

health

Profiling the allied health workforce
of public health organisations
in the Grampians region

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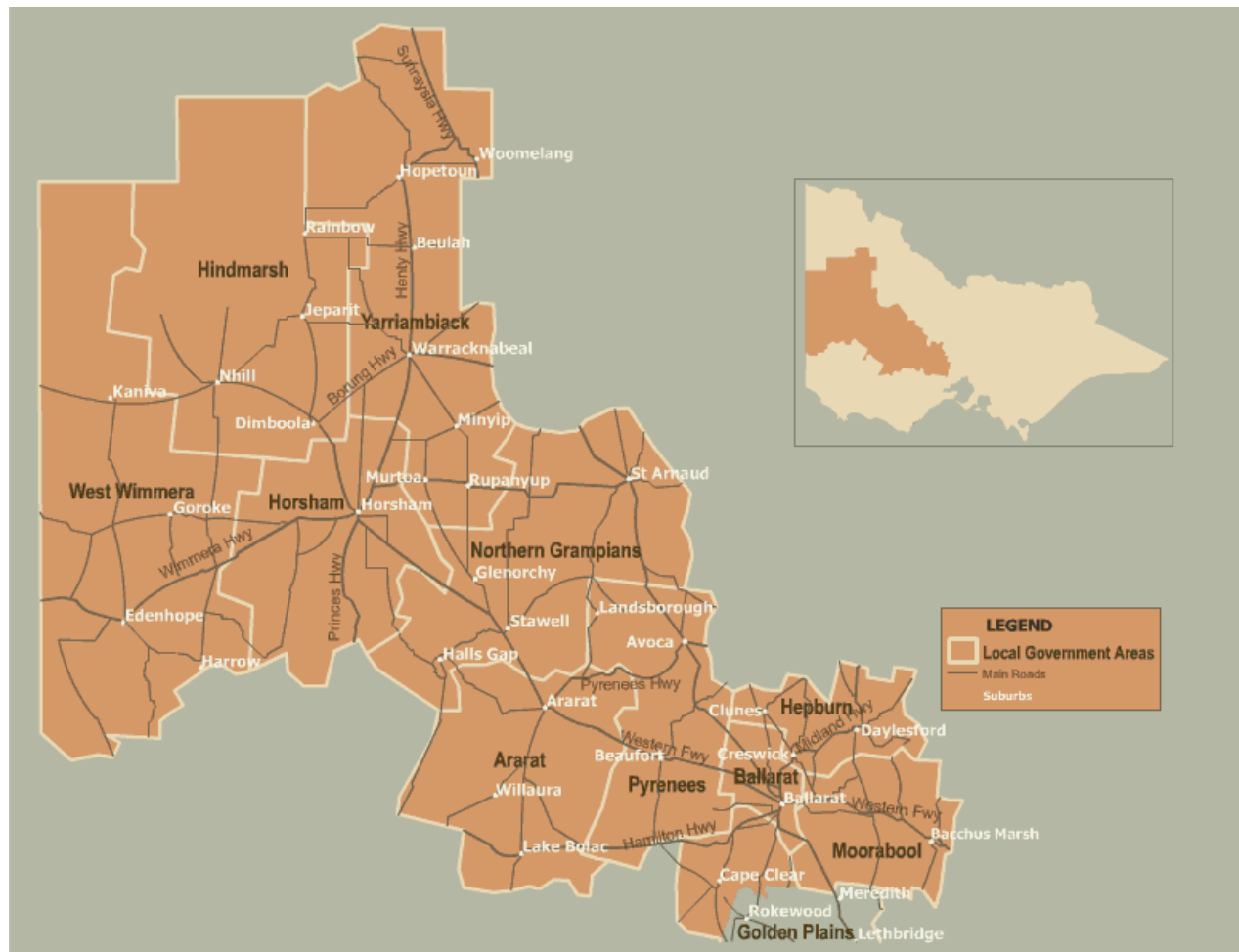
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The State Services Authority is also acknowledged for providing the allied health workforce data for the Grampians region which is used in this report.

Introduction

The Grampians region in this report refers to the Grampians region catchment area as defined by the State Government of Victoria, Department of Health. The Grampians region covers an area of approximately 47,890 square kilometres and includes eleven local government areas. The catchment area extends from Bacchus Marsh in the east to the South Australian border in the west and from Patchewollock in the north to Lake Bolac in the south (Grampians Regional Health Collaborative 2013).

Figure 1 State Government of Victoria, Department of Health, Grampians region



There is no standard or agreed to definition of allied health at a national or international level and this is the subject of ongoing debate in the allied health literature (Humphreys J, Chisholm M & Russell D 2010; Turnbull et al. 2009). There is however a general consensus on a definition of allied health which excludes: medicine, nursing, administration and hotel staff (Department of Health 2010; Turnbull et al. 2009; Whitford D, Smith T & Newbury J 2011).

The occupations included as allied health in this report reflect the organisational structure of public health organisations in the Grampians region. The services and workforce categorised as allied health are typically located in allied health departments at larger health organisations or they are part of primary health care or community health departments in smaller rural health services. The allied health occupations included in the scope of this project are: allied health assistants, dieticians, exercise

physiologists and therapists, occupational therapists, physiotherapists, prosthetists and orthotists, both clinicians and technicians, podiatrists, psychologists, social workers, speech pathologists and welfare workers.

Allied health practitioners have an essential role in the rural health workforce and work across a variety of areas including acute care, aged care, rehabilitation, diagnosis, health promotion, early intervention and mental health (Humphreys J, Chisholm M and Russell D 2010, Keane et al. et al. 2011). A shortage of allied health professionals has been linked with reduced access to health services, poorer health outcomes and increased mortality rates (Buyks et al. 2010, Mills A & Millsteed J 2002). The most significant allied health workforce shortages are in the regional and rural areas of Australia (Buyx et al. 2010). The demand for allied health services in regional and rural areas is also likely to increase into the future due to factors including: the ageing population, increased rates of chronic disease and increased expectations to deliver multidisciplinary services (Humphreys J, Chisholm M & Russell D 2010; Smith T, Cooper R, & Brown L 2008).

The lack of reliable and consistent allied health workforce data has been identified as a barrier to allied health workforce planning (The Senate 2012). There have only been a limited number of studies published profiling the allied health workforce at a regional and national level (Department of Health 2010; Keane et al. 2011; Whitford D, Smith T & Newbury J 2011). The regional studies published are mainly descriptive and are limited in terms of how they can be generalized to the population as they only use small sample sizes and focus on restricted geographical or catchment areas (Keane et al. 2011). At a national level, there was a report completed by the Australian Government Department of Health and Ageing, which profiled the national allied health workforce, as well as other health workforces. This report used Australian Bureau of Statistics Census Data from 2006 and has several limitations, including not providing data on several of the allied health occupations, such as Social Work. It is expected the national registration of allied health occupations both now and into the future through the Australian Health Practitioner Regulation Agency (AHPRA) will assist with providing more accurate national allied health workforce data.

Purpose

The purpose of this report is to:

- describe the allied health workforce in public health organisations in the Grampians region
- be used for allied health workforce planning, including identifying allied health workforce shortages and developing strategies to address these gaps
- be used as a benchmark to measure future changes and trends with the allied health workforce in the Grampians region, for example, ageing of the allied health workforce in the Grampians region
- measure the impact of various federal and state allied health workforce initiatives, for example, the Allied Health Assistant Implementation Program.

There are however several limitations with this data including:

- It only captures allied health practitioners working in the 12 public health organisations in the Grampians region
- It does not include allied health practitioners working in the areas of private practice, disability, education, or community health centres
- The data is a snapshot of the allied health workforce on June 30, 2011.

