



## A Quiet Crisis

# Male Health in Rural, Remote and Regional Western Australia

*A report on the status of male health and wellbeing in non-metropolitan Western Australia and access to services*

Men's Health and Wellbeing WA Sector Report

December 2016



Government of **Western Australia**  
Department of **Health**

Men's Health  
& Wellbeing   
Western Australia

Please note that throughout the report we use the term ‘men’ or ‘male’ to represent all those who identify as ‘male’ across their lifespan.

At Men’s Health and Wellbeing WA we operate from the position that while sex refers to biologically-determined differences between men and women, gender refers to differences that are socially constructed and can capture the interrelated dimensions of biological differences, psychological differences, sexual orientation and social and cultural roles. Gender is the expression of the social and cultural ideas about what it is to be a ‘man’ or a ‘woman’.

### **Acknowledgement of Traditional Ownership**

Men’s Health and Wellbeing WA acknowledges the Traditional Owners of Country throughout Australia, and recognises their continuing connection to land, waters and community. We pay our respects to them and their cultures; and to elders both past, present and of the future.

### **Equity, Diversity and Substantive Equality**

Men’s Health and Wellbeing WA values equity and diversity in its workforce and with our stakeholders and communities we serve. We are committed to the development and sustainability of an environment that is inclusive and equal for people from all backgrounds and lifestyles, including Aboriginal and Torres Strait Islanders, people from culturally diverse backgrounds, people of diverse sexuality and/or gender and people with disabilities.

Men’s Health and Wellbeing WA is also committed to substantive equality by striving to achieve equitable outcomes as well as equal opportunity. It takes into account the effects of past discrimination and it recognises that rights, entitlements, opportunities and access are not equally distributed throughout society. Substantive equality recognises that equal or the same application of rules for certain groups can have unequal results.

## About Men's Health and Wellbeing WA

Men's Health and Wellbeing WA is the peak independent not-for-profit charity organisation dedicated to representing and promoting the health and wellbeing of boys and men in Western Australia.

As a member based organisation, we represent the needs and priorities of the male health and wellbeing sector.

We are all about improving the health and wellbeing outcomes for males across our community.

We believe that Western Australian men are significant and positive contributors to West Australian life through their diverse family, work and community roles.

We believe that to empower men to reach their potential and enjoy a long and high quality life to continue this positive involvement, supporting the health and wellbeing of men is an important and critical community issue.

We believe that to achieve this we must focus on promoting and facilitating men's healthy living, strengthening health and community service delivery to men and that we must focus on the health and wellbeing issues that have the greatest impact on men's quality and length of life.

We are funded and supported by the Western Australian Department of Health, Lotterywest, corporate Western Australia, individual donors, and organisation and individual members.



## **Acknowledgements**

Men's Health and Wellbeing WA acknowledge the work of Harriet Parkes, University of Western Australia and Zac Northeast, University of Notre Dame.

Funding and support for the work that Men's Health and Wellbeing WA deliver to the community is provided by Western Australian Department of Health, Lotterywest, corporate Western Australia, individual donors, and organisation and individual members.

## BACKGROUND

All Western Australian men are significant and positive contributors to Western Australian life through their diverse family, work and community roles. However, males in non-metropolitan areas have not only been identified as being significantly inferior to that of males living in metropolitan Western Australia and Australia<sup>1,2,3</sup>, there is less access to health and wellbeing services.

In fact, despite good intention and considerable investment, there has been little to no overall improvement in the health of regional, rural and remote males. It is suggested that resources have not been directed towards the most effective approaches and there is a need to place greater emphasis on targeted programs and preventative measures.

The purpose of this brief report is to:

- Provide an evidence based understanding to the health sector on the state of men's health in rural, regional and remote Western Australia;
- Build an understanding of the determinants that underpin these outcomes and;
- To explore the implications of these determinants as they relate to the provision and operation of health services in non-metropolitan Western Australia.



## EXECUTIVE SUMMARY

The purpose of this report is to provide an analysis and comparison between the health of males in non-metropolitan and metropolitan regions in Western Australia and Australia.

More specifically, the report identifies:

- Previous literature regarding the health of males in Australia;
- Spatial and temporal variability in the status of men's health and wellbeing for a range of health conditions and risk factors;
- Social, economic and other determinants of variability within the health of males.

To conduct this report, secondary data was acquired from the Australia Bureau of Statistics, Australian Institute of Health and Welfare and the National Rural Health Alliance Inc.

The results of this report indicate that there is a disparity in health between metropolitan and non-metropolitan males. The key findings are listed below.

### Key Findings

- Males living in non-metropolitan regions have poorer health outcomes than males in metropolitan regions:
  - ⇒ Higher rates of mental health, suicide and chronic health diseases.
  - ⇒ Higher rates of lifestyle health risk factors such as drug and alcohol consumption, smoking, and poor diet.
  - ⇒ Indigenous males and those living in high areas of socioeconomic disadvantage are most susceptible to such poor health and health risk factors.
- Determinants of poor health in regional, rural and remote areas of Western Australia are inclusive of:
  - ⇒ Remote and regional living;
  - ⇒ Socioeconomic status;
  - ⇒ Employment status and sector;
  - ⇒ Education status;
  - ⇒ Indigenous status;
  - ⇒ Environmental conditions.



## Key Implications

- Despite good intention and considerable investment, there has been little to no overall improvement in the health of regional, rural and remote males. It is suggested that resources have not been directed towards the most effective approaches and there is a need to place greater emphasis on targeted programs and preventative measures.
- Current approaches to improving regional, rural and remote health outcome are not working. New thinking and approaches are needed to make a significant and sustainable difference to the health and wellbeing of males living in regional rural and remote Western Australia.
- It is suggested that a significant health service provision deficit in regional, rural and remote Western Australian, the particularly strong rural, regional and remote masculinity stigma and high connectivity and lack of privacy with accessing health services are strong contributing factors to the health outcome disparity between metropolitan and non-metropolitan male sub-populations.

A new approach to service provision is required which needs to focus on the social determinants of male health in regional, rural and remote regions, encourage more males into health service roles, and innovative mobile and digital health service models.



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## LIST OF ABBREVIATIONS

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Wellbeing
DIDO	Drive-In Drive-Out
DOHA	Department of Health and Aging
FIFO	Fly-In Fly-Out
NHMRC	National Health and Medical Research
WA	Western Australia
WHO	World Health Organisation



## 1.0 INTRODUCTION

This report focuses on the health and wellbeing of males in rural, regional and remote areas.

Research suggests that those living outside of the metropolitan area in Western Australia have increasingly poorer health than those living within such areas<sup>1,2,3</sup>. Significant disparities occur not only in the status of men's health in non-metropolitan regions but also health risk factors such as smoking and alcohol consumption and the determinants of such variability. The health of males in these areas is a result of social, economic and environmental determinants such as geographical location, employment sector and status and environmental conditions. The purpose of this report is to identify such health status, risk factors and determinants of variability between males living in metropolitan and non-metropolitan Western Australia, and Australia as a whole and explore the implications for male health and wellbeing service delivery in regional, rural and remote Western Australia.

This report is aimed to provide an understanding of the issue in Western Australia. The document uses data from three sources, with the governing source being the Australian Bureau of Statistics to depict the status of men's health across a spatial and temporal scale.

### 1.1 Aims and Objectives

The aim of this report is to develop a profile of men's health in non-metropolitan Western Australia.

- Identify spatial and temporal variability in men's health and wellbeing, benchmarking this against WA and Australian rates and standards.
- Identify the social, economic and other determinants of variability influencing the health of males.

### 1.2 Methods

The secondary data sources used in the planning and research of this report were inclusive of:

- Australian Bureau of Statistics

*The majority of the data utilised in this report was acquired from the ABS. This included data regarding:*

- Death (from both disease and self-harm);
- Gender Indicators;
- Regional Population Growth;
- Overall Health of Australia's (National Health Survey: First Results 2014-15);
- Lifestyle factors contributing to poor health;
- Health of Indigenous persons.

- Australian Institute of Health and Welfare
  - Indigenous health
  - Chronic and preventable diseases
  - Life Expectancy
  - Determinants of health
  
- National Rural Health Alliance Inc.
  - Smoking rates for Australians

The Australian Bureau of Statistics provided data on varying spatial and temporal scales. The data ranged from death data (2010 and 2014), to regional population growth and Indigenous health survey data. However, there was little consistent temporal and spatial data available for the analysis' hence different time frames for different sub sections. Where this has occurred, data for males and females for Australia have been used and then supplemented with data broken down for regions of Australia. The Australian Institute of Health and Welfare provided a number of qualitative data and studies for this report. The National Rural Health Alliance provided both qualitative quantitative information and data.

### 1.3 Definitions

In this report, the terms 'metropolitan', 'non-metropolitan', 'rural', 'regional' and 'remote' are used. Metropolitan refers to the classification of 'major cities'. Non-metropolitan has been used in conjunction with those areas outside of major urban centres such as rural, regional and remote areas. Classification has been derived from The Australian Standard Geographical Classification Remoteness Area.

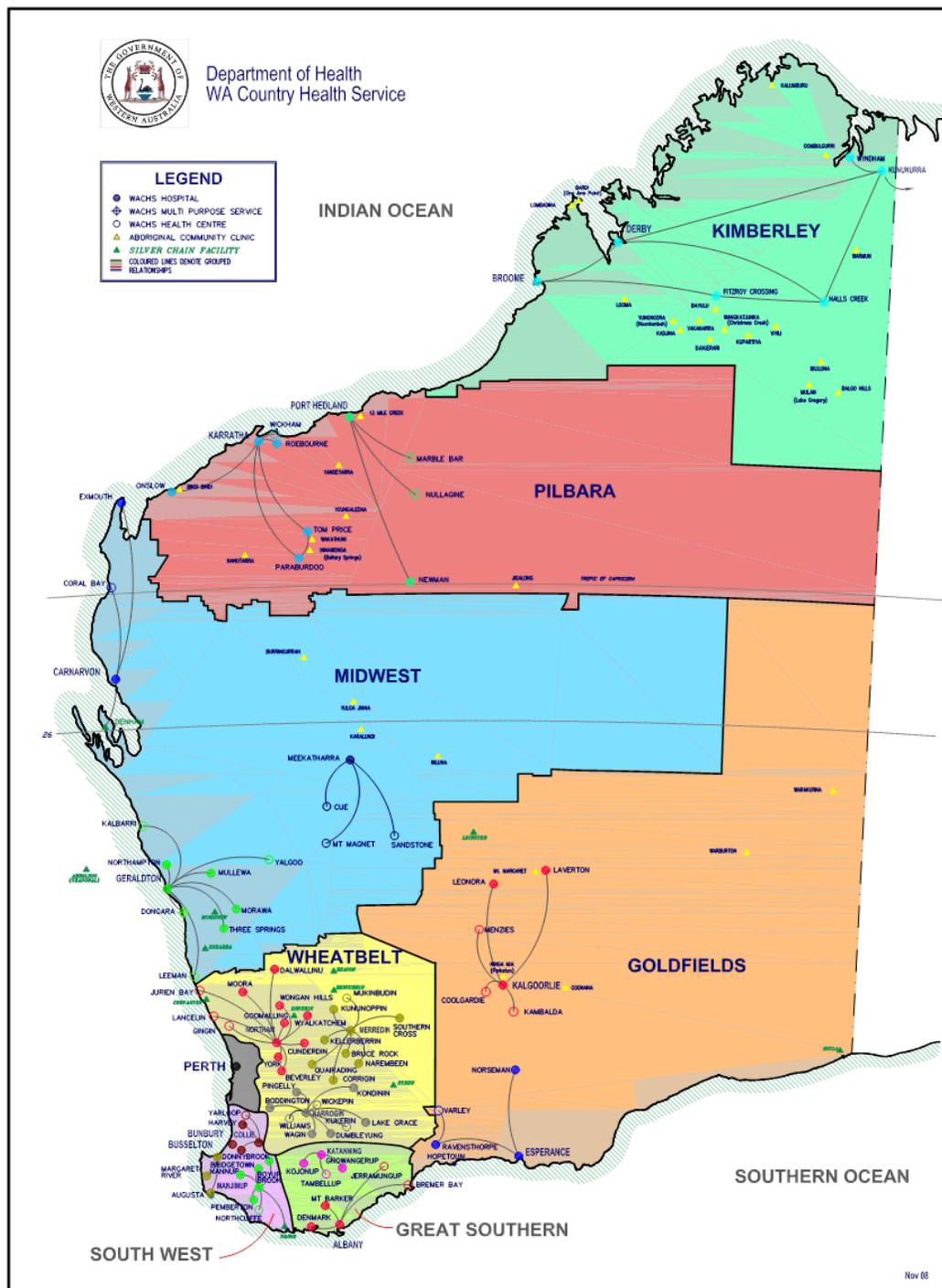
In Western Australia, Metropolitan areas, for the purpose of this report, cover Perth and the Peel Region while non-metropolitan areas cover: Southwest, Great Southern, Wheatbelt, Midwest, Goldfields-Esperance and the Kimberly. Figure 1.1 depicts the regions and classifications discussed in this report.

The definition of health used in this report has been derived from The World Health Organisation<sup>4</sup> and is classified as 'the complete physical, mental and social wellbeing and not merely the absence of disease and infirmity'.

### 1.4 Structure of the Report

This report will be based around the exploration of male health in Western Australia. Firstly, a background to the issue of men's health will be provided through a literature review on the status and determinants. This will be followed by an analysis of research statistics and data relating to the physical and mental health of males in non-metropolitan and metropolitan regions. Health risk factors and lifestyle choices will then be explored followed by the social, economic and other determinants of variability in men's health.

