

Inequities in Burns Injuries for Aboriginal and Torres Strait Islander Children

Courtney Ryder^{1,2}, Dr Tamara Mackean^{1,2}, Dr Kate Hunter¹, Associate Professor Kris Rogers^{1,3}, Professor Belinda Gabbe⁴, Professor Andrew Holland⁵, Professor Rebecca Ivers^{1,2,6}

¹ The George Institute for Global Health Australia, UNSW, PO Box M201, Missenden Rd, NSW, 2050. ² Southgate Institute for Health, Society and Equity, Flinders University, GPO Box 2100, SA, 5001. ³ Graduate School of Health, University of Technology Sydney, PO Box 123, Broadway, NSW, 2007. ⁴ School of Public Health and Preventive Medicine, Monash University, 553 St Kilda Road, Melbourne, VIC, 3004. ⁵ The University of Sydney, School of Medicine, Locked Bag 4001, Westmead, NSW, 2145. ⁶ School of Public Health and Community Medicine, UNSW, Sydney, Australia, UNSW, 2052.

BACKGROUND

Aboriginal and Torres Strait Islander children are the First Nation children of Australia, facing a burns incidence and severity greater than other Australian children. Little is understood on how health inequities (presence of avoidable health disparities) contribute, especially from an Indigenous standpoint.

METHODS

Indigenous methodologies (knowledge interface and decolonisation) underpin this research (figure 1). The primacy of Indigenous knowledge (knowing, being and doing), from Aboriginal researchers informed study design for a strength based analyses - variable selection, statistical analysis, and interpretation of results.

Data source and inclusion:

- Burns Registry of Australian and New Zealand
- acute burns admission
- Australian children (<16 years).

Analysis (in Stata 15.1):

- Significance χ^2 tests
- Descriptive statistics (patients demographics, injury characteristics)
- Multiple imputation chained equations (missing data)

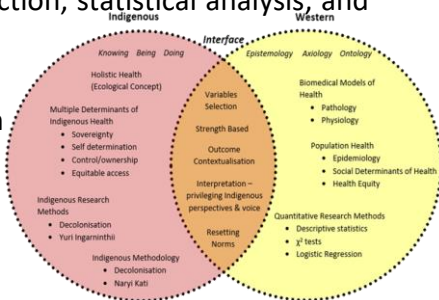


Figure 1: Knowledge interface methodology used in this research

RESULTS

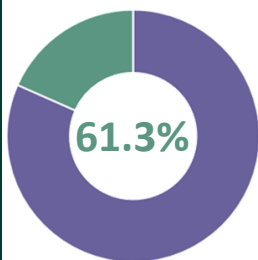


6980 children were admitted to a BRANZ hospital for a burn, **10.4%** were **Aboriginal and Torres Strait Islander children**



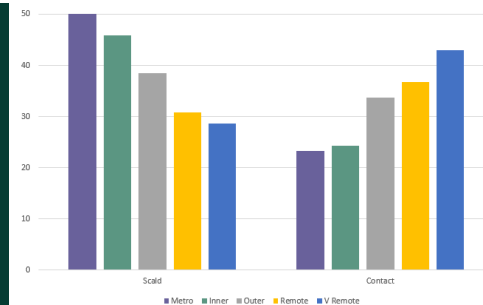
Male gender (61.0%), 1-4 years of age (52.9%), and primary cause from scalds (49.8%) were common in ALL Australian children

Over 70% of Aboriginal and Torres Strait Islander children were from low to very low SES



Of Aboriginal and Torres Strait Islander children resided in outer regional to very remote areas, only 13.8% of other Australian children did

Flame burns were GREATER in Aboriginal and Torres Strait Islander children (19.5% vs 10.5%) than other Australian children



Contact burns **INCREASED** and scalds **DECREASED** with remoteness in **Aboriginal and Torres Strait Islander children.**



Hospital length of stay was LONGER for Aboriginal and Torres Strait Islander children

By 4.8 Nights

CONCLUSION

The burn injury profile differs between Aboriginal and Torres Strait Islander children and other Australian children. This suggests inequities in both prevention programs and access to health services, which may benefit from targeted intervention.



Contact: Courtney Ryder, cryder@georgeinstitute.org.au

Artwork by Zachary Bennett-Brook, artist and owner of Saltwater Dreamtime, a Torres Strait Islander contemporary artist born and raised in Wollongong (Dharawal Country).