



# Submission to Senate Standing Committees on Economics

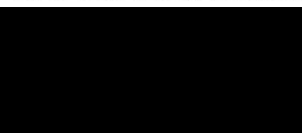
*The indicators of, and impact of, regional  
inequality in Australia*

April, 2018



106 Victoria St, West End Q 4101

GPO Box 1289, Brisbane Q 4001



[www.qnmu.org.au](http://www.qnmu.org.au)

submission

## Table of Contents

Introduction.....	3
Key messages.....	4
Background.....	4
Health .....	4
Indigenous health .....	6
Regional health care .....	7
Aged care .....	9
Nursing and midwifery workforce.....	10
Workforce planning .....	11
University funding.....	14
Incentives for regional nurses and midwives .....	14
Conclusion .....	15
References.....	16

## Introduction

The Queensland Nurses and Midwives' Union (QNMU) thanks the Senate Standing Committees on Economics (the Committee) for the opportunity to provide a submission on *the indicators of, and impact of, regional inequality in Australia*.

Nursing and midwifery is the largest occupational group in Queensland Health and one of the largest across the Queensland government. The QNMU is the principal health union in Queensland covering all categories of workers that make up the nursing workforce including registered nurses (RN), registered midwives (RM), enrolled nurses (EN) and assistants in nursing (AIN) who are employed in the public, private and not-for-profit health sectors including aged care.

Our more than 58,000 members work across a variety of settings from single person operations to large health and non-health institutions, and in a full range of classifications from entry level trainees to senior management. The vast majority of nurses in Queensland are members of the QNMU.

The QNMU notes the omission of health and health care from the terms of reference for the inquiry into the indicators of, and impact of, regional inequality in Australia. We contend health and health care should be considered by the Committee.

In our view, if governments and policy makers are looking at the indicators and impacts of regional inequalities, then health and health care are crucial in this inquiry. Health implications involves all public policies not just the health portfolio. By creating environments that promote better health, this will reduce inequalities which will be felt across the terms of reference, cited by the Committee. As Fran Baum (2016) wrote 'reducing health inequities requires public policies that reduce economic inequities'.

Subsequently our submission will answer *1) any other related matters* of the terms of reference, with a focus on health and health care in regional Australia. We will discuss issues that are specific to the nursing and midwifery workforce in regional Australia, as well as topics that are broader, including penalty rates, university funding, and incentives for the health workforce to work in regional Australia.

## Key messages

The QNMU asks the Committee to consider:

- Health and health care as they both impact life in regional Australia;
- The health and health care of Aboriginal and Torres Strait Islander people;
- Expanding the list of rural and remote hospitals eligible for the Section 19(2) exemption of the *Health Insurance Act 1973*;
- The need for aged care facilities and an aged care workforce;
- Rural and isolated practice endorsed nurses (RIPEN) in Queensland and the pivotal role they play in regional Australia;
- The scope of practice of nurses and midwives in providing health care to regional Australia;
- Strategies to address the shortfalls in health care provision due to the declining numbers of health care workforce, including nurses and midwives;
- Penalty rates and their value in generating regional economies;
- University funding and the impact this has providing adequately trained health practitioners and
- Incentives for health practitioners, including nurses and midwives, to work in regional Australia.

## Background

As defined by the Regional Australia Institute (2017), regional Australia includes towns, small cities and areas that lie beyond the major capital cities. Remote Australia covers about 85% of the Australian land mass, predominantly in northern and central Australia. 29% of Australia's population live in regional and remote areas (Australian Institute of Health and Welfare, 2016). This population tend to have a lower life expectancy, higher rates of disease and injury and poorer access to and use of health services than people living in major cities (Australian Institute of Health and Welfare, 2016).

## Health

Health is multidimensional and results from a complex interplay between biological, lifestyle, socioeconomic, societal and environmental factors (Australian Institute of Health and Welfare, 2016). Health means:

not just the physical wellbeing of an individual but refers to the social, emotional and cultural wellbeing of the whole community, in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their community (Aboriginal Health and Medical Research Council of New South Wales, 2018).

Good health enables an individual to achieve their full potential and provides social and economic value to individuals, society and the economy (The Health Foundation, 2018).

Government policies and programs are part of this interplay and impact and shape the health of those who live and work in regional Australia. “Governments can create conditions for good and equitable health through careful use of social and economic policy and regulation” (Commission on Social Determinants of Health, 2008, p.35).

A healthy population does not only make for healthy people but the US National Bureau of Economic Research (NBER) (Bloom, Canning & Sevilla, 2001) found good health has a positive, sizeable, and statistically significant effect on economic growth.

