

Long-term health conditions: variations in the number and type of conditions reported by Aboriginal and Torres Strait Islander people

Findings

Background

The release by the Australian Bureau of Statistics of data from the 2021 Census of Population and Housing for long-term health conditions provides the opportunity to examine variations by socioeconomic disadvantage and remoteness in the number of long-term health conditions reported by Aboriginal and Torres Strait Islander people.

It is important to note that many Indigenous Australians rate their health as good or excellent despite significant health problems. This may reflect the social and cultural constructs of health, such as culturally distinct views of health and wellbeing held by Aboriginal and Torres Strait Islander peoples, the existing level of health within a community and judgments concerning the person's own health compared with others in their community.

Overall

Almost one third (31.3%) of the Aboriginal population reported in the 2021 Census that they had one or more long-term health condition. This comprised one fifth (20.6%) who reported having one long-term health condition, 6.7% with two conditions and 4.0% with three or more conditions. People diagnosed with one or more chronic conditions often have complex health needs, poorer quality of life and die prematurely.

By socioeconomic disadvantage

There are marked differences in the prevalence of long-term health conditions by socioeconomic status, with fewer Aboriginal people in the lowest socioeconomic status areas reporting these conditions (fewer than in the highest socioeconomic status areas). This decline in rates does not align with the level of use of services (such as admission to hospital), or the relatively poorer health outcomes (such as higher rates of premature mortality) of Aboriginal people. The opposite is the case for the total population, with rates increasing with increasing disadvantage, most notably for those reporting two, or three or more conditions.

By remoteness

Regardless of the number of long-term health conditions reported, the highest rates for Aboriginal people were in the Major Cities and Inner and Outer Regional areas, and the lowest were in the Remote and Very Remote areas; again, this does not align with what we know to be the case from other data collections, either for the number of conditions or for some specific conditions.

Summary

The data for long-term health conditions provide a measure of the extent of variation in health status across Australia and support the case for a population health approach, if the aim is to reduce inequalities in the prevalence of chronic conditions and health outcomes and reduce the burden on public health services. However, this analysis highlights deficiencies in the data for Aboriginal people.

Copyright

© Public Health Information Development Unit, Torrens University Australia 2023

This work is subject to copyright, attribution and reproduction rights under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Australia licence.



Material excluded from this licence includes:

material protected by a trademark;

material owned by third parties, which may include design and layout, images and signatures (we have made all reasonable effort to identify and label material owned by third parties);

material containing a separate copyright licence.

Material presented in this report and associated atlases, graphics packages and data sheets may be copied, distributed, remixed, transformed or built upon however you must attribute PHIDU as the copyright holder in compliance with our licensing and attribution policy, available at <http://phidu.torrens.edu.au/help-and-information/about-our-data/licensing-and-attribution-of-phidu-content>.

To view the full terms and conditions of the licence, refer to the Creative Commons licence information available at <https://creativecommons.org/licenses/by-nc-sa/3.0/au/legalcode>.

Suggested citation

Public Health Information Development Unit (PHIDU). *Long-term health conditions: variations in the number and type of conditions reported by Aboriginal and Torres Strait Islander people*.

Adelaide: PHIDU, Torrens University Australia, June 2023

Related publications

Public Health Information Development Unit (PHIDU). *Long-term health conditions: variations in the number of conditions by socioeconomic disadvantage and remoteness*. Adelaide: PHIDU, Torrens University Australia, June 2023

Public Health Information Development Unit (PHIDU). *Long-term health conditions by type of condition: variations by socioeconomic disadvantage and remoteness*. Adelaide: PHIDU, Torrens University Australia, June 2023

Published in November 2023:

Public Health Information Development Unit (PHIDU). *Long-term health conditions: variations in the number and type of conditions reported, by Indigenous status*. Adelaide: PHIDU, Torrens University Australia, November 2023

Errata

This report has been amended to more clearly draw attention to the aspects of the data when analysed by socioeconomic status and Remoteness Area. In writing the Fact sheet on long-term health conditions by Indigenous status, anomalies in the data when analysed by socioeconomic status and Remoteness Area became evident to the extent that merely referring to 'the caveat with respect to the reporting by Aboriginal people of long-term health conditions, is of particular relevance when considering these data by socioeconomic status' was insufficient.