Figure 1.1 Map of Western Australia by Regions



Source: WA Country Health Service, 2008

## 2.0 BACKGROUND OF MEN'S HEALTH IN RURAL, REGIONAL AND REMOTE AREAS

### 2.1 Status of Men's Health

The health status of males in non-metropolitan areas has been identified as being significantly inferior to that of males living in metropolitan Western Australia and Australia<sup>1-23</sup>.

In general, those living in non-metropolitan areas have been identified as having lower life expectancies<sup>7,24</sup>, higher rates of mental health issues, suicide, chronic pain, cardiovascular disease, diabetes, obesity as well as higher rates of lifestyle related risk factors for ill health such as drug and alcohol use and abuse, poor diet and smoking habits<sup>25</sup>. More specifically, males residing in such areas have lower life expectancies<sup>7,24,28</sup> and are at greater risk of such poor health and health risk factors than females and urban counterparts<sup>3,27</sup>. Indigenous persons have also been identified as having a significantly lower life expectancy, especially in non-metropolitan regions and are at greater risks of poorer health and health outcomes for males and females<sup>24,26</sup>. Such outcomes in Indigenous persons have been found to be more prominent in Indigenous males and as a result, the life expectancy of Indigenous males in non-metropolitan regions has been identified as the lowest when compared to Indigenous females and non-Indigenous persons residing in metropolitan regions<sup>24,26,27</sup>.

Further, the Australian Institute of Health and Welfare has identified those in non-metropolitan areas are more susceptible to additional health issues in comparison to metropolitan counterparts relating to geographical location, occupation and lifestyle choices<sup>27</sup>.

### 2.2 Determinants of Men's Health in Regional, Rural and Remote Areas

Determinants of health and wellbeing of males tend to relate to social, economic and environmental conditions<sup>2</sup>. Geographical location, socioeconomic status, employment status and occupation, education status, environmental status and Indigenous status have been identified as the main determinants of poor health in non-metropolitan regions of Western Australia and Australia<sup>2</sup>.

In non-metropolitan regions, remoteness or isolation geographically tends to be a significant driver in poor health due to lack of provision of health services and specialists<sup>1,13,28,29</sup> and generally exhibiting a higher level of socioeconomic disadvantage<sup>1,2,7,24,27,30</sup> as well as being especially vulnerable to changing environmental conditions<sup>16</sup>.

Socioeconomic status is related to geographical location with a large proportion of areas in non-metropolitan regions of Western Australia classified as being of a higher level of disadvantage when compared to metropolitan regions, which has been attributed to a lack of and slower rate of economic and social development<sup>31</sup>. Furthermore, education and employment opportunities tend to be limited due to this lack of development in such sparsely populated regions when compared to metropolitan areas<sup>32</sup>.

Across non-metropolitan regions of Western Australia, there is a lack of higher educational opportunities, which in turn, has led to the outmigration of youth and as a result, decline in population in these areas<sup>32</sup>. Education attainment has also further been linked to employment opportunities and success as well as socioeconomic status, with those obtaining higher education, generally living in lower levels of disadvantage<sup>32</sup>.

Climatic conditions are influential most notably in terms of the mental health and wellbeing of farmers throughout the State. Unpredictable environmental conditions such as droughts, floods, salinity problems and bush fires, have been seen to directly relate to poor mental (generally anxiety and stress) among men in rural areas<sup>13</sup>. Furthermore, the construction of rural masculinities, notion of stoicism and self-reliance in small communities throughout non-metropolitan areas has been cited as being a contributing factor to poor mental health with the reluctance to firstly admit to mental issues and secondly, seek the help needed<sup>6,8,27 28, 29, 33</sup>.

Another contributing factor to the poor status of men's health in non-metropolitan regions has been the lack of health service provision in terms of general healthcare and specialist care<sup>9,26,28,34,35,36</sup>. Across non-metropolitan Western Australia, the number of specialist health services tends to decrease with increasing remoteness, and therefore decreasing the accessibility and chance of preventing even poorer health conditions<sup>34, 35</sup>.

Poor physical and mental health can result in a number of possible outcomes for males across non-metropolitan areas inclusive of; further decline of such health, exacerbated mental health states, alcohol and substance abuse, antisocial behaviour, domestic violence and an inability to work.



## 3.0 THE STATUS OF MEN'S HEALTH IN RURAL, REGIONAL AND REMOTE AREAS

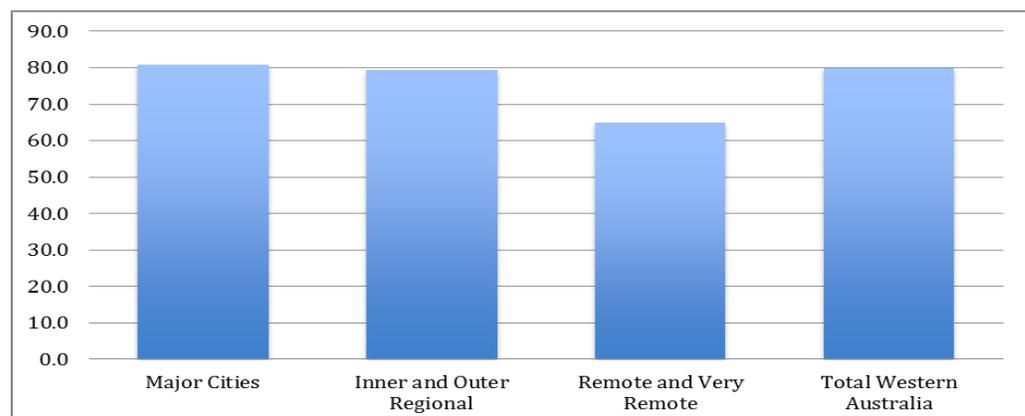
### 3.1 Life Expectancy

There are almost 12 million males in Australia, accounting for 49.7 per cent of the total population<sup>38,39</sup>. In Western Australia, there are just over 1.3 million males, accounting for over 50.1 per cent of the population<sup>38,39</sup>. Males play a significant role in society as fathers, sons, grandfathers, skilled and unskilled workers as well as making up the majority of employees in Western Australia's regional industries – mining and agricultural production. Research consistently depicts a disparity between the health of males and females, with males tending to be subordinate in illnesses and mortality from the majority causes of death (especially accidental injuries and intentional self-harm)<sup>1,2,13,27,37</sup>.

It has been identified that males are more likely to engage in risky alcohol consumption, illicit drug use, smoking and poor diet and exercise regimes<sup>39</sup>. Furthermore, medical services such as Medicare are utilised at a lower rate in males than in females, especially in terms of mental health<sup>27</sup>. Although Australian males have one of the highest life expectancies in the world, there are extensive inequalities between metropolitan and non-metropolitan living (Figure 3.1), men, women and Indigenous status. While there are regional variations in the life expectancies across all demographics, overall, males and Indigenous persons have a lower life expectancy than any other population demographic<sup>3</sup>.

Indigenous males have been identified as being most at risk of illness and mortality as well as having a lower life expectancy than female counterparts and non-Indigenous males. Since 2005, there has been a significant difference in the life expectancy of Indigenous persons and non-Indigenous persons with the greatest disparity occurring between males in 2005-2007 periods (Table 3.1). This difference remained for the 2010-12 period, even after slightly decreasing. In 2010-2012, there was a 10.6 year life expectancy difference between Indigenous and non-Indigenous males (Table 3.1).

**Figure 3.1 Median age at death by area in Western Australia, 2010**



Source: ABS, 2011

**Table 3.1: Life expectancy at birth by sex and Indigenous status, 2005-2007 and 2010-2012**

	2005-07		2010-12	
	Males	Females	Males	Females
<b>Indigenous</b>	67.5	73.1	69.1	73.7
<b>Non-Indigenous</b>	78.9	82.6	79.7	83.1
<b>Difference (Years)</b>	11.4	9.5	10.6	9.4

Source: ABS, 2013

In the period 2010-2012, Western Australia had the second lowest life expectancy for Indigenous males (behind the Northern Territory) and the highest life expectancy for non-indigenous males (Table 3.2). This was the largest disparity recorded for this time period out of the selected states, with a massive 15 year difference. Indigenous persons have been identified as having a lower life expectancy due to prevalence of poorer health, greater vulnerability to diseases, poorer living conditions, lower socioeconomic status and cultural and societal issues<sup>8</sup>.

**Table 3.2: Estimated male life expectancy at birth by Indigenous status for selected states, 2010-2012**

State	Indigenous	Non-Indigenous	Difference (years)
<b>WA</b>	65	80.1	15.1
<b>NT</b>	63.4	77.8	14.4
<b>QLD</b>	68.7	79.4	10.7
<b>NSW</b>	70.5	79.8	9.3

Source: ABS, 2013

### 3.2 Mental Health

In line with the disparity between metropolitan and non-metropolitan overall health status, the mental health of those (in particular males and Indigenous persons) residing in rural, regional and remote areas, is subordinate to those living in inner city areas<sup>11,24,38,39,40</sup>. Geographical location, socioeconomic status, education status, environmental conditions, Indigenous status and financial hardships are seen to be significant factors in affecting the mental health of males in Western Australia<sup>2,6,9,12,14, 24,26,27,29</sup>. These factors are seen to readily lead to feelings of social isolation, lack of motivation, lack of employment and education opportunities, all especially in young males<sup>38,39,40</sup>.

Mental health issues among males are often disguised by other health risk factors such as social and behavioural issues, substance and alcohol abuse, aggression and violence and self-harm, which have all been found to occur at higher rates in non-metropolitan areas<sup>11,41</sup>.

Recent results from the Australian Bureau of Statistics National Health Survey (2014-15) indicate that just 27 per cent of males suffering from any sort of mental health condition seek help, compared with over 40 per cent of females<sup>38,39</sup>, with males aged between 15-24 years being significantly less likely to seek help than females and males in any other age group<sup>11,40</sup>.

As a minority, Indigenous males have been identified as experiencing high levels of mental health conditions<sup>8,42</sup>. This has been confirmed in the 2009 NATSISS Survey with 98 per cent of male respondents over the age of 18 identifying themselves as suffering from some sort of psychological distress, yet 88 per cent concluded they did not seek any type of help in the four weeks prior to the survey<sup>27</sup>, a similar trend seen in the overall demographic of males in metropolitan and non-metropolitan areas.

Access to health services in non-metropolitan regions is generally limited (in comparison to metropolitan areas) and as identified, males are less likely to seek help for such issues<sup>3,40,43</sup>. An absence of proactive behaviour in seeking help for mental issues has been attributed to a number of factors relating to; the lack of provision of healthcare services, the construction of masculinity in non-metropolitan regions, the culture of being self-reliant, resilient and resourceful as well of the notion of 'stoicism' identified among males in rural, regional and remote areas<sup>6,31,40</sup>. Furthermore, the existing stigma attached to men's mental health in any geographical area contributes to the inability and reluctance to receive help.

On top of this, a lack of male health professionals and the characteristics of small communities with the prospect and fear of little confidentiality between doctor and patient alleviate the urgency to obtain help<sup>34,35</sup>. Additionally, lower income, educational attainment and a lack of public transport and accessibility has been linked to not seeking help, which increases the risk of conditions deteriorating<sup>40</sup>. The number of General Practice mental health services and well as psychiatrists, mental health nurses and psychologists decreases with increasing remoteness. In non-metropolitan areas, just 33 per cent of psychiatrists, 82 per cent of mental health nurses and 54 per cent of psychologists of what is in major cities such as Perth<sup>40</sup>. According to Caldwell, Jorm and Dear<sup>34</sup>, in rural, regional and remote areas, there are significantly lower rates of General Practitioners addressing psychological problems and those areas considered remote are

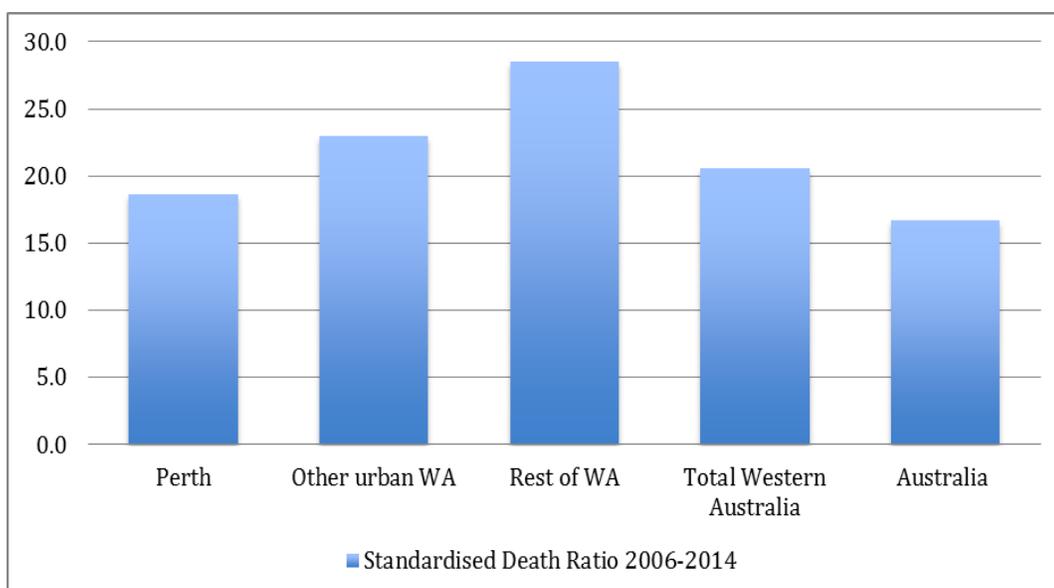
prescribed mental health medications at half the rate of their counterparts in capital cities.

