake only a limited analysis by gender.

Overall, 47.1 percent of males were working as a domestic or home maintenance worker, and the majority of male employees were permanent/full-time. Only two male employees were classified as 'other staff' which includes administrative and management roles.

The following age distribution was found within this workforce (Figure 9) –

- o up to 34 years (18.4 percent),
- o **35 to 54 years** (60.7 percent) and
- o over 55 years (21.0 percent).

Consequently, issues relating to workforce ageing are an important consideration in planning for current and future delivery.

Figure 9: Age profile of the Helping Hand Aged Care (HHAC) Workforce, Mid North South Australia, 2009
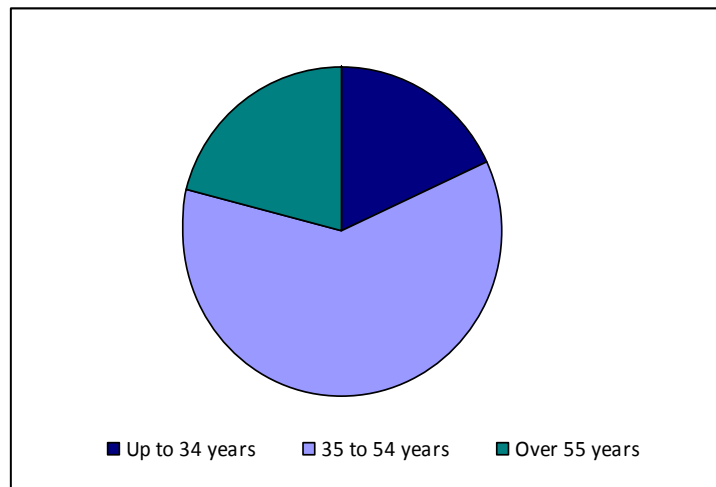
Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.2 *Employees in HHAC Mid North compared to remaining HHAC employees*

Figure 10 compares the HHAC Mid North workforce with the rest of the HHAC workforce. It shows the Mid North workforce has a **higher proportion of permanent/full time employees** while the rest of the HHAC workforce has a higher proportion of casuals.

Figure 10: Employees for the Helping Hand Aged Care (HHAC) Workforce, Mid North and remaining HHAC South Australia, 2009
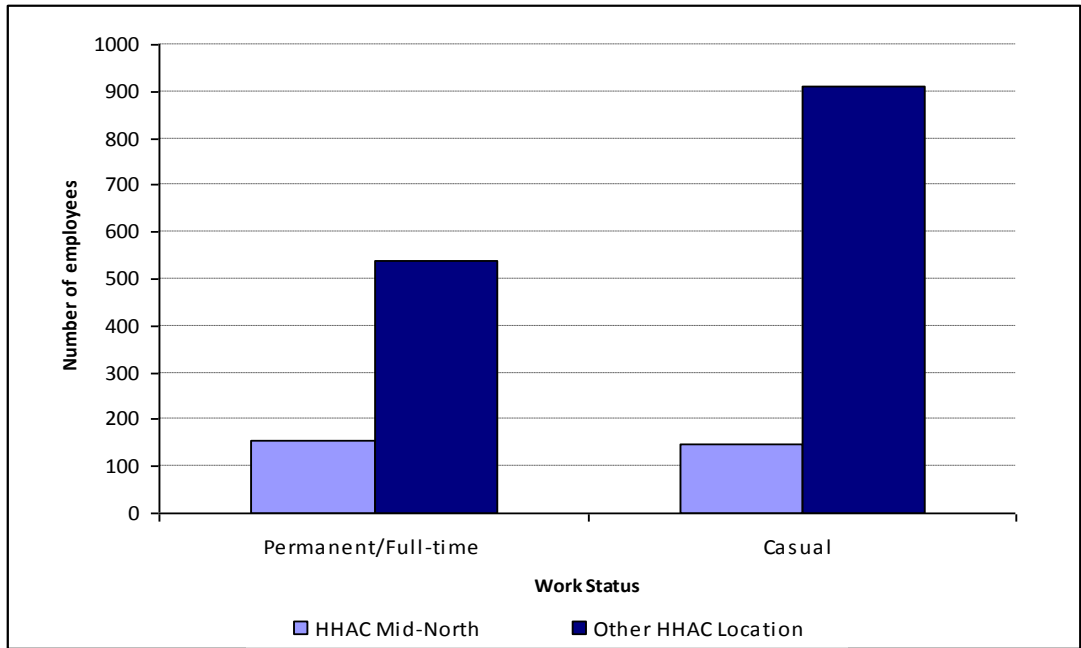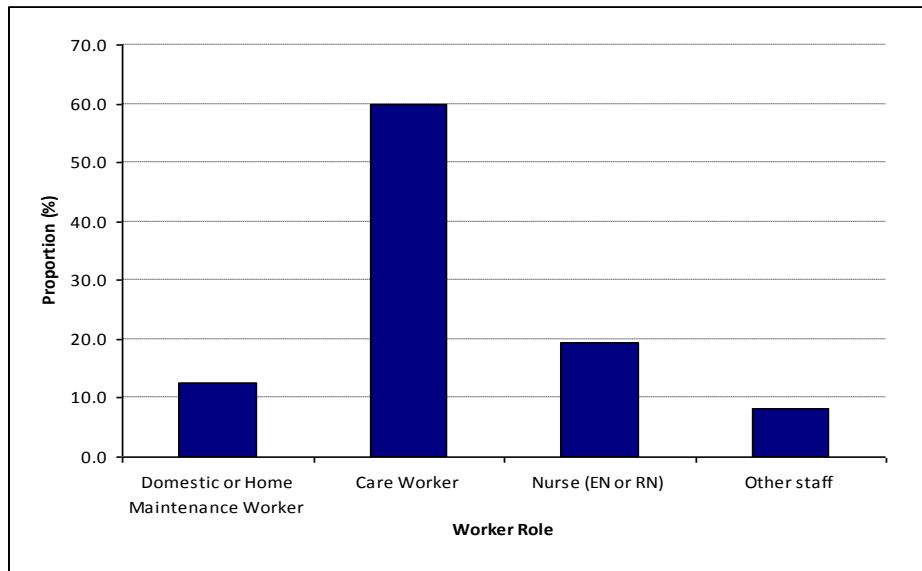