Contact details

E: phidu@tua.edu.au

Long-term health conditions: variations in the number and type of conditions reported by Aboriginal and Torres Strait Islander people

Background

The release by the Australian Bureau of Statistics (ABS) of data from the 2021 Census of Population and Housing for long-term health conditions for Aboriginal and Torres Strait Islander people (collectively referred to here as Aboriginal people) provides the opportunity to examine variations in the number of conditions by socioeconomic status and remoteness at a finer geographical level than previously possible. That is, for the first time, information is available as to the prevalence of long-term health conditions for Aboriginal communities (Indigenous Locations (ILOC)), rather than just broader regional areas for which survey data can be estimated¹.

Caveats specific to the reporting of long-term health conditions by Aboriginal people

It is important to note that many Aboriginal people rate their health as good or excellent, despite their having significant health problems. This may reflect the social and cultural constructs of health, such as culturally distinct views of health and wellbeing held by Aboriginal and Torres Strait Islander peoples, the existing level of health within a community and judgments concerning the person's own health compared with others in their community. This is why a greater understanding of the cultural determinants of health and potential protective factors is needed². This analysis by socioeconomic status and remoteness highlights the deficiencies in the data for Aboriginal people.

Caveats relevant to the reporting of long-term health conditions by all Australian

Self-reported data and quality of data

The ABS draw attention to the strong link between age and incidence of long-term health conditions; however, the data presented in this Fact sheet have been age-standardised (to the Australian population) to remove, as far as possible, the effects of differences in the age structure when comparing populations³.

The data were self-reported and, as such vary from some of the other data that the ABS collects about these conditions. However, the value of the Census data are in providing data for small geographic areas. For more detail, see under the heading *Methodology* at <https://www.abs.gov.au/articles/long-term-health-conditions#cultural-diversity-and-long-term-health-conditions>. The ABS also advise that the use of a single question in the Census to collect information on the complex and sensitive topic of long-term health conditions likely results in some underestimation of the number and proportion of people with long-term health conditions. This was observed particularly for mental health conditions. For further details see the heading *Demographic characteristics and long-term health conditions* at <https://www.abs.gov.au/articles/long-term-health-conditions#cultural-diversity-and-long-term-health-conditions>.

¹ ABS Census data are available for 1,139 Indigenous Locations at <https://tablebuilder.abs.gov.au/webapi/jsf/login.xhtml>

² Australian Institute of Health and Welfare (AIHW). Aboriginal and Torres Strait Islander Health Performance Framework, Key Facts. Available at <https://www.indigenoushpf.gov.au/measures/1-17-perceived-health-status>

³ Australian Bureau of Statistics (ABS). Demographic characteristics and long-term health conditions at <https://www.abs.gov.au/articles/long-term-health-conditions#demographic-characteristics-and-long-term-health-conditions>

Coverage

The statistics are of all Aboriginal Australians, whether living in a private dwelling (a private dwelling can be a house, flat or even a room; it can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop) or non-private dwelling (hospitals, nursing homes, gaols, etc.). Whereas the proportion of the non-Indigenous population with a chronic condition is higher for those living in non-private dwellings (45.1% compared to 28.5% in private dwellings), the proportions for the Aboriginal population are not reliable, as data for having a long-term condition and the number of conditions was not stated for 46% of the Aboriginal population in non-private dwellings⁴: the overall 'not stated' proportion was 8.1%, the same as for the non-Indigenous population. This compares with just 6.4% not stated in private dwellings. However, as just 4.1% of the Aboriginal population live in non-private dwellings, the proportions shown in this report (regardless of living arrangements) closely reflect those for the population living in private dwellings, with never more than a one percentage point difference.