Background

A strategic planning workshop of allied health stakeholders was held in the Grampians region in May 2011. The stakeholders at this workshop identified collecting accurate and consistent allied health workforce data for the Grampians region as the highest priority activity for the Grampians Allied Health Workforce Strategic Plan 2011–14 (Department of Health 2012). It is expected this data will assist with allied health workforce planning and will place organisations and the region in a stronger position to address future workforce supply and demand challenges, including those outlined previously.

The allied health workforce data used for this report was provided by the State Services Authority. The State Services Authority undertakes regular data collection of the public sector workforce, including allied health, to assist with policy development and planning. The primary tool in doing this is the Workforce Analysis and Comparison Application (WACA). WACA is a database and web-based system designed to collect, validate and report on the human resource characteristics of submitting organisation's workforce data. WACA has been used since 2001 as the primary tool for collecting workforce data (State Services Authority 2013).

There are several benefits to using State Services Authority allied health workforce data in this project including:

- It is a rigorous data collection process which is used across different government departments for the purposes of assisting with policy development and planning
- There is full participation in the data collection process from public health organisations in the Grampians region
- The methodology for this project can be replicated in the future to measure the growth or decline of the allied health workforce as well as other trends with the allied health workforce in the Grampians region, for example, the ageing of the allied health workforce in the Grampians region
- The requirements on public health organisations in the Grampians region to report on allied health workforce data are kept to a minimum. They only need to report their data once to the State Services Authority.

Methodology

An overview of the methodology used for this project is outlined below in Table 1.

Table 1: Methodology used for Profiling the Allied Health Workforce in Grampians region

Step	Activity	Description of Activity
1	Project Plan	<p>A project plan was submitted to the State Services Authority requesting the following data for public health organisations in the Grampians region.</p> <ul style="list-style-type: none"> • A headcount of the different allied health occupations, age of the allied health workforce, gender of the allied health workforce, FTE of the allied health workforce, a headcount of the allied health workforce and grade levels of the allied health workforce.
2	Developing the data into relevant tables and graphs	<p>The data was received from State Services Authority and developed into relevant tables and graphs.</p>
3	Data presented to Grampians Regional Allied Health Works Advisory Committee.	<p>Grampians Regional Allied Health Works Advisory Committee provided feedback on allied health workforce data presented in graphs and tables. This feedback included:</p> <ul style="list-style-type: none"> • adding prosthetists and orthotists including clinicians and technicians, to the scope of the project for allied health occupations • manually collecting data for exercise physiologists and allied health assistants as data for these occupations was not accurately captured by the State Services Authority • follow up with key contacts at public health organisations in the Grampians region to validate the data.
4	Interviews with relevant contacts at public health services.	<p>Interviews conducted with the relevant Primary Care and Allied Health Managers and Human Resource Managers at 12 public health organisations in the Grampians region. These interviews were able to:</p> <ul style="list-style-type: none"> • validate the data provided by State Services Authority as being accurate • identify where public health organisations had recorded allied health workforce data incorrectly and resolve this • identify assumptions made with the data.

Table 1 (cont): Methodology used for Profiling the Allied Health Workforce in Grampians region

Step	Activity	Description of Activity
5	Profiling the allied health workforce in the Grampians region report	This report.
6	Distribution and communication of the report to allied health stakeholders in the Grampians region.	This report is to be distributed to allied health managers, leaders and human resource managers of public health organisations in the Grampians region. It will also be uploaded onto the Grampians Regional Health Collaborative website, allied health section.

The process outlined for validating allied health workforce data in the Grampians region (step 4), identified several assumptions made with the interpretation of the data.

- The State Services Authority does not collect allied health workforce data for community health centers in the Grampians region. The community health centers in Grampians region are Ballarat Community Health Center and Grampians Community Health Center.
- There are two public health organisations that have campuses in the Grampians region and a neighbouring region and allied health practitioners from both of these organisations have been counted in this data. These organisations are East Wimmera Health Services and Djerriwarrh Health Services.
- The data is a snapshot of the Grampians Allied Health Workforce on June 30, 2011.
- The data includes allied health practitioners on various types of extended leave such as maternity leave and unpaid leave.
- There are a small number of allied health practitioners at Ballarat Health Services providing allied health services to clients across the Grampians region for example, prosthetists and orthotists.

Results

There are three tables included in this report which provide an overview of the allied health workforce in the region and sub-regions of the Grampians region.

Table 2 provides details of the allied health occupations, by headcount in the Grampians region according to age and gender.

Table 3 outlines data on allied health occupations in the Grampians region according to part-time and full-time status, FTE and headcount.

Table 4 is a breakdown of allied health occupations, by headcount, for the different sub-regions in the Grampians region. The sub-regions of the Grampians region reflect the primary care partnership catchment areas and include: Central Highlands, Grampians Pyrenees and Wimmera.

The figures outlined in this report provide a further breakdown of information on characteristics of the allied health workforce in the Grampians region.

The figures provided are:

Figure Number	Description
2.	A breakdown of allied health workforce, by headcount, for public health services in the Grampians region according to allied health occupations (2011)
3.	A breakdown of the allied health workforce, by headcount, for public health services in the Grampians region according to age groups (2011)
4.	Mean ages for allied health occupations of public health services in the Grampians region (2011)
5.	Allied health occupations in the Grampians region with the highest proportion of their workforce aged 40 years and over (2011)
6.	Allied health occupations in the Grampians region with the highest proportion of their workforce aged under 40 years (2011)
7.	A breakdown of allied health workforce, by headcount, for public health services in the Grampians region according to gender (2011)
8.	A breakdown of allied health workforce, by headcount, for public health services in the Grampians region according to full-time and part-time status (2011)
9.	Allied health workforce for public health services in the Grampians region according to headcount and FTE (2011).

Table 2: Grampians public health services allied health workforce occupations by headcount demonstrating breakdown according to age and gender (2011)

Gender	Occupation	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Grand Total
Female	Allied health assistants		2	1		3	6	4	4	2	1	23
	Dieticians	1	11	5	2	2	1	1	2			25
	Exercise physiologist or therapist	2	1	3				1				7
	Occupational therapists	5	21	9	1	4	6	2	6	1		55
	Physiotherapists	12	15	6	5	6	4	5	3	1	1	58
	Prosthetists and Orthotists - clinical		1		1	1						3
	Prosthetists and Orthotists - technical				1	1						2
	Podiatrists		4	4		4	1	1		1		15
	Psychologists	6	23	6	10	9	3	3		2		62
	Social workers	1	4	5	10	4	9	4	6	2	3	48
	Speech pathologists	5	12	9	3	3	1	1	1			35
Welfare workers			3		3	8	9		2	1	26	
Female Total		32	94	51	33	40	39	31	22	11	6	359
Male	Allied health assistants						1		1			2
	Exercise physiologist or therapist		1		1							2
	Occupational therapists	1	2		2	2		1				8
	Physiotherapists	2	2	2	1	1	3	1				12
	Prosthetists and Orthotists - clinical	1		1			1		1			4
	Prosthetists and Orthotists - technical						1		1			2
	Podiatrists	1	2	2								5
	Psychologists	1	6		2				1			10
	Social workers		1	3	1	2	1	2		1		11
	Speech pathologists					1						1
Welfare workers		1				2	2	2			7	
Male Total		6	15	8	7	8	9	6	4	1	0	64

Table 2 (cont.): Grampians public health services allied health workforce data by headcount demonstrating breakdown according to age and gender (2011)