### 3.2.1 Suicide

Suicide is a high-risk outcome of depression, anxiety, general stress and other social determinants in particular with regional, rural and remote males such as employment and/or income status, financial security and stability, and unpredictable and potentially devastating environmental conditions. Those males living in non-metropolitan areas have found to be 68 per cent more likely to commit suicide than those residing in metropolitan areas<sup>45</sup>. In 2010, suicide was the leading cause of death for males aged between 25-44<sup>3,44</sup> with adolescent males and young adult males having particularly high suicide rates<sup>10,14,34</sup>. In 2014, 75 per cent of all deaths resulting from suicide were males with those aged between 30-54, having the highest rates in 2014<sup>46</sup>. Rates of successful suicide have been found to be considerably higher for males than females which is suggested to be due to the use of more violent methods such as firearms and poison, resulting in instant death<sup>6,10,34,44,47</sup>, which has also been identified in the explanation of higher rates of suicide in non-metropolitan regions<sup>12</sup>.

Such disparity of suicides in males based on location is reflected in Figure 3.2. As depicted in the graph, non-metropolitan regions have the highest rate out of all areas by a significant margin, with Australia's overall suicide rate being the lowest, followed by metropolitan Perth.

**Figure 3.2 Standardised death ratio for males in Western Australia and Australia, 2006-2014 (per 1,000 persons)**

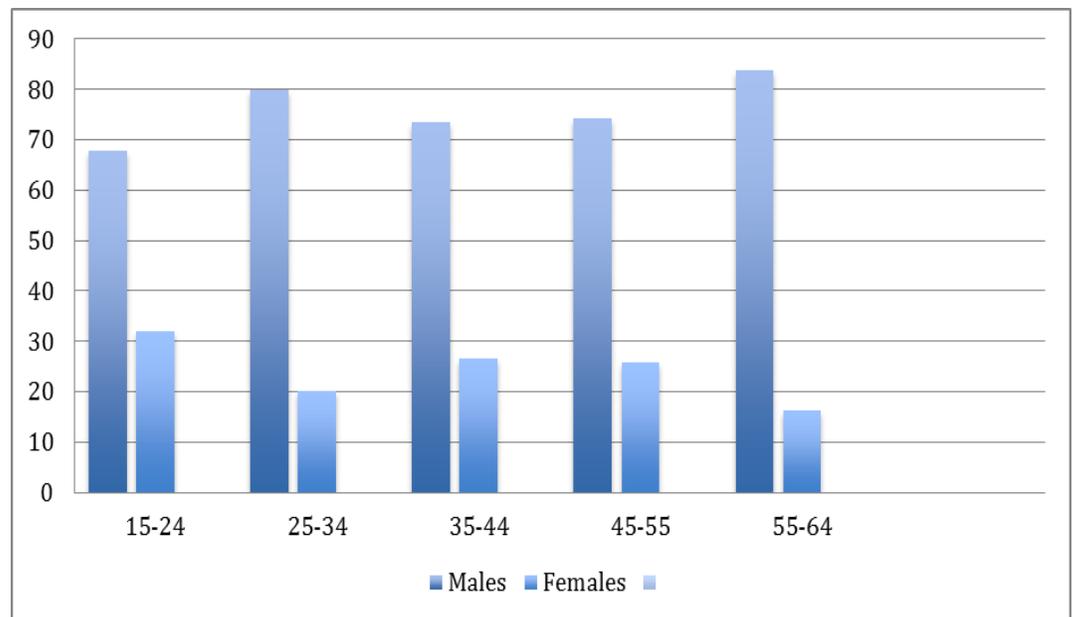


Source: ABS, 2012

In 2014 in Western Australia, male suicide rates exceeded female rates in all age groups as well as exceeding the Australian average (Figure 3.3 and Figure 3.4). Those aged between 25-34 and 55-64 years of age exhibited the highest rates of male suicides, contrasting with females' rates, where these age groups exhibited the lowest.

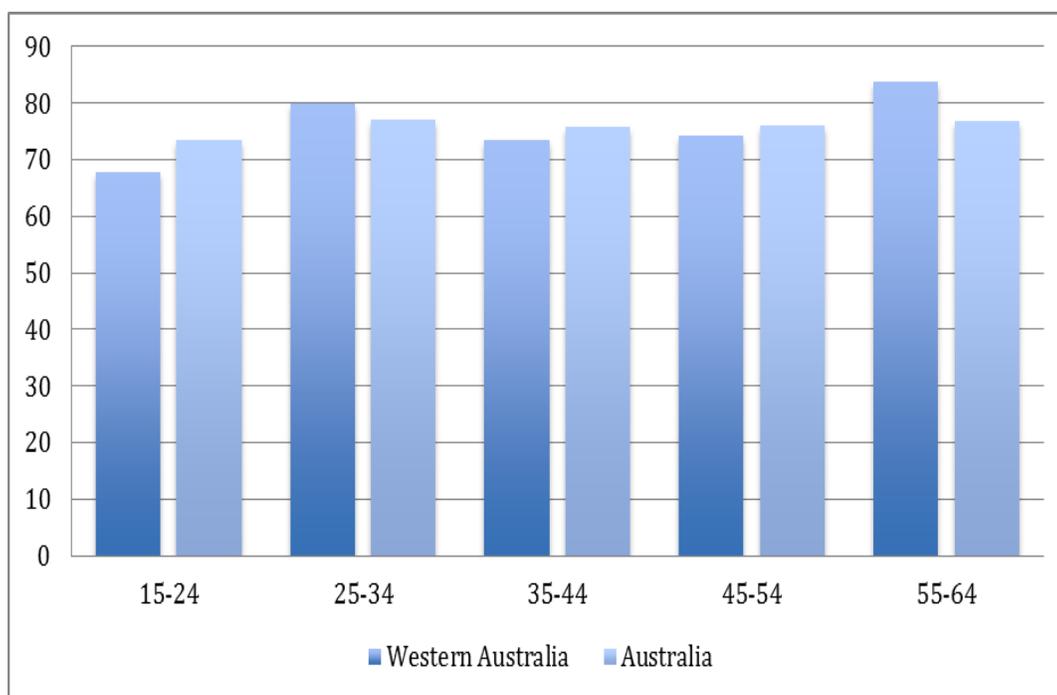
In the 25-34 age bracket, there was a significant disparity with males accounting for 80 per cent of suicides and females just 20 per cent in Western Australia. This gap increased in the age group 55-64 years of age with males accounting for 84 per cent of suicides in Western Australian (compared with 16 per cent of females) and further contrasted with 77 per cent of male suicides in across Australia. This large proportion of men aged between 55-64 years is suggested to be influenced by the agricultural sector, with two thirds of farmers taking their own lives tending to be owners or managers in older age brackets<sup>47</sup>. Research suggests that farmer suicide is a result of ongoing economic and financial insecurity, environmental stressors and the inability of many farmers being unable to escape the main cause of stress (the farm) due to living and working in the same sphere as well as the construction of males, masculinity and stoicism in non-metropolitan areas<sup>6,47</sup>.

**Figure 3.3: Suicide rates by sex and age, Western Australia, 2014 (%)**



Source: ABS, 2016

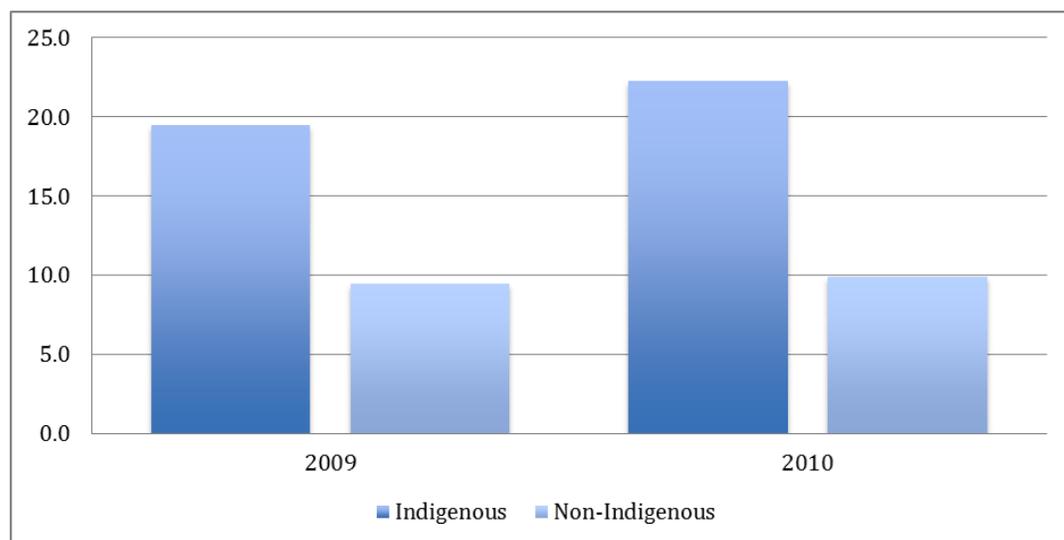
**Figure 3.4: Proportion of male suicides by age, Western Australia and Australia, 2014 (%)**



Source: ABS, 2016

Suicide rates for Indigenous persons are higher than non-Indigenous males and females of any locality. Socioeconomic status, isolation of some remote Indigenous communities, cultural influences, construction of gender roles and societal structure among communities all contribute to Indigenous suicide in Australia. As seen in Figure 3.5, suicide rates among Indigenous persons were significantly higher than that of non-Indigenous for the 2009 and 2010 periods. While this data is not specific to Western Australia alone, it is reflective of the disparity across Australia in the gap between Indigenous and non-indigenous health<sup>48</sup>. Table 3.3 depicts suicide by region in Western Australia for males and females. The highest ratio in all regions of the state occurs in the Kimberly, where 45 per cent of the population is Indigenous, compared to 3 per cent of the population in the whole of Western Australia<sup>49</sup>. The Perth metropolitan region has the lowest rate for males, with all other non-metropolitan regions being above the metropolitan rate and the rate for the whole of Western Australia.

**Figure 3.5: Suicide by Indigenous status, Australia, 2009-2010 (%)**



Source: ABS, 2012

**Table 3.3: Standardised suicide rates by sex and region, Western Australia, 2002-2011 (per 100,000 persons)**

Region	Males	Females
Kimberly	135.1	35
Pilbara	20.6	3.2
Midwest	20.2	8.3
Wheat belt	43.7	8.6
Goldfields	28.9	10.6
Southwest	21.6	3.6
Great Southern	29.4	6.6
Perth Metropolitan	15.6	5.4
Western Australia	19.9	6

Source: WA Country Health Service 2015

Research has consistently suggested that suicide rates over time have been increasing in non-metropolitan areas across the nation. Page and others<sup>50</sup> conducted a temporal study of young male suicide rates in non-metropolitan regions over a period of 24 years. The study found that those aged 15-24 years had the highest disparity between metropolitan and non-metropolitan suicide and from 1979-2003, with death by suicide significantly increasing in non-metropolitan areas, notably tripling in remote areas<sup>50</sup>.

### **3.3 Physical Health**

#### **3.3.1 Chronic Health**

Chronic diseases are an issue in both metropolitan and non-metropolitan regions, inclusive of arthritis, osteoporosis, asthma, cancer, diabetes, heart and circulatory issues, mental health and obesity<sup>27</sup>. Males have a higher risk of many cancers and a number of chronic conditions<sup>11</sup> and those living outside of metropolitan areas have been identified as experiencing higher rates of risk factors of cardiovascular diseases and related hospitalisations, and lastly, heightened chance of dying from cardiovascular related conditions and issues<sup>2,27</sup>. Indigenous status, socioeconomic status, employment sector and age tend to influence chronic conditions in males<sup>2</sup>.

#### **Chronic Pain**

Chronic pain affects one in five Australian<sup>15,51</sup> with Indigenous persons at a higher risk than non-Indigenous people<sup>8</sup>. There has been a strong link identified between chronic pain and socioeconomic status, with those being more disadvantaged, more likely to experience some sort of chronic pain<sup>15,51</sup>. This has largely been attributed to employment sector with those in labour-intensive, unskilled jobs being most at risk. Statistics show that those living outside of major cities are 23 per cent more likely to have chronic back pain, raising to 30 per cent increased risk for those rural residents aged between 55-64 years of age<sup>15,38,39</sup>. As rural, regional and remote localities are largely dominated by labour intensive industries such as agriculture, forestry and fishing and mining, the risk of injury is higher as is the possible occasion of untreated pain, eventually leading to chronic pain<sup>2</sup>. Furthermore, overweight or obese people have a higher risk of chronic pain such as osteoarthritis, and with males in regional areas having high rates of obesity<sup>51,52</sup>, it can be inferred that males in non-metropolitan areas are at a significantly higher risk of chronic pain.

