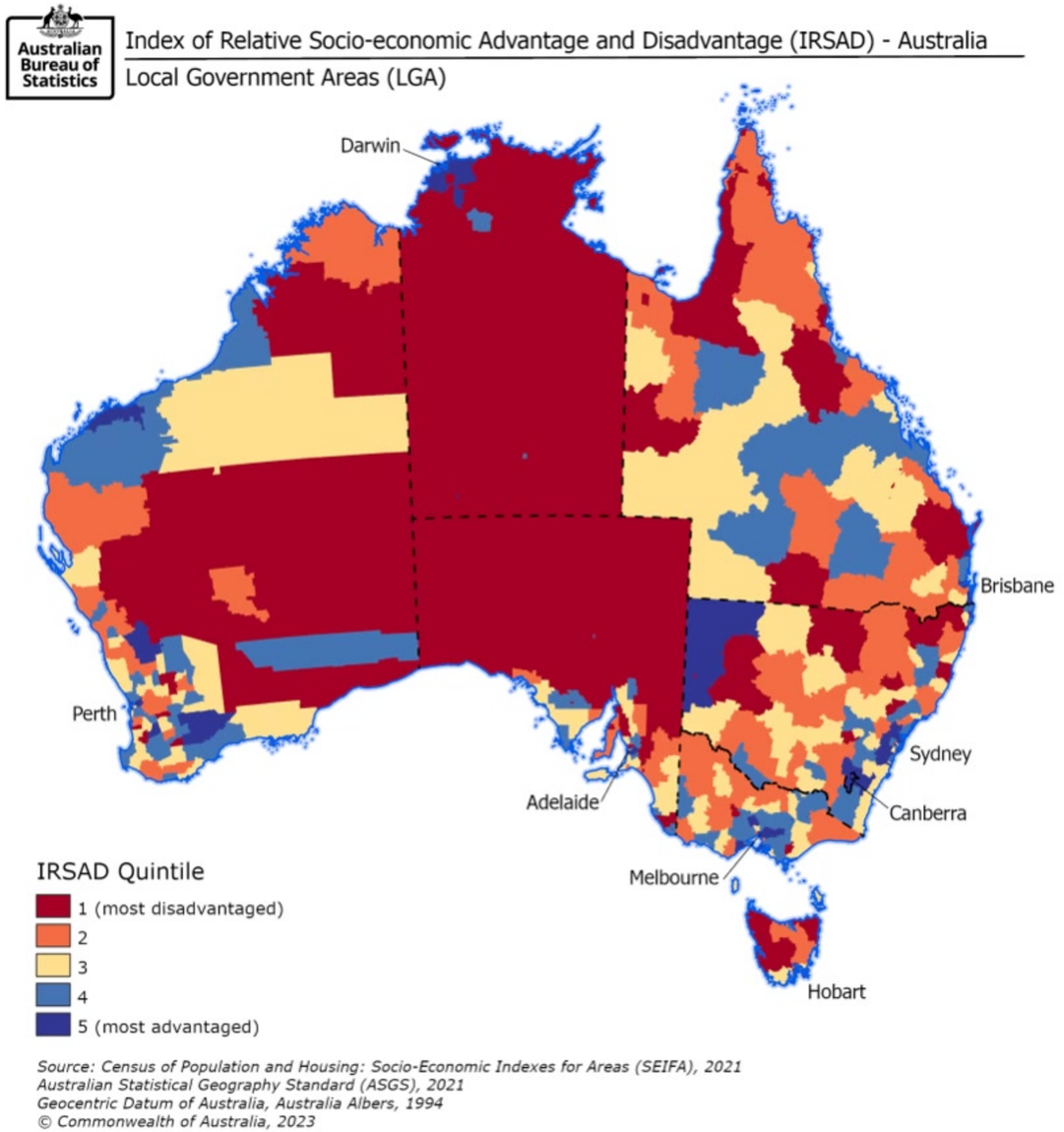
Oral disease burden among socially, economically disadvantaged populations

Western Australian: https://thewest.com.au/news/perth/homeless-crisis-what-life-is-like-inside-perths-own-tent-city-ng-b881661761z
SBS: https://www.sbs.com.au/language/english/en/article/settlement-guide-helping-migrants-access-dental-care/zp9y8zusk

Profile of population – socioeconomic disadvantage



Australian Bureau of Statistics (2021), *Socio-Economic Indexes for Areas (SEIFA), Australia*, ABS Website, accessed 28 July 2024.

Burden of oral disease among economically challenged

Age-standardised DALY rate by disease and socioeconomic group: Persons, 2018

Rate difference compared to national average (AUS)