Gender	Occupation	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Grand Total
Male and Female	Allied health assistants		2	1		3	7	4	5	2	1	25
	Dieticians	1	11	5	2	2	1	1	2			25
	Exercise physiologist or therapist	2	2	3	1			1				9
	Occupational therapists	6	23	9	3	6	6	3	6	1		63
	Physiotherapists	14	17	8	6	7	7	6	3	1	1	70
	Prosthetists and Orthotists - clinical	1	1	1	1	1	1		1			7
	Prosthetists and Orthotists - technical				1	1	1		1			4
	Podiatrists	1	6	6		4	1	1		1		20
	Psychologists	7	29	6	12	9	3	3	1	2		72
	Social workers	1	5	8	11	6	10	6	6	3	3	59
	Speech pathologists	5	12	9	3	4	1	1	1			36
Welfare workers		1	3		5	10	11		2	1	33	
Grand Total		38	109	59	40	48	48	37	26	12	6	423

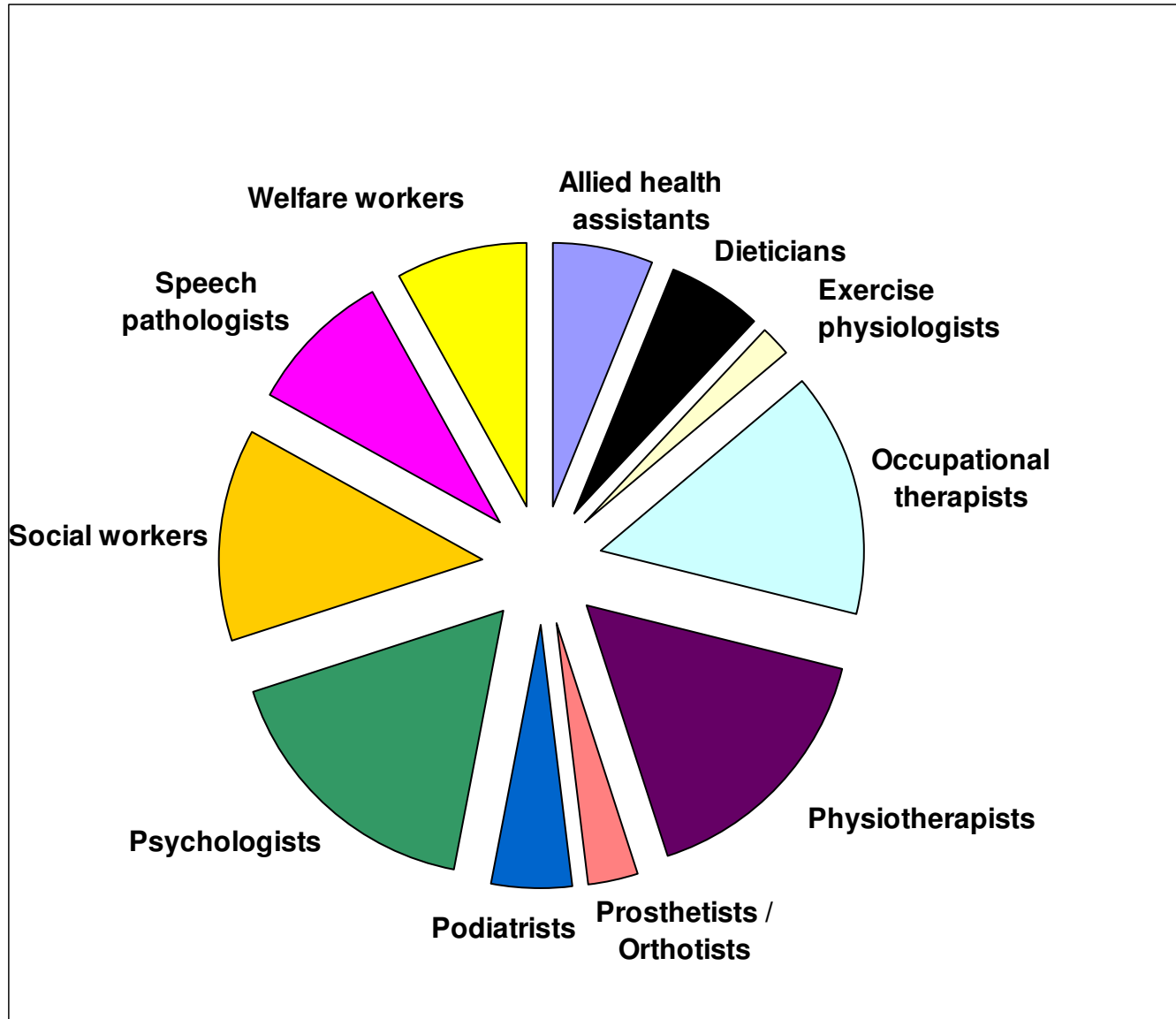
Table 3: Grampians public health services allied health workforce data for allied health occupations demonstrating a breakdown of headcount and FTE (2011)

	Full Time >.92		Part Time<.93		Total Headcount	Total FTE
Occupation	Total Headcount	Total FTE	Total Headcount	Total FTE		
Allied health assistants	10	10	15	8.99	25	18.99
Dieticians	11	11	14	9.50	25	20.50
Exercise physiologist or therapist	3	3	6	3.35	9	6.35
Occupational therapists	37	36.95	26	14.09	63	51.04
Physiotherapists	43	43	27	14.62	70	57.62
Podiatrists	14	13.95	6	2.76	20	16.71
Prosthetists and Orthotists - clinical and technical	7	6.95	4	2.26	11	9.21
Psychologists	42	42	30	16.17	72	58.17
Social workers	32	31.93	27	19.99	59	51.92
Speech pathologists	25	25	11	5.61	36	30.61
Welfare workers	15	14.90	18	8.44	33	23.34
Grand Total	239	238.68	184	105.78	423	344.46

Table 4: Grampians public health services allied health workforce by headcount for allied health occupations in sub-regions of the Grampians region (2011)

