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HEALTH
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Senate Standing Committees on Economics
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Letter of Transmittal

Dear Committee Secretary and Committee Members,

Please accept this submission in response to the inquiry into 'The indicators of, and impact of, regional inequality in Australia' from the National Rural Health Alliance.

The submission highlights the need to include health inequality as an indicator and outcome of regional inequality. It provides examples of how health inequality impacts on people in regional areas. It also suggests that regional development strategies should be prioritised for health infrastructure and the health workforce in rural and remote Australia.

The Alliance has five recommendations for the Senate committee to consider:

1. **Include health as an indicator and outcome of regional inequality:** Any consideration of regional inequality indicators must include measures of health and wellbeing. Outcomes of social and fiscal policy are reflected in these measures. Health equality means looking beyond measure of GDP. Indicators of mortality, life expectancy, chronic illness, risk factors, psychological distress, and access to health care are examples of indicators that can be used as benchmarks for measuring health equality.
2. **National approach to address regional inequality:** regional inequality is not unique to any one state or territory. Therefore, a coordinated national approach is required to addressing regional inequality that exists within and between jurisdictions, states and territories.
3. **Prioritise equality for Aboriginal and Torres Strait Islander people:** Any strategies to address regional inequality must address inequality and inequities that exist for Aboriginal and Torres Strait Islander people. They must be a priority.
4. **Adopt a Health in all policies approach** - use this framework to coordinate intersectoral action to address inequality.
5. **Mandate the use of Health Impact Assessments** to inform decisions made by all governments for new regional Australian policies, regulation, services and programs.

We will gladly answer any questions you have regarding this submission.

My regards,

Mark Diamond

Chief Executive Officer, National Rural Health Alliance



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The indicators of, and impact of, regional inequality in Australia

Senate Economics References Committee

May 2018

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Introduction

The National Rural Health Alliance (the Alliance) welcomes the opportunity to provide this submission* for consideration by the Senate Economic References Committee inquiry into regional inequality in Australia.

The focus of this inquiry is the indicators of, and impact of, regional inequality.

The Alliance notes that this inquiry has emerged following last year's Productivity Commission report on Transitioning Regional Economies (Productivity Commission, 2017).

The report provided evidence into the effectiveness of regional policies designed to improve prosperity and reduce disadvantage†. Improving daily living conditions and reducing disadvantage are key determinants of health; and are therefore very relevant to the Alliance's 34-member organisations.

A significant proportion (around 40%) of the expression of health is a consequence of the social determinants of health. Access to education, opportunity for a career, social interactions, physical and social development and emotional support during the first years of life all contribute to a sense of control over one's life. Access to healthy food, safe and secure housing and the cost of living are all relevant factors.

The Alliance notes that the Productivity Commission stated that: *"Past assistance to industries and regions has often been costly, ineffective, counter-productive, wasteful, poorly targeted and inequitable."*‡

In response to this statement, the Alliance poses this question - did the Productivity Commission consider the cost to the taxpayer, and to our society more broadly, of the health and wellbeing outcomes in rural and remote Australia when it made its assessment of the worth of development assistance?

Country people§ experience significantly worse health outcomes than their metropolitan counterparts. The fatal burden of disease is at least 20% higher in regional areas and at least 50% higher in remote areas (AIHW 2016).

While these indicators show a significant inequality in health outcomes across all groups in rural and remote Australia, Indigenous Australians suffer the worst health outcomes.

A ten-year gap in life expectancy is just one of the stark health outcomes highlighted in the *Closing the Gap targets: 2017 analysis of progress and key drivers of change* (AIHW 2018).

The report states:

"Increased remoteness is associated with poorer outcomes [for Indigenous people] on a range of target-related measures. Geographic differences in outcomes within the Indigenous

* In preparing this submission, the Alliance has drawn on work done by Jarrod Sansom, Annabel Robinson, Jasmine Martens and Emily Evans, students in the Bachelor of Communications in the School of Creative Industries, University of Newcastle. We acknowledge with thanks their contribution.

† http://parlinfo.aph.gov.au/parlInfo/download/chamber/hansards/5bb8ba07-678d-41a7-a360-7109e871eed/toc_pdf/Senate_2018_02_14_5860_Official.pdf;fileType=application%2Fpdf

‡ <https://www.pc.gov.au/inquiries/completed/transitioning-regions/report>

§ Modified Monash categories 2 to 7, or ASGS Remoteness categories 2-5.

population are sometimes greater than the national gap between the Indigenous and non-Indigenous populations. An understanding of the additional factors behind such regional variations in the Indigenous population can help focus efforts.” (AIHW 2018)

The Alliance believes that the omission of health and wellbeing from the terms of reference is not in the best interests of the Inquiry, nor rural and remote Australia.

Health is the product of the environment, society, economy and culture in which we live (WHO 2018a). As such the health and wellbeing of regional communities is inextricably linked to social and economic policy.

Further, the measurement of health inequalities is an important consideration in any examination of social or economic equality.

As such the topic of regional inequality cannot be fully considered in isolation from the health and wellbeing of individuals and communities in rural and remote Australia.

Indicators used to measure regional inequality, and the impact of them, must include indicators of health and wellbeing.

In this submission, the Alliance provides a detailed analysis of health inequalities in rural and remote Australia.

The Alliance strongly suggests the Committee consider the many advantages of giving priority to improving health infrastructure and the health workforce development when it considers recommendations for future development plans.

The National Rural Health Alliance

The Alliance is comprised of 34 national organisations. It is committed to improving the health and wellbeing of the almost 7 million people living in rural, regional and remote Australia.

Our members include consumer groups (such as the Country Women’s Association of Australia), representation from the Aboriginal and Torres Strait Islander health sector, health professional organisations (representing doctors, nurses and midwives, allied health professionals, dentists, pharmacists, optometrists, paramedics, health students, chiropractors and health service managers) and service providers (such as the Royal Flying Doctor Service and the Council of Ambulance Authorities).

For a full list of our members see Attachment A.

Inquiry Terms of Reference

On 14 February 2018, the Senate referred an inquiry into the indicators of, and impact of, regional inequality in Australia to the Senate Economics References Committee for inquiry and report by the last day on sitting in June 2019.

The indicators of, and impact of, regional inequality in Australia, with particular reference to government policies and programs in the following areas:

- A) Fiscal policies at federal, state and local government levels;
- B) improved co-ordination of federal, state and local government policies;
- C) Regional development policies;
- D) Infrastructure;
- E) Education;
- F) Building human capital;
- G) Enhancing local workforce skills;
- H) Employment arrangements;
- I) decentralisation policies;
- J) Innovation;
- K) Manufacturing; and
- L) Any other related matters.

The Inquiry's terms of reference are broad. They reflect the complex array of issues that impact Australian regional communities. The Alliance welcomes the Committee's decision to consider the specific issues of, and challenges posed by, regional inequality.

The Alliance notes that each aspect of the terms of reference has direct relevance and impact on regional inequality, particularly the experiences of individuals and localities of unequal access to opportunities.

However, the Alliance also notes that health and wellbeing has not been included as an indicator of unequal outcomes between non-metropolitan and metropolitan Australia areas.

Therefore, the Alliance urges the Committee to consider including health and wellbeing as a measure of regional inequality. In determining its recommendations, the Committee should ensure that health infrastructure and health workforce are core strategies of any future regional development plans.