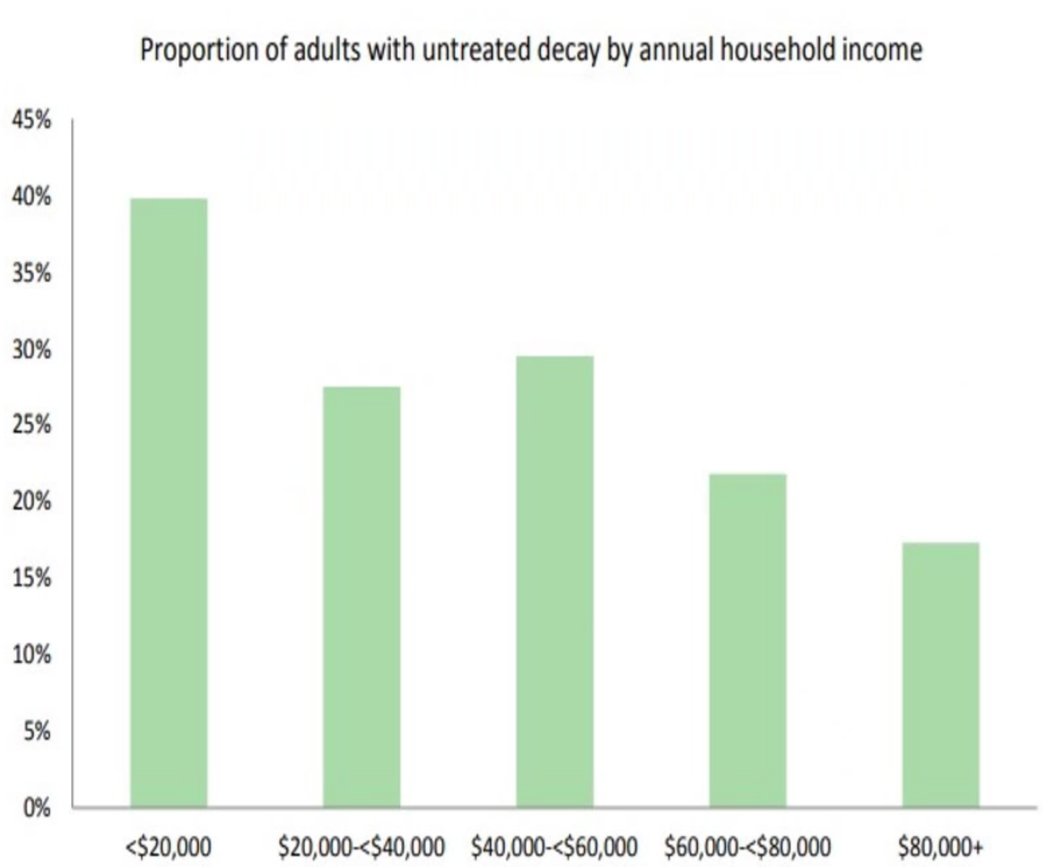
Lower than national ... | 10-19% greater | 30-39% greater | No difference
<10% greater | 20-29% greater | 40-49% greater

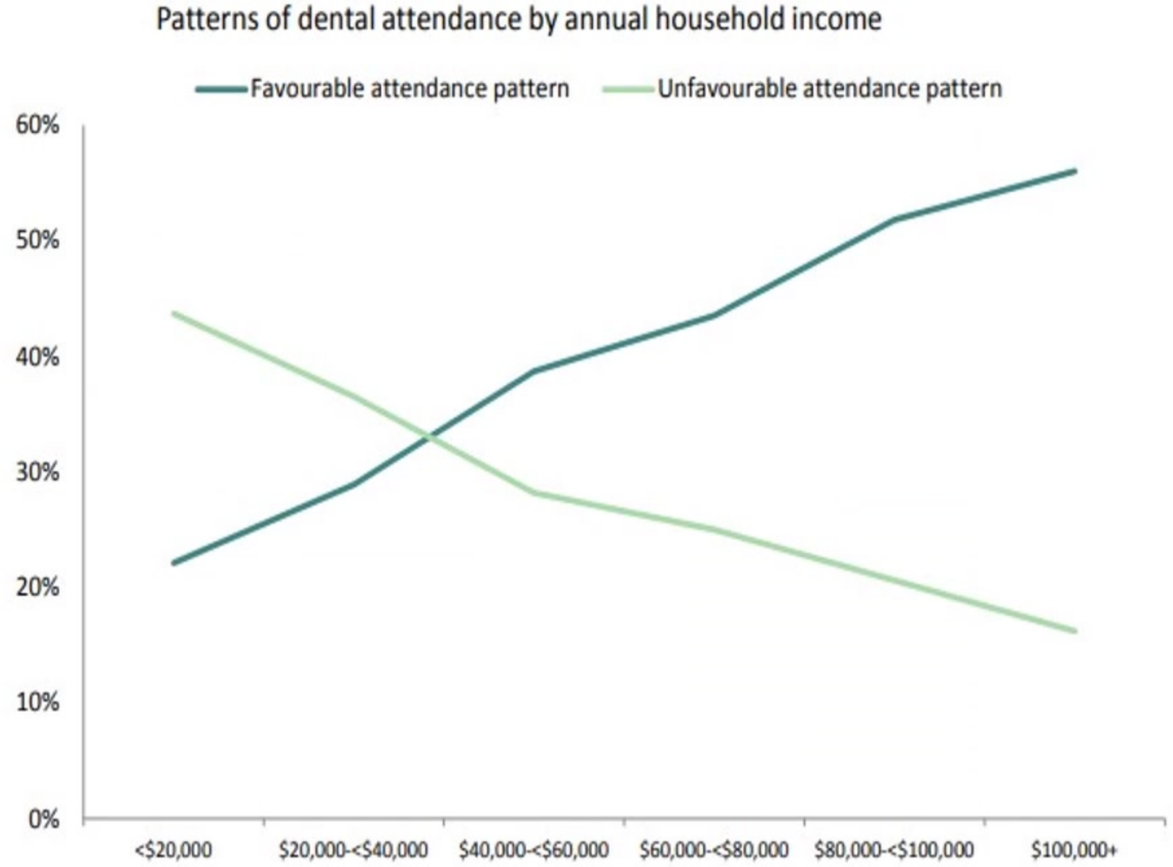
Hover over boxes for more information and scroll for more diseases/injuries.