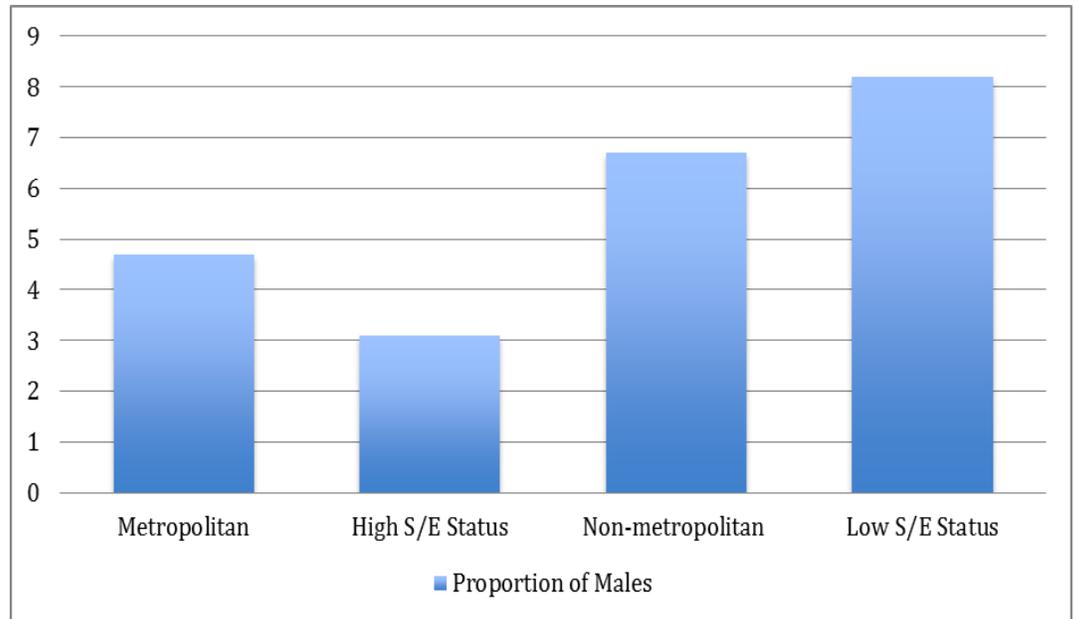
#### **3.3.2 Cardiovascular Disease**

Cardiovascular disease has been identified as being more prevalent in males and those living in non-metropolitan areas who tend to be of a lower socioeconomic status or Indigenous<sup>26</sup>. In the 2011-12 period, males in the lowest socioeconomic group had the greatest rates of cardiovascular disease than any other group, consistent with remote locality statistics<sup>24</sup>. Indigenous people in remote areas have been found to be 1.4 times as likely to suffer from cardiovascular disease than Indigenous people in non-remote areas<sup>26</sup>. Additionally, rural and remote persons are said to experience higher rates of cardiovascular disease, cardiovascular related hospitalisation and CVD related death than urban counterparts<sup>36</sup>.

### 3.3.3 Diabetes

Diabetes is a chronic condition affecting millions of Australians throughout the nation. In the National Health Survey 2014-15, 5.1 per cent of the Australian population were living with some type of diabetes, with males accounting for a larger proportion than females<sup>39</sup>. According to ABS data, those living in the most disadvantaged areas have almost 2.5 times the rate of diabetes than those in lower disadvantaged areas, 8.2 per cent vs 3.1 per cent respectively (Figure 3.6). Furthermore, Indigenous people in remote areas were said to be 6 times more likely to have diabetes than non-Indigenous people with diabetes death rates among Indigenous people said to be 3 times as high as non-Indigenous people<sup>8</sup>.

**Figure 3.6: Proportion of males with diabetes in Western Australia by region and socioeconomic status, 2014-2015 (%)**



Source: ABS, 2016

Note: Figure 3.5 is not gender specific due lack of availability of data but is suggestive towards to situation of diabetes in males in Western Australia.

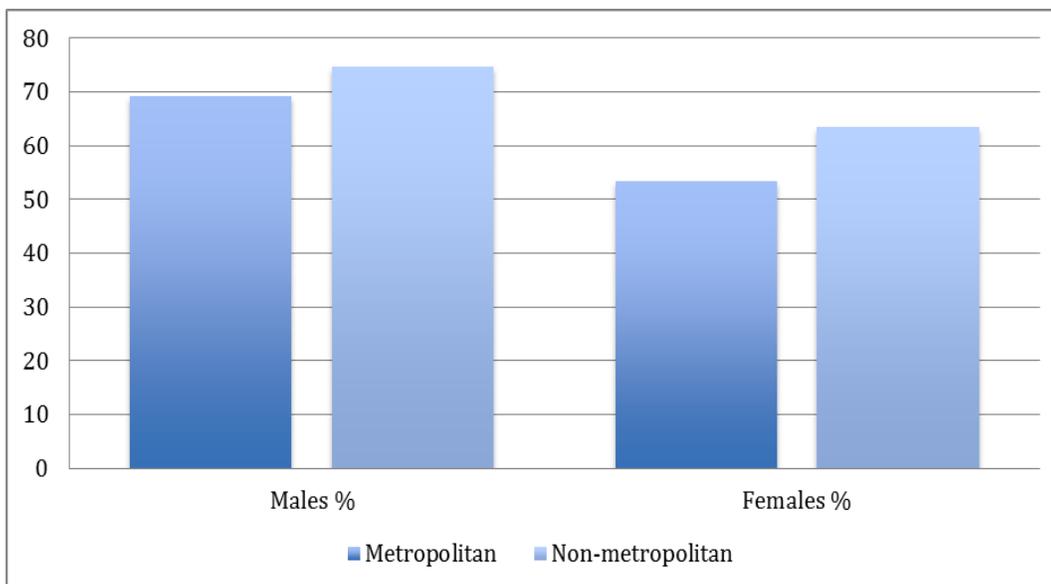
### 3.3.4 Obesity

Being obese or overweight increases the risk factor for diabetes type 2, cardiovascular disease, osteoarthritis and some cancers. Research has found that the percentage of obese males increases with remoteness, and is more prevalent than it is in females<sup>25</sup>.

In 2014-15, males living outside of metropolitan regions were more likely to be overweight or obese than those in inner city areas. This is in line with evidence from the Australian Institute of Health and Welfare, with males living in socially disadvantaged areas are more likely to be obese than those in least advantage areas such as metropolitan areas (shown in Figure 3.7). Furthermore, almost 4 out of 5 males over the age of 45 years old were overweight or obese (74.9 per cent), compared with 2 in 3 women of the same age group in<sup>25</sup>.

In the 2014-15 period, those living out of cities had higher percentages of obesity and overweight as depicted in Figure 3.7. Males in the lower socioeconomic quintile (20 per cent) are significantly more likely to be obese than those in the highest socioeconomic quintile (13 per cent). Diet is a contributing factor to obesity and the lack of food access has been applied to the prevalence of overweight and obese persons in non-metropolitan Western Australia<sup>53,54</sup>. Fresh, healthy food is not as readily and financially available, with the cost of basic, healthy food being an estimated 30 per cent higher in non-metropolitan areas<sup>53,54</sup> due to travel distance and population. Additionally, the quality and freshness of fruit, vegetables and overall healthier options tends to decrease with remoteness while costs increase<sup>55</sup>.

**Figure 3.7: Proportion of obese persons by region and sex, Australia 2014-2015 (%)**



Source: ABS, 2016

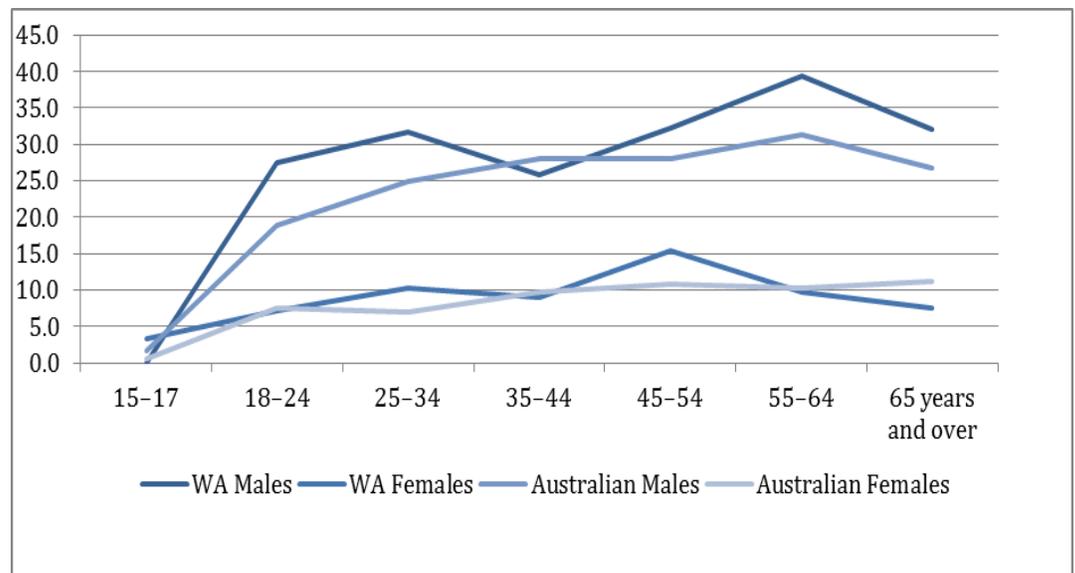
### 3.4 Lifestyle

#### 3.4.1 Alcohol

People in remote and very remote areas have been found to be more likely to drink alcohol in high-risk quantities, with the trend increasing with remoteness<sup>25</sup>. Males have been identified as consuming alcohol more frequently and in larger quantities (85.6 per cent of males and 75.7 per cent of females). In the 2014-15 period, 25.8 per cent of males exceeded their lifetime risk of alcohol guidelines, a significantly larger figure than females (9.3 per cent). This is one in four men, and is consistently higher than females in all age groups. As depicted in Figure 3.8, males aged in 55-64 age bracket were seen to be the highest consumers of alcohol with 33.3 per cent, 4 per cent higher than the national average. The discrepancy between male and female alcohol consumption is in line with research and it has been suggested that this behaviour is related to mental illness, with the utilisation of alcohol and illicit substances in masking prevalent mental health issues instead of seeking professional help<sup>41</sup>.

It is important to note that Western Australia had the highest proportion of adults consuming more than two standard drinks per day (20.8 per cent), and second highest in exceeding the national guidelines, behind the Northern Territory, the most sparsely populated state in the country.

**Figure 3.8: Proportion of persons exceeding 2009 NHMRC guidelines by sex, Western Australia and Australia, 2014-2015 (%)**



Source: ABS, 2016S

### 3.4.2 Illicit Drug Use

Illicit drugs are widely utilised in both non-metropolitan areas, with the types of drugs differing between the localities. Cannabis and methamphetamines are more widely used among those in non-metropolitan areas than in metropolitan areas, with males being the most frequent users of the drugs<sup>55</sup>. Those in remote and very remote areas have been found to use methamphetamines at double the rate of those using it in major cities, 4.4 per cent and 2.1 per cent respectively<sup>24</sup>. In 2012-13, Indigenous males were found to be twice as likely to use substances than females<sup>38,39</sup>. Furthermore, there are significant issues with inhalants such as petrol sniffing throughout many remote Indigenous communities, which again, is said to be highest among males<sup>11</sup>. Substance use and abuse, as mentioned, has been identified as a coping and masking mechanism for those suffering from mental issues. Higher rates of drug use in non-metropolitan areas are aligned with higher rates of mental issues outside of metropolitan areas<sup>41</sup>.

### 3.4.3 Smoking

Smoking is the most preventable source of poor health and death in Australia<sup>24</sup>. Those living in remote and very remote areas are seen to be twice as likely to smoke cigarettes than those based in major cities, 22 per cent compared with 11 per cent respectively<sup>38,39</sup>. Research has found that males are more likely to smoke daily than females with 16.9 per cent of males and 12.1 per cent females being daily smokers<sup>39</sup>. Males have consistently higher rates of the average number of cigarettes smoked per week across all geographies, with the disparity between females in non-metropolitan regions increasing exponentially (Table 3.4). The highest number of cigarettes smoked per week is seen in males in remote and very remote areas with 161.3 cigarettes. Remote living has seen 1.3 times the rate of lung cancer over the 2004 to 2008 period than those living in major cities and with the correlation between smoking and cancer, it can be assumed that the large number of cigarettes smoked is directly related to this in remote areas. Furthermore, socioeconomic and education status has seen influence smoking habits, as depicted in Figure 3.9.

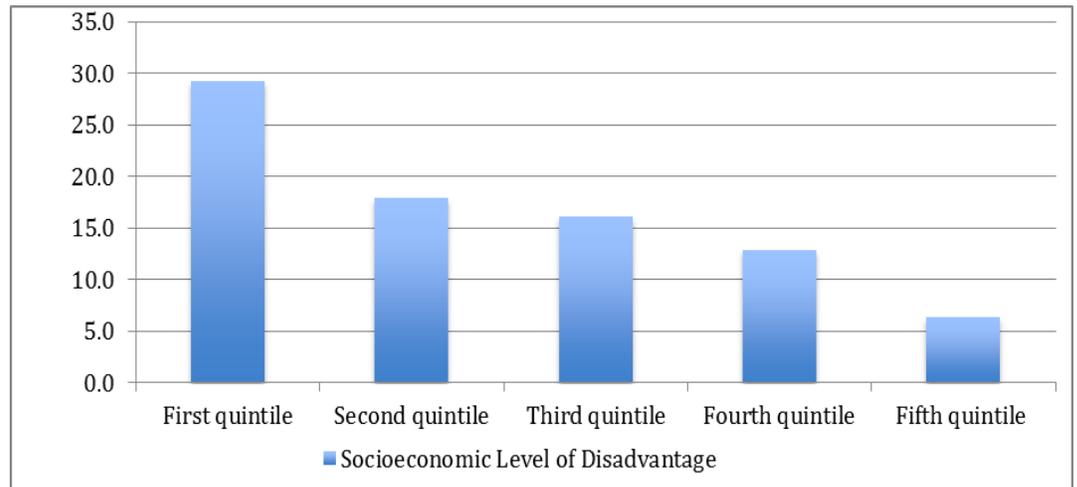
**Table 3.4: Mean number of cigarettes smoked per week by those 14 years and over, Australia 2014.**

	Males	Females
Major Cities	97	91.2
Inner Regional	126.5	100.8
Outer Regional	124.6	116.6
Remote/Very Remote	161.3	111.8

Source: Rural Health Alliance Inc., 2014

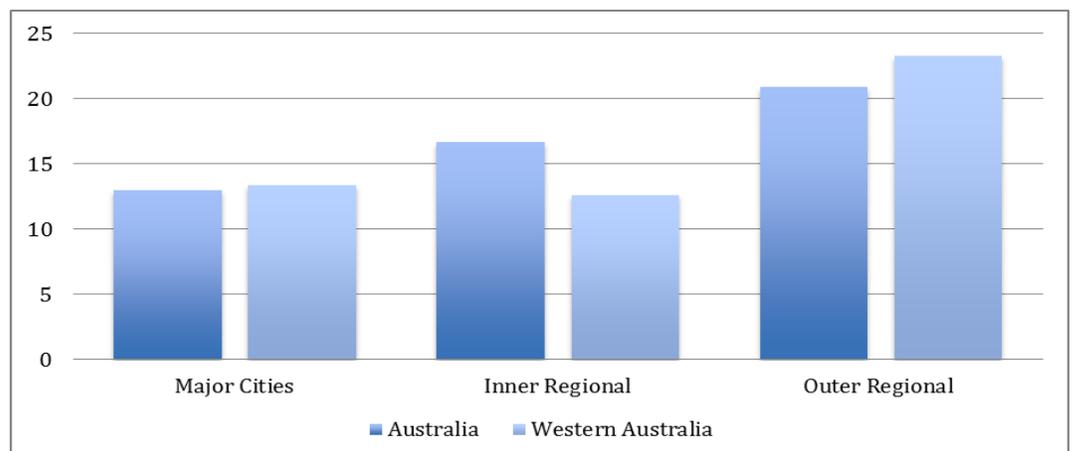
Smoking rates are seen to be highest in the first quintile of disadvantage, with a consistent decline as the level socioeconomic disadvantage decreases (Figure 3.9). There is a significant difference of 22.8 per cent between the highest level of socioeconomic disadvantage and lowest level of socioeconomic disadvantage. Such levels are in line with the rates of smoking in Western Australia and Australia on a metropolitan and non-metropolitan scale, as seen in Figure 3.10. Those in metropolitan areas (or major cities) that are deemed to be of lower disadvantage exhibit lower rates of smoking than those of non-metropolitan areas (inner regional and outer regional) for both WA and Australia (Figure 3.10). Outer regional areas tend to have the greatest rates of smoking in Western Australia and Australia, with WA being slightly higher (Figure 3.10, Table 3.4).