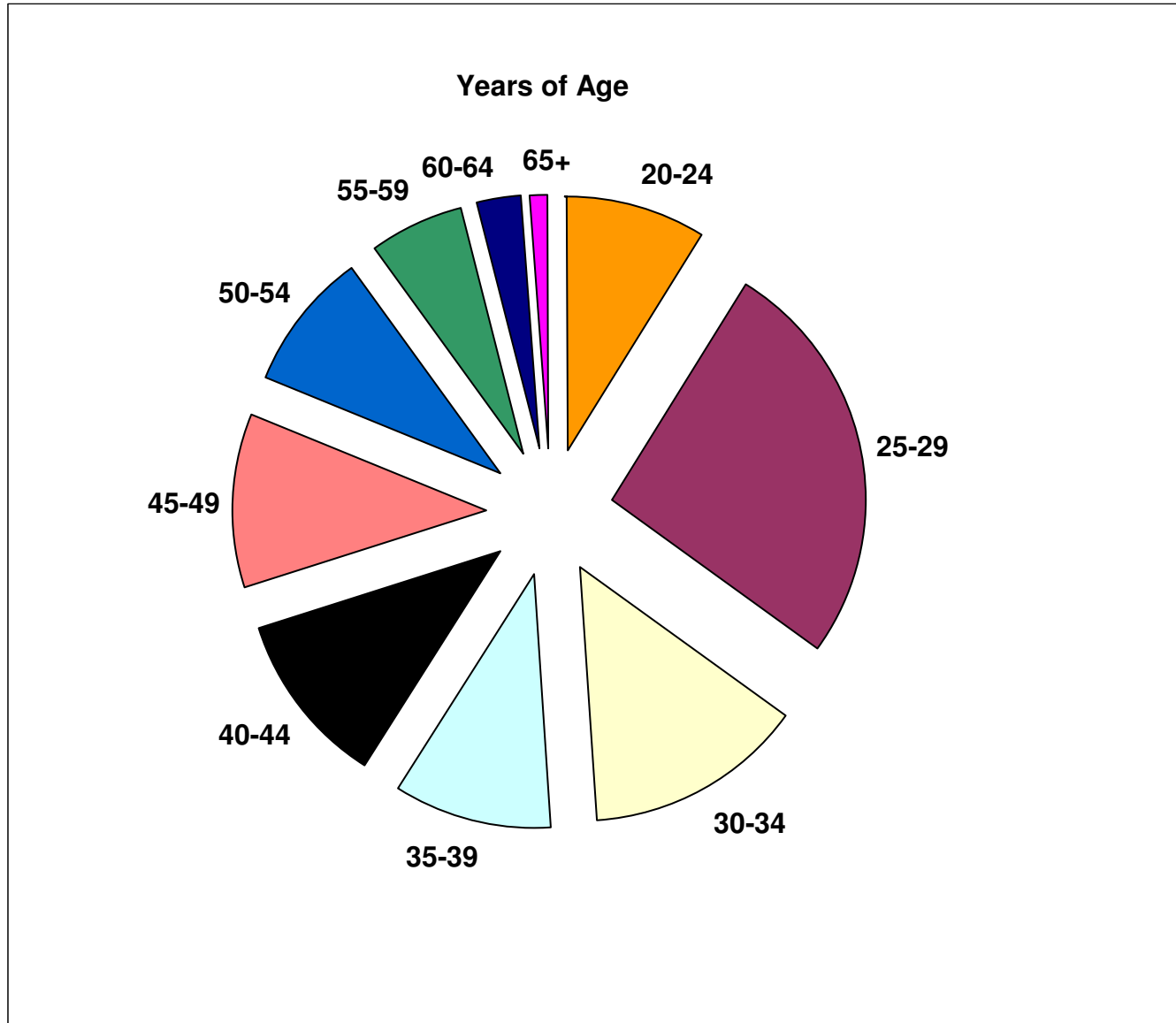
Allied Health Occupations	Central Highlands	Grampians Pyrenees	Wimmera	Total
Allied health assistants	16	7	2	25
Dieticians	18	3	4	25
Exercise Physiologist or Therapists	6	2	1	9
Occupational Therapists	48	8	7	63
Physiotherapists	47	10	13	70
Prosthetists or Orthotists - clinicians	7	0	0	7
Prosthetists or Orthotists - technicians	4	0	0	4
Podiatrists	8	5	7	20
Psychologists	72	0	0	72
Social workers	45	6	8	59
Speech pathologists	24	3	9	36
Welfare workers	19	1	13	33
Total	314	45	64	423

Figure 2: A breakdown of allied health workforce by headcount for public health services in the Grampians region according to allied health occupations (2011)



- Allied health occupations in Grampians Region**
- 17% Psychologists
 - 16% Physiotherapists
 - 15% Occupational therapists
 - 13% Social workers
 - 9% Speech pathologists
 - 8% Welfare workers
 - 6% Dieticians
 - 6% Allied health assistants
 - 5% Podiatrists
 - 3% Prosthetists and Orthotists - including clinicians and technicians
 - 2% Exercise physiologists

Figure 3: A breakdown of allied health workforce by headcount for public health services in the Grampians region according to age groups (2011)



Allied health workforce age groups in Grampians Region

20-24	9%
25-29	26%
30-34	14%
35-39	10%
40-44	11%
45-49	11%
50-54	9%
55-59	6%
60-64	3%
65+	1%

- Key statistics on age of the allied health workforce:**
- 59% aged younger than 40
 - 22% aged between 40 and 49 years
 - 19% aged 50 years and over

Figure 4: Mean ages of allied health occupations of public health services in the Grampians region (2011)

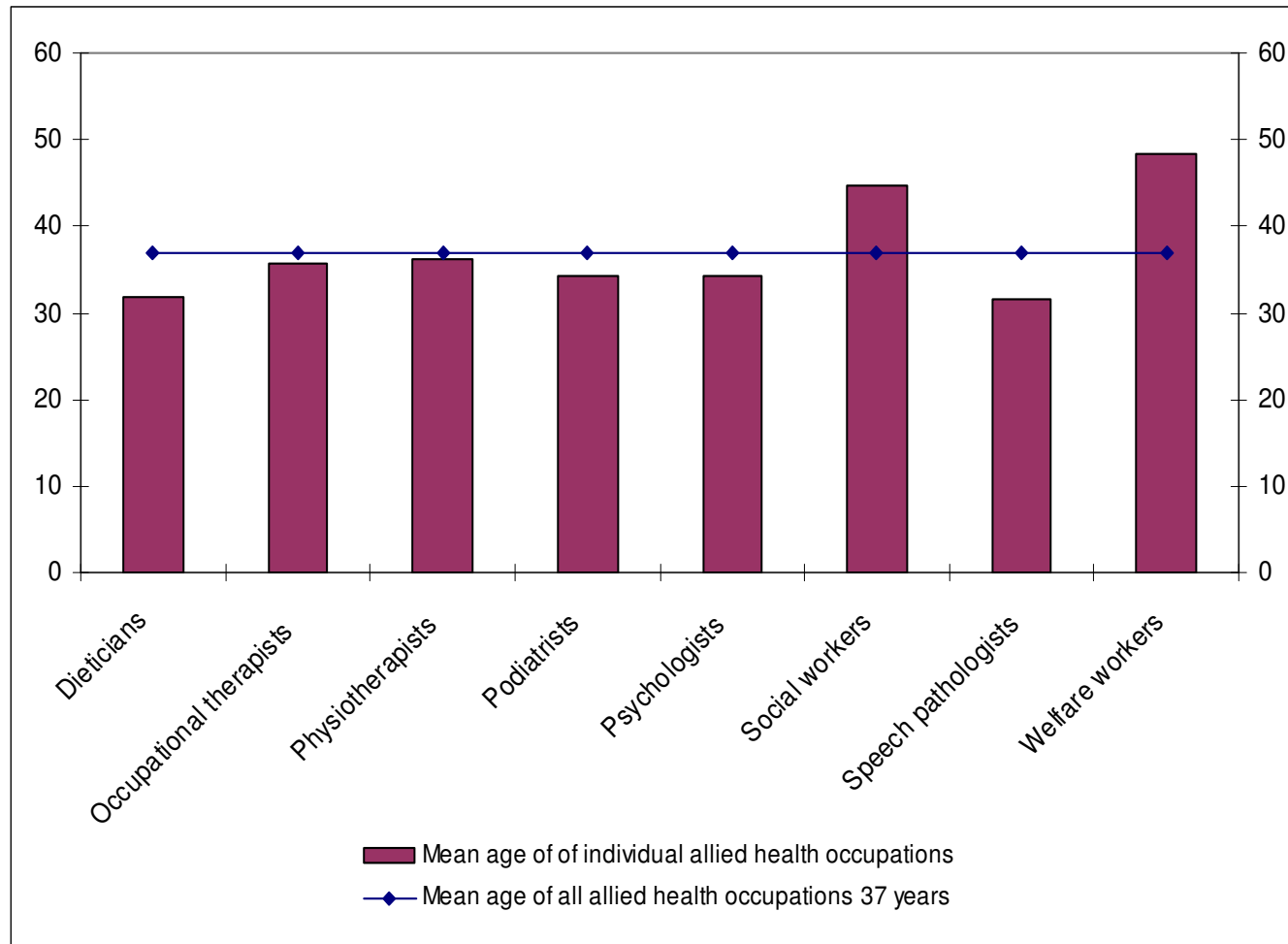


Figure 5: Allied health occupations in the Grampians region with the highest proportion of their workforce aged 40 years and over (2011)