Disease group	Disease/Injury	Australia	1 (lowest)	2	3	4	5 (highest)
Oral disorders	Dental caries	2.0	2.3	2.3	2.1	1.8	1.4
	Periodontal disease	1.6	1.6	2.0	1.6	1.0	1.6
	Severe tooth loss	0.9	1.2	1.2	0.8	0.9	0.5
	Other oral disorders	0.0	0.0	0.0	0.0	0.0	0.0
	Lip and oral cavity cancer	0.4	0.6	0.4	0.3	0.3	0.2

Australian Institute of Health and Welfare (2021) *Australian Burden of Disease Study 2018: Interactive data on disease burden*, AIHW, Australian Government, accessed 28 July 2024. https://www.aihw.gov.au/reports/burden-of-disease/abds-2018-interactive-data-disease-burden/contents/socioeconomic-groups

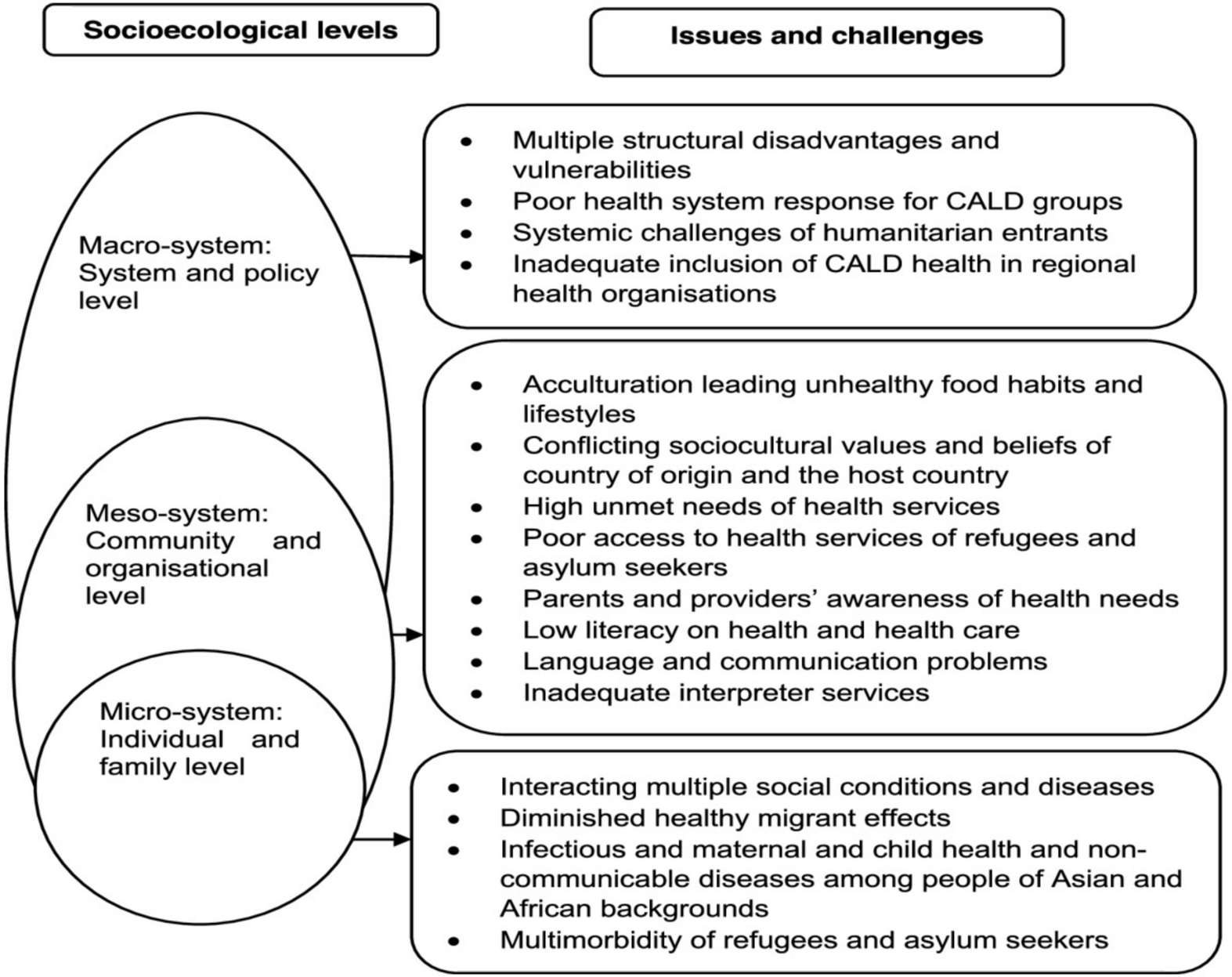
Other relevant findings





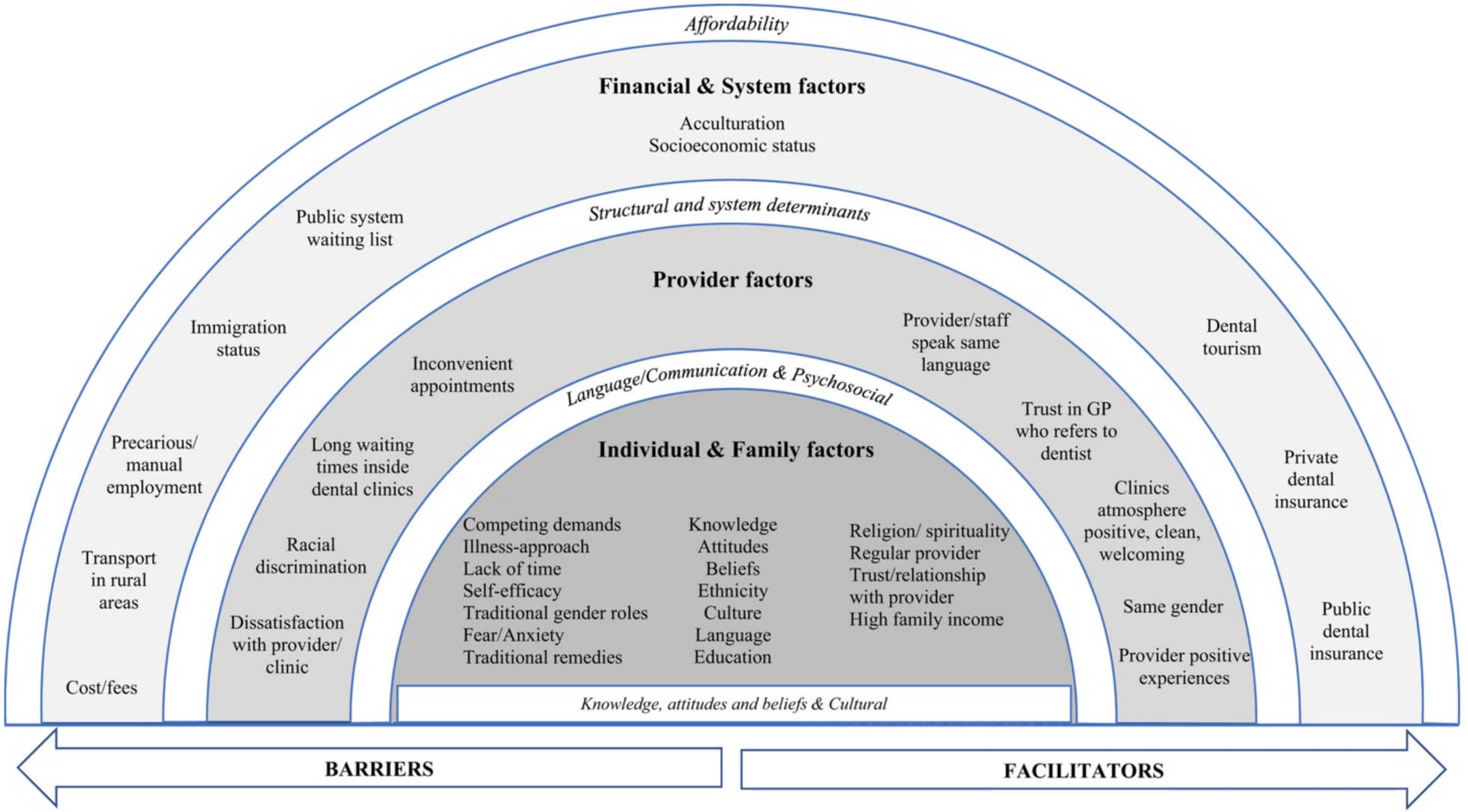
Government of Australia. Healthy Mouths Healthy Lives - AUSTRALIA'S NATIONAL ORAL HEALTH PLAN 2015 - 2024. Adelaide; 2016. https://www.health.gov.au/resources/publications/healthy-mouths-healthy-lives-australias-national-oral-health-plan-2015-2024?language=en

Culturally and Linguistically Diverse Populations – challenges faced.



Khatri, R.B., Assefa, Y. Access to health services among culturally and linguistically diverse populations in the Australian universal health care system: issues and challenges. *BMC Public Health* **22**, 880 (2022). https://doi.org/10.1186/s12889-022-13256-z

Enablers and barriers to utilise oral health service among CaLD groups



Marcus K, Balasubramanian M, Short S, Sohn W. Barriers and facilitators to dental care among culturally and linguistically diverse carers: A mixed-methods systematic review. *Community Dent Oral Epidemiol*. 2023; 51: 327–344. doi:10.1111/cdoe.12745

Some findings

1

In 2017–18, people who spoke a language other than English were more likely to go to a public dental service (23%) than those who spoke English (17%).

2

In 2017–18, people who were born overseas and mainly spoke a language other than English at home were most likely to have needed dental care but avoided due to costs (42%).

3

Untreated caries was substantially higher among visible immigrant children aged 5-9 years (38.8%, 95% CI: 35.5-42.3) than non-immigrant (24.9%, 95% CI: 23.4-26.6) and non-visible immigrant children (21.0%, 95% CI: 17.7-24.7).