Source: Helping Hand Aged Care, Workforce data 2009

5.1.3   Employees by work role

o   The largest group (**60.0 percent**) are care workers.

o   The second largest group (**19.3 percent**) are nurses - enrolled or registered.

o   There are **12.5 percent** of HHAC Mid North employees who are domestic or home maintenance workers.

o   Another 25 employees (**8.2 percent**) described as 'other staff' are in roles such as administrational and management roles.

Figure 11: Worker Role Distribution for the Helping Hand Aged Care (HHAC) Workforce, Mid North South Australia, 2009

Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.4   Employees by location

Port Pirie has the highest proportion of employees (**44.3 percent**) followed by Clare (**32.1 percent**) and finally Jamestown (**23.5 percent**) (Figure 12). Port Pirie had several concentrations of people aged 65 to 74 years around this region.

Figure 12: Employee Workplace Location for the Helping Hand Aged Care (HHAC) Workforce, Mid North South Australia, 2009
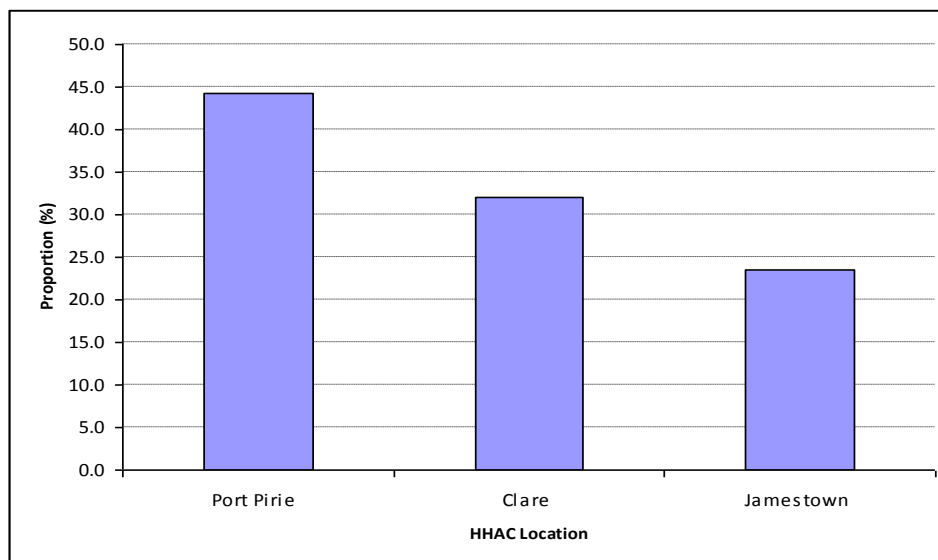
Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.5   Employees by work role and location

Table 9 depicts the Mid North HHAC workforce by work roles and location across the three service delivery hubs. It shows that –

- Clare has the highest proportion of Care Workers of the three hubs.

- Jamestown has the highest proportion of Maintenance or Domestic workers.

- Port Pirie has the highest proportion of Nurses, closely followed by Clare.

- Jamestown has the highest proportion of 'other staff' (management or administration).

Table 9: Helping Hand Aged Care (HHAC) workforce by work role and location, Mid North South Australia, 2009

Location	Domestic Worker		Care Worker		Nurse (RN/EN)		Other Staff	
	n	%	n	%	n	%	n	%
Clare	12	12.2	62	63.3	19	19.4	5	5.1
Jamestown	10	13.9	42	58.3	12	16.7	8	11.1
Port Pirie	16	11.9	79	58.5	28	20.7	12	8.9
Overall	**38**	**12.5**	**183**	**60.0**	**59**	**19.3**	**25**	**8.2**

Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.6   Employment status

Helping Hand Mid North had nearly half of its workforce employed on a **casual** basis (48.9 percent). This reflects wider trends in aged care workforces in Australia. There were similar percentages found by age group for those who were casual and permanent/full-time employees.

Higher proportions of casual employees were employed in Clare (57.1 percent) and Jamestown (59.7 percent), compared with 37.0 percent in Port Pirie. Those undertaking a care worker role were more likely to be casual while permanent employees were nursing staff (either enrolled or registered).

5.1.7   Hours worked

- The number of hours (on average) reflected the casual and part time emphasis of the employment. On **average** the Helping Hand workforce was employed for **19.5 hours per week** (Range 0.17 – 38.00).

- The highest proportion were working 21 to 28 hours (23.3 percent) closely followed by 28 to 35 hours (20.3 percent).

- Only 7.9 percent of this workforce were working in a full-time equivalent (FTE) position with over 35 hours per week (n=24).

- Nearly one in five employees (19.3 per cent) were working for less than 7 hours per week.

- There were no significant differences by age group for the number of hours worked per week (on average).

- Males on average were working 28.74 hours per week and females 18.46 hours per week.

