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Aboriginal Men's Business: A Literature Review of Factors Affecting Aboriginal Men Accessing Sexual Health Services

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Aboriginal Men's Business: A Literature Review of Factors Affecting Aboriginal Men Accessing Sexual Health Services

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Abstract

Introduction: Aboriginal men are relatively young, with a median age of 22 years, nearly half that of their non-Aboriginal counterparts. Aboriginal men also have the highest mortality rates and have the lowest life expectancy. Sexually Transmissible Infection (STI) rates are extremely overrepresented in lower socio-economic groups, including minority populations. STI rates among Aboriginal communities are significantly higher when compared to the non-Aboriginal population.

Aims: In the context of multiple factors impinging on the sexual health of Aboriginal men, we sought to conduct a comprehensive review of the literature for the purpose of developing a framework through which needs and actions to improve sexual health could be identified and understood.

Methods: A targeted, comprehensive search strategy was developed using keywords and synonyms related to the aims of the project. The search included scholarly peer reviewed academic literature available and grey literature from the Wollongong Hospital and the NSW Health library. The search was made more efficient by entering search terms into the Deakin University EBSCOhost search engine, and Google Scholar was searched separately. Grey literature searching was conducted with Clinical Information Access Portal (CIAP), Informit and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Results: The search produced a total number of 385 papers from peer reviewed publications and grey literature. A total of 95 duplicates were removed, leaving 290 papers. After incorporating the screening process, exclusion and inclusion criteria, the total number of articles selected for review was 31 articles.

Discussion: The thematic analysis identified that cultural considerations of Aboriginal 'Men's business' involving traditional lifestyle, cultural practices and the impact of colonisation were only briefly covered in the included studies. The findings of the literature review indicated that Aboriginal men's health is deeply influenced by their socio-economic status and cultural wellbeing. This review provided limited findings relating to service provision support for Aboriginal men.

Conclusion: Overall, this review presented several concerning factors and evidence of the difficulties for Aboriginal and Torres Strait Islander men accessing sexual health services. Literature identified the long-standing health statistics and deterioration of health and social and emotional wellbeing for Aboriginal and Torres Strait Islander men. While both mainstream health and non-government services are offering limited provision of culturally safe and appropriate healthcare pathways.

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Disclaimer: In some instances in this paper, the term 'Aboriginal' will be used; this will occur when the authors are specifically referring to Aboriginal Australians. Indigenous will be used to describe Indigenous groups globally.

Keywords

Aboriginal, Culturally Appropriate, Men's Business, Sexual Health, Health Barriers

Aboriginal and Torres Strait Islander men are relatively young, with a median age of 22 years, nearly half that of their non-Aboriginal counterparts. Aboriginal and Torres Strait Islander men also have the lowest life expectancy (72 years) of any group in Australia (Australian Bureau of Statistics [ABS], 2019; Peiris et al., 2008). Seventy five percent of mortality is attributable to chronic disease, and most men die aged 65 years or younger from preventable causes (ABS, 2019; Mellor et al., 2016). Poor health outcomes are strongly linked to psychosocial, behavioural and environmental determinants of health such as socio-economic status and lack of access to healthcare, alongside intergenerational trauma, loss of traditional practices and cultural dispossession, which can lead to a high risk-taking behaviours and a reticence to seek medical care (Gracey & King, 2009; King et al., 2009; McKnight et al., 2015; Simpson et al., 2020).

National sexually transmissible infection (STI) data compiled by the Kirby Institute (2012, 2018) show that Aboriginal and Torres Strait Islander men have the highest STI rates in Australia, compared to both Aboriginal and Torres Strait Islander women and the non-Indigenous population. Significantly, findings indicate that Aboriginal and Torres Strait Islander men are least likely to seek healthcare support for several reasons. The Australian Institute of Health and Welfare (Australian Institute of Health and Welfare [AIHW], 2012a, 2012b) reported that barriers to accessing healthcare services are influenced by where people live, their level of income, health education, access to health services, availability of male health clinicians, age and transience. These barriers cannot be considered in isolation from the context of Indigenous models of health, which are more holistic than Western models, and incorporate connection to Country, community, culture and spirit (Gee et al., 2014).