Number of conditions by socioeconomic status

Almost one third (31.3%) of the Aboriginal population reported in the 2021 Census that they had one or more long-term health conditions. This comprised the one fifth (20.6%) who reported having one long-term health condition, 6.7% with two conditions and 4.0% with three or more conditions (Table 1). People diagnosed with one or more chronic conditions often have complex health needs, poorer quality of life and die prematurely⁵.

The proportions for the non-Indigenous population were all lower, at: one condition, 19.7%; two conditions, 6.1%; three or more conditions, 3.1%; and one or more conditions, 28.9%.

There are marked differences in the data, when analysed by the Indigenous Relative Socioeconomic Outcomes (IRSEO) index, for those with long-term health conditions, ranging from 29% fewer people in the Most disadvantaged areas reporting one condition than in the Least disadvantaged areas (a rate ratio of 0.71), to 40% fewer reporting two conditions (a rate ratio of 0.60) (Table 1)⁶. The decline in rates with increasing disadvantage for some long-term conditions, and with the lowest rates of reporting of these conditions being in the lowest socioeconomic status areas, does not align with the level of use of services (such as admission to hospital), or the relatively poorer health outcomes (such as higher rates of premature mortality) that we know to be the case⁷. As such, the caveat, above, with respect to the reporting by Aboriginal people of long-term health conditions, is of particular relevance when considering these data by socioeconomic status.

⁴ Data extracted from ABS TableBuilder, 1 June 2023: table available on request

⁵ Australian Bureau of Statistics (ABS). National Aboriginal and Torres Strait Islander Health Survey at <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/national-aboriginal-and-torres-strait-islander-health-survey/latest-release#chronic-conditions>

⁶ Details of the IRSEO and of the composition and definitions of quintiles are available [here](#) (under the heading *Aboriginal & Torres Strait Islander Social Health Atlas of Australia and Topic-Specific Atlases*)

⁷ See <https://phidu.torrens.edu.au/social-health-atlases/graphs/monitoring-inequality-in-australia/aboriginal-and-torres-strait-islander-inequality-graphs/indigenous-inequality-graphs-latest>

Table 1: Aboriginal population by number of long-term health conditions and quintile of socioeconomic status, Australia, 2021

Number of long-term health conditions	ASR ¹	Number	Quintile of disadvantage (ASR ¹)		Rate ratio ²
			Least	Most	
One	20.6	167,204	22.2	15.6	0.71
Two	6.7	54,174	7.1	4.2	0.60
Three or more	4.0	32,701	3.9	2.5	0.63
One or more	31.3	254,079	33.2	22.4	0.67

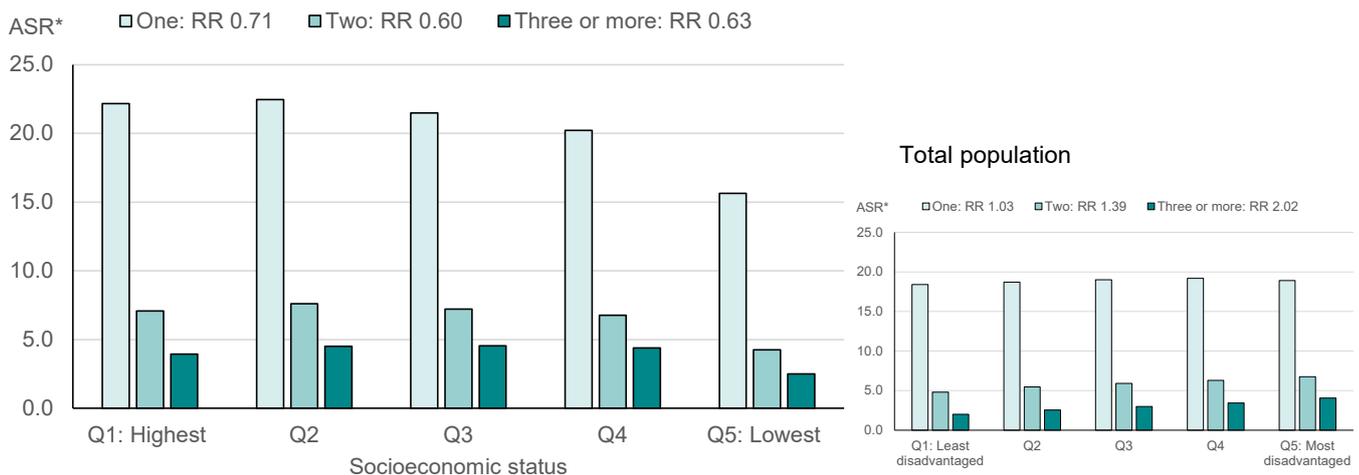
¹ASR is the (indirectly) age-standardised rate per 100 population