Figure 13: Employee Average Hours Worked for the Helping Hand Aged Care (HHAC) Workforce, Mid North South Australia, 2009
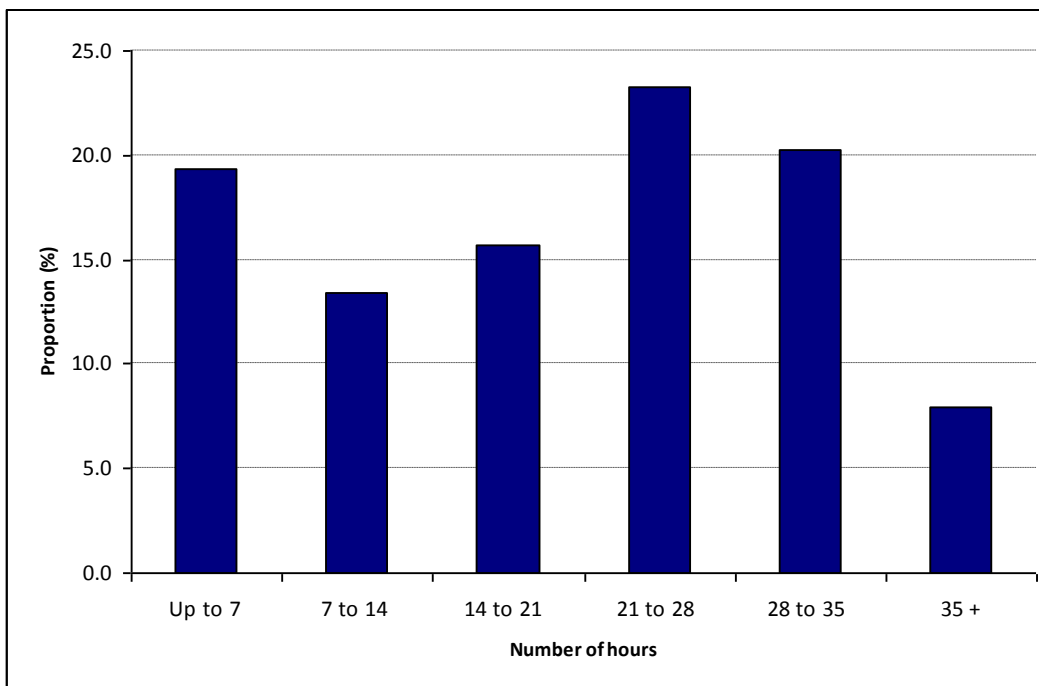
Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

5.1.8   Employees by work role and employment status

Table 10 summarises information about employee work role and hours of work across the three centres of service delivery, with tests of statistical significance applied to identify important differences across these locations. It can be seen that –

- Care Workers represented a significant majority of casual positions and a significant minority of permanent/FTE positions.

- Nurses, both RN and EN, showed a reversal in this pattern, with a significant majority being employed in a permanent/FTE capacity and a significant minority employed as casuals.

- A significant majority of 'other staff' (e.g. management, administration) were employed in a permanent/FTE capacity and a significant minority were employed as casuals.

Table 10: Helping Hand Aged Care (HHAC) Workforce by Work Role and Average Hours Worked, Mid North South Australia, 2009

	Domestic Worker		Care Worker		Nurse (RN/EN)		Other Staff	
	n	%	n	%	n	%	n	%
Employment status								
Casual	19	12.8	114	**76.5↑**	13	**8.7↓**	3	2.0v
Permanent / Full-time	19	12.2	69	**44.2↓**	46	**29.5↑**	22	**14.1↑**
Hours worked								
Up to 7 hours	2	3.4#	54	**91.5↑**	2	3.4#	1	1.7#
7 to 14 hours	6	14.6	31	**75.6↑**	2	4.9#	2	4.9
14 to 21 hours	8	16.7	29	60.4	9	18.8	2	4.2
21 to 28 hours	12	16.9	37	52.1	18	25.4	4	5.6
28 to 35 hours	2	3.2#	30	**48.4↓**	25	**40.3↓**	5	8.1
Over 35 hours	8	**33.3↑**	2	8.3#	3	12.5	11	**45.8↑**
Overall	**38**	**12.5**	**183**	**60.0**	**59**	**19.3**	**25**	**8.2**

↑↓ Statistically significantly higher or lower (χ2 test p>0.05) than the other categories combined
\# Insufficient numbers for statistical tests
Source: Helping Hand Mid North Region, Workforce data 2009

Table 10 also demonstrates some significant differences in hours worked in relation to different work roles.

- Domestic workers and 'other' staff were the two groups most likely to be working for 35 hours or more each week.

- Care Workers were the group most likely to be working for between 7 and 14 hours each week.

- Care Workers and Nurses were the two groups most likely to be working between 28 and 35 hours per week.

5.1.9 Employee age and employment status by location

As **Table 11** and its associated tests of statistical significance demonstrate, there are differences in workforce ageing across the three centres of service delivery in the Mid North region.

- The proportion of **older employees**, that is, aged 55 and over, was higher in **Clare** and lower in Port Pirie (at statistically significant levels).
- The proportion of younger employees, that is, aged less than 35 years, was lower in Clare compared with the other two centres.

There were also statistically significant differences between the three centres in relation to employment status.

- There was a higher proportion of **casual employees** in **Clare** and a lower proportion of permanent/FTE employees.

- Conversely, **Port Pirie** had a higher proportion of **permanent/FTE employees** and a lower proportion of casual employees.