**Figure 3.9: Rates of smoking by levels of socioeconomic disadvantage, 2014-2015 (%)**



Source: ABS, 2016

**Figure 3.10: Rates of smoking by region, Western Australia and Australia, 2014-2015 (%)**



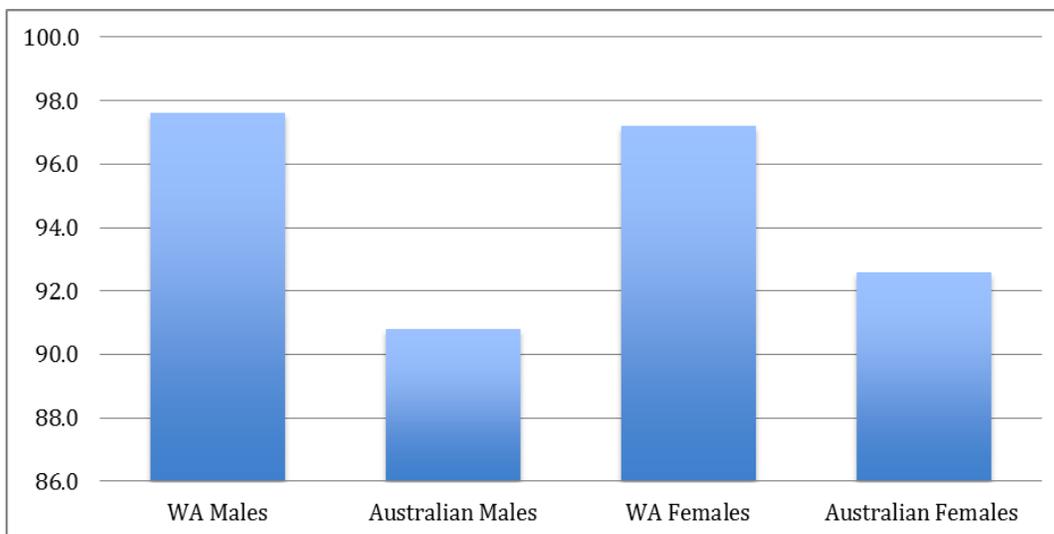
Source: ABS, 2015

### 3.4.4 Diet

Diet is a significant contributor to the health of males and females and is a factor influencing the prevalence of chronic diseases and levels of obesity and overweight in Australia<sup>54</sup>. According to the ABS, just 44 per cent of males met the Australian Dietary Guidelines for fruit consumption and 3.7 per cent for vegetable consumption<sup>38,39</sup>. On a national scale in the 2014-15 periods, male intake was considerably lower than females. Western Australian males exhibited higher levels of inadequate fruit and vegetable intake when compared with Western Australian females and the Australian average (Figure 3.11). Additionally, in the 2012-13 periods, just 1 in 20 Indigenous people achieved the adequate vegetable intake, with males less likely obtain sufficient vegetable intake than females<sup>56</sup>.

Barriers to healthy eating in rural areas are inclusive of; cost, availability and freshness of healthy foods such as fruit and vegetables and as a result of this, low income and lack of nutritional knowledge<sup>52</sup>. As previously mentioned (regarding obesity), rural, regional and remote areas generally lack available fresh foods at affordable prices when compared with metropolitan areas, mainly due to transport cost<sup>52,53,54</sup>. Cost of such foods tends to be approximately 30 per cent higher than that of metropolitan prices for the same produce<sup>53,54</sup>. Additionally, freshness and quality of such produce tends to decrease with increasing remoteness while costs increase on the same scale<sup>54</sup>.

**Figure 3.11: Inadequate fruit and vegetable intake for males and females, Western Australia and Australia, 2014-15 (%)**



Source: ABS 2015

### 3.4.5 Mobile Employment

Mobile workers tend to live in well-serviced major urban centres and commute long, extensive distances to work, usually via flying or driving, staying a predetermined number of days (roster) on a cyclical basis on site, then returning to their normal residences for a set break time<sup>58</sup>. The prominence of the fly-in, fly-out and drive-in, drive-out sectors has declined in recent years but has remained a significant system of employment. Such a system has forced the replacement of the construction of residential rural towns where remote mining operations have and do exist, and as a result, there has been a withdrawal of service and health provision in such regions<sup>59</sup>.

Mobile employment is a significant determinant in the health of Western Australians involved in the mobile employment sector. Over 80 per cent of employees in the FIFO/DIDO mobile employment sector are male<sup>58</sup>, with the overall workers accounting for the majority of employees in non-metropolitan towns involved in the mining industry in WA. The workforce has an older median age of 40 years of age, 3 years older than the Australian average of 37 years old and the majority of the workforce is made up of those in the 35-44 year old age bracket. Such remote localities have a significant unequal male to female population, especially in regions such as the Pilbara (349.3 per 100 females), Roeburn (234.4 per 100 females) and Ashburton (228.5 per 100 females), making up the highest male to female ratios in Australia<sup>25</sup>. FIFO and DIDO workers tend to be socially isolated from friends and family and rosters have significant influence on the mental health of the workers, with the nature of them generally meaning little time for social and domestic activities, hobbies, sports and quality family time<sup>58,60</sup>. Furthermore, shift work (especially night shift work) has been linked to more acute cognitive issues such as short term memory problems, concentration and alertness levels, emotional issues such as depression, mood swings, irritability, anxiety and stress. In terms of behaviour, shift work tends to be related to excess consumption of alcohol, smoking, drug use and maintenance of a sedentary lifestyle, when compared to day shift workers<sup>58</sup>. Additionally over 70 per cent of mining workers work 41 hours or more per week and 72 per cent of WA mining sites have an average, ordinary shift length of 49 hours or more per week<sup>58,61</sup>. A notable result of this over an extended period of time is long term fatigue and reduced performance, high blood pressure, moodiness, depression and increased susceptibility to illnesses<sup>60</sup> as well as workers learning to internalise stress, heightening the risk of mental issues and excessive alcohol and illicit drug consumption in order to deal with such issues.

Compared to the general population, there is a higher prevalence of psychological distress and greater likelihood of such distress and disorder incidence in FIFO and DIDO workers, with regional placement having been found to lead to heightened risk of mental health<sup>58</sup>. Location of the majority of the sites are in areas where communities depend largely on industries that are affected by the world commodity prices, for example mining in Kalgoorlie or farming in the Wheatbelt. Living away from home disrupts social and family life and can have negative impacts on psychological wellbeing, marital and partnered relationships and overall wellbeing of families. It has been found that males with young children are increasingly vulnerable with such a split lifestyle as well as those who have not experienced living conditions away from family and friends, and a metropolitan level of all services, including health services.

Recreational illicit drug use has been seen as a result of coping with such stress, boredom and fatigue with onsite drug tests acting as an encouragement to workers to choose those illicit drugs that are known to leave the blood stream within 48 hours. Such drugs used are: LSD, cocaine, speed, methamphetamine or synthetic marijuana. Another tactic used by drug using workers is to get other 'clean' workers to provide a urine sample on their behalf. A lack of activities and social hubs has led to a serious drinking and drug culture in remote mining regions. Compared with other types of employment, FIFO workers are significantly more likely to drink alcohol at risky levels, be overweight or obese and be current smokers to be compared to those employed in other sectors such as the service sectors<sup>58</sup>. Again, this can be attributed to social and environmental situations.

Barriers to seeking help for mobile employees are identified as being the same as identified in the help-seeking behaviour of males with mental health issues. As identified by FIFO and DIDO workers in a study undertaken by the ECU Lifeline<sup>58</sup> report identified insecurity in the confidentiality of the issue, the chance that seeking help may lead to their employment being threatened as well as feeling isolated due to the remoteness of their location as barriers to seeking help. Again, the 'stoic' and masculine culture has created a further stigma surrounding the already stigmatised issue and as a result a sense of reluctance surrounding getting help for those who need it as well as the fear of appearing 'soft' in the industry. Furthermore, structural barriers such as telecommunication connection have been identified as a significant barrier in contacting current services, for example, telephone counselling.

While health assessments exist, and are carried out throughout the industry, they tend to focus on demographic details, work history, and respiratory conditions through self-report questionnaires, lung functioning tests, eye tests and hearing tests. There is currently no established reliable practice of assessing mental health and subsequently adequately supporting it in the mobile employment industry.



## 4.0 SOCIAL AND ECONOMIC DETERMINANTS OF VARIABILITY

The health of males is largely determined by social and economic factors such as geographical location, socioeconomic status, employment (sector and status), education attainment, environmental conditions and Indigenous status. Males living in rural, regional and remote areas tend to have significantly poorer health than those living in major urban centres. This is reflected in the status of men's health over a number of factors identified in the previous section.

### 4.1 Rural, Regional and Remote Living

Geographical location has been cited as being one of the main determinants of health throughout Western Australia and Australia<sup>1,2,3,9,14,24,25,27,28,29,30,36,40,44,51,54,56,57,62</sup>. Generally, health status declines with increasing remoteness as well as the availability and provision of health services<sup>2,7</sup>. Males in non-metropolitan areas are more likely to have a lower life expectancy, have a greater level of disadvantage and lower income and educational attainment. In 2010, 68 per cent of the male population in Australia were living in major cities and just 32 per cent in non-metropolitan areas. Those residing in non-metropolitan areas experience higher rates of arthritis, asthma, back problems, cancers, heart diseases, kidney disease, mental health problems and lifestyle factors such as obesity<sup>38,39</sup>. The National Male Health policy identified those males living in regional and remote areas had poorer overall health and wellbeing when compared with those living in urban and metropolitan regions<sup>11</sup>.

Non-metropolitan regions tend to be more sparsely populated, geographically isolated, are generally long distances from health services and amenities<sup>11</sup> and tend to rely on one or two industries (such as mining and agriculture). Rural, regional and remote regions tend to lack in employment opportunities and higher education facilities, as well as increasing the likelihood of social isolation<sup>32,43</sup>. Results from the National Drug Strategy Household Survey 2013 outlines that people in remote and very remote areas are two times more likely to smoke daily and drink alcohol in higher risk quantities<sup>24</sup>, which has been attributed to occupation and sector e.g. mining and agriculture, boredom and a lack of opportunities. Such heightened health risk factors contribute to poorer health of males in non-metropolitan areas.

### 4.2 Socioeconomic Status

The health status of males and socioeconomic disadvantage has been identified as being closely linked. The higher the level of socioeconomic disadvantage, the lower the level of overall health, and higher rate of preventable diseases and deaths, and in all, a lower life expectancy<sup>27</sup>. The largest proportion of lower socioeconomic disadvantage tends to occur outside of metropolitan areas with those groups more likely to live in such areas of higher socioeconomic disadvantage including Indigenous males and males living in non-metropolitan areas<sup>1,2,7,24,27,30</sup>. Characteristics of socioeconomic disadvantage include low income, employment in unskilled jobs, low level of educational attainment and unemployment<sup>2,27</sup>. Low income affects male health through the inability to finance sufficient health care or help, purchase fresh, healthy foods in non-metropolitan areas where prices tend to be inflated<sup>53, 54</sup> and may affect the mental health of

males through the stress of financial pressures. Unemployment has similar effects of low-income earners as well increases the likelihood of higher risk quantities of alcohol, smoking and poor diet<sup>2,8</sup>. Lower levels of educational attainment can be linked with low income, unemployment as well as poor health literacy and thus may influence the inability of understanding health symptoms, needs, and overall requirements for a healthy lifestyle.

### 4.3 Employment

Employment status and sector has seen to be related to the status of men's health in Western Australia and Australia. The majority of industries and occupations in non-metropolitan areas are generally more labour intensive and high-risk than other occupations<sup>1</sup>. Connections have been established between occupation and mental health as well as chronic pain and diseases. Those working in high labour intensive, stressful, shift work, isolated workplace location typically experience higher rates of poor mental health and physical health outcomes. Higher suicide rates are prevalent among blue-collar occupations that are typically defined by unskilled workers in manual and labour intensive positions<sup>5, 63</sup>. Physical isolation has been linked to emotional difficulties and higher rates of alcohol and substance abuse<sup>63</sup>. Unemployed persons are said to have poorer general and mental health as well as higher rates of chronic diseases and psychiatric morbidity<sup>24</sup>.