Other research identified that additional barriers were illness-related stigma, traditional health gendered roles (e.g. men looking after men's health), cultural practices, Aboriginal Lore, traditional beliefs of causation, past health care experiences and lack of walk-in healthcare services (Wenitong et al., 2014), as well as the loss of traditional roles, practices, and lifestyles which has created mistrust of non-Aboriginal people and

organisations (Behrendt, 2003; Central Australian Aboriginal Congress, 2020; Dudgeon et al., 2014; National Aboriginal Community Controlled Health Organisation, 2017; Robin & Leep, 2017). The lack of trust may also stem from a lack of culturally appropriate services that take into account Indigenous models of holistic health and the broader determinants of Indigenous health (Canuto, 2018).

In New South Wales (NSW), researchers identified a lack of reporting to the NSW notifiable diseases surveillance system (Ward et al., 2013, 2014). Forrest and Plummer (1999) investigated barriers for Aboriginal and Torres Strait Islander men in NSW accessing sexual health services for STI screening. Some of the concerns identified in this study involved privacy and confidentiality, storage of medical files, lack of specialised health staff, the need for same-sex health staff to avoid 'shame', and a lack of knowledge about sexual health and STI testing.

Aim

In the context of multiple factors impinging on the sexual health of Aboriginal and Torres Strait Islander men, we sought to conduct a comprehensive review of the literature for the purpose of developing a framework through which needs and actions to improve sexual health could be identified and understood.

Methods

Search Strategy

A targeted, comprehensive search strategy was developed using keywords and synonyms related to the aims of the project (Table 1). The search included scholarly peer reviewed academic literature available and grey literature from the Wollongong Hospital and the NSW Health library. The purpose of this exercise was not to conduct a formal systematic review, but to retrieve enough relevant literature to provide a comprehensive and trustworthy account of the evidence. The search was made more efficient by entering search terms into the Deakin University EBSCOhost search engine, which searches across several relevant health, science and social science databases simultaneously. Google Scholar was searched separately. Grey

literature searching was conducted with Clinical Information Access Portal (CIAP), Informit and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Table 1

Search Strategy

Search Terms
The search terms that were used in each data base included the following:
Line 1: "Aboriginal and Torres Strait Islander" or Aboriginal or "First Australians" or "Indigenous".
Line 2: "Culturally Appropriate" or "Culturally Safety" or "Culturally Awareness".
Line 3: "Men's Business" or "Men's Health" or Men.
Line 4: "Health Barriers" or Barriers or Obstacles.
Line 5: "Sexual Health" or Sexually Transmitted Infection" or STI.

Inclusion and Exclusion Criteria

Inclusion

All studies examining an aspect of the sexual health of Aboriginal and Torres Strait Islander men were included. Inclusion criteria were deliberately broad in relation to study focus and design.

No restrictions were placed on study design, or proportion of male Aboriginal and Torres Strait Islander participants, however, studies were only included if there was an explicit focus on this population. There were no restrictions on date range.

Exclusion

Papers not published in English

Conference Papers

Posters Presentations

Abstracts Only.

Critical Appraisal

To evaluate the quality of the publications, we used two evaluation tools: the Critical Appraisal Skills Programme (CASP) and the Joanna Briggs Institute (JBI) tools (Aromataris, 2017). We also recorded the ranking of the journal in which the paper was published, including the impact factor, H Index, and quartile ranking.

Thematic Analysis

Studies were reviewed against the aims of this study and data relating to theory and practice in Aboriginal and Torres Strait Islander men's sexual health were identified and extracted. The data were condensed by identifying and coding specific concepts related to the aims of the study. Authors DD and JC reviewed all data independently, identifying relevance to the three following topics: Aboriginal and Torres Strait Islander men and their health, Aboriginal and Torres Strait Islander men's sexual health, health service models of delivery, and any identified barriers. Review notes from DD and JC were compared manually to develop common themes identified by both authors. Where only one author considered there was a relevant theme in a paper, a third reviewer (DM) was consulted to decide inclusion. A final review of all themes was conducted by all authors.

Results

Screening

Titles and abstracts, then full-text articles, were screened according to the inclusion and exclusion criteria by authors DD and JC independently. Where authors did not agree on a paper for selection, a third reviewer (DM) was consulted and a decision made via consensus. A total of 29 studies were included in the final review. The included studies comprised several different study designs including mixed methods, cross sectional surveys, systematic reviews, research surveys, qualitative interviews, health audits, policy reports, ethnography publications, longitudinal reports, in-depth interviews, small survey questionnaires, and field notes. The number of publications retrieved from each database is shown in Table 2.