Table 11: Helping Hand Aged Care (HHAC) Employee Location by Age Group and Employment Status, Mid North South Australia, 2009

	Clare		Jamestown		Port Pirie	
	N	**%**	**n**	**%**	**n**	**%**
Age						
Up to 35 years	9	9.2↓	18	25.0	29	21.5
35 to 54 years	57	58.2	41	56.9	87	64.4
55 years and over	32	32.7↑	13	18.1	19	14.1↓
Employment status						
Casual	56	57.1↑	43	59.7↑	50	37.0↓
Permanent / Full-time	42	42.9↓	29	40.3↓	85	63.0↑
Overall	**98**	**32.1**	**72**	**23.6**	**135**	**44.3**

↑↓ Statistically significantly higher or lower (χ2 test p>0.05) than the other categories combined
Source: Helping Hand Aged Care Mid North Region, Workforce data 2009

6   INDICATORS OF FUTURE *SUPPLY* OF THE AGED CARE WORKFORCE VERSUS *DEMAND* FOR AGED CARE SERVICES

In this section data regarding future population ageing and growth are compared with data regarding future workforce numbers and ageing. A ratio is then developed plotting population ageing (representing demand for aged care services) against the population of workforce age (that is, 15 to 65 years) to determine future capacity to match supply with demand.

Figure 14 outlines the age and gender structure for the HHAC Mid North region for 2007 and 2027 (shaded) using population projections data from the Commonwealth Department of Health and Ageing. This graphical representation of the projections data highlights the increases in particular of the population of both males and females aged over 55 years. **It can be seen the most substantial growth will occur for both women and men aged 55 to 59 and over**.

**Figure 14: Helping Hand Mid North Region: Age Sex Structure, 2007 and 2027**
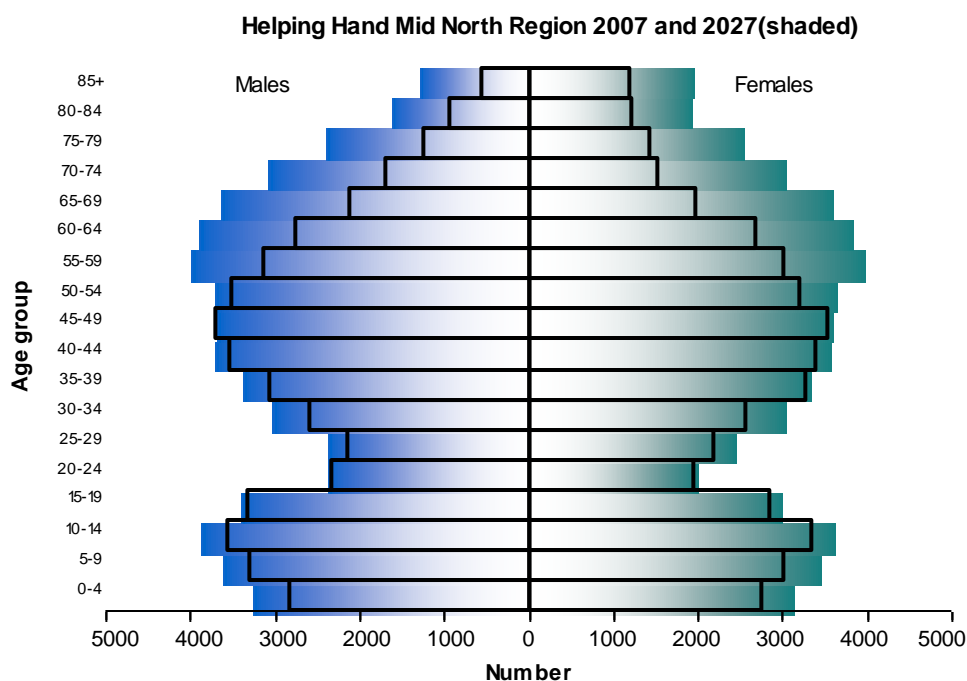
Source: Department of Health and Ageing, 2007-2027 Population Projections

Figure 15 compares the projected 2027 age and sex structure for the HHAC Mid North region with that projected for South Australia as a whole. It shows that there is projected to be a higher proportion of those aged **50 to 69 years** within the HHAC Mid North region compared to South Australia as a whole. In addition, there are projected to be lower proportions of people aged 15 to 44 years within the HHAC Mid North region compared to South Australia.

Figure 15: Helping Hand Mid North Region compared with South Australia: Age Sex Structure, 2027

Source: Department of Health and Ageing 2007-2027 Population Projections

South Australia and Helping Hand Mid North Region (shaded), 2027
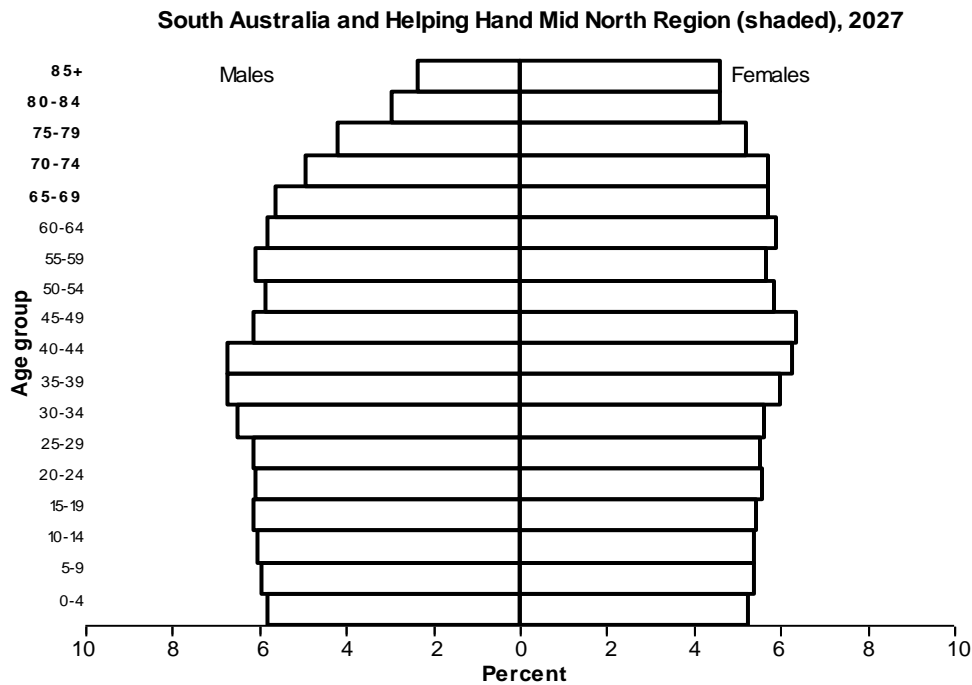
6.1   Ratio of working to aged population, 2007 – 2027