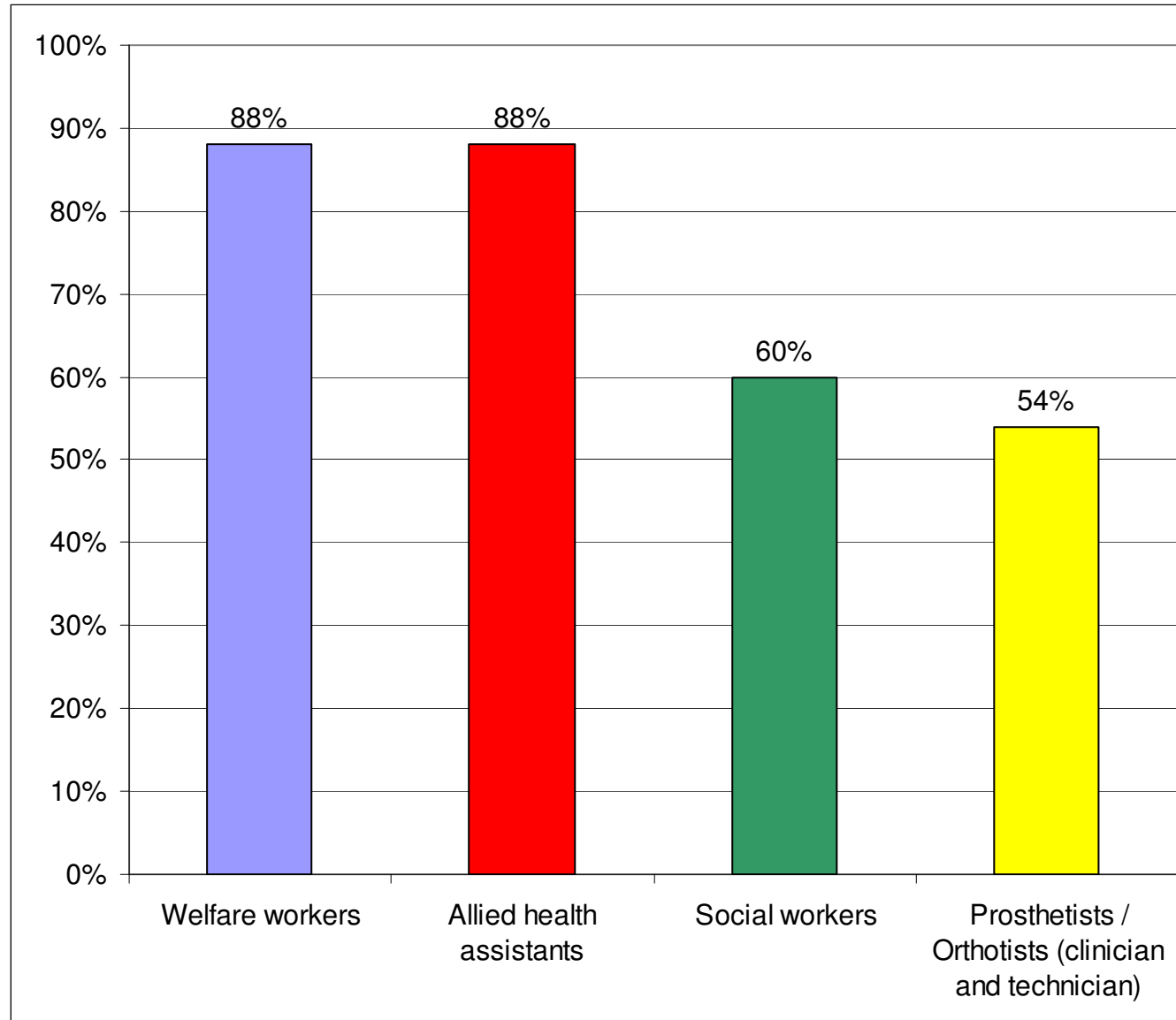


Figure 6: Allied health occupations in the Grampians region with the highest proportion of their workforce aged under 40 years (2011)

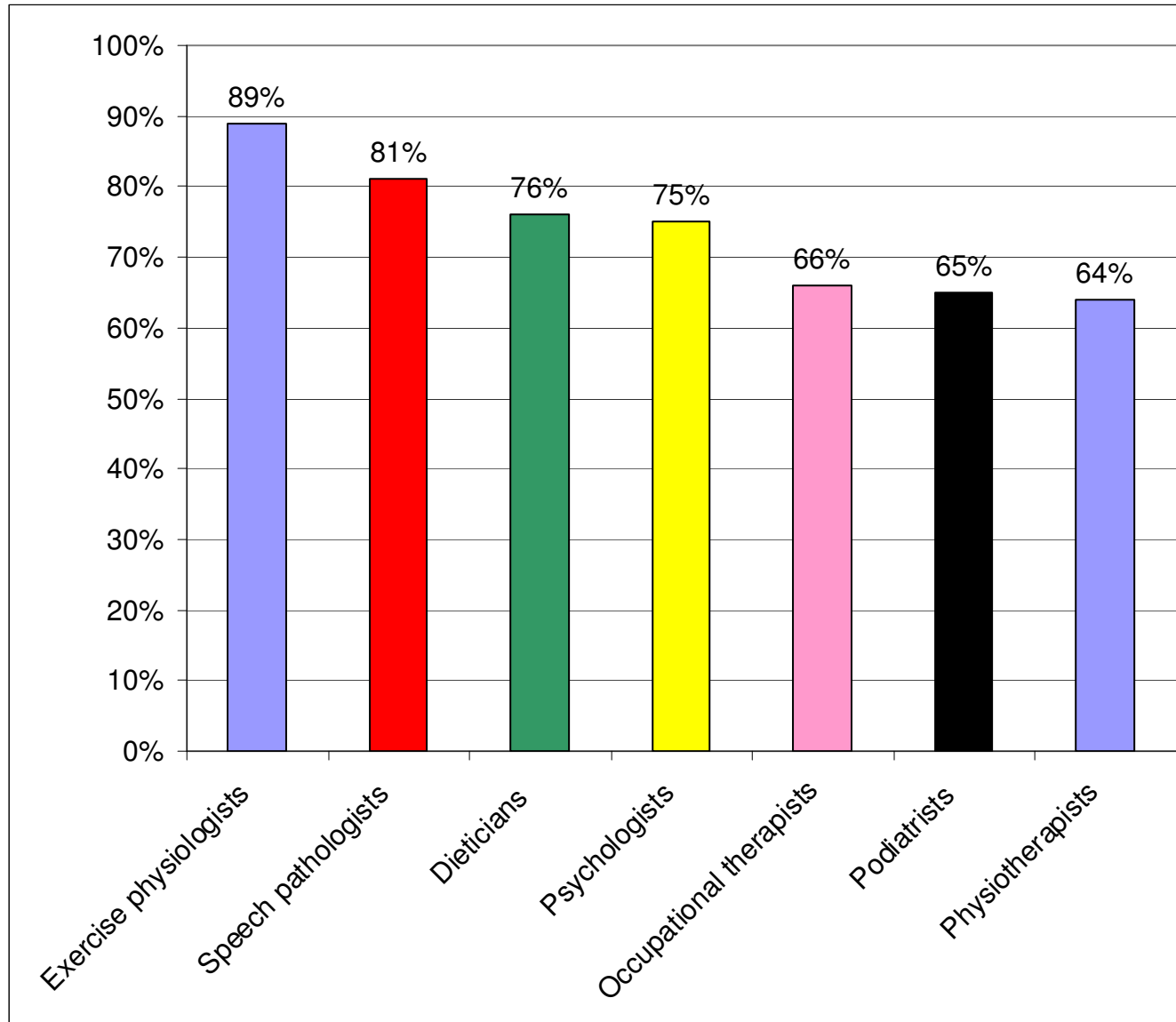


Figure 7: A breakdown of allied health workforce by headcount for public health services in the Grampians region according to gender (2011)