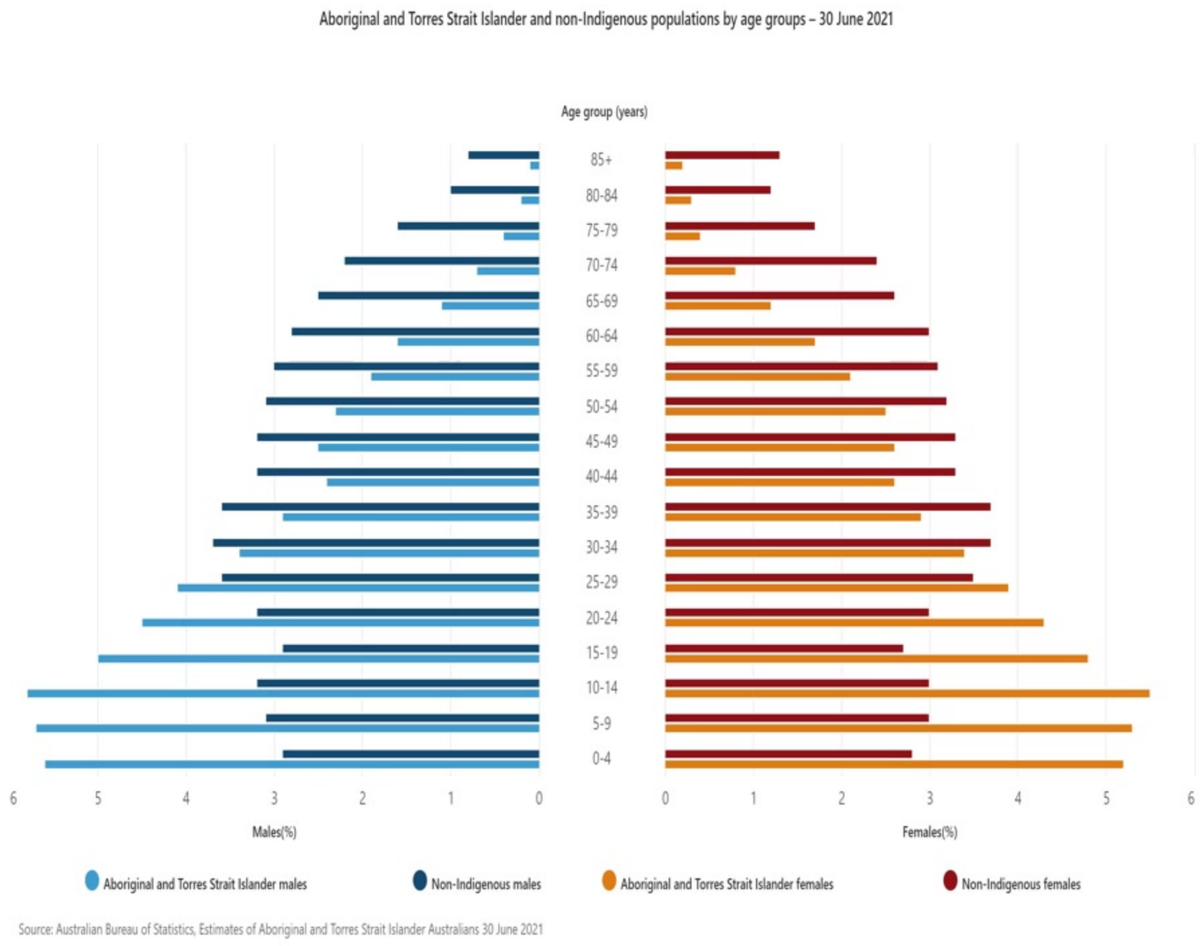
Hermes Soares G, Jamieson L, Kumar S, Mejia G. Oral health profile of Australian children from different immigrant backgrounds. Community Dent Health. 2023 Aug 31;40(3):162-169. doi: 10.1922/CDH_00268Soares08.
Australian Institute of Health and Welfare (2023) *Oral health and dental care in Australia*, AIHW, Australian Government, accessed 28 July 2024 https://www.aihw.gov.au/reports/dental-oral-health/oral-health-and-dental-care-in-australia/contents/priority-populations/people-who-are-socially-disadvantaged-or-on-low-in

Burden of oral disease among Aboriginal and Torres Strait Islanders

https://www.menzies.edu.au/page/Research/Projects/Diabetes/Prevention_of_diabetes_in_Aboriginal_Children/

Population demographic

Australian Bureau of Statistics (2021), *Snapshot of Australia*, ABS Website, accessed 28 July 2024.



	Aboriginal and Torres Strait Islander (%)	Non-Indigenous (%)	Total (%)
Major Cities of Australia	40.8	73.4	72.2
Inner Regional Australia	24.8	17.5	17.8
Outer Regional Australia	19	7.7	8.1
Remote Australia	6	1	1.2
Very Remote Australia	9.4	0.4	0.8

Burden of oral disease

In 2018, oral disorders accounted for 2.1% (4,952 out of 239,893 total DALY) of the total disease burden for Indigenous Australians, and 3.9% (4,917 out of 126,447 total YLD) of the non-fatal burden (years lived with disability).