Factors outside the health care system – the social determinants of health – also influence a person’s health. They are personal choices such as drinking alcohol, smoking and immunisation and the environment where people are born, grow, live, work and age. (Deloitte, 2017). Social determinants of health can strengthen or undermine a person’s and/or community’s health and have a strong influence on the health of a population.

Those living in regional and rural and remote Australia are more likely to have poorer health outcomes than their urban counterparts (Australian Institute of Health and Welfare, 2016). Disease prevalence is higher and compared to people living in major cities, people living in regional Australia have higher rates of arthritis, asthma, chronic obstructive pulmonary disease, blindness, deafness, diabetes, cardiovascular disease, cancer and mental health problems (Australian Bureau of Statistics, 2015).

Health behaviours and risk factors are also different between those who live in major cities and those who live in regional and remote Australia. Regional people are more likely to smoke daily, are overweight or obese, undertake no or low levels of exercise, have high blood pressure and drink alcohol (Australian Bureau of Statistics, 2015).

A healthy person is someone who has the opportunity for meaningful work, secure housing, stable relationships and healthy behaviours. “A healthy society, in turn, is not one that waits for people to become ill, but one that sees how health is shaped by social, cultural, political, economic, commercial and environmental factors, and takes action on these for current and future generations” (The Health Foundation, 2018, p.7).

### *Indigenous health*

The impact of regional inequality in Australia is also evident in the health and wellbeing of Aboriginal and Torres Strait Islander people. Although health outcomes for Aboriginal and Torres Strait Islander people have improved they continue to experience greater health disadvantage (Australian Institute of Health and Welfare, 2016).

In the 2016 census, 20% of Aboriginal and Torres Strait Islander people reported living in rural areas (Australian Bureau of Statistics, 2016). In 2011 there were over 1000 discrete Indigenous communities of which three-quarters had a population of less than 50 people (Productivity Commission, 2017).

Aboriginal and Torres Strait Islander people living in remote areas are more likely to have heart disease and diabetes than those Aboriginal and Torres Strait Islander people living in non-remote areas. They also have lower rates of breast and bowel cancer screening (Australian Institute of Health, 2016). Further, they are more likely to experience poor environmental health, live in overcrowded households and in houses that don't have working facilities such as showers and toilets (Australian Indigenous HealthInfoNet, 2017).

Pregnancy and childbirth for Aboriginal and Torres Strait Islander women has been impacted with the closure of many rural and remote birthing units in Australia over the last twenty years. Studies suggest these closures were completed rapidly and founded on a poorly informed sense of clinical risk to the mother and baby (Barclay, 2017). There was little understanding that by removing these local birthing services, other risks would occur. These included an increase in the number of unplanned births occurring along the roadside and women arriving at health care services, unplanned (Barclay, 2017). Also, women were put under pressure to move near a hospital service prior to the expected birth date, putting strain on finances and families. These impacts are exacerbated for Indigenous women for whom 'birthing on country' has important cultural and spiritual significance (Barclay, et al., 2016).

The Productivity Commission (2017) wrote in their inquiry report on introducing competition and user choice into human services, that there is an opportunity to reform services in remote Indigenous communities. Any initiatives to improve service provision in remote Indigenous communities must include:

- Greater community voice and involvement;
- Clearer outcomes;
- Effective government structures and processes that are tailored to the specific location;
- Building community capacity and involvement and
- Effective learning systems that identify 'what works' in delivering human services in remote Indigenous communities (Productivity Commission, 2017).

These principles align with the work being undertaken as part of the Close the Gap strategy to address Indigenous disadvantage (Australian Government, 2018). Addressing inequalities in employment and education and closing the health and life expectancy gap between Indigenous and non-Indigenous people must be the focus in the development of any programs or policies.

## **Regional health care**

People living in regional areas of Australia experience challenges in accessing health care (Wakerman et al., 2015). This may be due to varying health-seeking behaviours, geographic isolation, availability of local health services, health system efficiency, professional scope of practice of health practitioners, increased cost of delivering services due to remoteness, and the recruitment and retention of health staff (Australian Institute of Health and Welfare, 2016; Edwards et al., 2016 & Productivity Commission, 2017).

In recent Australian research, necessary services for rural and remote communities were identified and included aged care, mental health, maternal and child health, emergency care, disability and services for substance abuse (Thomas, Wakerman & Humphreys, 2014). However, until governments and policy makers work together and determine what primary health care services should be available for all Australians, and the support functions necessary for sustainability, there will remain an inequality for rural and remote Australians to access health care (Thomas, Wakerman & Humphreys, 2014).