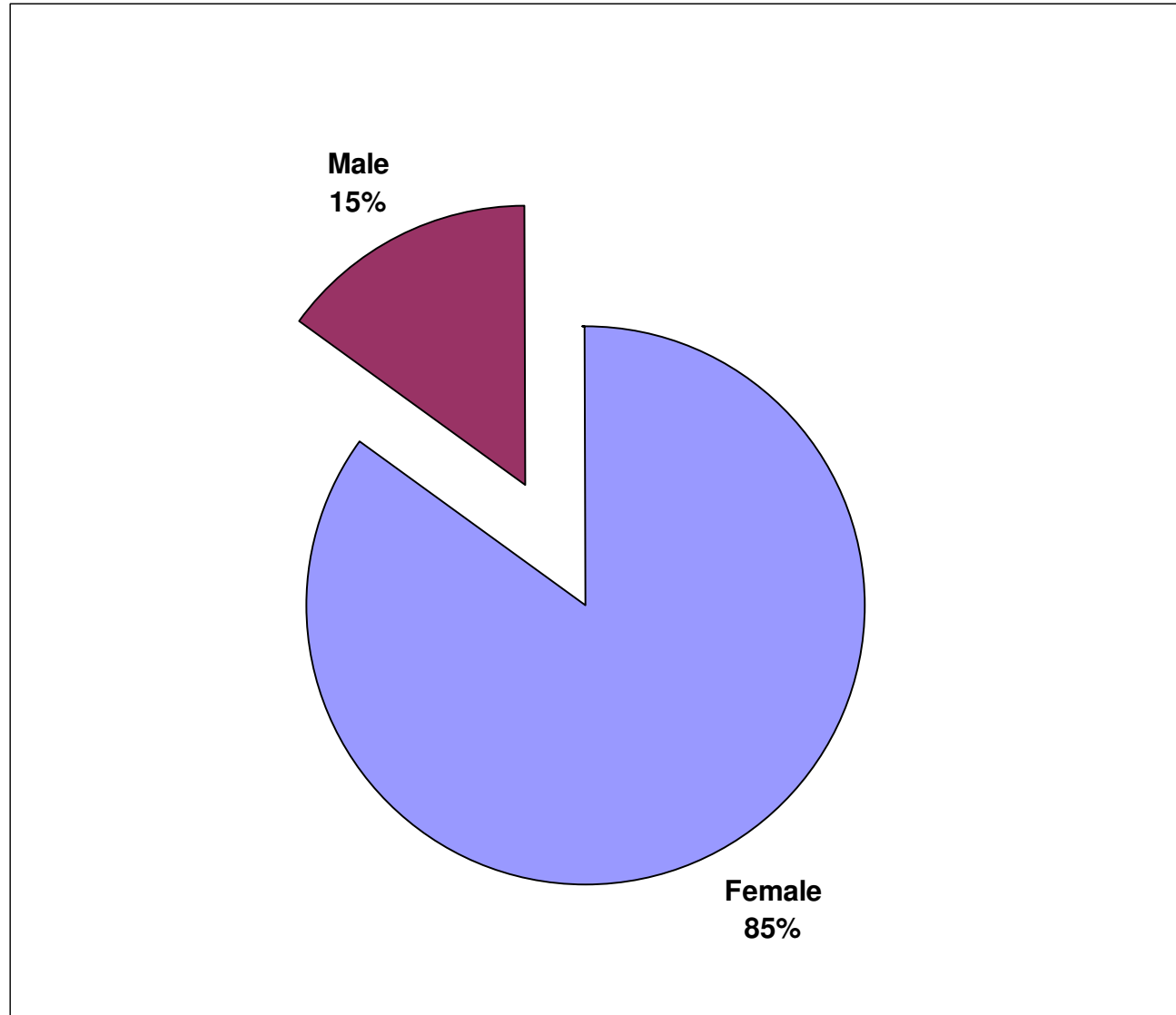


Figure 8: A breakdown of allied health workforce by headcount for public health services in the Grampians region according to full-time and part-time status (2011)