Indigenous males experienced slightly more of the total burden due to oral disorders than Indigenous females (53% compared with 47%, respectively).

Dental caries was the leading cause of oral disease burden among Indigenous Australians, accounting for almost two-thirds (63%; 3,117 out of 4,952 total DALY due to oral disorders) of the burden due to oral disorders. This was followed by periodontal disease (22%; 1,081 DALY) and severe tooth loss (15%; 741 DALY).

Dental caries accounted for almost all (99.7%; 505 out of 507 total DALY due to oral disorders) of the oral disorders burden for Indigenous Australians aged between 5–14 years, but generally had a decreasing contribution with age thereafter.

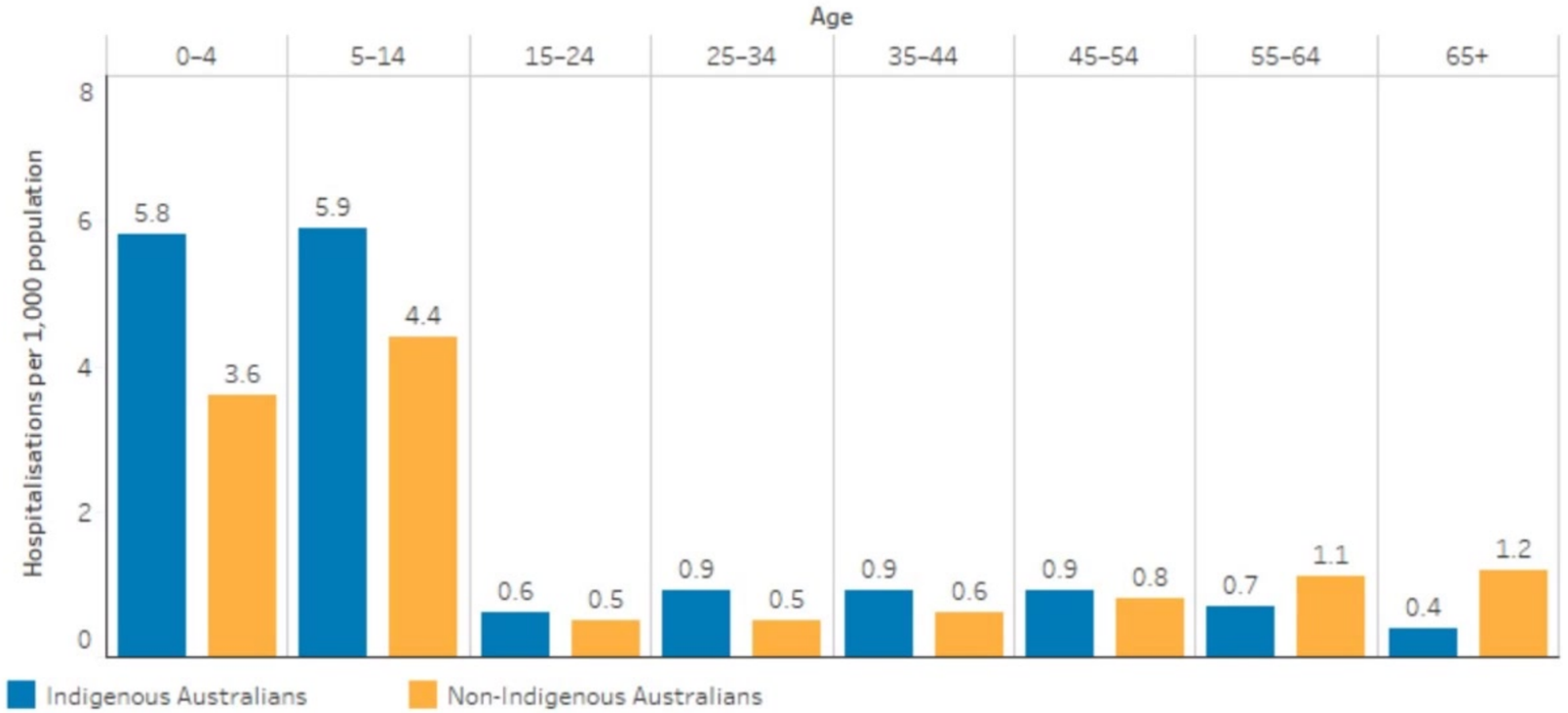
For Indigenous Australians over the age of 65, severe tooth loss was the leading cause of burden (48%; 315 out of 651 total DALY due to oral disorders), followed by dental caries (27%; 179 DALY) and periodontal disease (25%; 163 DALY).

Between 2003 and 2018, for Indigenous Australians, the total burden attributable to oral disorders increased by 17% (based on age-standardised rates). This was predominantly driven by an increase in the non-fatal burden (AIHW 2022a, 2022b).

Australian Institute of Health and Welfare & National Indigenous Australians Agency (2023) Measure 1.11 Oral health, Aboriginal and Torres Strait Islander Health Performance Framework website, AIHW, Australian Government, accessed 28 July 2024.