Table 2*Database Search Results*

Database	Number of Publications
EBSCOHost	132
Clinical Information Access Portal (CIAP)	94
Informit	83
Google Scholar	72
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	4
Total Number of Papers	385

Critical Appraisal

The 29 included studies were analysed against the level of evidence in research outlined by the National Health and Medical Research Council (NHMRC, 2000) to evaluate the strength of papers. An evaluation of these papers showed that 23 had methodological designs rated as 'weak' and nine were rated as 'moderate' according to the NHMRC hierarchy of evidence (Appendix A).

The ranking of journals in which the articles were published identified 12 were published in quartile 1 journals and 6 published in quartile 2 journals, all with high H-Indexes and Impact Factors. We also noted that many papers reviewed were written by Aboriginal and Torres Strait Islander researchers, preferencing Aboriginal communities voice and perspectives, which was a strength of these papers. The full evaluation of papers considering all metrics in a table format is available (Appendix A).

Thematic Analysis and Framework Development***Key Theme One: Barriers to Accessing Healthcare***

The thematic analysis identified common factors that deterred Aboriginal and Torres Strait Islander men from accessing healthcare services e.g., racism, discrimination, inequalities, and inequities. Other negative experiences that were barriers for Aboriginal and Torres Strait Islander men attending sexual health services and getting STI testing included

prejudices, intergenerational trauma, stereotyping, cultural neglect, and non-inclusive and disrespectful treatment (Wang, 2015). Another important barrier deterring or preventing Aboriginal and Torres Strait Islander men seeking sexual health services was the Westernised biomedical healthcare model incorporated in the Australia healthcare system (Durey & Thompson, 2012; Haining, 2004; Macdonald, 2006).

Key Theme Two: Sexual Health Promotion

The findings indicated that sexual health promotion should focus on decreasing shame and stigma around STI testing and treatment (Forrest & Plummer, 1999). Evidence also suggested that Aboriginal and Torres Strait Islander men had lower than average sexual health literacy, with recommendations that Aboriginal and Torres Strait Islander male health workers should provide sexual health service provision while also being a 'cultural broker' or liaison (Adams et al., 2003; MacPhail & McKay, 2018; Newton et al., 2013).

The fact that Aboriginal and Torres Strait Islander men are over-represented in STI data compared to the general Australian population was commonly emphasised in the literature (Gannon, 2017). However, studies also emphasised that data on Aboriginal and Torres Strait Islander men is limited and, in some cases poorly collected by health organisations. Some studies suggested that increasing rates of STI testing for Aboriginal and Torres Strait Islander males would uncover a significantly higher STI prevalence (Kirby Institute, 2012; NSW Health, 2016; Ward, 2009). The findings of this literature review also suggested that the NSW notifiable diseases surveillance system requires improvement to their STI reporting processes for Aboriginal and Torres Strait Islander Peoples (MacPhail & McKay, 2018; Ward et al., 2013; Ward et al., 2014).

Key Theme Three: Psychosocial factors

The findings of this review indicate that from a Westernised healthcare perspective, Aboriginal and Torres Strait Islander men's physical and mental health was deeply influenced by their socio-economic status and cultural wellbeing (Macdonald, 2006; MacPhail & McKay, 2018). Literature identified that Aboriginal and Torres Strait Islander men commonly have a lower socio-economic status and a higher deterioration of overall health,

and this was reinforced by higher risk-taking behaviours and unhealthy lifestyles (Peiris et al., 2008). The review also found evidence that Aboriginal and Torres Strait Islander men have a poorer psychosocial status, which commonly leads to low self-esteem, depression, and other health related risks e.g., poor nutrition, substance misuse and unsafe sexual behaviours (Adams et al., 2003; Marmot, 2011).