²Rate ratio is the ratio of the rate in the Most disadvantaged areas to the rate in the Least disadvantaged areas

The rates at which Aboriginal people report having one, two or three or more long-term health conditions are relatively even across the first two quintiles, before decline to the lowest rate in the lowest socioeconomic status areas (Figure 1).

The thumbnail image in Figure 1 shows the opposite pattern existing for the total population (albeit using a different measure of socioeconomic disadvantage, the Index of Relative Socio-economic Disadvantage, developed by the Australian Bureau of Statistics⁸), with rates increasing with increasing disadvantage, most notably for those reporting two, or three or more conditions.

Figure 1: Aboriginal population by number of long-term health conditions and socioeconomic status, Australia, 2021



*ASR is the (indirectly) age-standardised rate per 100 population

Note: RR is the ratio of the rate in the Most disadvantaged areas to the rate in the Least disadvantaged areas

To view similar charts by number of conditions for each State and Territory and by Greater Capital City and Rest of State/Territory area, as well as for individual conditions for adults and children, see under the heading *Long-term health conditions (ABS Census) data* [here](#).

Number of conditions by remoteness

These data can also be compiled by the ABS Remoteness Structure⁹, providing data for areas where relatively high proportions of the population are Aboriginal (Table 2). The proportion of the population who are Aboriginal increases markedly with increasing remoteness; however, the highest numbers of the Aboriginal population are found in the Major Cities and Inner and Outer Regional areas.

⁸ See <https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/latest-release>

⁹ Details of the Remoteness Structure are available [here](#)

Table 2: Aboriginal estimated resident population by Remoteness Structure, Australia, 2021

Remoteness structure	Number		Proportion of population (%)	
	Aboriginal	Non-Indigenous	Aboriginal	Non-Indigenous
Major Cities	401,674	18,140,963	2.2	97.8
Inner Regional	244,012	4,320,337	5.3	94.7
Outer Regional	187,150	1,895,705	9.0	91.0
Remote	58,727	241,249	19.6	80.4
Very Remote	92,146	103,449	47.1	52.9
Total	983,709	24,701,703	3.8	96.2

Source: Australian Bureau of Statistics (ABS), Table 3: Estimated resident Aboriginal and Torres Strait Islander, non-Indigenous and total populations, states and territories, Remoteness Areas, available from <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release#data-downloads>, downloaded 23 October 2023

Regardless of the number of long-term health conditions, the highest rates were in the Major Cities and Inner Regional areas, and the lowest were in Very Remote areas. The variation between the Very Remote and Major Cities areas increased as the number of conditions reported increased, with 64% fewer people in the Very Remote areas reporting having three or more long-term health conditions (a rate ratio of 0.36) (Table 3 and Figure 2). The lower rates in the remote areas, are inconsistent with the pattern seen in many other data sets: for example, the higher level of use of services (such as admission to hospital), or the relatively poorer health outcomes (such as higher rates of premature mortality) that we know to be the case¹⁰. As such, the caveat, above, with respect to the reporting by Aboriginal people of long-term health conditions, is of particular relevance when considering these data by Remoteness Area.