Another Australian study showed that by investing \$1 in medium-level primary care (patients who used primary care 2-11 visits per annum) for people with diabetes in remote Indigenous communities, \$12.90 could be saved in hospitalisation costs (Thomas et al., 2014). Improving access to primary health care results in net health benefits to patients and cost savings to the government.

There are also social determinants of health that are unique to this regional population in their access to health care such as geography, time and distance. For example:

- Geographic distance to health care. Having to travel long distances for health services is a reality for regional Australians. Public and private transport may be limited making it difficult to travel. A patient may need to be escorted by the community nurse or Aboriginal health worker, which would leave the community without an emergency vehicle and without a health worker (Downes & Sippl, 2011). Studies have also shown that due to the closure of maternity units in rural and remote Australia, women are having to travel long distances to give birth. These closures are associated with an increase in the rate of babies born before arrival to hospital (Kildea, et al., 2015).

Travel can also be difficult or impossible at certain times of the year for those who live remotely, especially if roads become impassable in wet weather (Australian Department of Health, 2012).

- Affordability and the ability to pay for health care (Bailie et al., 2015 & Duckett & Breadon, 2013). This includes the cost of the health service, loss of income to travel and attend the appointment as well as the cost in time for patients who need to leave their community to attend health services provided in larger distant centres (Downes & Sippl, 2011 & Edwards et al., 2016).

The impact of these social determinants of health for regional Australians cannot be understated and the QNMU acknowledges that access to health services has many facets; factors that are location driven as well as consumer driven.

One solution to help address these issues would be the provision of health care using information and communication technologies (ICT) – telehealth. With the right equipment and infrastructure, telehealth services improve access to health care provided by nurses, midwives and other health practitioners to regional Australians (Bradford, Caffey & Smith, 2016).

To support equality in the provision of health care for regional Australia, the QNMU recommends the list of rural and remote hospitals eligible for the Section 19(2) exemption of the *Health Insurance Act 1973* (the Act) requires expansion to align with growing demands within regional, rural and remote communities.

This initiative provides eligible sites to claim against the Medicare Benefits Scheme (MBS) for non-admitted, non-referred professional services, which includes nursing and midwifery services provided in emergency departments and outpatient clinic settings (Queensland Health, 2013). It originated from the need for public hospitals to provide primary health services to rural and remote towns due to the lack of private General Practitioner services (Queensland Health, 2013).

The QNMU supports the recommendation made by the Senate Community Affairs References Committee (2018) where the committee recommends “... the *Health Insurance Act 1973* Section 19(2) exemptions for regional, rural and remote Australian health services should be reviewed to establish the impact on regional, rural and remote health outcomes” (Senate Community Affairs Reference Committee, 2018, p.x). This review could go some way in achieving equity for health services in regional Australia.

Further, the establishment of the National Rural Health Commissioner, appointed under Part VA of the *Health Insurance Act 1973* as part of the government’s agenda to reform rural health



in Australia is a step forward in addressing inequalities in regional Australia (Australian Department of Health, 2017).

The provision of health services supports and impacts health and wellbeing. Better health and access to health care enables more people to participate in society and the economy. Investing in health and its determinants is an important strategy to not only boost economic growth but to make the population healthier (Commission on Social Determinants of Health, 2008).

### *Aged care*

The need for aged care facilities in regional Australia as well as the need for an aged care workforce is increasing. In 2014, 34% of people over the age of 65 lived in regional and remote Australia. That's approximately 1.25 million people (Australian Institute of Health and Welfare, 2017).

The Productivity Commission (2011) has indicated the future demand for aged care will precipitate a significant expansion of the aged care workforce to manage the increase from the current 1 million people accessing aged care services to an anticipated 3.5 million people.

In rural and remote Australia, there are lower usage rates of residential aged care services, partly due to people moving to cities for aged care services (Australian Institute of Health and Welfare, 2017). However, the proportion of people in residential aged care who were admitted for a short respite stay was greater in regional and remote locations than in major cities (Australian Institute of Health and Welfare, 2017).

Older Australians, particularly those receiving residential aged care services are characterised by high care needs, multiple diagnoses, comorbidities and polypharmacy. It has been estimated that on average they have 3.4 to 4.5 separate diagnoses, 6 comorbidities, and are taking 8.1 medications (Willis et al., 2016). Research also points to a rising trend of avoidable and premature death in Australian aged care facilities (Ibrahim et al., 2017). The QNMU is concerned this trend reflects deskilling and reduced levels of care across the aged care sector.

Aged care should not be viewed in isolation but as part of the health care system. For those people living in aged care facilities in regional and rural Australia if they need the care of health care practitioners such as dentists, speech pathologists and allied health professionals, then these needs should not go unmet. Lessons can be learnt from the care issues identified at the Oakden Facility in South Australia which pointed to a disparity in terms of safety and quality of care between the hospital and aged care sectors (Independent Commissioner Against Corruption, 2018).