Key Theme Four: Healthcare models for Aboriginal and Torres Strait Islander men

The review provided limited evidence on service provision for Aboriginal and Torres Strait Islander men accessing sexual healthcare services. However, some recommended the need for Aboriginal and Torres Strait Islander men to have a welcoming, culturally inclusive environment to assist with making them feel more relaxed and comfortable to discuss their sexual health issues and or healthcare needs (McCalman et al., 2014; Wang, 2015). There was evidence that the concept of 'non-compliant behaviours' generally occurred from the Westernised biomedical health model being inappropriate (Australian Government, 2013; Dudgeon et al., 2014). The literature also indicated that Aboriginal and Torres Strait Islander men would like healthcare services to provide outreach services (sexual health promotion, education and opportunistic outreach STI screening) via either community designed programs and/or annual events (Guy et al., 2012; Harfield et al., 2018).

Features of sexual health services that were culturally supportive for Aboriginal and Torres Strait Islander men included a welcoming and warm environment, an open-door drop-in policy, and a welcoming reception where preferred (Peiris et al., 2008; Gwynne et al., 2019; Kingsley et al., 2013; Ward et al., 2014). Interestingly, the evidence showed a greater use of sexual health services by Aboriginal and Torres Strait Islander women (Ward et al., 2013). Most studies specified that Aboriginal Community Controlled Health Services were generally considered to be culturally safe, inclusive, and respectful about Aboriginal and Torres Strait Islander 'Men's' and 'Women's' Business (Gwynne et al., 2019; Ward et al., 2013).

There were limited healthcare services being specifically tailored and/or supportive of Aboriginal and Torres Strait Islander men's healthcare needs (Adams et al., 2003). The

literature reviewed in this study found no evidence that mainstream services were proactively modifying services for Aboriginal and Torres Strait Islander People (Newton et al., 2013), for example, by offering sexual health outreach or regular walk-in/drop-in appointments (Forrest & Plummer, 1999). Government and non-government healthcare providers need to improve their service delivery models to increase support for Aboriginal and Torres Strait Islander men by proactively tailoring their healthcare models to be more inclusive of their needs (Mellor et al., 2016).

Discussion

The thematic analysis identified that cultural considerations of Aboriginal 'Men's Business' involving traditional lifestyle, cultural practices and the impact of colonisation were only briefly covered in the included studies. Findings indicated that Aboriginal and Torres Strait Islander men's health is deeply influenced by their socio-economic status and cultural wellbeing. This review provided limited evidence relating to service provision support for Aboriginal and Torres Strait Islander men, and there was limited evidence of healthcare services being specifically tailored to their needs.

The cultural element of sexual health was rarely discussed, although it was recognised in the literature by government and non-government organisations that spirituality, cultural protocols and practices, connection to land, waterways and Country was paramount to health and wellbeing (Senior & Chenhall, 2005; Senior et al., 2014; Wenitong et al., 2014). There was limited discussion in the literature reviewed about the impact of traditional versus contemporary lifestyles on health outcomes (Forrest & Plummer, 1999; Waterworth et al., 2015).

While only vaguely represented, there was some acknowledgement referring to cultural practices being considered in providing health care to Aboriginal and Torres Strait Islander men. Government strategies are slowly recognising that addressing this cultural component will improve overall health and wellbeing and align with the national Close the Gap initiative (Durey & Thompson, 2012). Although nationally, Aboriginal and Torres Strait Islander men have the overall worst health when compared to all other Australians (AIHW,

2014), there was a good volume of literature identifying factors that can play a significant role in improving the overall health and wellbeing of Aboriginal and Torres Strait Islander men, including improved socio-economic status, self-dignity, community cohesion, self-esteem, and social interactions (AIHW, 2012a; Booth & Carroll, 2008; Cunningham et al., 2008).

Limitations

The limited scope of the databases searched on this topic may have resulted in many papers not included in this review. Many of the studies examined in this review were not a representative sample, therefore, the results may not be generalisable to other populations.

Conclusion

Overall, this review presented several concerning factors and evidence of the difficulties for Aboriginal and Torres Strait Islander men accessing sexual health services. Literature demonstrated a long-standing deterioration of health and social and emotional wellbeing for Aboriginal and Torres Strait Islander men. There is a great need for government support to create a better understanding of the current factors that affect Aboriginal and Torres Strait Islander men accessing sexual health services and getting STI testing. Mainstream health and non-government services are offering limited provision of culturally safe and appropriate healthcare pathways. The evidence included in the review strongly indicated that services need to acknowledge and cater for Aboriginal and Torres Strait Islander 'Men's Business' and that healthcare services need to further enhance their service delivery by providing culturally appropriate pathways to increase Aboriginal and Torres Strait Islander men's access to quality healthcare.