The ratio of working aged people to older people (here defined as being 75 years or more) provides a powerful indicator for future capacity to meet aged care need. It can be seen from **Table 12** that –

- In **2007**, the Study Region as a whole had a ratio of **7.2** working age people to every person aged 75 or over. By **2017** this reduces to **6** working age people to every person aged 75 or over, and by **2027,** it reduces further to only **4.3** working age people to every person aged 75 or over.

- The Barossa region (Zone B) has a stronger ratio which was **9.8 : 1** in 2007, reducing to **8.5 : 1** in 2017, and dropping to **6 : 1** by 2027.

- The (Zone A) Mid North region has the most worrying trend, beginning with a ratio of **5.6 : 1** in 2007, dropping to **4.4 : 1** by 2017, and to only **3 : 1** by 2027.

Table 12: Ratio of working to aged population in the HHAC Mid North Region, 2007, 2017 and 2027

|	0-14 years		15-34 years		35-54 years		55- 74 years		75+ years		Ratio Working (15-54 yrs) to aged population
	n	%	n	%	n	%	n	%	n	%	(75+ yrs)
2007											
Barossa Region (Zone A)	9,154	21.2	10,101	23.4	13,617	31.5	7,967	18.4	2,410	5.6	9.8 : 1
Other Region (Zone B)	9,645	20.0	9,832	20.4	13,592	28.2	10,891	22.6	4,170	8.7	5.6 : 1
HHAC Mid North Region	18,799	20.6	19,933	21.8	27,209	29.8	18,858	20.6	6,580	7.2	7.2 : 1
2017											
Barossa Region (Zone A)	10,400	19.8	11,870	22.6	15,146	28.9	11,884	22.6	3,186	6.1	8.5 : 1
Other Region (Zone B)	9,260	18.8	9529	19.3	12,420	25.2	13,223	26.8	4,945	10.0	4.4 : 1
HHAC Mid North Region	19,660	19.3	21,399	21.0	27,566	27.1	25,107	24.6	8,131	8.0	6.0 : 1
2027											
Barossa Region (Zone A)	11,931	19.3	12,925	20.9	17,045	27.5	15,068	24.3	4,989	8.1	6.0 : 1
Other Region (Zone B)	8,930	18.0	8,752	17.6	11,503	23.1	13,857	27.9	6,670	13.4	3.0 : 1
HHAC Mid North Region	20,861	18.7	21,677	19.4	28,548	25.6	28,925	25.9	11,659	10.4	4.3 : 1

Sources: Department of Health and Ageing projections (Released January 2009 based on 2006 Census, using a cohort-component method)

Figure 16 indicates the working age population to population ageing ratios in 2007, 2017 and 2027 for each LGA within the HHAC Mid North study region. It shows that -

- A majority of the LGAs by 2027 will experience a ratio of **less than 4** working age people to every person aged 75 or over. These include Clare & Gilbert Valleys, Goyder, Mount Remarkable, Northern Areas, Orroroo/Carrieton, Peterborough, Port Pirie and Wakefield.

- In **2007**, **Orroroo/Carrieton** had a ratio of **3.1** working age people to every person aged 75 or over. This is projected to decrease to **1.5** persons by the year 2027.

Figure 16: Ratio of Working Population (15 to 64 years) to Aged Population (75 + years), Mid North South Australia, 2009