### 4.4 Education Status

Education status is another determinant of men's health in non-metropolitan regions. Those with higher levels of educational attainment tend to earn a higher income and are less likely to be unemployed than those with lower educational attainment, thus also related to socioeconomic status<sup>4</sup>. Those with a lower educational attainment in Australia tend to have higher levels of health risk factors, more likely to be obese, have higher levels of inadequate fruit and vegetable consumption and higher blood pressure (Table 4.1). Furthermore, higher educational status tends to be lower in non-metropolitan regions due to the lack of educational opportunities, a governing reason for out-migration of youth in rural, regional and remote areas<sup>32</sup>.



**Table 4.1. Health risk factors and Educational Attainment, proportion of persons (%)**

Comparing Education	Current daily smoker	No/little Exercise	Exceeding life time alcohol risk guidelines	Exceeding single occasion risk guidelines	Obese/Over-weight	Inadequate fruit consumption	Inadequate vegetable consumption	High blood pressure
Year 10 or equivalent or below	25.0	79.4	20.7	31.6	70.7	48.7	93.8	33.0
Year 11 or equivalent	20.0	66.9	24.4	54.2	61.9	56.0	94.6	18.1
Year 12 or equivalent	14.2	57.6	17.7	49.4	52.8	41.2	91.6	14.9
Certificate	20.3	66.6	28.7	55.0	69.4	50.8	91.6	21.2
Advanced diploma/Diploma	7.6	50.5	19.4	49.3	66.3	45.3	91.1	21.3
Graduate diploma/Graduate certificate	5.5	50.8	12.7	#53.0	49.5	33.0	85.7	14.7
Bachelor degree	4.2	59.4	16.6	49.9	49.0	43.7	91.2	14.6
Postgraduate degree	8.4	55.6	12.4	37.7	48.5	37.9	87.5	14.4

Source: ABS, 2016

#### 4.5 Environmental Conditions

Environmental conditions have a significant impact on rural, regional and remote populations due to the heavy reliance and influence of agricultural, forestry and mining. With growing ecological threats, such as droughts, floods, salinity and bushfires, financial stress has become a serious burden on the health and wellbeing of farmers and those employed in relating sectors<sup>11, 42</sup>. Research has suggested that farmers are subject to psychological distress such as depression and anxiety as a result of such threats, leading to a higher risk of suicide<sup>42</sup>. Effects of poorer seasons and thus outcome tend to negatively affect the wellbeing of those running and owning farms. Additionally, debt and damage to property as a result of extreme environmental conditions has significant effects on both mental and overall health of farmers.

Furthermore, environmental conditions have a significant effect on the aging population with physiological effects of aging being accelerated and intensified. During extreme weather conditions, aging men (and women) can experience declining cognitive states, reduced sweating

responses, greater prevalence of chronic conditions, disabilities and reduced mobility<sup>16</sup>. As a result, it can be concluded that health (notably mental health) is closely related to environmental conditions in rural and remote Western Australia.

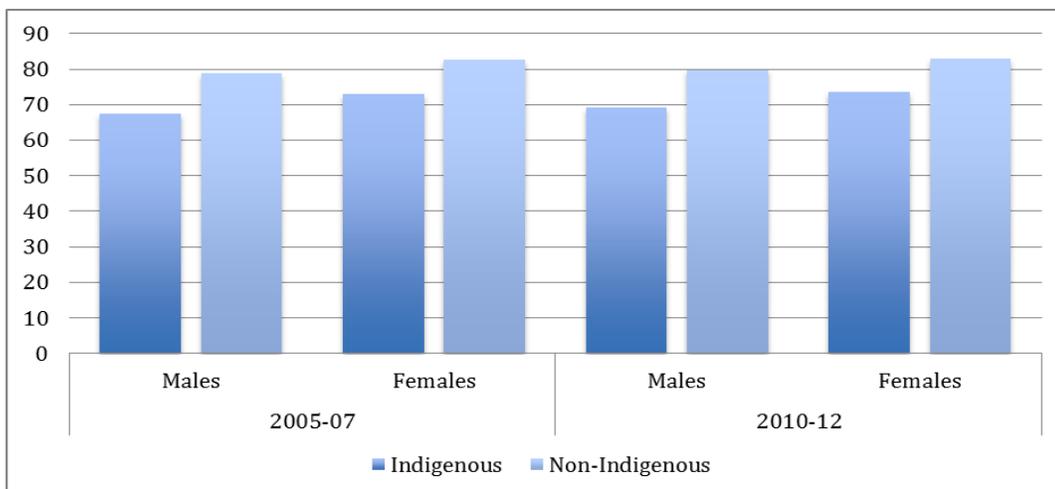
#### 4.6 Indigenous Status

Indigenous status has been directly identified as being a high-risk demographic in terms of health. Paired with the already subordinate population of males overall, Indigenous males experience disproportionate levels of education, employment and social disadvantage. Indigenous people are more likely to live outside of major cities in more socioeconomically disadvantaged areas<sup>7</sup>. Furthermore, cultural and social factors such as the construction of males within Indigenous communities have been noted as barriers to seeking help in issues such as mental health<sup>8</sup>.

In general, the average disposable income for an Indigenous person is just 70 per cent that of an average non-Indigenous Australian, with this figure decreasing with remoteness<sup>30</sup>, placing Indigenous persons in the higher quintiles of socioeconomic disadvantage. Furthermore, the average disposable income for an unemployed non-indigenous male is still 1.4 times higher than the average income for an Indigenous male.

Indigenous persons have a number of risk factors that affect the health overall health inclusive of; higher rates of smoking, higher rates of drug use, higher rates of educational, social and health disadvantages<sup>8,26</sup>. The disproportionate level of health experienced by Indigenous males is highlighted in Figure 4.1, depicting the life expectancy of males and females, by Indigenous status. It is evident and can be concluded that the life expectancy for Indigenous persons is significantly lower for both genders when compared to non-Indigenous people.

**Figure 4.1 Life expectancy by sex and Indigenous status. Headline estimates 2005-2007, 2010-2012**



Source: ABS, 2013b

## 5.0 CONCLUSION AND IMPLICATIONS

The evidence informs us of a clear disparity between the health of males in metropolitan and non-metropolitan regions in Western Australia.

Disparities occur in terms of health condition prevalence, life style risk factors and in social and economic determinants. Males in non-metropolitan regions and specifically indigenous males in non-metropolitan regions have been identified as the population group who experience poorer health conditions when compared with those males in metropolitan regions and across Western Australia and Australia.

### 5.1 Health Service Provision Deficit

Males in non-metropolitan areas are more susceptible to negative health issues and are less equipped to manage them. Research suggests that men in rural and remote areas are lacking heavily in health services, assistance and resources. Rural and remote communities, due to their smaller populations, are known for their sense of community and connectedness, but are vulnerable to socio-economic disadvantage and reduced access to health services<sup>64</sup>. Non-metropolitan areas of Western Australia have only; 82% of mental health nurses, 54% of psychologists and 33% of the psychiatrists of metropolitan Perth<sup>65</sup>. There are also significantly lower rates of general practitioners that address mental issues in remote areas and residents are prescribed half the mental health medication of those in capital cities<sup>66</sup>. Industries in the mining sector also tend to prioritise operations ahead of health service provision and it becomes difficult for these areas to provide service and resources to clients and employees on site<sup>67</sup>. It is clear that men in non-metropolitan areas are not receiving adequate levels and standards of health services and support, and their health and wellbeing is suffering as a result.

### 5.2 The Masculinity Stigma and Hesitation to Seek Help

The construction of 'rural masculinities', built around male self-resilience and stoicism, is a contributing factor to poor health outcomes for men in non-metropolitan WA. The stigma behind a 'hegemonic masculinity' construct (as proposed by Connell<sup>68</sup>, the socialised discrepancy of power and dominance between males and females) and the manner in which a man struggling with health issues engages with that stigma will impact their decision on whether or not to utilise health services<sup>69</sup>. Males tend to "deny" their vulnerability<sup>70</sup>, opting instead for secrecy. Men that are impacted by the stigma become discouraged from seeking treatment/support, contributing to pre-existent mental issues such as anxiety and depression, producing conditions "antithetical to the goals recovery"<sup>71</sup>.

Often men fear others will discover their issues, around their community, or believing their stature in their particular industry would be threatened and they will appear as 'soft'<sup>72</sup> if they are revealed to be seeking help for a health issue, particularly a mental health issue<sup>72</sup>. As examples, this is often the case of men stationed in military environments, who fear their health seeking may leave them vulnerable to discrimination by leadership bodies within their workplace<sup>73</sup> as well as men stationed in other high impact workplaces such as in the mining and

agricultural industry/s. The NATSISS survey in 2009 revealed Indigenous males also indicated a large hesitation in proactively seeking help from service providers in relation to mental health issues. The survey claimed 98% of Indigenous males identified themselves as struggling with some form of psychological stress, with 88% claiming they had not sought out professional help for assistance, up to four weeks prior to the survey<sup>74</sup>.

Using the case of suicide as a mental health outcome, males with suicidal tendencies are labelled as both victims of “poor” health services and as poor seekers of health services themselves<sup>75</sup>. Möller-Leimkühler, in her studies on sex role theory and the relationship between gender and service assistance seeking, claims that there is a social construction of the male role, that men must remain self-sufficient, strong and tough through emotional turmoil and circumstance<sup>75</sup>. The suggestion is made that looking for help, and seeking out a health service, disrupts this construct, “offending” pre-established expectations of males in their social environments (particularly those in labour intensive areas), and thus puts men off proactively seeking help<sup>75</sup>. This contributes to a male ‘stigma’ surrounding men’s health and help seeking which ties closely to health services and a man’s resistance to it. Men who do in turn access health services may experience feelings of emasculation in interaction with their own gender identity/s<sup>76</sup>, there is often a validation process that must occur where a man feels he is justified within his environment in using services, only then feeling comfortable to do so<sup>77</sup>.

### **5.3 Connectivity between Client and Health Service/s**

Men in rural and remote areas are far more isolated than those in major cities, urban hubs and non-metropolitan areas. Isolated not only geographically, but isolated in connecting and familiarising themselves with health services that are available to them. Elnitsky acknowledged these difficulties in her report on gendered help seeking in combat/military environments, discerning that these issues can be addressed in ‘program planning’<sup>73</sup>.

Partly, men in remoter areas resist seeking help due to a lack of knowledge on how to do so<sup>78</sup>. Due to a lack of health services in non-metropolitan areas, locating a service becomes difficult. While even if a service is located, men hesitate to make the vital first contact due to the reasons discussed above, men in rural areas therefore not only have an issue locating health services, but then connecting and interacting with them.

### **5.4 Service Provision, Funding and Males in Health Service Roles**

As the Department of Health notes in the WA Health Clinical Services Framework 2010-2020, providing outreaching health services to rural and remote areas becomes more difficult the further out from the central hub of Perth they are required<sup>79</sup>. Even while services such as the WA Country Health Service strive to deliver high quality health care and service to these areas, they face a number of challenges including; employing and retaining staff (particularly in specialist departments), follow up care forcing patients to travel from country to the Perth Metropolitan area and a scarcer availability of appropriate professional support/resources<sup>79</sup>.

Despite the resources invested in the Royalties for Regions funding scheme, a huge deficit in funding to male specific programs, service and support sources for men in non-metropolitan

Western Australia remains. The scheme, passed in 2009, was introduced to promote and facilitate economic, business and social development in regional Western Australia<sup>80</sup>. As a part of social development, the scheme introduced streams of funding to a number of health services in rural and remote areas under the banner of the 'Regional Community Services Fund', aimed to increase the access of health services to regional populations<sup>80</sup>. In 2012-13, \$204.5 million was distributed to services under this banner<sup>32</sup>. Although the scheme has provided funding to great programs that benefit men's health particularly the Regional Men's Health Initiative (\$0.48m)<sup>81</sup>, statistics drawn for this report indicate that the state of men's health and wellbeing in these areas is still nowhere near an acceptable standard, and more funding delegation to the support and production of new services that cater to men's needs is becoming more and more necessary, funding where the community needs the most, as well as a funding push for health service professionals and staff to relocate to areas where these support services are required for change to be seen.

Although there is a higher rate of students in medicine based degrees coming through the tertiary education system in Australia than ever before<sup>82</sup>, there is not enough encouragement and incentive for graduates to take roles in non-metropolitan areas in comparison to the inclination of picking up work in the metropolitan health sector instead<sup>82</sup>. Not only must health service provision increase in terms of numbers of services for men in these areas, but roles for staff within them must also be promoted as appealing and accommodating for graduates in both general and specialist health care. Of course, this requires funding.

Furthermore, a decreased number of males in health service roles is becoming a negative implication to the betterment of men's health & wellbeing in rural and remote areas. Numbers of health service professionals are limited in across both sexes<sup>82</sup>, but there are a distinctively lower number of males in these roles in particular<sup>83</sup>. Men can be beneficial to other men in support and service roles, as much as women can be, as often males feel more comfortable engaging with male health professionals due to experiences of discomfort and senses embarrassment in discussing sensitive health issues with professionals that are female<sup>83</sup>. A 'blokes helping out blokes' approach to health service can be beneficial to a man's comfortably in interacting with their own health issues and males play important roles in health leadership within the community. Placing more men in these positions will not only add elements of personal experience and perspective to the ways in which providers deliver their male clients, but also works to break down barriers built by the stigmatisation around male help seeking. The important implication here is that if gender is an important issue to a male seeking help, health services could improve this option for men.