References

- Adams, M., de Krester, D., & Holden, C. (2003). Male sexual and reproductive health among the Aboriginal and Torres Strait Islander population. *Rural and Remote Health*, 3(153), 1-3. <https://doi.org/10.22605/RRH153>
- Aromataris, E., & Munn, Z. (2020). *JBI Manual for Evidence Synthesis*. Adelaide, SA: The Joanna Briggs Institute, the University of Adelaide.
- Australian Bureau of Statistics. (2019). *Causes of Death, Australia*. ABS. <https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2019>.
- Australian Government (2013). *National Aboriginal and Torres Strait Islander Health Plan 2013–2023*. Canberra: Australian Institute of Health and Welfare. <https://www.health.gov.au/sites/default/files/documents/2021/02/national-aboriginal-and-torres-strait-islander-health-plan-2013-2023.pdf>
- Australian Institute of Health and Welfare 2012(a). *Australia's health 2012*. Australia's health series no.13. Cat. no. AUS 156. Canberra: AIHW. <https://www.aihw.gov.au/getmedia/5fd0fcfe-bac9-4a4c-8128-1152d0ae9d8d/14178.pdf.aspx?inline=true>
- Australian Institute of Health and Welfare 2012 (b). *Health expenditure Australia 2010-11*. Health and welfare expenditure series no. 47. Cat. no. HWE 56. Canberra: AIHW. <https://www.aihw.gov.au/getmedia/c556b80f-5b15-4ef3-84a5-14ef8739c757/14373.pdf.aspx?inline=true>
- Australian Institute of Health and Welfare 2014. *Australia's health 2014*. Australia's health series no. 14. Cat. no.AUS 178. Canberra: AIHW. <http://www.aihw.gov.au/australias-health/2014/ill-health/#t1>
- Behrendt, L. (2003). *Achieving social justice: Indigenous rights and Australia's future*, Annandale, NSW: Federation Press.

- Booth, A. L., & Carroll, N. (2008). Economic status and the Indigenous/non-Indigenous health gap. *Economics Letters*, 99(3), 604-606.
<http://ideas.repec.org/a/eee/ecolet/v99y2008i3p604-606.html>.
- Cameron, S. (2015). Measuring HIV-based discrimination and human rights abuses: why bother? *HIV Australia*, 13(1). <https://www.afao.org.au/article/measuring-hiv-based-discrimination-human-rights-abuses-bother/>
- Canuto, K., Wittert, G., Harfield, S., & Brown, A. (2018). "I feel more comfortable speaking to a male": Aboriginal and Torres Strait Islander men's discourse on utilizing primary health care services. *International Journal for Equity in Health*, 17(185), 1-11. <https://doi.org/10.1186/s12939-018-0902-1>
- Central Australian Aboriginal Congress (2020). *Aboriginal Health*.
<https://www.caac.org.au/aboriginal-health/>
- Critical Appraisal Skills Programme (2014). *CASP Checklists*. <https://casp-uk.net/casp-tools-checklists>
- Cunningham, J., O'Dea, K., Dunbar, T., Weeramanthri, T., Shaw, J., & Zimmet, P. (2008). Socioeconomic status and diabetes among urban Indigenous Australians aged 15–64 years in the DRUID study. *Ethnicity and Health*, 13(1), 23-37.
<https://doi.org/10.1080/13557850701803130>
- Dudgeon, P., Wright, M., Paradies, Y., Garvey, D., & Walker, I. (2014). Aboriginal Social, Cultural and Historical Contexts. In P. Dudgeon, H. Milroy, & R. Walker (Eds.), *Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice* (2 ed., pp. 3-24). Commonwealth Government of Australia.
- Durey, A., & Thompson, S. C. (2012). Reducing the health disparities of Indigenous Australians: Time to change focus. *BMC Health Services Research*, 12(1), 1-11.
<https://doi.org/10.1186/1472-6963-12-1510>