Noting the Committee's interest in considering 'any other related matters' (item I), the Alliance would also like to draw attention to:

1. Health in All Policies - this is an approach that can be used by governments as a framework to facilitate across and within government action to address regional inequality; and
2. The value of using Health Impact Assessments to determine the impact on health outcomes on regional development initiatives, particularly the impact of transitioning regional economies.

Definition of health equality, equity and the determinants of health

This section clarifies the terminology used by the Alliance. It outlines the concept of health, health equality and health equity, as well as the determinants of health.

Health is more than the absence of disease, personal behaviours, genes and medical treatments. There are many factors that combine to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and their environment (social, political, cultural and natural environment).

Health equality measures difference in health outcomes. The difference does not take into account the nature or direction of the difference or who may be adversely affected by it, just that a difference exists. It is a dimensional concept that quantifies and shows distributions that can be measured and compared. Health equality therefore is the measurable difference in health attainment of individuals and groups (Kawaichi et al 2002).

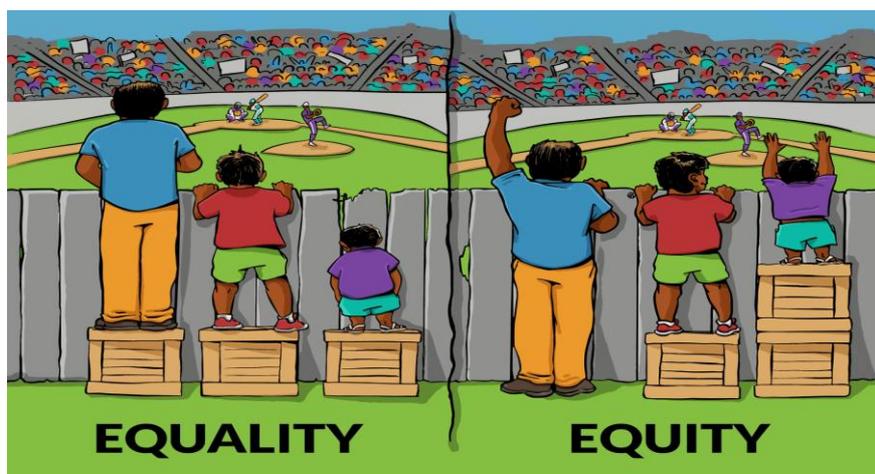
Health equity is the measure of differences in health status between population groups that are socially produced, systematic in their unequal distribution across the population, avoidable and unfair (VicHealth 2015).

“Health equity is the notion that all people should have a fair opportunity to attain their full health potential, and that no one should be disadvantaged from achieving this potential if it can be avoided” (VicHealth 2015).

Health equity is not just about the distribution of health or the even narrower focus on the distribution of health care (Sen 2002). Healthy equity must pay attention to daily conditions (and the fairness of social arrangements) in which people live, work and play (Sen 2002).

It is the Alliance’s position that any consideration of the dimension of equality must also consider the relational concept of equity.

Figure 1 The difference between equality and equity



Source: Interaction Institute for Social Change | Artist: Angus Maguire interactioninstitute.org and madewithangus.com

Determinants of health and wellbeing - The World Health Organization (WHO) defines the social determinants of health (SDOH) as the conditions in which people are born, grow, live, work and age (WHO 2018a). These circumstances are shaped by the distribution of money, power and resources at global, national and local levels (WHO 2018a).

Determinants of health and wellbeing are the building blocks for health and include (but are not limited to):

- education
- housing
- transport
- social inclusiveness and social support
- food security
- a stable health natural environment (clean air, water, safety and protection from climatic events)
- employment and occupation
- access to health care.

Many determinants are outside the responsibility of the health care sector.

The terms of reference for this Inquiry include many of the social and economic determinants of health and wellbeing; including education, employment, infrastructure development and building human capital (which integrates all of the previous categories).

As these determinants are all interacting together at the same time, no one agency can be solely responsible for targeting inequity and inequality – it requires a whole of government and intersectoral coordinated approach.

Indicators and impacts of health inequality

The health of people living in rural, regional and remote Australia is influenced by a range of complex factors, not just the availability of health services.

A significant proportion (around 40%) of the expression of health is a consequence of the social determinants of health. Access to education, opportunity for a career, social interactions, physical and social development and emotional support during the first years of life all contribute to a sense of control over one's life. Access to healthy food, safe and secure housing and the cost of living are all relevant factors.

Almost all risk factors that contribute to the development of chronic illness (smoking, physical inactivity, unhealthy diets and excessive alcohol consumption) are higher in rural areas and particularly high in the smaller and more remote communities. For Indigenous Australians (65% of which live outside major urban centers), poorer social and health outcomes are magnified.

This section presents examples of health inequality indicators and their impacts and compares the differences between regional communities and major cities. Indicators include:

- a sample of determinants of health – employment, occupation, income, education and access to health services;
- early deaths related to cancer, diabetes, respiratory illness and heart disease;
- data on mental health risk factors – the factors that expose and predispose the onset of mental ill-health.

These indicators are examples of measures that can be used to determine changes to regional inequality. As the indicators can also be measured across social groups, they help determine if the health gap has decreased or increased between different socio-economic populations groups within society.

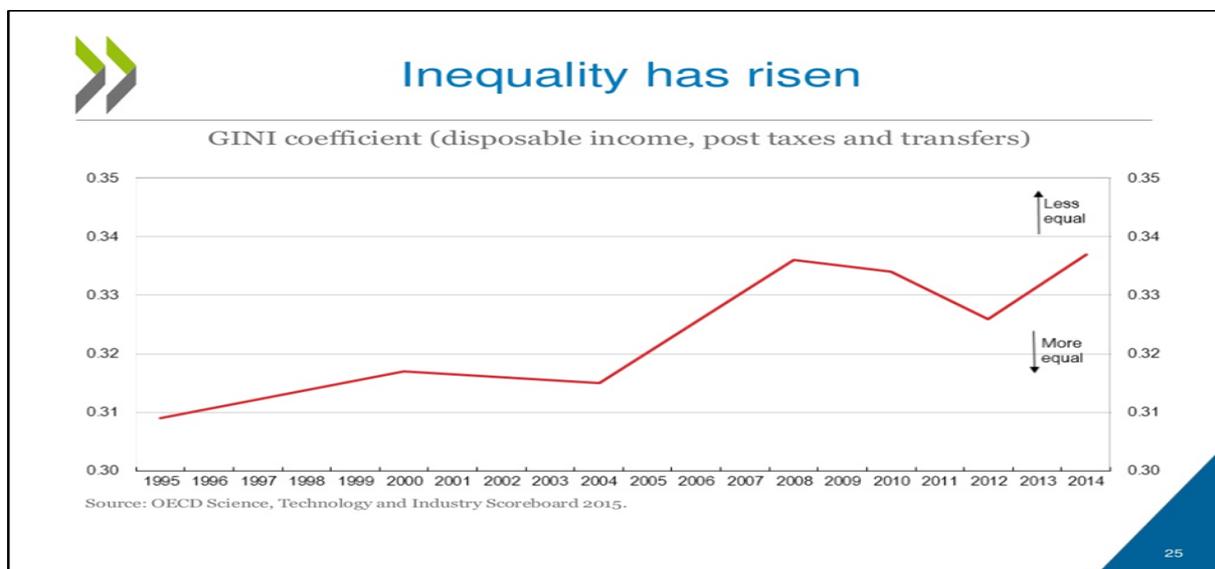
Income inequality

Globally, the factor most closely associated with health status is income. This is because income provides people with an ability to:

- control their lives
- have access to good food and housing
- afford a range of health care options
- live in a 'safe' neighbourhood
- afford time to recreate
- increase their opportunity to be better educated (NRHA 2011)

Figure 1 shows the Organisation for Economic Co-operation and Development, (OECD 2018) analysis of inequality within Australia from 1995 to 2014. These trends reveal that, after 2004, inequality increased considerably until 2008. Inequality then decreased slightly until 2012. However, inequality then began to rise again.