Further, the declining percentages of registered and enrolled nurses and increasing numbers of unregulated care workers is resulting in deteriorating skill and staff mix within the aged care workforce. This loss of qualified nursing care is occurring despite the sector achieving a \$1.1 billion net profit and an average earnings before interest, taxes, depreciation and amortization (EBITDA) per resident per annum of \$11,134 (Aged Care Financing Authority, 2017).

To provide equity and allow people to age in their familiar environment, adequate aged care must be provided to those in regional and remote Australia. This includes not only the facilities and services but also the correct staffing skill mix as is the expectation when accessing any other health service. This expectation should be no different in the aged care setting.

### **Nursing and midwifery workforce**

Nurses and midwives are the largest group of health care providers in Queensland. Optimising nurses and midwives to work to their full scope of practice will increase flexible service delivery options and assist in addressing inequality in health care between regions (Queensland Health, 2013).

Now recognised as a separate discipline to nursing, midwives follow women throughout their pregnancy, birth and post-partum and play an important health care role in regional Australia. Studies have shown that improved continuity of care has resulted for pregnant women when they are assigned a primary midwife in their local (remote) area (Longman, et al., 2017).

One approach to utilising nurses is growing the number of nurse practitioners (NP). A NP is an RN with advanced educational preparation and experience. NPs have access to MBS and Pharmaceutical Benefits Scheme (PBS) and provide high levels of clinically focused autonomous nursing care in a variety of contexts in response to varying patient/community complexities (Burstion, Chaboyer & Gillespie, 2014). The Health Workforce Australia (HWA) recognised the value of expanding the scope of practice for NPs and recommended it in addressing the health workforce skills shortage in rural and remote regions (HWA 2013c cited in Farquhar., 2014).

Rural and isolated practice endorsed nurses (RIPEN) is another category of nursing that is vital to the health service of regional Australia. The endorsement enables these RNs to obtain and initiate the administration and supply of certain schedule 2, 3, 4 and 8 medicines for nursing practice in defined rural and isolated practice areas.

The RIPEN provides emergency and primary health care to an advanced and expanded clinical scope of practice to patients in rural and remote (isolated) areas. RIPENs can work in rural hospitals, mining sites, Indigenous communities, tourist resorts, remote pastoral stations where onsite access to medical practitioners and/or NPs is by visit only or not available at all and to rural and remote area emergency sites.

In October 2017, the Nursing and Midwifery Board of Australia (NMBA) released a discussion paper providing options for models for registered nurse and midwife prescribing (Nursing and Midwifery Board of Australia, 2017). NMBA proposed a new health profession prescribing pathway (HPPP) which would see the NMBA withdrawing endorsement, effectively meaning that the 829 RIPENs working in Queensland will not be authorised to carry out this function, until Queensland legislation is amended to accommodate RIPENs (Australian Health Practitioner Registration Authority, 2017).

At present, Queensland does not have provision in the *Health (Drugs and Poisons) Regulation 1996 Queensland* (HDPR) for the RN to be able to obtain, supply or administer schedule 2,3,4 and 8 medicines under protocol for rural and isolated practice unless the RN is RIPEN endorsed. If the Queensland state government does not make the regulation changes by November 2018 (which is the date the Health Workforce Principal Committee recommended to the NMBA to discontinue this registration standard), then there will be significant fallout for RIPENs and the communities in which they work (Nursing and Midwifery Board of Australia, 2017). In our submission to the NMBA, QNMU recommended that the NMBA continues to approve a specific registration standard for RIPENs so they can continue to provide vital health care in regional Queensland.

The QNMU views the role of nurses and midwives as imperative to the health care system of regional Australia. This is echoed by the Senate Community Affairs References Committee in their review of the availability and accessibility of medical imaging equipment, where they recommended that "... the Department of Health work with stakeholders to facilitate nurses and nurse practitioners expanding their clinical scope of practice to include certain ultrasounds, where they have received proper training and sonographers are not available to do so" (Senate Community Affairs Reference Committee, 2018, p.X). The QNMU applauds this recommendation and believes this expansion will help in reducing inequality of regional health services.

## **Workforce planning**

Recruiting and retaining health practitioners, including nurses and midwives, to regional and remote Australia is a challenge. However, it is a necessity to ensure equity in health care in rural and remote Australia.

Policy concern about the increasing demand for health care coupled with an inadequate workforce to meet projected needs resulted in the establishment of HWA. The federal government established HWA to deliver a national, coordinated approach to workforce reform with an overall goal of building a sustainable health workforce for Australia (HWA 2013a cited in Buchan et al., 2015). Unfortunately, the federal government closed it down in 2015.