High rates of hospitalisations for oral problems among Indigenous Australians

Figure 1.11.5: Age-specific hospitalisation rates for a principal diagnosis of dental problems, by Indigenous status and age, Australia, July 2017 to June 2019

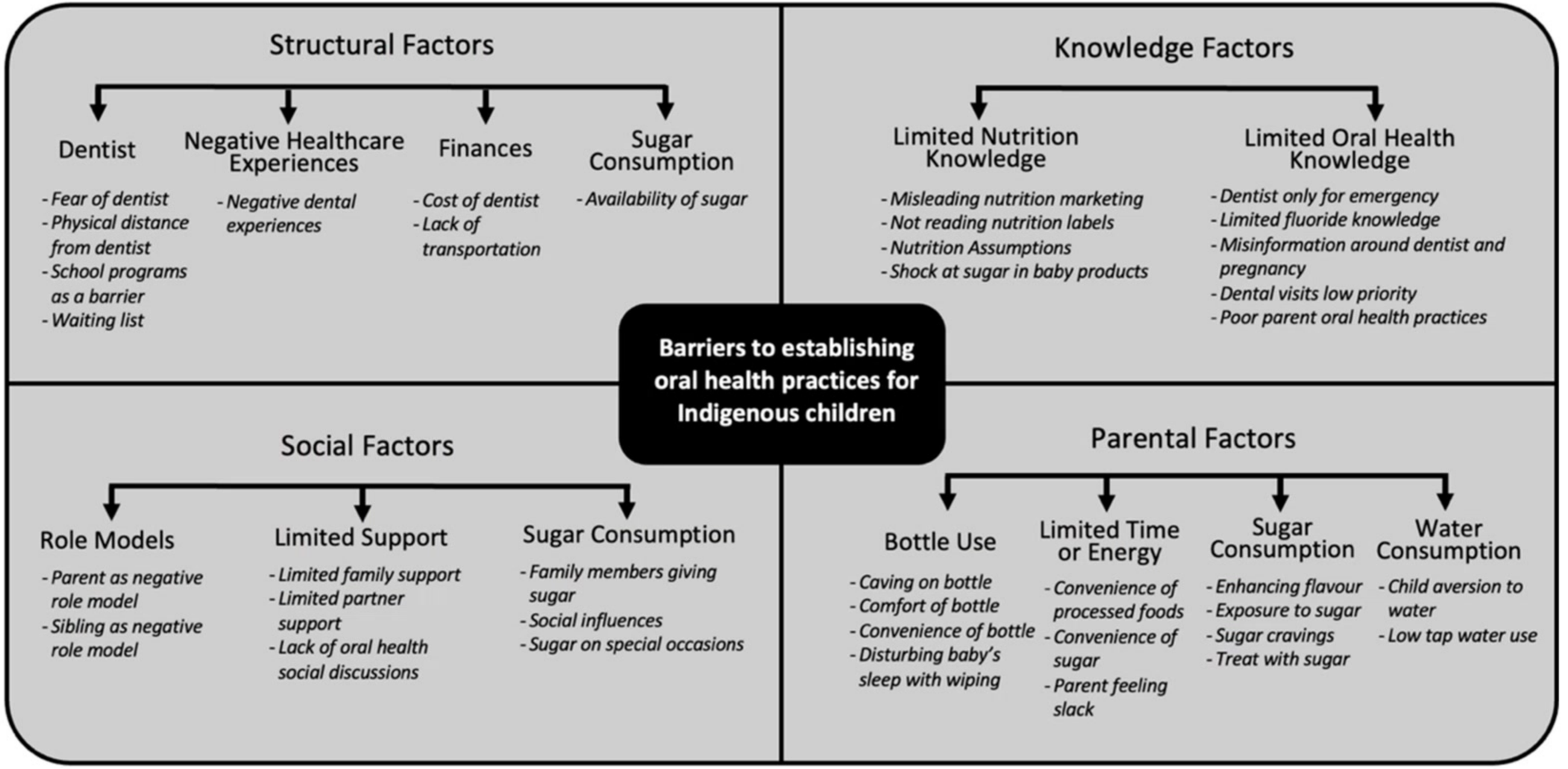


Note: Principal diagnosis of dental problems includes dental caries; loss of teeth due to accident, extraction or local periodontal disease; and dental examination.

Source: Table D1.11.21. AIHW analysis of National Hospital Morbidity Database.

Australian Institute of Health and Welfare & National Indigenous Australians Agency (2023) Measure 1.11 Oral health, Aboriginal and Torres Strait Islander Health Performance Framework website, AIHW, Australian Government, accessed 28 July 2024.