Figure 2 Income equality in Australia 1995-2014 OECD (2018)



Source: ACOSS https://www.acoss.org.au/wp-content/uploads/2015/06/Inequality_in_Australia_FINAL.pdf

On average, disposable household incomes outside capital cities are 18% lower than inside capital cities (\$1,058 per week versus \$874), with median incomes 15% lower (\$883 per week versus \$746) see Table 1.

Income varies substantially between communities. Within the 100 Local Government Areas (LGAs) those with the lowest household incomes are almost exclusively rural, regional or remote.

Table 1 Disposable household income AND Net household worth 2015-2016

	Capital Cities	Outside of capital cities	% difference
Disposable household income	\$1,072	\$880	18%
Net household worth	\$1,033,000	\$737,000	29%

Source: <http://www.abs.gov.au/AUSTATS/abs@nsf/DetailsPage/6523,02015-16?OpenDocument>

Rural and remote Australia have (see Table 2 below)

- more people living in single parent families
- more families on welfare support
- more families that are jobless
- a higher rate of unemployment
- of those that are employed, there are higher numbers of people who occupy lower income jobs e.g. machinery operators, drivers, and labourers.

There are additional challenges for those on lower incomes in rural and remote areas:

- Goods and services can be significantly more expensive. For example, a food basket survey in the Northern Territory showed that the average cost of the basket was \$824 in remote stores, \$726 in district centre corner stores and \$558 in district centre supermarkets. East Arnhem was the most expensive remote district (\$866) in the survey (Northern Territory Government, 2014).
- There are fewer employment and career options.
- Housing stress is just as likely in rural and remote Australia.
- Access to health care is more limited. People have to pay more in travel and accommodation to access health care, which in part results in people choosing to delay or avoid visiting health professionals.

The cumulative impact of these additional challenges means that people living in rural and remote Australia have worse health outcomes. Their capacity to afford nutritious food and health care and medicine is limited. Their access to adequate housing can be compromised. Their ability to earn a higher income is diminished. As a result, they experience higher rates of avoidable hospitalisations for chronic conditions, and higher death rates than experienced by their metropolitan counterparts.

Table 2 Selected social indicators for rural and remote populations

	MC	IR	OR	R	VR	MC	regional	remote	MC	IR	OR/remote
Selected social indicators											
Percentage of employed people who are managers or professionals ⁵						40	30	40			
Percentage of employed people who are machinery operators, drivers, labourers ⁶						14	20	23			
Percentage of people unemployed ⁷						5	7	12			
Percentage of Indigenous people employed ⁸	58	48	45	40	35						
Percentage of non-Indigenous people employed ⁹	73	71	74	83	85						
Percentage of families with low income or on welfare ¹⁰	9	11	12	14	26						
Percentage of people having some form of Private Health Insurance ¹¹									61	50	48
Percentage of families that are single parent ¹²	20	25	24	20	27						
Percentage of families that are jobless ¹³	12	15	16	14	26						
Percentage of children developmentally vulnerable on one or more domains ¹⁴	21	22	25	28	42						
Percentage of children who were the subjects of substantiation ¹⁵	0.6	0.9	0.9	1.6	2.4						
Percentage of Year Three students below the national minimum reading standard ¹⁶	2	3	5	12	36						

⁵ <http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20search%20by%20geography>

⁶ Ibid.

⁷ <http://phidu.torrens.edu.au/>

⁸ https://www.pmc.gov.au/sites/default/files/publications/2017-health-performance-framework-report_0.pdf

⁹ Ibid.

¹⁰ <http://phidu.torrens.edu.au/>

¹¹ <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4839.02015-16?OpenDocument> Table 3.2.

¹² <http://phidu.torrens.edu.au/social-health-atlases/data>

¹³ Ibid.

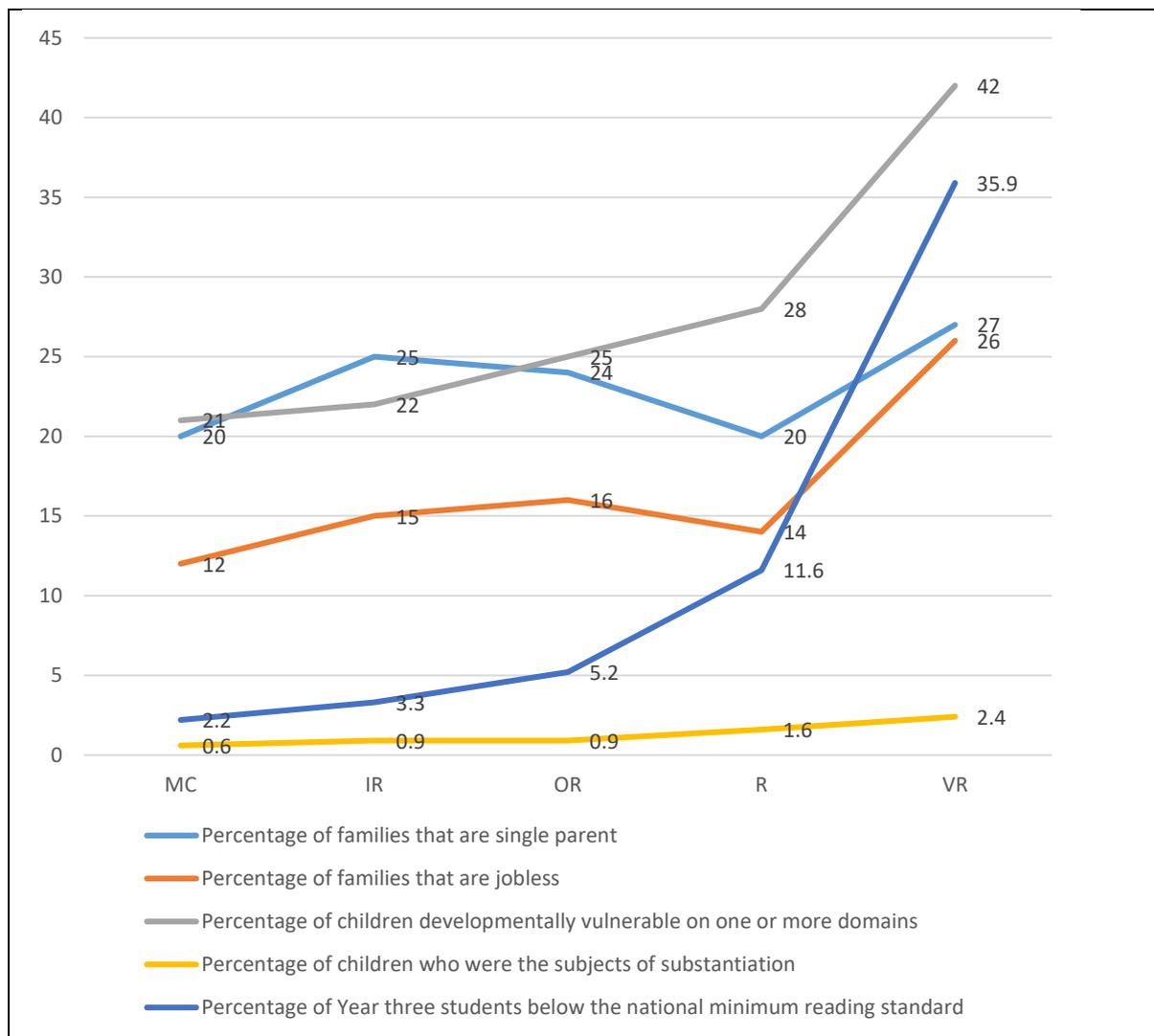
¹⁴ Australian Early Development Census via PHIDU <http://www.phidu.torrens.edu.au/social-health-atlases/data>