In its early analysis, HWA identified maldistribution of the workforce across a geographically large country with an extremely skewed population distribution, shortages in some professions notably nursing, inefficient work practices and inflexible professional practices as major issues facing the health industry (Buchan et al., 2015).

In 2014, HWA developed a set of nationally authoritative, consistent and coherent health workforce projections to be used for health workforce planning. Before that time health workforce planning was undertaken by individual state and territory governments, employers and other planners (Crettenden et al., 2014). *Health Workforce 2025* provided the evidence base to align student training intakes with projected health workforce requirements (Crettenden et al., 2014).

HWA estimated that unless there are changes to policy settings, the demand for nurses would exceed supply from approximately 2014 onwards, with a shortfall of almost 110,000 nurses by 2025. The impact of this shortfall will see an inadequate number of nurses to provide adequate care.

HWA identified three main policy levers to address these workforce challenges. These were to build capacity, boost productivity, and improve distribution (HWA 2013b, cited in Buchan et al., 2015).

Health workforce development strategies included creating a national measurement of workforce shortages and establishing ongoing monitoring, a focus on improving the training pathways, particularly access to clinical places, making immigration easier and increasing participation of the Aboriginal and Torres Strait Islander people in the workforce.

Productivity-enhancing measures focused on improved retention and recruitment and addressing regulatory, legislative and industrial (e.g. collective bargaining) barriers to improve workforce flexibility. Distribution strategies promoted evidence-informed policy and planning with a view to provide job opportunities in the sector, setting or geographic area where the community needed the services (HWA 2013d cited in Buchan et al., 2015).

With the rural and remote health workforce in decline, strategies need to be implemented by governments to address this inequality of health services in regional Australia (Gwynne & Lincoln, 2017). Clearly the current approach to Australia's health workforce will not be

sustainable over the coming years. There is a necessity for coordinated, long-term reforms by government, professions and the higher education and training sectors for a sustainable and affordable health workforce.

## **Penalty rates**

The nursing and midwifery workforce operates on a 24/7 continuous shift cycle. Given the recent decision of the Fair Work Commission<sup>1</sup> to cutback Sunday penalty rates in retail, hospitality, fast food and pharmacies, it will only be a matter of time before employers use this precedent to push for similar reductions in the health sector.

The QNMU takes this opportunity to stress we strongly oppose any moves to withdraw, restrict or reduce penalty rates in any industry where these entitlements currently exist.

We emphasise here the critical role penalty rates play in supporting the income for the nursing and midwifery workforce. Our members work under considerable physical and emotional stress that places them at risk across a range of workforce injuries and illnesses within a continuous shift regime.

Penalty rates compensate workers for the effects of working unsocial, irregular hours and should not be altered in any way that undermines or undervalues the payment of these entitlements.

Every effort needs to be made to enhance the professions of nursing and midwifery so more students enter universities and Technical and Further Education (TAFE) to train. Any moves to compromise the ability of nurses and midwives to attract penalty rates will detract from the profession, make it more difficult to recruit and retain a nursing and midwifery workforce and contribute to already heavy workloads.

In 2016, it was estimated that nurses earn at least \$3.6 billion per annum in penalty payments in Australia. For regional economies, around \$1 billion of this penalty rate income flows to regional and remote areas each year (The McKell Institute, 2016). If penalty rates are removed from nurses and midwives, one impact will simply be that less money will be put into regional economies. It will also remove the incentive for nurses and midwives to work shifts and weekend work, thus reducing the number and quality of staff willing to work these periods. This coupled with Australia's predicted nurse and midwife shortage, will impact the quality of care received by patients in regional Australia if penalty rates were to be removed. (The McKell Institute, 2016).

---

<sup>1</sup> See Fair Work Commission Decision [2017] FWCFB 1001.

## **University funding**

The federal government froze total Commonwealth Grant Scheme funding from 1 January 2018, setting at 2017 funding levels, and placed a combined limit on all tuition fee assistance under all higher education loan program (HELP) and VET Student Loans (Commonwealth of Australia, 2017). This means funding falls behind Consumer Price Index (CPI) increases. The flow-on effect of this initiative for regional Australia is yet to be realized.

The QNMU is concerned the government's actions will place budget pressure on universities to offer fewer places in programs such as nursing and midwifery that are more expensive to teach but are much needed by the community. Given the projected shortage of nurses and midwives it is difficult to comprehend the shortsightedness of this policy.