Table 3: Aboriginal population by number of long-term health conditions and Remoteness Area, Australia, 2021

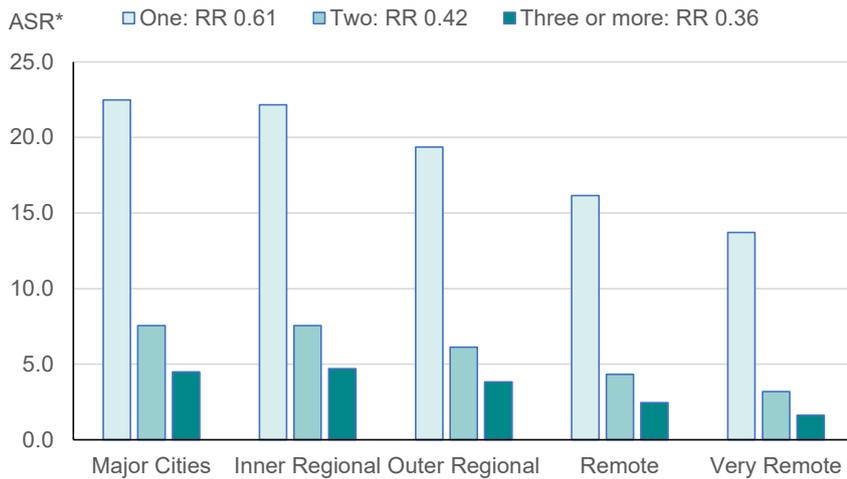
Number of long-term health conditions	ASR ¹	Remoteness Area (ASR ¹)					Rate ratio ²
		Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	
One condition	20.6	22.5	22.2	19.4	16.2	13.7	0.61
Two conditions	6.7	7.6	7.5	6.1	4.3	3.2	0.42
Three or more conditions	4.0	4.5	4.7	3.8	2.5	1.6	0.36
One or more conditions	31.3	34.5	34.4	29.3	22.9	18.6	0.54

¹ASR is the (indirectly) age-standardised rate per 100 population

²Rate ratio is the ratio of the rate in the Very Remote areas to the rate in the Major Cities areas

¹⁰ See <https://phidu.torrens.edu.au/social-health-atlases/graphs/remoteness-in-australia/remoteness-aboriginal-and-torres-strait-islander-population/indigenous-remoteness-graphs-latest>

Figure 2: Aboriginal population by number of long-term health conditions and Remoteness Area, Australia 2021



*ASR is the (indirectly) age-standardised rate per 100 population

Note: RR is the ratio of the rate in the Most disadvantaged areas to the rate in the Least disadvantaged areas

As noted above, the lower rates in the Very Remote areas, and the rate ratios between the Very Remote and Major Cities areas, are inconsistent with the pattern seen in many other data sets. For example, with hospitalisations (with some conditions increasing with remoteness (e.g., diabetes, eye and ear diseases and circulatory and respiratory system diseases), or premature mortality (where rates in Very Remote areas are substantially higher than in Major Cities for many long-term (or chronic) conditions, such as cancer, diabetes and circulatory and respiratory system diseases)¹¹. As noted earlier, the caveat with respect to the reporting of long-term health conditions by Aboriginal people is of particular relevance when considering these data by Remoteness Area.

Summary

The data for long-term health conditions provide an important measure of the extent of variation in health status across Australia. When analysed by socioeconomic status and remoteness, they provide a clear case for a population health approach, if the aim is to reduce inequalities in the prevalence of chronic conditions and health outcomes and reduce the burden on public health services.

Data sources

Unless otherwise stated, the data referred to above are available from the PHIDU website, at the links shown, or from <https://phidu.torrens.edu.au/>

¹¹ See <https://phidu.torrens.edu.au/social-health-atlases/graphs/remoteness-in-australia/remoteness-aboriginal-and-torres-strait-islander-population/indigenous-remoteness-graphs-latest>