¹⁵ <http://www.aihw.gov.au/child-protection/children-receiving-services/#socioeconomic>

¹⁶ <http://reports.acara.edu.au/Home/Results#results>

Figure 3 below is a different presentation of the selected social indicators in Table 2. This graph clearly shows social inequalities regarding employment, education (reading attainment), child development issues and safety. Note the steep incline and increased percentage results for Very Remote areas compared to Major Cities.

Figure 3 Selected social indicators, by Remoteness area, various recent years



Sources:

- <http://phidu.torrens.edu.au/social-health-atlases/data>
- Australian Early Development Census via PHIDU <http://www.phidu.torrens.edu.au/social-health-atlases/data>
- <http://www.aihw.gov.au/child-protection/children-receiving-services/#socioeconomic>
- <http://reports.acara.edu.au/Home/Results#results>

Education

“The key challenge for regional, rural and remote education is ensuring, regardless of location or circumstances, that every young person has access to high quality schooling and opportunities” (Halsey 2018, p.1)

Five major factors contribute to education inequality for students in rural and remote Australia at student level - socioeconomic status, Indigeneity, English language proficiency, and disability. At school level remoteness is demonstrated to have an impact on student educational outcomes (Gonski et al 2011).

A recent major review into regional, rural and remote education found that:

- There is a persistent relationship between location and educational outcomes;
- The achievements of students from rural, regional and remote areas have in the main lagged behind urban students for decades;
- There is also a decreasing trend with increasing remoteness of the proportion of persons aged 25–34 years with a bachelor degree or above;
- Rural and remote students who were at or near the stage of making the transition from school to employment, training, further study or combinations of them, were often confronted with issues and costs which their counterparts in urban areas do not encounter (Halsey 2018).
- Young children in remote areas are especially more likely to be developmentally vulnerable, with 42% of young children in very remote areas being vulnerable on one or more domains (See Table 3).

Table 3 Vulnerability and risk during early childhood development¹⁷, 2015

Percentage of children developmentally:	MC	IR	OR	R	VR
vulnerable on one or more domains	21	22	25	28	42
vulnerable on two or more domains	10	12	13	16	28
vulnerable in physical domain	9	11	12	14	22
at risk in physical domain	13	13	14	12	13
on track in physical domain	78	76	74	74	59
vulnerable in social domain	9	10	12	12	22
at risk in social domain	15	15	16	17	19
on track in social domain	76	74	72	70	54
vulnerable in emotional domain	8	9	10	11	19
at risk in emotional domain	15	15	17	18	20
on track in emotional domain	77	75	74	71	55
vulnerable in language and cognitive domain	6	7	9	12	23
at risk in language and cognitive domain	8	10	10	13	16
on track in language and cognitive domain	86	83	81	75	55
vulnerable in communication domain	8	8	9	11	19
at risk in communication domain	15	15	16	15	19
on track in communication domain	77	77	75	74	56

¹⁷ Measured across 5 domains - physical, social, emotional, language and cognitive, and communication. “Vulnerable” and “at risk” refer to different levels of hazard, with “at risk” indicating a higher perceived level of risk for the child than “vulnerable”.

Education and training plays a critical role in building the social fabric of communities, as well as in developing social capital for economic prosperity (Halsey 2018).

Fewer higher learning institutions results in fewer growth opportunities and therefore less chance of escaping poverty.

In rural communities the health effects of this disadvantage are compounded by poor access to communications (such as high-speed broadband, mobile phone coverage, public transport) and environmental challenges (such as drought, floods and bushfire).

The concept of equity and economic efficiency have often been seen as having competing goals; with what is fair not economically viable and efficient, and vice versa (Heckman, 2011). However, we know that investment in education and health increases human capital, productivity and quality of life (Cutler & Lleras-Muney, 2007). We also know that those who are most socioeconomically disadvantaged have lower levels of education attainment and health. This particularly the case for Aboriginal and Torres Sarit Islander people.

It follows then that investment in education and health, targeting the most socioeconomically disadvantaged, has benefits not only for social and human capital but for economic capital. As such, addressing educational equity is on a par with addressing economic efficiency.

Employment, underemployment and unemployment

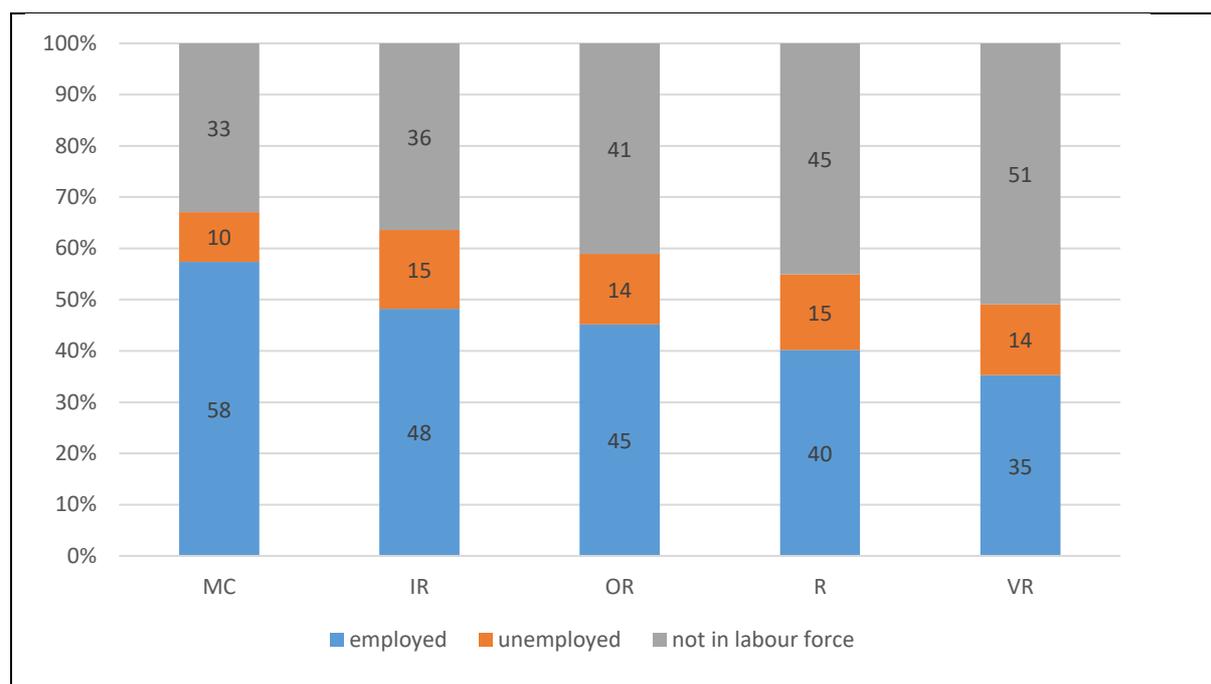
Rural, regional and remote areas consistently have higher rates of unemployment and underemployment, as well as less people in highly skilled jobs.