## 5.5 Importance of Mobile Health Services

Men in rural and remote areas suffer in their ability to engage with health services due their proximity and consequentially, reachability, to them. The sprawl of non-metropolitan Perth leaves men isolated from already limited health services, and restrictions such as employment obligations, large distances to travel, far less public transport for example<sup>82</sup> on being able to reach them often outweigh the urge to do so. Because of this, mobile health services must be funded and promoted. Mobile health services are services that specialise in reaching clients that

are unable to travel to areas to receive support. Mobile services provide outreaching support, check-ups and counselling, a few examples include the following:

The Regional Men's Health Initiative, a program ran by the not-for-profit organisation Wheatbelt Men's Health (Inc.) (WMH) has been operating since 2010, advocating for and raising awareness of men's health and wellbeing issues. The initiative offers a program titled 'First Track Pit Stop', all built out the back of a vehicle that travels around regional WA, the service offers health awareness, listening ears and a number of services themed around the servicing of a vehicle including waist measurement ('chassis'), blood pressure tests ('oil pressure') and coping skills ('shock absorbers')<sup>84</sup>.

The Bindoon Mobile Recovery Campaign (Inc.) is an organisation run out of a vehicle and trailer driving around both non-rural and particularly rural WA which delivering information, directories of services and an experienced listening ear to anyone who needs it<sup>85</sup>. The campaign continues to connect men in remote areas to services they could not reach or may not have even been aware of.

Funding to mobile health services such as these is vital as so many men opt to not seek out services solely because they cannot reach them, bringing the service to them is therefore pivotal in their engagement with their health outcomes.

## **5.6 Requirement of a Funding Subsidy for Metropolitan Service Access**

There is evidently an inequality in the financial costs of health services for men in non-metropolitan areas compared to those in metropolitan, it costs rural residents an average of 2 to 10 times the amount to access the health services they need<sup>86</sup>, while this gap becomes even greater when considering the financial costs that damage men in rural areas when they must migrate to metropolitan Perth to receive healthcare not provided in their area. Although Patients' Travel and Accommodation Assistance schemes are in place that financially aid patients in rural areas, whether it be through funding transport to a specialist, accommodation while in care or emergency air services such as those operated by the Royal Flying Doctor Services, there are gaps in these schemes which still leave regional patients in the red<sup>87</sup>.

There is a lack of unification and equity in the eligibility of financial assistance for those needing to travel for necessary health and support service (support should be extended for all specialty cases), a lack of allowance to visit more distant services in the case that closer services are not available in the appropriate timeframe, ambulance fees not being covered by these schemes as well as costs for carers/family to escort clients to areas where the medical aid is located<sup>87</sup> - gaps in these funding schemes damage those in non-metropolitan in ways that they don't for their metropolitan counterparts. There is not enough compensation for males who must leave their employment, (often their roles that their livelihood depends on, for example in the agricultural and farming sector) for a period of time while receiving the support they need, placing their production, families and livelihood in financial danger as well as possibly damaging their own mental health as leaving their community, social support and surroundings they consider safe, also comes with its stressors.

There is a need for revision of existing funding schemes related to patient transport for men in regional areas to receive specialist care that is not available to them, and an introduction of a funding subsidy which adequately compensates for the sacrifice and financial detriment accompanying interstate health seeking which promotes and demonstrates an approach/attitude towards male health issues that demonstrates that no man should be unable to access treatment because of cost and/or location<sup>87</sup>.

### **5.7 Official Service Directory for Rural, Regional and Remote WA**

The introduction of a health service directory non-metropolitan specific and easily accessible to clients and their families in remote areas would be beneficial in connecting clients to the services they need. Based on 'The Blokes Book'<sup>88</sup>, released by Men's Health and Wellbeing Western Australia in 2013, the directory would offer clients direction and contact information for all available services in their general vicinity. In terms of distribution, the directory could be produced in physical form and distributed in the mail to rural properties and/or workplaces/industries in remote areas. The directory should also be made available online (in the form of a PDF and/or downloadable document).

The directory must be simplistic, approachable and accommodating to cliental. Directions on how to make the first contact must be legible, easy to find and understandable. Men will often be turned off if they find it difficult to make the first contact<sup>70</sup> so ensuring they are guided efficiently through this process is pivotal. This is in turn is also a responsibility of service providers who must be diligent in their handling of that first contact, appearing as accommodating and, as a result, approachable, as possible.

### **5.8 Language, Approachability and Breaking Down Barriers in Service Delivery**

Although a service directory would aid men in locating a service by providing them contact details to services in their vicinity, they must make this contact. Here, a focus in health service delivery has to be emphasised. The relationship between client and their health service must be healthy, as they must feel comfortable and encouraged to firstly approach, and encouraged to then keep utilising the service/s. Gaps in help seeking indicate a need for more innovative ways to engage, relate and assist men in health service delivery in rural areas.

Data interpolated for the purposes of this report suggests that men in non-metropolitan areas are particularly more resistant in proactively seeking help, hence, service providers must be find ways to not only be approachable, but to allow men to feel a sense of validation when seeking out a health service, working to break down walls built between men in these environments and the services that provide the help they need. Knowledge on how to engage with the specific needs of men in non-metropolitan areas is vital to service delivery. Funding to delegate evidence based research, workshops and male specific programs to health service providers will not only increase the effectiveness of their service delivery, but also work to combat the masculinity stigma surrounding men's health issues by allowing service providers to understand its significance and impacts when formulating and, in particular, communicating, their advocacy to males.

Health services and providers must not contribute to the stigma in any form, the use of language surrounding men's health and help seeking must be emphasised. This includes removing language of negative connotation (such as "desperate", "soft", "feminine side" – which work to deter males from engaging with their health issues, particularly their mental health)<sup>71</sup> in service promotion, avoiding disparaging remarks and discouraging language/behaviour in recovery at all costs. Service providers must always be empathetic and non-judgmental towards their clients while always remaining conscious of their contexts and backgrounds. By making services more approachable, and allowing male clients feel more comfortable in their decision to seek out a service will increase service utilisation. As to males, feeling able to speak out is "self-advancing", the courage of participants feeling comfortable to do so, reduces both the impact and presence of the stigma, therefore bettering health & wellbeing of males in a social context as well as just simply from individual perspectives<sup>71</sup>.

### **5.9 Male Specific Programs, Marketing, Digital Media and Confidentiality**

There is a requirement for more targeted health promotion towards males in rural and remote areas. As men in these areas face different struggles, issues and outcomes of their health to counterparts in urban areas, this must be acknowledged, and marketing programs developed by service providers and governing bodies must be innovative in their construction to target these different contexts. As men in these areas are less likely to seek out health services than males in metropolitan Perth, more funding towards advocacy campaigns and promotion projects bearing the specific needs of men in these areas is a necessity.

A typical characteristic of males in rural areas is a fear of their confidentiality being breached and their image within their community being damaged by their utilisation of health services/support. Rural communities are much smaller than urban communities, and much more close-knit, meaning that if you visit your GP, the whole town is most likely to know about it. The application of digital media may be the key implication to encouraging males to overlook this fear, by providing online services that males can interact with anonymously; whether it be booking a service through, accessing online resources or contacting anonymous support group services; use of digital media can implement change in the way providers can engage their male clients, while also providing an outlet for clients to access when service/s and support are not directly available to them.

Furthermore, the development of a network which links health service providers in remote areas would benefit in efficiency and effectiveness of client liaison and referral. Good communication is heavily linked to public health and social capital, while human connectedness is linked to social wellbeing<sup>82</sup>. The continued focus on social networks as vehicles for advocacy must also be maintained as a space for males to not only interact with service providers, but with each other, spreading stories and building community connections which promote positive health and wellbeing outcomes for men.

## 5.10 Social Determinants

A variety of factors influence people's health, including genetics, conditioning and personal behavioural choices, however, a growing body of evidence shows that health and illness are, to a large extent, influenced by our environment or context.

Environmental factors in the human environment include the cultural, political, economic, psychological and spiritual contexts of our lives. These factors are known as the *social determinants of health*.

It is critical that services in regional, rural and remote areas consider their specific and most critical social determinant of health when considering the most effective and sustainable solutions for assisting males' health and wellbeing. This is particular so for mental health and suicide factors.

Of particular consideration should be social economic characteristics and employment. Programs which aim to provide immediate and practical solutions to raise socioeconomic status and under employment, would have some of the greatest and sustained impact of changing a man's health and wellbeing status – and that of his future generations.



## References

1. Australian Institute of Health and Welfare 2007, *Rural, regional and remote health: A study on mortality* (2<sup>nd</sup> edition), Cat. no. PHE 95, Canberra: AIHW.
2. Australian Institute of Health and Welfare 2008, *Rural, regional and remote health: indicators of health status and determinants of health, Rural Health Series no.9.* cat. no. PHE 97. Canberra: AIHW.
3. Australian Institute of Health and Welfare 2010, *A Snapshot of men's health in regional and remote Australia, Rural Health Series no.11,* cat. no. PHE 120. Canberra: AIHW.
4. WHO 1948, *Definition of Health*, Geneva. Available from: <http://www.who.int/about/definition/en/print.html>
5. Agerbo, E, Gunnell, D, Bonde, J and Mortensen, P 2007, 'Suicide and Occupation: The impact of socioeconomic, demographic and psychiatric differences', *Psychological Medicine*, vol. 37, no. 8, pp.1131-1140. Available from: ProQuest.
6. Alston, M 2012, 'Rural Male Suicide in Australia', *Social Science and Medicine Journal*, vol. 74, no. 4, pp. 515-522. Available from: Elsevier.
7. Australian Institute of Health and Welfare 2014, *Mortality inequalities in Australia 2009-2011.* Bulletin no. 124. cat. no. AUS 184. Canberra: AIHW.
8. Australian Institute of Health and Welfare 2014, *Australia's Health 2014.* Australia's Health Series no. 14. cat. no. AUS 178. Canberra: AIHW.
9. Bull, C, Krout, J, Rathbone-McCuan, E, Shreffler, J 2001, 'Access and Issues of Equity in Remote/Rural Areas', *The Journal of Rural Health*, vol. 17, no. 4, pp. 356-359. Available from: Wiley Online Library.
10. Cheung, D, Spittal, M, Pirkis, J, Yip, P 2012, 'Spatial analysis of suicide mortality in Australia: Investigation of metropolitan-rural-remote differentials of suicide risk across states/territories', *Social Science & Medicine*, vol. 75, no. 8, pp. 1460-1468. Available from: Elsevier.
11. Commonwealth of Australia 2010, *National Male Health Policy*, Department of Health and Aging. Canberra: DOHA.
12. Department of Health and Aging 2007, *Suicide in Rural and Remote Communities Fact Sheet 18.* Available from: <http://livingisforeveryone.com.au/>
13. Edwards, B, Gray, M, Hunter, B 2014, 'The Impact of Drought on Mental Health in Rural and Regional Australia', *Social Indicators Research*, vol. 121, no.1, pp.177-194. Available from: Springer.
14. Kolves, K, Milner, A, McKay, K, De Leo, D 2012, 'Suicide in Rural and Remote Areas of Australia', *Australian Institute for Suicide Research and Prevention.* Brisbane.
15. National Rural Health Alliance Inc. 2014, *Arthritis in Rural and Remote Australia.* Available from: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-arthritis.pdf>
16. National Rural Health Alliance Inc. 2014. *Rural Health Impacts of Climate Change.* Available From: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-climate-change.pdf>

17. WA Country Health Service 2015, *Goldfields Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Goldfields\\_Profile\\_Sep\\_2015\\_\\_ED-CO-15-52039\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Goldfields_Profile_Sep_2015__ED-CO-15-52039_.pdf)
18. WA Country Health Service 2015b, *Great Southern Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Great\\_Southern\\_Profile\\_Sep\\_2015\\_\\_ED-CO-15-18610\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Great_Southern_Profile_Sep_2015__ED-CO-15-18610_.pdf)
19. WA Country Health Service 2015c, *Kimberly Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/Kimberly\\_Profile\\_Sep\\_2015\\_FINAL.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/Kimberly_Profile_Sep_2015_FINAL.pdf)
20. WA Country Health Service 2015d, *Midwest Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Midwest\\_Profile\\_Sep\\_2015\\_\\_ED-CO-15-705\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Midwest_Profile_Sep_2015__ED-CO-15-705_.pdf)
21. WA Country Health Service 2015e, *Pilbara Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Pilbara\\_Profile\\_Sep\\_2015\\_FINAL\\_\\_ED-CO-15-68231\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Pilbara_Profile_Sep_2015_FINAL__ED-CO-15-68231_.pdf)
22. WA Country Health Service 2015f, *South West Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Great\\_Southern\\_Profile\\_Sep\\_2015\\_\\_ED-CO-15-18610\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Great_Southern_Profile_Sep_2015__ED-CO-15-18610_.pdf)
23. WA Country Health Service 2015g, *Wheatbelt Health Profile*. Available from:  
[http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc\\_-\\_CO\\_-\\_Wheatbelt\\_Profile\\_Sep\\_2015\\_\\_ED-CO-15-28022\\_.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/eDoc_-_CO_-_Wheatbelt_Profile_Sep_2015__ED-CO-15-28022_.pdf)
24. Australian Institute of Health and Welfare 2014, *Mortality and life expectancy of Indigenous Australians 2008-2012*. Cat. no. IHW 140. Canberra: AIHW.
25. Australian Bureau of Statistics 2015, *National Health Survey: First Results 2014-2015*, cat. no.4364.0.55.001, ABS, Canberra.
26. Australian Institute of Health and Welfare 2015, *Cardiovascular disease, diabetes and chronic kidney disease – Australian facts: Aboriginal and Torres Strait Islander People. Cardiovascular, diabetes and chronic kidney disease series no. 5*. cat. no. CDK 5. Canberra: AIHW.
27. Australian Institute of Health and Welfare 2011, *The health of Australia's males*. Cat. no. PHE 141. Canberra: AIHW.
28. Cheung, D, Spittal, M, Williamson, M, Tung, S, Pirkis, J 2014, 'Predictors of suicides occurring within suicide clusters in Australia, 2004–2008', *Social Science & Medicine*, vol. 118, pp.135-142. Available from: Science Direct.
29. Bourke, L, Humphreys, J, Wakerman, J, Taylor, J 2012, 'Understanding rural and remote health: A framework for analysis in Australia', *Health & Place*, vol. 18, no.3, pp. 496-503. Available from: Elsevier.
30. National Rural Health Alliance Inc. 2013a, *A Snapshot of poverty in rural and regional Australia*. Rural Health. Available from:  
[http://ruralhealth.org.au/documents/publicseminars/2013\\_Sep/Joint-report.pdf](http://ruralhealth.org.au/documents/publicseminars/2013_Sep/Joint-report.pdf)
31. Australian Institute of Health and Welfare 1998, *Health in rural and remote Australia*. Cat. No. PHE 6. Canberra: AIHW.