Sources: Department of Health and Ageing projections (Released January 2009 based on 2006 Census, using a cohort-component method)
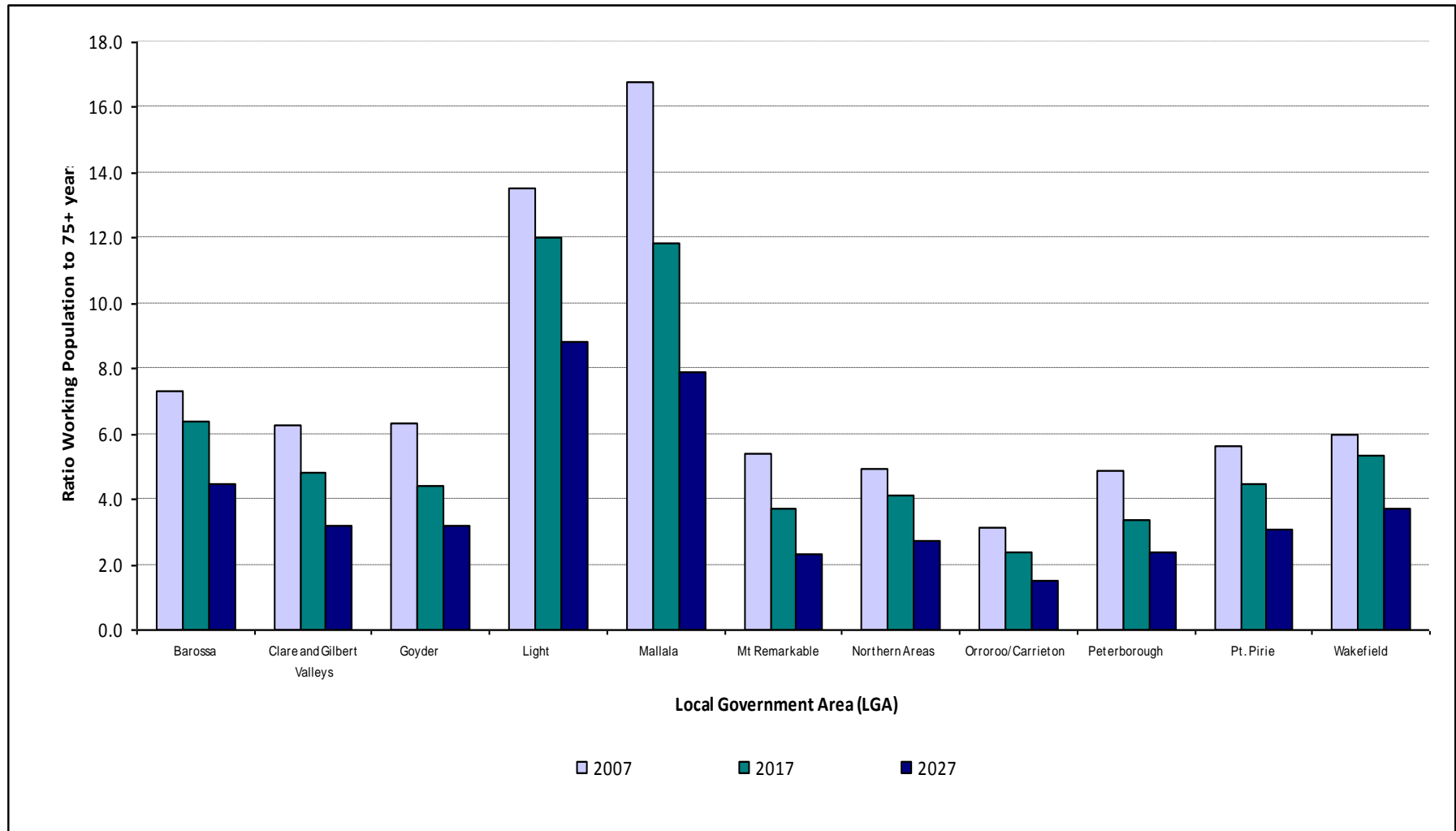
7   SUMMARY OF FINDINGS AND DISCUSSION

The information in this report provides a solid evidence base for Helping Hand Aged Care's planning of aged care services in the Mid North region. Essentially three points are evident:

1   **There will be a significant growth across the region as a whole between now and 2027 in the number of people aged over 65 and likely to require aged care services.** This trend varies within the region, with the following specific areas of need evident –

⇨   **Orroroo/Carrieton** stands out as a locality with significant ageing related demand. It currently has the highest proportion of those aged **75-84 years** (**10.7 percent** of the population) and of those aged **over 85 years** (**3.7 percent** of the population). Its projected growth in the number of older people will be higher than for other LGAs in the region (see below).

⇨   **Peterborough** LGA has the highest proportion of those aged **65-74 years** (**11.5 percent** of the population).

⇨   The LGAs with the highest proportion of older people (aged 65 or over) undertaking **unpaid carer** work were **Orroroo/Carrieton** (**11.3 percent**) and **Northern Areas** (**11.0 percent**).

⇨   In 'Zone A' (Mid North) **14.6 percent** of people aged 65 or over require assistance with core activities due to a disability, long-term health condition or old age. This is a slightly higher incidence than in the younger 'Zone B' Barossa region (**13.0 percent)**.

⇨   The LGAs with the highest proportion of older people (aged 65 or over) who require assistance were Light (**19.8 percent**) and Northern Areas (**18.7 percent**).

⇨   The study region as a whole (Zones A and B) will experience a steady increase in its population between 2007 and 2027.

⇨   However, the total population in the urban fringe 'Zone A' (Barossa region) is projected to increase quite dramatically over the next twenty years, overtaking the projected population for the rural 'Zone B' (Mid North) area. The Barossa region also has a higher proportion of people from CALD backgrounds than Zone A, necessitating the development of culturally appropriate aged care services.

⇨   The number of people aged **over 75 years** is also expected to increase steadily across the HHAC Study Region (see **Figure 6)**. The map in **Figure 7** shows that the proportion of people aged 75 and over is expected to reach **10%** or more in most areas (particularly in the Mid North zone) by 2027.

⇨   The proportion of people aged **75 and over** in **Orroroo/Carrieton** is expected to exceed **15%** by 2027.

⇨   Overall, the entire HHAC Study Region is expected to experience a **1.0 percent** growth in the number of persons aged over **85 years** between 2007 and 2027. **'**Zone A' (Mid North) is estimated to have an increase **of 1.6 percent** and 'Zone B' (Barossa) **0.6 percent**.

⇨   The highest percentage change in the population aged **85 years and over** is expected to occur within the LGAs of **Peterborough** (2.6 percent), **Mount Remarkable** and **Wakefield** (2.1 percent).

Mallala stands out as the locality with the lowest levels of current and projected population ageing.

Consequently, Helping Hand Aged Care's service hubs of Port Pirie and Jamestown are well located, and can expect continued demand for services, and will need workforces that can meet this demand. It could be feasible to develop a hub closer to the Orroroo/Carrieton LGA, and while the demand for aged care services will grow in the Barossa region, the authors do not have data about other organisations servicing this population (and whether Helping Hand should therefore plan to address this demand, and to what degree). However, the current hub in Clare is likely to experience growth and its services could be linked to another hub in the Barossa Valley.

2 **The ratio of the population of working age (that is, aged between 15 and 64) people to older people will reduce significantly**, **so that there will be less numbers of working age people to support older members of the population** (see Section 6)**.** This provides a powerful indicator for future capacity to meet aged care need.