Many people fly in and fly out of regional areas to access employment. However, from a health perspective there are concerns about the mental health and general wellbeing of these workers (Bowers et al 2018).

There has been an above average growth in high-skilled jobs (and therefore higher paid) in major cities. The opposite is happening in country Australia. There people are moving into lower skilled jobs requiring vocational qualifications (Hajkowicz et al 2016) reflecting not only what types of jobs are available in regional Australia but the prevailing levels of education attainment in the community.

Of particular note, the employment status of Indigenous people also decreases by remoteness (Figure 4 and Table 4 below).

Figure 4 Employment status of Indigenous people, by Remoteness, 2014-15



Source: <http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4714.02014-15?OpenDocument>

Table 4 Employment status of Indigenous people, by Remoteness, 2014-15

	MC	IR	OR	R	VR
employed	57.5	48.2	45.4	40.4	35.1
unemployed	9.7	15.4	13.8	14.8	13.8
not in labour force	33.0	36.4	41.3	45.3	50.7

Source: <http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4714.02014-15?OpenDocument>

Of concern to the Alliance is the high rate of youth unemployment. In some regions the rate of unemployment is over double (~20%) that of major cities (12.2%). But these averages mask local differences. For example, youth unemployment in areas of Northern Queensland (Cape York, Mount Isa and Weipa) the rate can be as high as 65% (Brotherhood of St. Laurence 2018) additional hotspots with youth unemployment rates well above 20 per cent are listed in Table 5 below.

Table 5 Regions with the 20 highest youth unemployment rates in Australia, January 2018

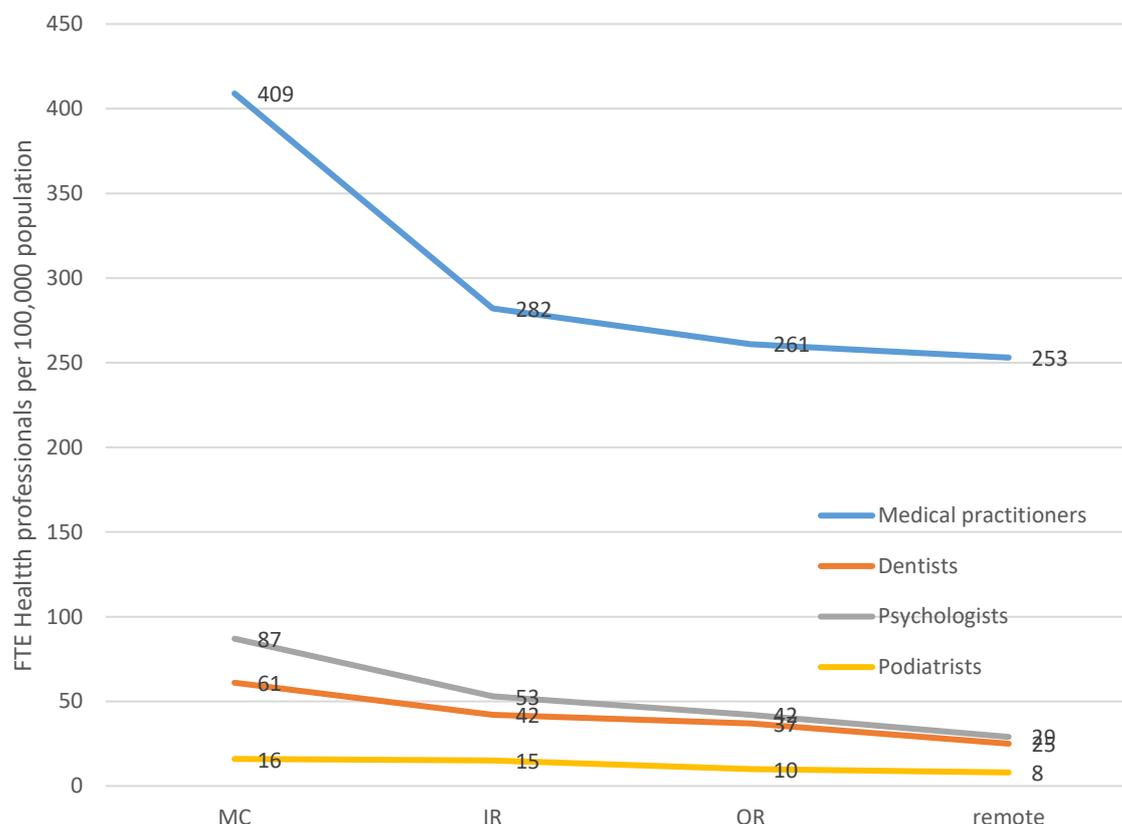
Rank	Region	Jan 2018 %	Jan 2016%	Change in % 2016-2018
1	Queensland – Outback (Qld)	67.1	32.6	34.5
2	Southern Highlands and Shoalhaven (NSW)	28.7	18.8	10.1
3	Wide Bay (Qld)	27.7	20.3	7.4
4	Tasmania – South East (Tas.)	21.8	20.5	1.3
5	Murray (NSW)	21.5	13.9	7.7
6	Coffs Harbour – Grafton (NSW)	19.8	9.4	10.4
7	Melbourne – West (Vic.)	18.7	17.4	1.3
8	Central Coast (NSW)	18.6	16.3	2.3
9	Adelaide – North (SA)	18.4	16.5	1.9
10	Townsville (Qld)	18.1	17.9	0.2
11	Mandurah (WA)	17.7	13.9	3.8
12	Melbourne – North West (Vic.)	17.5	14.4	3.1
13	Adelaide – West (SA)	17.0	12.4	4.6
14	Logan – Beaudesert (Qld)	17.0	15.9	1.1
15	Adelaide – South (SA)	16.9	15.3	1.6
16	New England and North West (NSW)	16.6	17.8	-1.2
17	South Australia – South East (SA)	16.3	14.2	2.1
18	Bendigo (Vic.)	16.2	11.4	4.8
19	Shepparton (Vic.)	16.1	14.6	1.5
20	Perth – North West (WA)	16.0	14.7	1.3

Source: ABS 2018, Datacube RM1 – Labour force status by region (ASGS SA4), sex and age, October 1998 onwards, cited in Brotherhood of St. Laurence (2018)

Access to health care

Access to health services in rural and remote areas occur at levels significantly lower than access levels in major cities. The number of health professionals is substantially less outside major cities and decreases significantly with remoteness. Figure 5 compares the availability of medical practitioners, dentists, psychologist and podiatrists by region.