32. Eversole, R 2001, 'Keeping Youth in Communities: Education and Outmigration in the South West', *Rural Society*, vol. 11, no. 2, pp. 85-98. Available from: Taylor and Francis Online.
33. Midford, R, Marsden, A, Phillips, M, Lake, J 1997, 'Workforce alcohol consumption patterns at two Pilbara mines', *Occupational Health and Industrial Medicine*, vol. 5, no. 37, pp. 267-274. Available from: ECU Publications.
34. Caldwell, T, Jorm, A, Dear, K 2004, 'Suicide and mental health in rural, remote and metropolitan areas in Australia', *Medical Journal of Australia*, vol. 181, no.7, pp. S10-14. Available from: ProQuest.
35. Misan, G & Sergeant, P 2009, 'Men's sheds—A strategy to improve men's health'. Paper presented at the 10th (Australian) National Rural Health Conference, May 17–20. Cairns: Convention Centre, Cairns, Queensland, Australia
36. National Rural Health Alliance Inc. 2015a, *Cardiovascular Disease in Rural Australia*. Available from: < <http://ruralhealth.org.au/sites/default/files/publications/cardiovascular-disease-fact-sheet-may-2015.pdf>>.
37. Australian Institute of Health and Welfare 2013, *Australia's Welfare 2013*, cat. No. AUS 174. Canberra: AIHW.
38. Australian Bureau of Statistics 2016. *Regional Population Growth Australia*, cat. no. 3218.0, ABS, Canberra.
39. Australian Bureau of Statistics 2016, *Gender Indicators: life expectancy*, cat. no. 3202.0, ABS, Canberra.
40. National Rural Health Alliance Inc. 2015b, *Mental Health in Rural and Remote Australia*. Available from: <http://ruralhealth.org.au/sites/default/files/publications/fact-sheet-mental-health-2016.pdf>
41. Ricciardelli, L, Mellor, D, McCabe, M 2012, 'Psychological perspective on men's health', *Centre for Mental Health and Wellbeing Research, Deakin University*. Available from: Australian Psychology Society.
42. Speldewinde, P, Cook, A, Davies, P, Weinstein, P 2009, 'Relationship between environmental degradation and mental health in rural Western Australia', *Health and Place*, vol. 15, no. 3, pp. 880-887. Available from: Science Direct.
43. Bourke, L 2003, 'Toward Understanding Youth Suicide in an Australian rural community', *Social Sciences and Medicine*, vol. 57. no.12, pp. 2355-2365. Available from: Science Direct.
44. Australian Bureau of Statistics 2000, *Mortality and Morbidity: Suicide*, cat.no. 4102.0, ABS, Canberra.
45. Australian Bureau of Statistics 2011, *Deaths, Australia 2010*. ABS cat. no. 33020DO007, Canberra: ABS.



46. Australian Bureau of Statistics 2016. *Deaths, Australia 2014*, cat. no. 3202.0, ABS, Canberra.
47. National Rural Health Alliance 2009, 'Climate change and rural Australia', Illicit drug use in rural Australia', *Fact Sheet 20* (October 2009), pp.1-2, retrieved from: [http://ruralhealth.org.au/sites/default/files/fact-sheets/fact-sheet-20-climate%20change%20in%20rural%20Australia\\_0.pdf](http://ruralhealth.org.au/sites/default/files/fact-sheets/fact-sheet-20-climate%20change%20in%20rural%20Australia_0.pdf)
48. Australian Bureau of Statistics 2012, *Suicides, Australia 2010*, cat. no. 3309.0, ABS, Canberra.
49. WA Country Health Service 2012, 'WACHS Annual Report 2011-2012', *Department of Health*, retrieved from: [http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/Publications\\_by\\_topic\\_type/Reports\\_and\\_reviews/WACHS\\_2011-12\\_Annual\\_report.pdf](http://www.wacountry.health.wa.gov.au/fileadmin/sections/publications/Publications_by_topic_type/Reports_and_reviews/WACHS_2011-12_Annual_report.pdf)
50. Page, A, Morrell, S, Taylor, R, Dudley, R, Dudley, M, Cater, G 2007, 'Further increases in rural suicide in young Australian adults: Secular trends, 1979-2003', *Social Science and Medicine*, vol. 65, no. 3, pp. 442-453. Available from: Elsevier.
51. National Rural Alliance Inc. 2013b, *Chronic Pain – A Major Issue in Rural Australia*. Available from: <http://ruralhealth.org.au/sites/default/files/publications//nrha-factsheet-pain.pdf>
52. National Rural Health Alliance Inc. 2013c, *Obesity in Rural Australia*. Available from: <http://ruralhealth.org.au/sites/default/files/publications//nrha-obesity-factsheet.pdf>
53. Harrison M, Lee A, Findlay M, Nicholls R, Leonard D & Martin C 2010, 'The increasing cost of healthy food', *Australian and New Zealand Journal of Public Health* no. 34, pp. 179–86.
54. Australian Institute of Health and Welfare 2012, *Australia's food and nutrition*, cat. no. PHE 163. Canberra: AIHW.
55. National Rural Health Alliance 2015, 'Illicit drug use in rural Australia', *Fact Sheet 33* (June, 2015), pp.1-2, retrieved from: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-illicit-drugs-0615.pdf>
56. Australian Bureau of Statistics 2013, *Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13*, cat. no. 4727.0.55.001, ABS, Canberra.
57. Australian Bureau of Statistics 2013b, *Life tables for Aboriginal and Torres Strait Islander Australians, 2010-2012*, cat. no. 3302.0.55.003, ABS, Canberra.
58. Lifeline WA 2013, *FIFO/DIDO Mental Health Research Report 2013*, Available from: <http://www.lifelinewa.org.au/download/FIFO+DIDO+Mental+Health+Research+Report+2013.pdf>
59. Hussain, R, Maple, M, Hunter, S, Mapedzahama, V, Reddy, P 2015, 'The Fly-in, Fly-out and Drive-in Drive-out model of health care service provision for rural and remote Australia: Benefits and disadvantages. *Rural and Remote Health*, vol.15, pp. 3068. Available from: Rural and Remote Health.



60. Pocock, B, Van Wanrooy, B, Strazzari, S and Bridge, K 2001, 'Fifty Families: What Unreasonable Hours are Doing to Australians, their families and their communities', *The University of Melbourne*. Available from: <http://www.workplaceleadership.com.au/publications/fifty-families-unreasonable-hours-australians-families-communities/>
61. Heiler L, Pickersgill R & Briggs C 2000, 'Working time arrangements in the Australian mining industry', *Geneva: International Labour Organisation Sectoral Activities Program* (2000).
62. National Rural Health Alliance 2011, 'The determinants of health in rural and remote Australia', Fact Sheet 28 (May 2011), pp.1-2, retrieved from: <http://ruralhealth.org.au/sites/default/files/publications/factsheet-determinants-health-rural-australia.pdf>
63. McPhedran, S and De Leo, D 2013, 'Suicide Among Miners in Queensland, Australia', *Sage Open*, vol. 3, no. 4, pp. 1-9. Available from: Sage Journals.
64. Western Australian Mental Health Commission, 2013, 'Foreword by Eddie Bartnik', *Head 2 Head Winter*, Available from: [http://www.mentalhealth.wa.gov.au/Libraries/pdf\\_docs/Winter\\_2013\\_Head2Head\\_low\\_res.sflb.ashx](http://www.mentalhealth.wa.gov.au/Libraries/pdf_docs/Winter_2013_Head2Head_low_res.sflb.ashx)
65. National Rural Health Alliance Inc. 2015, *Mental Health in Rural and Remote Australia*, Available from: <http://ruralhealth.org.au/sites/default/files/publications/fact-sheet-mentalhealth-2016.pdf>
66. Caldwell, T, Jorm, A, Dear, K 2004, 'Suicide and mental health in rural, remote and metropolitan areas in Australia', *Medical Journal of Australia*, vol. 181, no.7, pp. S10-14, Available from: ProQuest.
67. Hussain, R, Maple, M, Hunter, S, Mappedzahama, V, Reddy, P 2015, 'The Fly-in, Fly-out and Drive-in Drive-out model of health care service provision for rural and remote Australia: Benefits and disadvantages', *Rural and Remote Health*, vol.15, pp. 3068. Available from: Rural and Remote Health.
68. Connell, R. W, 1987, 'Gender and power: Society, the person, and sexual politics', Stanford, CA: Stanford University Press. Connell, R. W, *Masculinities* (1st ed.), Sydney, New South Wales, Australia: Allen & Unwin.
69. River, J. 2016. 'Diverse and Dynamic Interactions: A Model of Suicidal Men's Help Seeking as It Relates to Health Services', *American Journal of Men's Health*, pp. 1-11, doi: 10.1177/1557988316661486
70. Schofield, T 2000, 'Understanding men's health and illness: a gender-relations approach to policy, research, and practice', *Journal of American College Health*, vol. 48, no. 6, pp. 247-256, Available from Academic Search Premier.



71. Wahl, O, F 1999, 'Mental Health Consumers' Experience of Stigma', *Schizophrenia Bulletin*, vol. 25, no. 3, pp.475-477, Available from PsychARTICLES.
72. Lifeline WA 2013, *FIFO/DIDO Mental Health Research Report 2013*, Available from: <http://lifelinewa.org.au/download/FIFO+DIDO+Mental+Health+Research+Report+2013.pdf>
73. Elnitsky, C.A., 2013, 'Gender Differences in Combat Medic Mental Health Services Utilization, Barriers and Stigma', *Military Medicine*, vol. 178, no. 7, pp. 782, Available from Academic Search Premier.
74. Australian Indigenous Health Info Net 2015, 'Summary of Australian Indigenous Health 2014', Available from: <http://www.healthinonet.ecu.edu.au/health-facts/summary>
75. Möller-Leimkühler, A. M. 2003. 'The gender gap in suicide and premature death or: Why are men so vulnerable?', *European Archives of Psychiatry and Clinical Neuroscience*, no. 253, pp.1-8.
76. Robertson, S. 2003, 'Men managing health'. *Men's Health Journal*, vol. 2, no.4, pp. 111–113.
77. Tyler, R, Williams, S 2014, 'Masculinity in young men's health: exploring health, help seeking and health service use in an online environment', *Journal of Health Psychology*, vol. 19, no. 4, pp. 457-459, Available from Sage.
78. Roy, P, 2014, 'Help seeking among male farmers: connecting masculinities and male health', *Sociologia Ruralis*, vol. 54, no. 4, pp. 460-476, Available from Wiley Database 2016.
79. Department of Health 2009, *WA Health Clinical Services Framework 2010-2020*, Available from: <https://www.health.wa.gov.au/>
80. Department of Regional Development and Lands, 2011, 'Royalties for regions giving back to WA communities', pp. 1-23, retrieved from: [http://www.drd.wa.gov.au/Publications/Documents/R4R\\_Overarching\\_Brochure\\_2011.pdf](http://www.drd.wa.gov.au/Publications/Documents/R4R_Overarching_Brochure_2011.pdf)
81. Department of Regional Development, 2013, 'Royalties for regions progress report July 2012 - June 2013', pp. 18, retrieved from: [http://www.drd.wa.gov.au/Publications/Documents/Royalties\\_for\\_Regions\\_Progress\\_Report\\_2012\\_13.pdf](http://www.drd.wa.gov.au/Publications/Documents/Royalties_for_Regions_Progress_Report_2012_13.pdf)
82. National Rural Health Alliance, 2010, 'Measuring the metropolitan-rural inequality, retrieved from: [http://ruralhealth.org.au/sites/default/files/fact-sheets/Fact-Sheet-23-%20measuring%20the%20metropolitan-rural%20inequity\\_0.pdf](http://ruralhealth.org.au/sites/default/files/fact-sheets/Fact-Sheet-23-%20measuring%20the%20metropolitan-rural%20inequity_0.pdf)
83. Australian Institute of Health and Welfare, 2011, 'The health of Australia's males', pp. 44, retrieved from: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737419201>
84. The Regional Men's Health Initiative, Wheatbelt Men's Health Inc., retrieved from: <http://regionalmenshealth.org.au/links/brochures>
85. Bindoon Mobile Recovery Campaign Inc., Available from: <https://www.facebook.com/Bindoon-Mobile-Recovery-Campaign-Inc-1404061446518218/>



86. National Institute of Economic and Industry Research, 2010, 'Essential services in urban and regional Australia – a quantitative comparison', *Australian Farm Institute*, pp. 1-81
87. National Rural Health Alliance, 2005, 'Transport and accommodation assistance for health patients from rural and remote areas', pp. 8-10, retrieved from: <http://ruralhealth.org.au/sites/default/files/position-papers/position-paper-05-10-15.pdf>
88. Men's Health and Wellbeing Western Australia, 2013, *Bloke's Book and Pocket Directory*, Available from: <https://www.menshealthwa.org.au/index.php/services/community-service-directories/blokes-book-and-pocketdirectory/>



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