⇨ This trend will be more pronounced in the HHAC Mid North region compared to South Australia as a whole.

⇨ In **2007**, the Study Region as a whole had a ratio of **7.2** working age people to every person aged 75 or over. By **2017** this reduces to **6** working age people to every person aged 75 or over, and by **2027,** it reduces further to only **4.3** working age people to every person aged 75 or over.

⇨ The Barossa region (Zone B) has a stronger ratio which was **9.8 : 1** in 2007, reducing to **8.5 : 1** in 2017, and dropping to **6 : 1** by 2027.

⇨ The (Zone A) Mid North region has the most worrying trend, beginning with a ratio of **5.6 : 1** in 2007, dropping to **4.4 : 1** by 2017, and to only **3 : 1** by 2027.

There are significant differences in this ratio within the Study Region (**Table 12** *and* **Figure 16**) –

⇨ **Orroroo/Carrieton** stands out as a locality with significant ageing related demand. It currently has the lowest proportion of people of working age (58.5% of its population). In 2007, **Orroroo/Carrieton** had a ratio of **3.1** working age people to every person aged 75 or over. This is projected to decrease to **1.5** persons by the year 2027.

⇨ A majority of the LGAs by 2027 will experience a ratio of **less than 4** working age people to every person aged 75 or over. These include Clare & Gilbert Valleys, Goyder, Mount Remarkable, Northern Areas, Orroroo/Carrieton, Peterborough, Port Pirie and Wakefield.

3 **Helping Hand Aged Care's own workforce is ageing, and its workforce in the region will need to grow in order to meet projected demand.** A substantial proportion (**28.8 percent**) of the organisation's workforce is already located within the Mid North region (see Section 5.1).

⇨ **Port Pirie** has the highest proportion of employees (**44.3 percent**) followed by Clare (**32.1 percent**) and finally Jamestown (**23.5 percent**) (see Figure 12).

⇨ There are differences in workforce ageing across the three centres of service delivery in the Mid North region. The proportion of **older employees**, that is, aged 55 and over, is higher in **Clare**

and lower in Port Pirie (at statistically significant levels). However, the proportion of younger employees, that is, aged less than 35 years, was lower in Clare compared with the other two centres.

It will be important to develop strategies to retain older employees for as long as possible, to retain younger employees, and to continue to recruit new employees.

It will also be important to develop workforce planning strategies that take into account increasing demand for community based care and marry these with strategies employing GPS and other technologies that can reduce travel time and achieve efficiencies in resource allocation.

8   APPENDIX 1: DATA SOURCES

The information contained in this report was sourced from a range of secondary data sources. Those sources are listed below. Australian Bureau of Statistics (ABS) 2006 Census data has been used throughout.

Australian Standard Geographical Classification (ASGC) Structural Chart

Source: ABS Statistical Geography Volume 1: Australian Standard Geographical Classification (ASGC), July 2006
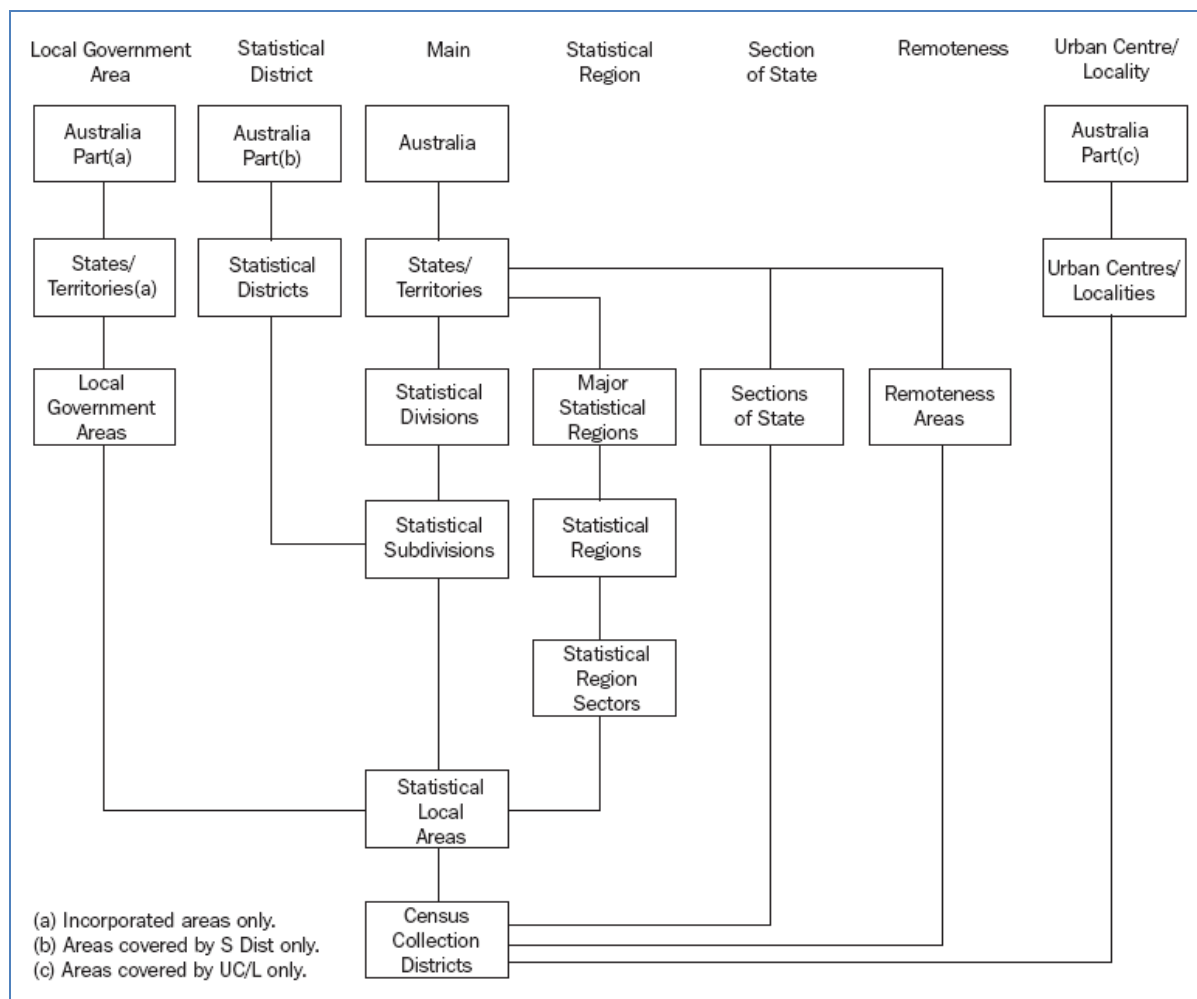
Definitions of geographical areas