Figure 5 Selected FTE* Health Professionals per 100,000 population, 2014



Source: AIHW SAS analytics

http://analytics.aihw.gov.au/Viewer/VisualAnalyticsViewer_guest.jsp?reportPath=%2FAIHW%2FReleasedPublic%2FExpenditure%2FReports&reportName=Health%20Workforce&appSwitcherDisabled=true

*Notes: FTE=full time equivalent

Access to subsidised Medicare services is a particular health inequity issue for Aboriginal and Torres Strait Islander people and is further exacerbated for Indigenous people living in outer regional, remote and very remote locations (Table 6).

Table 6 Adjusted, crude Indigenous rate of MBS services per 1000 population, by remoteness area, 2015–16

	MC	IR	OR	R	VR
MBS Allied Health services per 1000 population	446	390	248	110	65
MBS Specialist medical services per 1000 population	582	535	347	198	140
Total MBS services per 1000 population	1332	1210	1101	1021	9270

Source: <https://www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework/contents/tier-3/hpf-tier-3>

- Note: Some services may be provided outside of Medicare

Risk Factors and Chronic illness

There are higher levels of health risks found in rural and remote Australia which have resulted in higher prevalence of chronic diseases. The Australian Institute of Health and Welfare (AIHW) finds the burden of disease (expressed as 'disability adjusted life years') for very remote areas is nearly twice that compared with major cities, and the rate of disease burden experienced in Indigenous Australians is 2.3 times the rate of non-Indigenous Australians (AIHW 2018), see Table 7.

The AIHW also estimates that 31% of the burden of disease (in 2011) could have been prevented by reducing modifiable risk factors such as smoking (AIHW 2016).

Consider the following health inequalities between country and metropolitan Australia.

- The prevalence of cardiovascular disease is approximately 20 per cent higher (NRHA 2015);
- People with cancer in rural areas have poorer survival rates than those living in major metropolitan centres. Cancer is responsible for Australia's largest disease burden. (NRHA 2012);
- The incidence of end-stage kidney disease is roughly similar or slightly higher in rural areas, but much higher in remote areas, reflecting the very high incidence among Aboriginal and Torres Strait Islander people (AIHW 2014);
- The prevalence of mental illness in rural areas is similar or slightly higher. However, Indigenous Australians have nearly three times the rate of psychological distress and mental health issues than non-Indigenous people regardless of whether they live in a major city or in rural and remote Australia) (ABS 2007).

One of the major challenges to improving chronic disease outcomes is to address the range of health risks that contributes to the development of chronic diseases, such as smoking, risky levels of drinking alcohol, obesity, physical inactivity, high cholesterol and high blood pressure. See Table 7 below for a comparison of selected risk factors and chronic illness.

Compared with people living in the major cities, people in rural areas are more likely to smoke, (~20 per cent versus ~15 per cent), be overweight (~70 per cent versus ~60 per cent), engage in risky alcohol consumption, and be physically inactive (~72 per cent versus 55 per cent) (Australian Health Policy Collaboration 2018).

Preventing cardiovascular disease (chronic illness generally) in rural and remote communities involves addressing the underlying 'causes of causes' of poor heart health. These relate to a combination of social and economic factors, including education, employment, work conditions, housing, racism and discrimination. This approach requires genuine partnerships across sectors, true community engagement and a commitment to long term solutions (NRHA 2015a).

Table 7 A selection of risk factors and chronic illness

	MC	IR	OR	R	VR	MC	IR	OR/remote
Selected risk factors								
Percentage who are current daily smokers ¹⁸						13	17	21
Average number of cigarettes smoked per week, per smoker ¹⁹	86	113	109	126	126			
Percentage of pregnant women smoking after their first trimester ²⁰	6	13	15	17	30			
Percentage who exceeded lifetime alcohol consumption guidelines ²¹						16	18	23
Percentage who use an illicit drug ²²	15	14	17	19	19			
Percentage who have no or low levels of exercise ²³						64	70	72
Percentage who are overweight or obese ²⁴						61	69	69
Selected disease								
Percentage of people with one or more chronic disease ²⁵						48	55	52
Age standardised cancer incidence (per 100,000 males) ²⁶	592	646	641	650	510			
Age standardised cancer incidence (per 100,000 females) ²⁷	448	468	465	495	429			
Percentage of people with diabetes ²⁸						5	5	6
Years lived with disability per 1,000 people per year, mental illness ²⁹	25	23	20	20	21			
Years lived with disability per 1,000 people per year, total ³⁰	94	102	94	107	123			
Total death rate (per 100,000 population) ³¹	528	595	619	651	782			
Years of life lost per 1,000 people per year ³²	87	103	113	135	178			

¹⁸ <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument>

¹⁹ AIHW NDSHS <http://www.aihw.gov.au/alcohol-and-other-drugs/data/tobacco-smoking-table-s3.14>

²⁰ <http://www.aihw.gov.au/perinatal-data/source-data/>

²¹ ABS NHS (<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument> Table 6)

²² <http://www.aihw.gov.au/alcohol-and-other-drugs/data/illicit-drug-use-supplementary-tables-s5.6-s5.11-s5.17-s5.21-s5.26>

²³ ABS NHS (<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument> Table 6.3)

²⁴ Ibid.

²⁵ <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument>

²⁶ <http://phidu.torrens.edu.au/social-health-atlases/data#social-health-atlas-of-australia-remoteness-areas>

²⁷ Ibid.

²⁸ 2014-15 ABS NHS via PHIDU <http://phidu.torrens.edu.au/social-health-atlases/data#social-health-atlas-of-australia-remoteness-areas>

²⁹ <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129555476>

³⁰ Ibid.

³¹ Ibid.

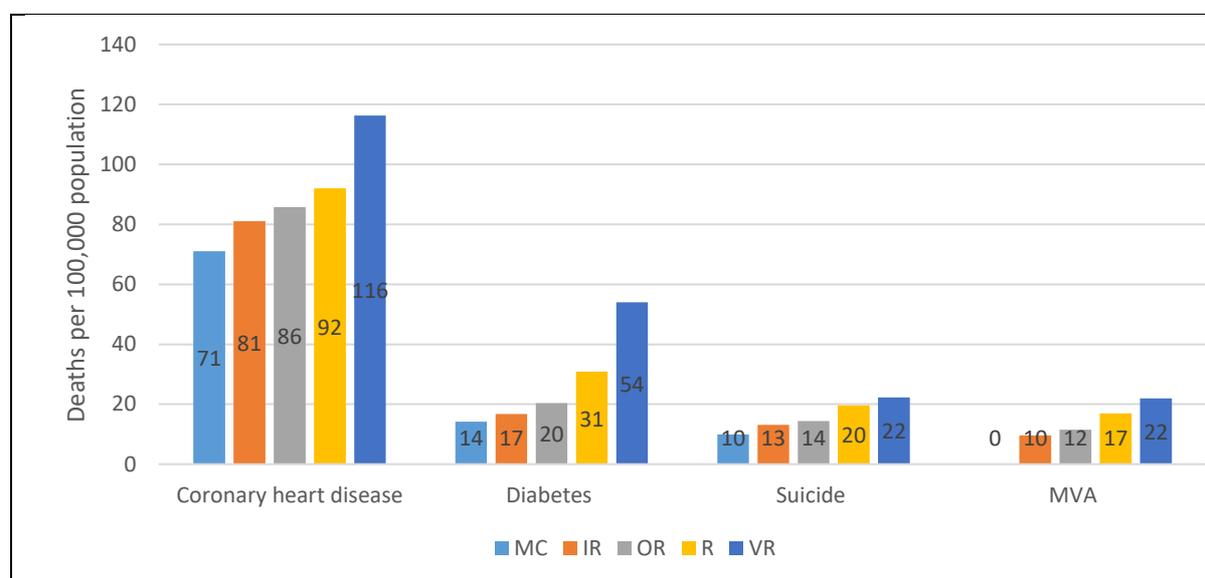
³² <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129555476>

Mortality rates

People aged 30 to 69 years in rural and remotes areas are more likely to die prematurely from a number of diseases such as cardiovascular diseases, cancers, respiratory system diseases and diabetes, compared to people in major cities.