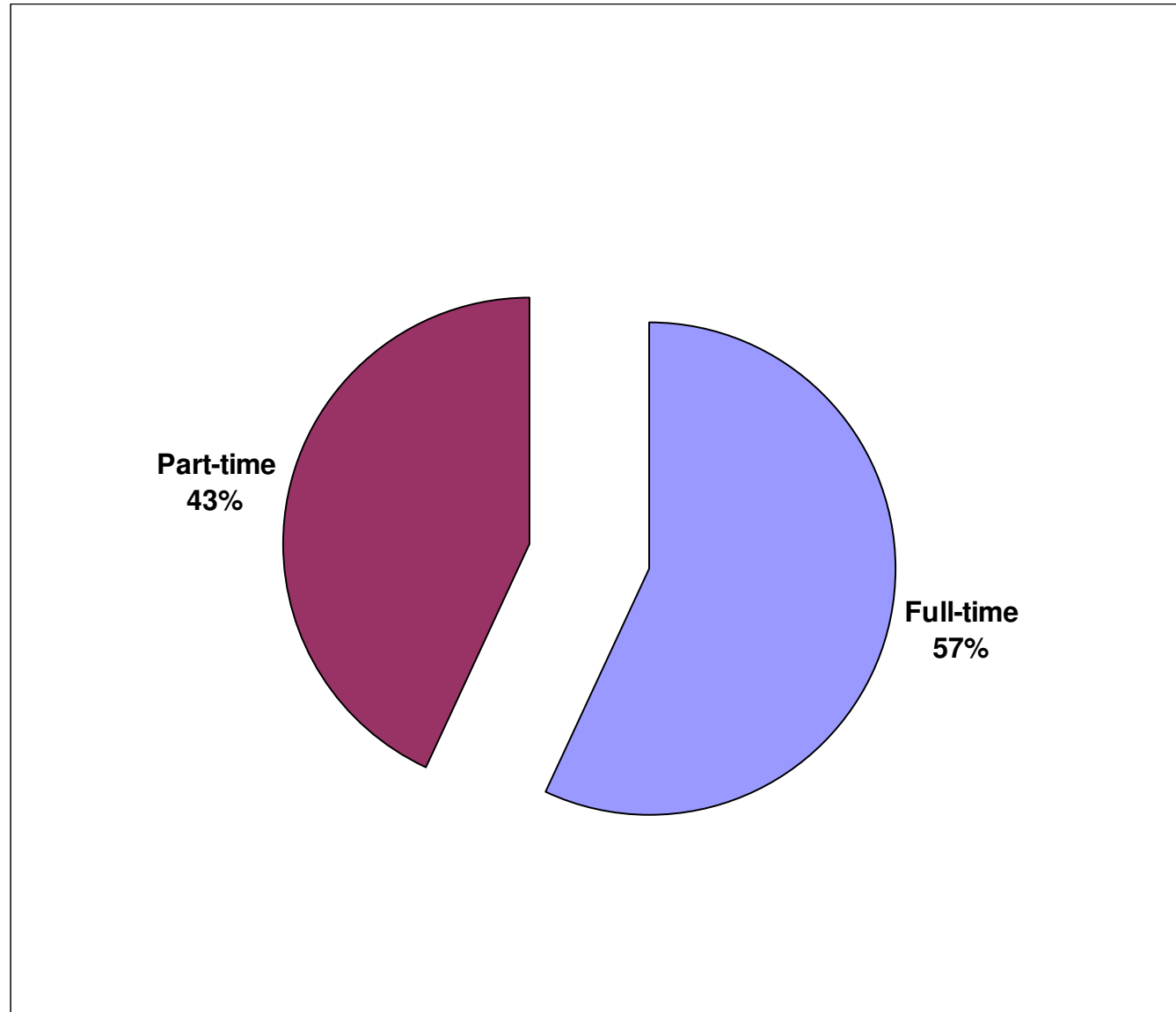
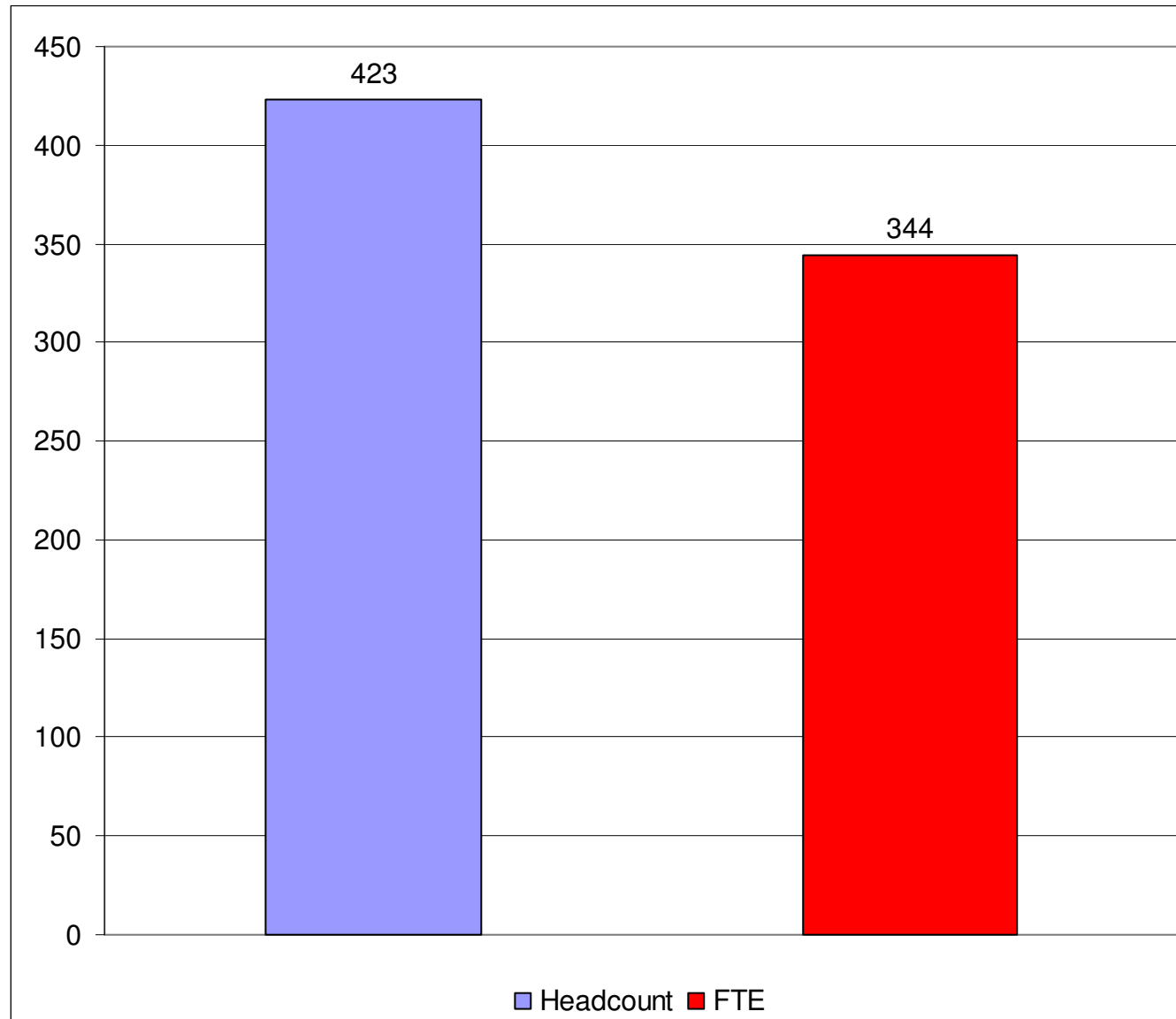


Figure 9: Allied health workforce for public health services in the Grampians region according to headcount and FTE (2011)



Discussion

The distribution of allied health workforce in sub-regions of the Grampians catchment area

There are only a limited number of studies published which provide information on the distribution of allied health workforce as a ratio of the population of a catchment area. These studies also have different definitions of what constitutes allied health and allied health occupations. For these reasons the ratio of allied health practitioners per population in each of the Grampians sub-regions is not benchmarked against other metropolitan and rural areas. It is however acknowledged in the research that there are more significant allied health workforce shortages in rural areas when compared to metropolitan areas (Buyx et al. 2010).

Another limitation of this report is the ratio of allied health workforce for each of the sub-regions only includes allied health in the 12 public health organisations in the Grampians region. The data does not include allied health workforce in the areas of: private practice, education, disability and community health centers. To get a more accurate representation of the distribution of allied health workforce in the Grampians sub-regions a methodology would need to be designed and implemented which captured the entire allied health workforce in the Grampians region.

The distribution of the allied health workforce for public health organisations in the Grampians region is analysed over the three sub-regions of Central Highlands, Grampians Pyrenees and Wimmera. The Central Highlands sub-region includes the local government areas of Ballarat, Golden Plains, Hepburn and Moorabool. The Grampians Pyrenees sub-region includes the local government areas of Ararat, Northern Grampians and Pyrenees. The Wimmera sub-region includes the local government areas of West Wimmera, Yarriambiack, Hindmarsh and Horsham.

To standardise the comparison of allied health workforce in public health organisations across each of the sub-regions, a ratio has been calculated of allied health workforce per 10,000 head of population. Table 5 outlines this calculation. The ratio of allied health practitioners per 10,000 head of population in each sub-region is Central Highlands 20.3, Grampians Pyrenees 15.1 and Wimmera 17.6 (Australian Bureau of Statistics 2011; State Services Authority 2011).

Table 5: The ratio of allied health workforce in the Grampians sub-regions per 10,000 head of population (2011).

Grampians sub-region	Total Population of sub-region	Headcount of Allied Health Workforce	Ratio of Allied Health Workforce per 10,000 population
Central Highlands	154,762	314	20.3
Grampians Pyrenees	29,697	45	15.1
Wimmera	36416	64	17.6

Source: Australian Bureau of Statistics 2013, State Services Authority 2011.

When interpreting workforce shortages for allied health occupations in each of the Grampians sub-regions, it is important to acknowledge there is a small allied health workforce at Ballarat Health Services that provides allied health services throughout the Grampians region. For example, the prosthetists and orthotists workforce are based at Ballarat Health Services, however they provide services across the entire Grampians region.

Table 5 indicates the most severe allied health workforce shortages are in the Grampians Pyrenees sub-region. The allied health occupation workforce shortages in Grampians Pyrenees are psychologists (0), welfare workers (1), exercise physiologists (2), speech pathologists (3), dieticians (3) and podiatrists (5).

The Wimmera sub-region rates second in relation to allied health workforce shortages. The allied health occupations with workforce shortages in this sub-region are psychologists (0), exercise physiologists (1), allied health assistants (2) and dieticians (4).

The Central Highlands sub-region rates as the most well resourced for allied health workforce in the Grampians region. This was to be expected given Central Highlands includes the regional city of Ballarat and is the closest to metropolitan Melbourne. The allied health occupation shortages in Central Highlands appear to be exercise physiologists / therapists (6), podiatrists (8) and prosthetists / orthotists, both clinicians and technicians (11).