This move will significantly affect prospective students for rural and regional universities which are less likely to absorb the cost of funding new placements. This could add to a shortage of nurses and midwives in regional Australia as nursing and midwifery students often return to work in their communities. The decision to freeze funding may force many prospective nurses, midwives and other students to abandon their career plans and impact on the long-term health and wellbeing of rural and regional communities.

## **Incentives for regional nurses and midwives**

It is important to provide incentives for hard-to-staff positions, roles or locations – whether the nurses and midwives targeted are re-entrants, new entrants, transfers or continuing in existing positions.

Flexible working arrangements are the cornerstone to increase retention of nurses and midwives in the workforce. However, it is replenishing the total pool of qualified nurses and midwives that should be given priority as a large cohort moves into retirement. It should also be a priority to improve the general attractiveness of nursing and midwifery as careers to ensure adequacy in quantity and quality of new recruits over the coming decade.

HWA (2013) noted that the most significant issue reported across rural areas is the ageing of the nursing workforce, indicating strategies are needed to strengthen attraction and recruitment strategies.

The Senate Community Affairs Committee (2012) inquiry into the factors affecting the supply of health services and medical professionals in rural areas acknowledged that it is timely to review incentives for rural and remote workers and recommended that a scheme to

reimburse the Higher Education Contribution Scheme (HECS) available for doctors should be extended to nurses and allied health professionals relocating to rural and remote areas.

The QNMU supports the concept of HECS refunds, but incentives need to be in place at the very start of nursing and midwifery careers. Governments should provide funding for rural hospitals to sponsor the inherent costs of living away from home for local students to study nursing, perhaps in return for two or three years' work in their rural area. This of course means there will also need to be funded graduate programs in those areas.

We believe there needs to be an acknowledgment from the highest levels of state and federal government that the next generation of nurses and midwives in regional and remote settings will not be created without supported graduate programs or nursing internships.

Any graduate program must be able to identify mentors and preceptors who are prepared to undertake the important task of preparing graduates for independent practice. This additional work for mentors and preceptors should be factored in to workload and staffing methodologies such as the business planning framework (BPF) used in Queensland Health.

To this end, governments could explore incentives for undergraduate student placements in regional and remote areas. The undergraduate's experiences may also influence their future career decision, particularly in the specialty area they choose, so quality placements are necessary for effective preparation to practice.

## **Conclusion**

The provision of health services supports and impacts health and wellbeing. Better health and access to health care in regional Australia enables people to participate in society and the economy. Investing in health and its determinants is an important strategy to not only boost economic growth but to make the population healthier (Commission on Social Determinants of Health, 2008).

## References

- Aboriginal Health and Medical Research Council of New South Wales. (2018). *Definition of Aboriginal Health*. Retrieved from [http://www.ahmrc.org.au/index.php?option=com\\_content&view=article&id=35&itemid=37](http://www.ahmrc.org.au/index.php?option=com_content&view=article&id=35&itemid=37)
- Aged Care Financing Authority. (2017). *Annual Report on the funding and financing of the aged care sector – 2017*.
- Australian Bureau of Statistics. (2016). *Census of population and housing: Reflecting Australia - Stories from the Census, 2016* (cat. no. 2071.0). Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Aboriginal%20and%20Torres%20Strait%20Islander%20Population%20Article~12>
- Australian Bureau of Statistics. (2015). *National Health Survey: first results, 2014–15* (cat. no. 4364.0.55.001). Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument>
- Australian Department of Health. (2017). *Council of Australian Governments (COAG) Improving access to primary care in rural and remote areas – COAG s19(2) exemptions initiative*. Retrieved from <http://www.health.gov.au/internet/main/publishing.nsf/Content/COAG+s19%282%29+Exemptions+Initiative>
- Australian Department of Health. (2017). *National Rural Health Commissioner*. Retrieved from <http://www.health.gov.au/internet/main/publishing.nsf/Content/National-Rural-Health-Commissioner>
- Australian Department of Health. (2012). *National strategic framework for rural and remote health*. Retrieved from <http://www.health.gov.au/internet/main/publishing.nsf/content/national-strategic-framework-rural-remote-health>
- Australian Government. (2018). *Closing the gap: Prime Ministers report 2018*. Retrieved from <https://closingthegap.pmc.gov.au/>