Death rates from motor vehicles accidents and suicide are also higher. See Figure 6.

Figure 6 Death rates for selected causes, age standardised, 2010 to 2014



Source: AIHW Mort books <http://www.aihw.gov.au/deaths/mort/>

Mental health

The data shows that the general population (Indigenous plus non-Indigenous Australians) has similar or slightly lower prevalence of mental illness outside of big centres (e.g. prevalence of any 12-month mental health disorder is 20.5% in capital cities and 19.1% (the balance of the state or territory). However, presentations to emergency departments and hospitalisation for psychiatric care are higher in rural and remote areas reflecting the lack of services in the community and demand for such services. In addition, regional Australians have additional barriers to accessing care due to geographic and social isolation and out of pocket expenses. The result is poorer health outcomes.

We note that the Productivity Commission has found that the mining boom has “*made Australians substantially better off in the short term and over the long term. A mobile workforce (including fly-in, fly-out) has spread the benefits of the boom across workers living in other regions.*” (Productivity Commission,2017).

It does not, however, look at the mental health costs to those workers, and the rural communities in which they live. A recent Medical Journal of Australia article found 28% of 1124 mining workers were suffering high or very high psychological distress, compared with

10.8% of Australia overall.³³ Another 20% rate their mental health as fair or poor. There are no reliable statistics on suicide rates amongst Fly-in, fly-out workers.

Suicide is the leading underlying cause of deaths among persons aged 25–44 (20% of deaths) and persons aged 15–24 (31% of deaths) (AIHW 2017) and incidences of suicide increases with remoteness as demonstrated in Table 8 below.

Table 8 Age standardised suicide death rate, per 100,000 population, 2011-15

	MC	IR	OR	R	VR
Males	15.2	21.9	24.6	29.5	30.0
Females	n.p.	n.p.	n.p.	10.5	13.2
Persons	10.2	13.7	15.4	20.6	22.4

Source: AIHW Mort books

<https://www.aihw.gov.au/reports/life-expectancy-death/mort-books/contents/mort-books>

- Note that where suicide was not amongst the top 20 causes of death, rates have not been published in MORT books and are annotated n.p.

Aboriginal and Torres Strait Islander people have a 1.9 higher rate of suicide than Non-Indigenous Australians. For 19-year olds, the rate is 5 times as high as the non-Indigenous rate (34 and 7 per 100,000 population)³⁴ see Table 9 below.

Table 9 Suicide by SEIFA quintile, 2011-15, Age standardised rates per 100,000 population

	SEIFA1 (lowest)	SEIFA2	SEIFA3	SEIFA4	SEIFA5 (highest)
Males	22.5	20.4	17.8	14.9	12.4
Females	n.p.	n.p.	n.p.	n.p.	n.p.
Persons	14.5	13.2	11.7	10.1	8.3

Source: AIHW Mort books

<https://www.aihw.gov.au/reports/life-expectancy-death/mort-books/contents/mort-books> Note that where suicide was not amongst the top 20 causes of death, rates have not been published in MORT books and are annotated n.p

Aboriginal and Torres Strait Islander people

No discussion regarding inequalities and inequities can occur without making additional references to health inequalities and inequities for Aboriginal and Torres Strait Islander people.

Inequity between Indigenous and non-Indigenous Australians, is substantially greater than the inequity that is seen between city and country areas, particularly for household income, employment and education (Markham & Biddle 2018).

From a health perspective, we also know that Aboriginal and Torres Strait Islander people have a higher burden of disease, which is also higher outside of major cities. See table 10.

³³ <https://www.mja.com.au/journal/2018/208/9/psychological-distress-remote-mining-and-construction-workers-australia>

³⁴ <https://www.aihw.gov.au/getmedia/584073f7-041e-4818-9419-39f5a060b1aa/18175.pdf.aspx?inline=true>

Table 10: Burden of disease, DALY, YLD and YLL age-standardised rates, per 1,000 Indigenous people 2011

	MC	IR	OR	R	VR
Total Burden (DALYs)	379.4	357.9	404.2	523.7	440.2
Non-fatal burden YLD	191.4	186.1	179.3	196.8	159.7
Fatal burden YLL	188	171.8	224.9	326.8	280.5

Source: <https://www.aihw.gov.au/getmedia/e31976fc-adcc-4612-bd08-e54fd2f3303c/19667-bod7-atsi-2011.pdf.aspx?inline=true>

Sixty-five per cent Aboriginal and Torres Strait Islander people live outside major cities, typically in regional, rural and remote communities. A minority of Aboriginal people live outside these settlements. While Aboriginal and Torres Strait islander people make up only 1% of the major cities population, they constitute around 5% of the regional/rural population, 16% of the remote population and 45% of the very remote population.

Some of the city/rural inequity we see, reflects this greater prevalence of Aboriginal people who on average have substantially worse health than non-Indigenous people. But it is also true that many of the indicators of determinants of health, risk factors and health of Aboriginal people become worse as remoteness increases and as town size decreases.

For example, access to work and choice of career can be severely restricted in these areas, unemployment is typically greater, access to healthy food is poorer, the quality of housing tends to be poorer while overcrowding is more common, children are less likely to complete school, risk factor profiles tend to be worse, access to health services are poorer, rates of injury and chronic disease tend to be greater, as are rates of death.

Table 11 Employment status of Indigenous people, by Remoteness, 2014-15

	MC	IR	OR	R	VR
employed	57.5	48.2	45.4	40.4	35.1
unemployed	9.7	15.4	13.8	14.8	13.8
not in labour force	33.0	36.4	41.3	45.3	50.7

Source: <http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4714.02014-15?OpenDocument>

Rural and Remote People's experience of health inequality

A sample of quotes from young people's experience of health inequality demonstrates the additional barriers faced by those living in rural and remote areas³⁵.

The challenges and barriers to accessing health care include:

- **Unable to access services locally, the need to travel long distance to access care and distress and anxiety this causes.**

"When I was struggling with my mental health after losing my brother, I had to travel almost two hours to Forbes and Orange to see different psychologists and doctors".
(JMcW, from Dubbo, NSW).

"I was unable to see a counsellor when I had anxiety because my school did not have one. When my close friend had depression, she had to travel to Melbourne for treatment".
(T.M, from Arcadia, Victoria).

"My brother needed surgery on his jaw and he had to travel to Townsville to get it done since our town did not have the resources. The same happened with my Mum when she required dental surgery. She had to fly to Brisbane. Dad and I had to accompany both of them and it cost us a fortune to pay for transport and accommodation" (M.V from Mackay, Queensland):

- **Long waiting times with acute or emergency conditions to receive care or diagnostic services.**

"I injured my collarbone in a rugby league game and I was taken to the hospital immediately. We had to wait five hours because there was no doctor in the hospital on a Saturday. The doctor finally turned up and told us my collar bone was broken. Then we found out the doctor was not qualified to do an X-ray. I ended up waiting four days to fly to Burnie, Tasmania just to get an X-ray". (K.B, from King Island, Tasmania).