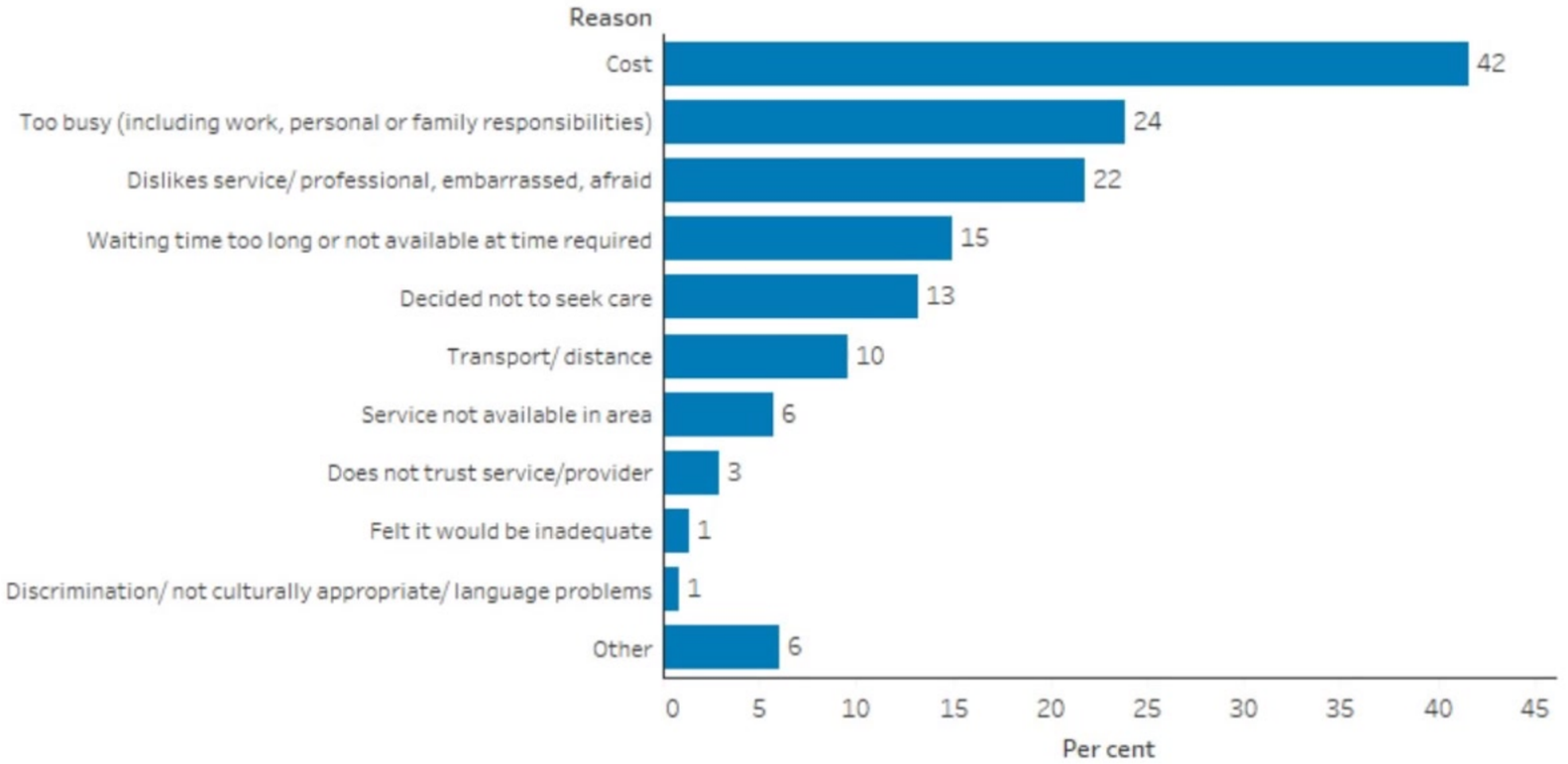
Oral health challenges among Indigenous children



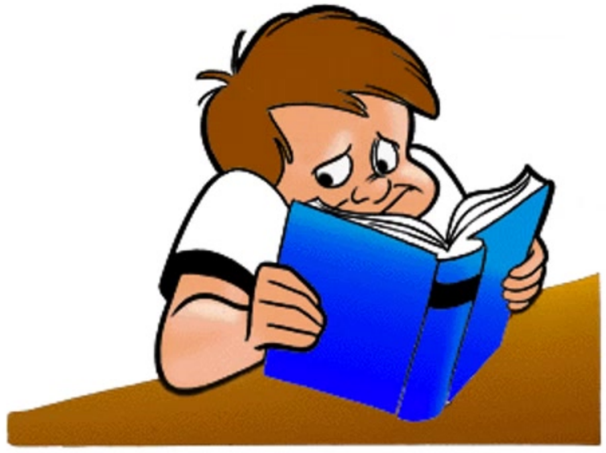
Poirier, B., Hedges, J., Smithers, L. *et al.* "What are we doing to our babies' teeth?" Barriers to establishing oral health practices for Indigenous children in South Australia. *BMC Oral Health* **21**, 434 (2021). https://doi.org/10.1186/s12903-021-01791-x

Potential reasons for not accessing dental care

Figure 1.11.1: Indigenous Australians who needed to go to a dentist in the last 12 months but did not, by reason, 2018–19



Australian Institute of Health and Welfare & National Indigenous Australians Agency (2023) Measure 1.11 Oral health, Aboriginal and Torres Strait Islander Health Performance Framework website, AIHW, Australian Government, accessed 28 July 2024.
Jamieson, L., Do, L., Kapellas, K., Chrisopoulos, S., Luzzi, L., Brennan, D., Ju, X. (2021) Oral health changes among Indigenous and non-Indigenous Australians: findings from two national oral health surveys. *Aust Dent J*. https://doi.org/10.1111/adj.12849



Lets revise..

1. Concept of burden of disease
2. Need to identify priority populations.
3. Burden of disease among

- Socioeconomic disadvantaged groups
- Aboriginal and Torres Strait Islanders