- Australian Health Practitioner Regulation Agency. (2017). *Nursing and Midwifery Board of Australia registrant data 1 October 2017 – 31 December 2017*. Retrieved from <http://www.nursingmidwiferyboard.gov.au/About/Statistics.aspx>
- Australian Indigenous HealthInfoNet. (2017). *Summary of Aboriginal and Torres Strait Islander health, 2016*. Retrieved from <http://www.healthinfonet.ecu.edu.au/health-facts/summary>
- Australian Institute of Health and Welfare. (2016). *Australia's health 2016*. Retrieved from <https://www.aihw.gov.au/reports/australias-health/australias-health-2016/contents/summary>
- Australian Institute of Health and Welfare. (2017). *Explore people using aged care*. Retrieved from <https://www.gen-agedcaredata.gov.au/Topics/People-using-aged-care/Explore-people-using-aged-care>
- Australian Institute of Health and Welfare. (2017). *Older Australia at a glance*. Retrieved from <https://www.aihw.gov.au/reports/web/194/older-australia-at-a-glance/contents/diverse-groups-of-older-australians/regional-and-remote-communities>
- Bailie, J., Schierhout, G., Laycock, A., Kelaheer, M., Percival, N., O'Donoghue, L., McNeair, T. & Bailie, R. (2015). Determinants of access to chronic illness care: a mixed-methods evaluation of a national multifaceted chronic disease package for Indigenous Australians. *BMJ Open*, 5.
- Barclay, L. (2017). *What have we learned from the Australian Rural Birth Index study?* Paper presented at 14<sup>th</sup> National Rural Health Conference, Cairns, Queensland.
- Barclay, L., Kornelsen, J., Longman, J., Robin, S., Kruske, S., Kildea, S., Pilcher, J., Martin, T., Grzybowski, S., Donoghue, D., Rolfe, M. & Morgan, G. (2016). Reconceptualising risk: perceptions of risk in rural and remote maternity service planning. *Midwifery*, 38, 63-70.
- Baum, F. (2016). *Want to improve the nation's health? Start by reducing inequalities and improving living conditions*. Retrieved from <http://theconversation.com/want-to-improve-the-nations-health-start-by-reducing-inequalities-and-improving-living-conditions-64434>
- Bloom, D., Canning, D. & Sevilla, J. (2001). *The effect of health on economic growth: Theory and evidence*. National Bureau of Economic Research, Working Paper No. 8587.

- Bradford, N., Caffery, L. & Smth, A. (2016). Telehealth services in rural and remote Australia: a systematic review of models of care and factors influencing success and sustainability. *Rural and Remote Health*, 16(4), 1-23.
- Buchan, J., Twigg, D., Dussault, G., Duffield, C. & Stone, P. (2015). Policies to sustain the nursing workforce: an international perspective. *International Nursing Review*, 62, 162-170.
- Burston, S., Chaboyer, W. Gillespie, B. (2014). Nurse-sensitive indicators suitable to reflect nursing care quality: a review and discussion of issues. *Journal of Clinical Nursing*, 23, (13-14), 1785-1795.
- Commission on Social Determinants of Health. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. World Health Organization. Retrieved from [http://www.who.int/social\\_determinants/thecommission/finalreport/en/](http://www.who.int/social_determinants/thecommission/finalreport/en/)
- Commonwealth of Australia. (2018). *Availability and accessibility of diagnostic imaging equipment around Australia*. The Senate Community Affairs References Committee.
- Commonwealth of Australia. (2017). *Mid-year economic and fiscal outlook 2017-2018*. Retrieved from [http://www.budget.gov.au/2017-18/content/myefo/download/MYEFO\\_2017-18.pdf](http://www.budget.gov.au/2017-18/content/myefo/download/MYEFO_2017-18.pdf)
- Crettenden, I., McCarty, M., Fenech, B., Heywood, T., Taitz, M. & Tudman, S. (2014). How evidence-based workforce planning in Australia is informing policy development in the retention and distribution of the health workforce. *Human Resources for Health*, 12(7), 1-13.
- Deloitte. (2017). *Making progress in integrating social determinants of health into the EHR*. Retrieved from <https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/health-care-current-september26-2017.html?id=us:2em:3na:hcc:awa:chs:092617#top>
- Downes, S. & Sippl, A. (2011). *Breaking the sound barrier – innovations in the rural women's GP service*. National Rural Health Conference, Department of Health, Western Australia.
- Duckett, S. & Breadon, P. Grattan Institute. (2013). *Access all areas. New solutions for GP shortages in rural Australia*. Retrieved from <https://grattan.edu.au/wp-content/uploads/2014/04/196-Access-All-Areas.pdf>

