

doi: 10.1111/1753-6405.12996

Disparity in distribution of inpatient hospital services in Australia

Joshua R. Francis,^{1,2} Shelley Verma,¹
Dennis Bonney^{1,2}

1. Department of Paediatrics, Royal Darwin Hospital, Northern Territory

2. Global and Tropical Health Division, Menzies School of Health Research, Charles Darwin University, Northern Territory

The gap that exists between health outcomes for Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians is multi-factorial. Some of the gaps that exist may be attributed to or exacerbated by limitations in access to health services faced by rural and remote towns. In Australia, 19% of Aboriginal and Torres Strait Islander people live in remote or very remote areas.¹ These people have, on average, worse health outcomes than Aboriginal and Torres Strait Islander people who live in urban settings, further amplifying the gap.²

We used census data from the Australian Bureau of Statistics¹ and jurisdictional and federal health department website data³ to conduct a review of the availability of inpatient hospital services in Australian towns with a population between 1,000 and 4,999, based on the Accessibility/Remoteness Index of Australia (ARIA+) classification system.⁴ We compared towns with a population of more than 80% being Aboriginal and Torres Strait Islander people with other towns using Fisher's exact test for comparison of categorical variables, and a *p*-value <0.05 was considered significant.

There are 533 towns in Australia with a population between 1,000 and 4,999 (median population 1,819). Of these, 14 (3%) have an Aboriginal and Torres Strait Islander population that accounts for more than 80% of the total population.

The vast majority of these towns either have a hospital with acute inpatient beds (226/533, 42%) or are within 50 kilometres of a nearby hospital (282/533, 53%). Towns with a population of more than 80% Aboriginal and Torres Strait Islander people are less

Table 1: Access to inpatient hospital services in Australia, comparing towns where >80% population are Aboriginal and/or Torres Strait Islander people, with other towns, with total population 1,000–4,999.

	Towns >80% Aboriginal/Torres Strait Islander (n=14)	Towns ≤80% Aboriginal/Torres Strait Islander (n=519)	Total towns, population 1,000–4,999 (n=533)
Median population (interquartile range)	1,273 (1,116–2,165)	1,830 (1,263–2,707)	1,819 (1,256–2,664)
Hospital with inpatient beds (%)	5 (36%)	221 (43%)	226 (42%)
Within 50km of a hospital with inpatient beds (%)	0	282 (54%)	282 (53%)
Either a hospital with inpatient beds or one within 50km (%)	5 (36%)	503 (97%)	508 (95%)

likely to either have a hospital or be within 50 kilometres of one (5/14, 36% vs 503/519, 97%; *p*<0.001), see Table 1.

We strongly support calls for increased support for Aboriginal Community Controlled Health Organisations⁵ and acknowledge the importance of bringing focused attention to bear on primary and preventive health needs within Aboriginal and Torres Strait Islander towns. It is difficult to rationalise the poorer access to local inpatient hospital services found here. It cannot be explained by proximity to larger centres or by a lesser need for services, as neither of these are true. The Aboriginal and Torres Strait Islander towns without hospital services within 50 kilometres are all very remote towns in Northern Australia,⁴ which experience disproportionately high burdens of morbidity and mortality. The lack of locally accessible hospital services does not only increase the risk of death and disability, it also contributes to substantial health costs associated with retrieval and relocation to distant centres for hospital care.

In such towns where hospital services are not currently available, consideration should be given to developing these concurrently with efforts to improve primary and preventive health care and to facilitate increasing Aboriginal control and strengthening of the Aboriginal and Torres Strait Islander health workforce.⁵ Such an initiative is likely to require a combination of federal and state or territory funding and should involve communities in the development and control of these services.

References

1. Australian Bureau of Statistics. 2016 Census QuickStats [Internet]. Canberra (AUST): ABS; 2016 [cited 2019 Sep 21]. Available from: <https://quickstats.censusdata.abs.gov.au/>
2. Australian Health Ministers' Advisory Council. *Aboriginal and Torres Strait Islander Health Performance Framework 2017 Report* [Internet]. Canberra (AUST): Department of the Prime Minister and Cabinet; 2017 [cited 2019 Sep 21]. Available from: <http://www.dpmc.gov.au/hpfi/>
3. Australian Institute of Health and Welfare. *My Hospitals* [Internet]. Canberra (AUST): AIHW; 2019 [cited 2019 Mar 1]. Available from: <https://www.myhospitals.gov.au/>
4. Australian Institute of Health and Welfare. *Rural, Regional and Remote Health: A Guide to Remoteness Classifications* [Internet]. Canberra (AUST): AIHW; 2004 [cited 2019 Sep 21]. Available from: <https://www.aihw.gov.au/reports/rural-remote-australians/guide-to-remoteness-classifications/>
5. Panaretto KS, Wenitong M, Button S, Ring IT. Aboriginal community controlled health services: Leading the way in primary care. *Med J Aust.* 2014;200(11):649–52.

Correspondence to: Dr Joshua Francis, Department of Paediatrics, Royal Darwin Hospital, 105 Rocklands Drive, Tiwi, NT 0810; e-mail: josh.francis@menzies.edu.au

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.