The CD (Census **C**ollection **D**istrict) is the smallest spatial unit that information is collected by the Australian Bureau of Statistics (ABS). CD boundaries must conform to SLA boundaries, which in turn conform with LGA boundaries. CDs contain at least 100 persons to allow for confidentiality of Census and analysis of sub-categories, and on average contain around 200 households. Consequently, the SLAs and LGAs of larger rural centres can contain many CDs, eg the Port Pirie (City) SLA consists of 30 CDs and the Clare & Gilbert Valleys LGA consists of 21 CDs. In the case of rural areas outside of townships, CDs are geographically large due to the sparse population distribution.

Data extraction from ABS Sources

Boundaries of Statistical Local Areas (SLAs) and Census Collection Districts (CDs) were obtained from The National Centre for the Social Applications of Geographic Information Systems (GISCA) based on the Australian Bureau of Statistics 2006 Census geography.

Historical ABS data was obtained from the ABS website[3] for the period 1996 to 2007. This data was combined with the DoHA data to provide historical and projection graphs.

CData (2006) is an online tool provided by the ABS for accessing the 2006 Census. CData (2006) was accessed and data were extracted for a custom geographical region containing only the CDs within the HHAC Study Region. Data were extracted at the CD spatial unit based on the place of usual residence on census night.

Further analysis of all sourced data was undertaken by AISR staff using Excel.

Population Projection Information

Projections used in this report are based on 2006 Census data and prepared by the ABS as a consultant to the Commonwealth Department of Health and Ageing. SLA Projections were available from 30 June 2007 (base) to 2027, with results given by single year of age and sex, or by five year age group and sex. Further analysis was undertaken by AISR staff using Excel.

The following explanatory notes accompany the Department of Health and Ageing projections. Further information can be found on the website: .http://www.health.gov.au/internet/main/publishing.nsf/Content/ageing-stats-lapp.htm

 'The cohort-component method is used for these projections. In this method, the base population is projected forward annually by calculating the effect of births, deaths and migration within each age-sex group according to the specified fertility, mortality and migration assumptions.'

'The base Estimated Resident Population (ERP) is preliminary for 2007, based on final 2006 Census-year ERP; later years are projected. The assumptions of fertility (birth rates), mortality (death rates) and migration underpinning the projections are primarily based on historical patterns and trends specific to each area.'
 'The nature of the projection method and inherent fluctuations in population dynamics mean that care should be taken when using and interpreting the projection results. The projections are not exact forecasts but simply illustrate future changes which would occur if the stated assumptions were to apply over the projection period.'

Population projection and migration patterns

Internal and overseas migration are considered in the DoHA projections.

The cohort-component method is used for these projections. In this method, the base population is projected forward annually by calculating the effect of births, deaths and migration within each age-sex group according to the specified fertility, mortality and migration assumptions.

Overseas migration:

Annual net overseas migration gain (at national level) of 180,000 from 2007-08. State shares are based on 2004/5-2006/7 data using ABS' recently introduced enhanced net migration methodology. This new method is explained in: /Information Paper: Improved Method for Estimating Net Overseas Migration/, 2006 (ABS cat no 3107.0.55.003).

Further details are at -

http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3107.0.55.003Main+Features12006?OpenDocument

Interstate migration:

'Medium' net gains and losses from states and territories. These are based on historical levels and trends, with a view to levels heading towards long-term averages.

The base population for SLAs is the preliminary estimated resident population in each area by single year of age and sex, at 30 June 2007.

SLA fertility and mortality assumptions are derived by combining the medium scenario state/territory assumptions from /Population Projections, Australia, 2006 to 2101/ with historical patterns observed in each SLA.

The assumed migration levels are based on historical trends of net migration in each SLA, the assumed levels of State/Territory overseas and interstate migration, and in some cases recent State/Territory government population or dwelling/land release projections. The assumed SLA net migration levels, largely based on recent SLA trends, are constrained to the capital city and balance of State/Territory assumptions above.

The age-sex distributions for the assumed migration levels are based on overseas and inter-SLA migration rates used in the calculation of published ABS SLA age-sex population estimates, which were originally derived from 2006 Census of Population and Housing migration data.

http://www.health.gov.au/internet/main/publishing.nsf/Content/ageing-stats-lapp-exp-notes.htm

Helping Hand Aged Care Workforce

The HHAC workforce data were supplied in Excel format by the client. AISR staff exported data into SPSS Version 15.0 and undertook minor recoding[4] for analysis. Spatial analysis was undertaken using ESRI ArcView Version 9.2.

---

[4] The type of position Full-Time was recoded into Permanent. The location was recoded for those that are NACC into the nearest location from where they reside based on residential postcode.