- Edwards, S., Birks, M., Chapman, Y. & Yates, K. (2016). Miscarriage in Australia: the geographical inequity of healthcare services. *Australasian Emergency Nursing Journal*, 19, 106-111.
- Farquhar, K. (2014). Expanding the scope of practice of the rural and remote emergency nurse practitioner beyond the 'fast track' model of care. *HNE Handover: For Nurses and Midwives*, 7(1), 1-6.
- Gwynne, K. & Lincoln, M. (2017). Developing the rural health workforce to improve Australian Aboriginal and Torres Strait Islander health outcomes: a systematic review. *Australian Health Review*, 41, 234-238.
- Health Workforce Australia. (2013a). *About us*. Health Workforce Australia.
- Health Workforce Australia. (2013b). *Health Workforce Australia Strategic Plan 2013–2016*. Health Workforce Australia, Adelaide.
- Health Workforce Australia. (2013c). *National Rural and Remote Workforce Innovation and Reform Strategy*.
- Health Workforce Australia. (2013d). *Work Plans*. Health Workforce Australia.
- Ibrahim, J., Bugeja, L., Willoughby, M., Bevan, M., Kipsaina, C., Young, C., Pham, T & Ranson, D. (2017). Premature deaths of nursing home residents: an epidemiological analysis. *Medical Journal of Australia*, 206(10), 442-447.
- Independent Commissioner Against Corruption. (2018). *Oakden: A shameful chapter in South Australia's history*. Adelaide.
- Kildea, S., McGhie, A., Gao, Y., Rumbold, A. & Rolfe, M. (2015). Babies born before arrival to hospital and maternity unit closures in Queensland and Australia. *Women and Birth*, 28(3), 236-245.
- Longman, J., Kornelsen, J., Pilcher, J., Kildea, S., Kruske, S., Grzybowski, S., Robin, S., Rolfe, M., Donoghue, D., Morgan, G. & Barclay, L. (2017). Maternity services for rural and remote Australia: barriers to operationalising national policy. *Health Policy*, 121(11), 1161-1168.
- Nursing and Midwifery Board of Australia. (2017). *Registered nurse and midwife prescribing – discussion paper*. Retrieved from <http://www.nursingmidwiferyboard.gov.au/News/Past-Consultations.aspx>

- Productivity Commission. (2011). *Caring for our older Australians*. Retrieved from <http://www.pc.gov.au/inquiries/completed/aged-care/report/aged-care-volume1.pdf>
- Productivity Commission. (2017). *Introducing competition and informed user choice into human services: Reforms into human services, inquiry report*. Retrieved from <http://www.pc.gov.au/inquiries/completed/human-services/reforms/report>
- Queensland Health. (2013). *Strengthening health services through optimising nursing strategy and action plan (2013-2016)*. Queensland Health, Brisbane.
- Queensland Nurses and Midwives' Union. (2017). *Submission to Nursing and Midwifery Board of Australia - Registered nurse and midwife prescribing submission*.
- Regional Australia Institute. (2017). *What is regional Australia?* Retrieved from <http://www.regionalaustralia.org.au/home/what-is-regional-australia/>
- Senate Community Affairs References Committee. (2018). *Availability and accessibility of diagnostic imaging equipment around Australia*. Retrieved from [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Community\\_Affairs/Diagnosticimaging/Report](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Diagnosticimaging/Report)
- Senate Community Affairs References Committee. (2012). *The factors affecting the supply of health services and medical professionals in rural areas*. Retrieved from [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Community\\_Affairs/Completed\\_inquiries/2010-13/rurhlth/report/index](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Completed_inquiries/2010-13/rurhlth/report/index)
- The Health Foundation. (2018). *What makes us healthy. An introduction to the social determinants of health*. Retrieved from <http://reader.health.org.uk/what-makes-us-healthy>
- The McKell Institute. (2016). *The importance of penalty rates for our health workforce: The economic & health impacts of cutting penalty rates*. Retrieved from <https://mckellinstitute.org.au/research/reports/the-importance-of-penalty-rates-for-our-health-workforce/>
- Thomas, S., Wakerman, J. & Humphreys, J. (2014). What core primary health care services should be available to Australians living in rural and remote communities? *BMC Family Practice*, 15, 143-151.

- Thomas, S., Zhao, Y., Guthridge, S. & Wakerman, J. (2014). The cost-effectiveness of primary care for Indigenous Australians with diabetes living in remote Northern Territory communities. *Medical Journal of Australia*, 200, 658-662.
- Wakerman, J., Humphreys, J., Lyle, D., McGrail, M. & Lavey, L. (2015). *Overcoming access and equity problems relating to primary health care services in rural and remote Australia*. Centre of Research Excellence in Rural and Remote Primary Healthcare, Australian National University.
- Willis, E., Price, K., Bonner, R., Henderson, J., Gibson, T., Hurley, J., Blackman, I., Toffoli, L. & Currie, T. (2016). *Meeting residents' care needs: A study of the requirement for nursing and personal care staff*. Australian Nursing and Midwifery Federation.