The implications of allied health workforce shortages are significant for service delivery and allied health practitioner recruitment and retention. The lack of critical mass of allied health workforce in organisations often leads to professional isolation for the allied health practitioner (Mills A & Millsted J 2002). The causes of professional isolation may include a lack of or restricted access to clinical supervision, mentoring, specialist skill training, networking opportunities and professional development. The restricted access to these activities is also concerning if the allied health practitioner is a new graduate or has limited work experience. This would be relevant to the Grampians region where a high proportion (35 percent), of the allied health workforce is aged between 20 and 29 years.

Allied health occupations in Grampians region

Figure 2 shows the allied health occupations as a proportion of the total allied health workforce in the Grampians region. The allied health occupations with the highest representation in the Grampians allied health workforce are psychologists (17 percent), physiotherapists (16 percent), occupational therapists (15 percent) and social workers (13 percent). The psychology and social work workforces include those employed through the psychology department at Ballarat Health Services, the social work departments at Ballarat Health Services and Wimmera Health Care Group, community programs at Ballarat Health Services, Wimmera Community Options at Wimmera Health Care Group and Ballarat Health Services-Mental Health Services.

The age of the allied health workforce in the Grampians region according to headcount

The age of the allied health workforce in the Grampians region is younger when compared with the allied health workforce in other regions and the national nursing and midwifery workforce.

The mean age of the Grampians region allied health workforce is 37 years. This compares with studies completed in regional and rural New South Wales and South Australia where the mean age of the allied health workforce was 43 years (Keane et al. 2011; Whitford D, Smith T & Newbury J 2011).

The mean age of the allied health workforce in the Grampians region is also lower than the mean age of the national nursing and midwifery workforce. The national nursing and midwifery workforce has a mean age of 44 years (Australian Institute of Health and Welfare 2012).

The young age of the Grampians region allied health workforce is also demonstrated with a high proportion (35 percent) aged between 20 and 29 years. This younger workforce includes a number of new graduate allied health practitioners and other allied health practitioners with limited work experience.

The high number of allied health graduates employed in regional and rural Victoria has been identified in several studies (Miles et al. 2004, Schoo 2008). The term “professional nurseries” has been used to describe the trend of graduate allied health professionals beginning their careers in regional and rural Victoria. This is often viewed by the allied health practitioner as the first step of a career pathway which involves gaining work experience in rural areas before returning to work in larger regional or metropolitan cities.

There is a low proportion of the Grampians region allied health workforce which is ageing when compared with the national nursing and midwifery workforce. The Grampians region allied health workforce has only 19 percent aged over 50 years compared with the national nursing and midwifery workforce where there are 36 percent aged over 50 years (Australian Institute of Health and Welfare 2012).

There is also variation in the age of the allied health workforce in the Grampians region between different allied health occupations. The allied health occupations with the highest proportion of their workforce aged over 40 years are welfare workers (88 percent), allied health assistants (88 percent), social workers (60 percent) and prosthetists and orthotists (54 percent). The allied health occupations with the highest proportion of their workforce aged under 40 years are exercise physiologists (89 percent), speech pathologists (81 percent), dieticians (76 percent) and psychologists (75 percent). Figure 4 also shows the mean age of allied health occupations against the mean age of the combined Grampians allied health workforce.

An additional issue identified in this report, which warrants further investigation, is developing a more comprehensive profile of the work experience levels of allied health practitioners in the Grampians region. If a shortage of senior allied health practitioners is identified as an issue, it may be necessary to consider developing strategies for increasing the recruitment and retention of senior allied health practitioners to public health organisations in the Grampians region.

The increased availability and access to senior allied health practitioners has significant benefits to local communities and public health organisations. These benefits include:

- increased allied health practitioner skills and knowledge, including those in specialty areas such as paediatrics
- increased ability to undertake higher and more complex client caseloads
- increased ability to undertake broader roles, such as roles which include providing clinical supervision to other allied health practitioners and students and roles which combine clinical and non-clinical tasks.

The gender of the allied health workforce in Grampians region according to headcount

The gender of the allied health workforce in the Grampians region is predominately female (85 percent). This is less when compared to the national nursing and midwifery workforce where 91 percent are females. There is however a higher proportion of females in the allied health workforce in the Grampians region when compared to the regional and rural New South Wales study where females constituted 70 percent of the allied health workforce (Keane et al. 2011).

The full-time and part-time status of the allied health workforce in the Grampians region according to headcount

Fifty seven percent of the allied health workforce in the Grampians region is full-time. The remainder of the workforce is part-time (43 percent). Please note the definition of part-time is .92 FTE and below. The headcount of the allied health workforce in Grampians region is 423 while the FTE is 344.

It is difficult to benchmark the proportion of part-time and full-time allied health workforce in the Grampians region against other allied health and nursing workforces. This is due to the different definitions of what constitutes part-time status and which occupations are included in a definition of allied health. It does however appear there is a high proportion of the allied health workforce in the Grampians region working full-time (57 percent) or close to full-time hours, based on the FTE being a high proportion of the headcount.

Conclusion

The allied health workforce in the Grampians region is younger when compared to other allied health and nursing workforces with a mean age of 37 years. There is also a significant proportion of this workforce aged between 20 and 29 years (35 percent). The Grampians region allied health workforce is also characterised by being predominantly female (85 percent), and having a high proportion of full-time (57 percent) or close to full-time employees.

The young age of the allied health workforce in the Grampians region has several implications for planning and policy development at an organisational, sub-regional, regional and state-wide level. The new graduate allied health practitioners, and other allied health practitioners with limited work experience, should have access to high quality programs for clinical supervision, mentoring, professional development and access to appropriate professional networks.

There is also additional research to indicate that new allied health graduates re-locating to regional and rural areas are at risk of experiencing social isolation and a lack of connection to local communities (O'Toole K, Schoo A, Hernan A 2010). This issue has been recognised by some health organisations and local government areas that have implemented programs and provided resources to assist new residents, including allied health practitioners, with their transition into regional and rural cities. As an example, the City of Ballarat has a web page and program for new residents coming to live in Ballarat (City of Ballarat 2013).

Further research is also required to measure the experience levels of the allied health workforce in the Grampians region. This may include developing strategies for increasing the recruitment and retention of senior allied health practitioners to public health organisations in the Grampians region.

The distribution of allied health workforce in the Grampians region does not reflect the commonly held view that allied health workforce shortages worsen with the increasing distance from metropolitan and regional centres (Smith T, Brown L, Cooper R 2009). The Wimmera sub-region is located the longest distance away from Melbourne, however per head of population it has more allied health practitioners than the Grampians Pyrenees sub-region. Grampians Pyrenees has 15.1 allied health practitioners per 10,000 head of population compared with Wimmera which has 17.6 allied health practitioners per 10,000 head of population.

The shortage of allied health occupations for each of the Grampians sub-regions is referred to in the discussion section of this report. This information may be used for sub-regional planning to assist with:

- developing new allied health service models which work across organisations to address allied health workforce shortages and potential unmet client demand for allied health services
- sharing resources across organisations to increase access of allied health practitioners to important support programs including clinical supervision and mentoring.

It is anticipated the methodology in this report will be replicated in the future and used to benchmark changes and trends with the Grampians region allied health workforce. This will be particularly useful in measuring the impact of various allied health workforce initiatives implemented by the state and commonwealth governments. The Allied Health Assistant Implementation Program is an example of this. It was developed and implemented by the State Government of Victoria and has the main aim of growing the allied health assistant workforce in rural and regional areas. The baseline data collected for allied health assistants in this report may be used to measure future growth of the allied health assistant workforce in the Grampians region.

The findings of this report have been provided to the 12 public health services and two community health centers in the Grampians region to provide background for future workforce planning in allied health.

The report is also available on the Grampians Regional Health Collaborative, allied health website, <<http://www.grhc.org.au/allied-health>>.

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