"I have to wait at least three months before I can have a simple laparoscopy. This is because there are only two doctors at the hospital doing this type of surgery. I am experiencing excruciating pain and cannot even get out of bed to go to school some days"
(B.M from Gloucester, NSW).

"There are also long waiting lists and limited services within the public health sector because of the limited budgets for that area. This means people do not always get quality and timely treatment. A large percentage of lifestyle related diseases and chronic diseases are being poorly managed due to isolation from services" (A.J. Dentist, working in multiple regions, NSW).

- **Treatments not being available (such as some medicines) when people need them requiring people to wait sometimes days for the drugs to arrive**

“For many years, I worked in a regional pharmacy. On a daily basis, customers would come in for a drug they absolutely required, and we had to tell them it would not be available for several days. On top of this, medications are usually much more expensive in regional areas. I have seen pensioners decide on the spot which medication they are going to sacrifice for a month because they simply cannot afford what they need”. (C.A, Pharmacist from Albany, WA).

- Costs of care (including accommodation, meals, fuel, parking and any other out of pocket expenses)

“The doctors sent me to a clinic in Sydney because they wanted me to take some other tests. I spent 600 dollars not covered by Medicare just to find out what I already knew: I am allergic to acidic food”. (B.M from Gloucester, NSW).

- **Lower health literacy levels**

“I have worked as a dentist in Orange, Dubbo, Brewarrina, Bourke and Lightning Ridge. One of the main problems I have noticed is a lack of education and knowledge around health issues among patients” (A.J. Dentist, working in multiple regions, NSW).

- **Health professional’s skills and scope of practice**

“In my hometown, we only had a couple doctors come in once a week and that was for basic checkups. If there was anything concerning, we had to drive two or three hours to a hospital. When I fractured my spine, the medics did not know how to put on a neck brace properly. I had to wait four hours for an ambulance to pick me up from the closest large hospital. I did not get an X-ray for another seven hours. It was an awful experience”. (Ch. McK, from Kimba and Karoonda, SA).

- **Stark differences in health outcomes**

Health professionals observe the differences in health between those living in metropolitan areas and those in regional areas.

“The difference in health outcomes is frightening”. (AJ. Dentist, working in multiple regions, NSW and Victoria).

Any other related matters

The Alliance would also like to draw attention to:

1. Health in All Policies, as an approach that can be used by governments as a framework to facilitate across and within government action to address regional inequality; and
2. Health Impact Assessments that can be used to determine the impact on health outcomes on regional development initiatives, particularly the impact of transitioning regional economies.

Health in All Policies

The Health in All Policies (HiAP) is a high-level government approach that aims to create healthier and productive populations whilst reducing health inequalities. It is a framework that sees health as a benefit and outcome from all government policies and is underpinned by four main principles of legitimacy, accountability, transparency and public participation.

The World Health Organization describe the HiAP as follows:

“... an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It improves accountability of policymakers for health impacts at all levels of policy-making. It includes an emphasis on the consequences of public policies on health systems, determinants of health and well-being” (WHO 2014).

To implement this approach, health needs to be central within the mind-set of all government departments, recognizing that other sectors can serve the goals of health – health can also significantly contribute to the goals of other sectors (WHO 2014).

This macro level paradigm shift also requires a commitment to multisectoral action, partnership and collaboration across and within government portfolios. This includes participation and action from (but not limited to) transport, housing, education, agriculture, water and the and sanitation, infrastructure and development sectors.

HiAP has been implemented in various countries around the world including Finland, Sweden, Ecuador, and in South Australia.

Health Impact Assessments

Health Impact Assessment are not a new concept, they have been in use since the 1990s. They have been used to assess how proposals may alter the determinants of health prior to implementation and recommends changes to enhance positive and mitigate negative impacts (Haigh et al 2013).

A Health Impact Assessment (HIA) is “a means of assessing the health impacts of policies, plans and projects in diverse economic sectors using quantitative, qualitative and participatory techniques” (WHO,2018b).

HIAs are evidence informed analyses that predict benefits and risks of proposed laws, services or programs. HIAs can be useful in policy development, bringing policies and people together, addresses many policy making requirements simultaneously; and is participatory approach that involves the public (WHO, 2018b).

Evaluation of HIAs has proved to be a useful tool for helping decision makers join the dots between disparate issues and understand how they are related to each other and to health (Center for Community Health and Evaluation,2014).

Recommendations (policy settings)

The Alliance recommends that:

1. **Include health as an indicator and outcome of regional inequality**- Any consideration of regional inequality indicators must include measures of health and wellbeing. Outcomes of social and fiscal policy are reflected in these measures. Health equality means looking beyond measure of GDP. Indicators of mortality, life expectancy, chronic illness, risk factors, psychological distress, and access to health care are examples of indicators that can be used as benchmarks for measuring health equality.
2. **National approach to address regional inequality**- regional inequality is not unique to any one state or territory, therefore a coordinated national approach is required to addressing regional inequality that exists within and between jurisdictions, states and territories.
3. **Prioritise equality for Aboriginal and Torres Strait Islander people** - Any strategies to address regional inequality must address inequality and inequities that exist for Aboriginal and Torres Strait Islander people. They must be a priority.
4. **Adopt the Health in all policies** framework to coordinate intersectoral action to address inequality.
5. **Mandate the use of Health Impact Assessments** to inform decisions made by all governments for new regional Australian policies, regulation, services and programs.

Sources and further reading

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Attachment A

National Rural Health Alliance - Member Body Organisations
Australasian College for Emergency Medicine (Rural, Regional and Remote Committee)
Australasian College of Health Service Management (rural members)
Australian College of Midwives (Rural and Remote Advisory Committee)
Australian College of Nursing - Rural Nursing and Midwifery Community of Interest
Australian College of Rural and Remote Medicine
Australian Healthcare and Hospitals Association
Allied Health Professions Australia Rural and Remote
Australian Indigenous Doctors' Association
Australian Nursing and Midwifery Federation (rural nursing and midwifery members)
Australian Physiotherapy Association (Rural Members Network)
Australian Paediatric Society
Australian Psychological Society (Rural and Remote Psychology Interest Group)
Australian Rural Health Education Network
Council of Ambulance Authorities (Rural and Remote Group)
CRANaplus
Country Women's Association of Australia
Exercise and Sports Science Australia (Rural and Remote Interest Group)
Federation of Rural Australian Medical Educators
Isolated Children's Parents' Association
National Aboriginal Community Controlled Health Organisation
National Rural Health Student Network
Paramedics Australasia (Rural and Remote Special Interest Group)
Rural Special Interest Group of Pharmaceutical Society of Australia
RACGP Rural: The Royal Australian College of General Practitioners
Rural Doctors Association of Australia
Rural Dentists' Network of the Australian Dental Association
Royal Far West
Royal Flying Doctor Service
Rural Health Workforce Australia
Rural and Indigenous Health-interest Group of the Chiropractors' Association of Australia
Rural Optometry Group of Optometry Australia
Rural Pharmacists Australia
Services for Australian Rural and Remote Allied Health
Speech Pathology Australia (Rural and Remote Member Community)