- Forrest, B., & Plummer, D. (1999). Factors affecting Indigenous Australians' access to sexual health clinical services. *Venereology*, 12(2), 47.
<https://www.semanticscholar.org/paper/Factors-affecting-indigenous-Australians'-access-to-Forrest-Plummer/b18343638351c23f094b70ca113cea27ced20ff2>
- Gannon, M. (2017). Indigenous taskforce: Indigenous sexual health. *Australian Medicine*, 29(17), 25.
- Gee, G., Dudgeon, P., Schultz, C., Hart, A., & Kelly, K. (2014). Aboriginal and Torres Strait Islander Social and Emotional Wellbeing. In P. Dudgeon, H. Milroy and R. Walker (eds). *Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice*. Canberra: Commonwealth of Australia.
- Gracey, M., & King, M. (2009). Indigenous health part 1: Determinants and disease patterns. *The Lancet*, 374(9683), 65-75. [http://doi: 10.1016/S0140-6736\(09\)60914-4](http://doi:10.1016/S0140-6736(09)60914-4).
- Guy, R., Ward, J., Smith, K. S., Su, J., Huang, R., Tangey, A., Skov, S., Rumbold, A., Silver, B., Donovan, B., & Kaldor, J. (2012). The impact of sexually transmissible infection programs in remote Aboriginal communities in Australia: A systematic review. *Sexual Health*, 9(3), 205-212. <https://doi.org/10.1071/SH11074>
- Gwynne, K., Jeffries, T., & Lincoln, M. (2019). Improving the efficacy of healthcare services for Aboriginal Australians. *Australian Health Review*, 43(3), 314-322.
<https://doi.org/10.1071/AH17142>
- Haining, A. (2004). *Sexual health for New South Wales Aboriginal people: A literature review*. Honours Thesis, Indigenous Health Studies, University of Sydney.
- Harfield, S. G., Davy, C., McArthur, A., Munn, Z., Brown, A., & Brown, N. (2018). Characteristics of Indigenous primary health care service delivery models: A systematic scoping review. *Globalization and Health*, 14(1), 12.
<https://doi.org/10.1186/s12992-018-0332-2>

- King, M., Smith, A., & Gracey, M. (2009). Indigenous health part 2: The underlying causes of the health gap. *The Lancet*, 374(9683), 76-85. [https://doi.org/10.1016/S0140-6736\(09\)60827-8](https://doi.org/10.1016/S0140-6736(09)60827-8)
- Kingsley, J., Townsend, M., Henderson-Wilson, C., & Bolam, B. (2013). Developing an exploratory framework linking Australian Aboriginal peoples' connection to country and concepts of wellbeing. *International Journal of Environmental Research and Public Health*, 10(2), 678-698. <https://doi.org/10.3390/ijerph10020678>
- Kirby Institute (2012). *Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Surveillance and Evaluation Report 2012*. Sydney, NSW: The Kirby Institute, the University of New South Wales.
- Kirby Institute (2018). *Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Annual Surveillance Report 2018*. Sydney, NSW: The Kirby Institute, UNSW Sydney.
- Macdonald, (2006). Shifting paradigms: A social-determinants approach to solving problems in men's health policy and practice. *Medical Journal of Australia*, 185(8), 456-458. <https://doi.org/10.5694/j.1326-5377.2006.tb00648.x>
- MacPhail, C., & McKay, K. (2018). Social determinants in the sexual health of adolescent Aboriginal Australians: A systematic review. *Health & Social Care in the Community*, 26(2), 131-146. <https://doi.org/10.1111/hsc.12355>
- Marmot, M. (2011). Social determinants and the health of Indigenous Australians. *Medical Journal of Australia*, 194(10), 512-513. <https://doi.org/10.5694/j.1326-5377.2011.tb03086.x>
- McCalman, J., Tsey, K., Bainbridge, R., Rowley, K., Percival, N., O'Donoghue, L., Brands, J., Whiteside, M., & Judd, J. (2014). The characteristics, implementation and effects of Aboriginal and Torres Strait Islander health promotion tools: A systematic literature search. *BMC Public Health*, 14(1), 712. <https://doi.org/10.1186/1471-2458-14-712>

- McKnight, J., Wild, S. H., Lamb, M., Cooper, M., Jones, T., Davis, E., Hofer, S., Fritsch, M., Schober, E., Svensson, J., Almdal, T., Young, R., Warner, J.T., Delemer, B., Souchon, P. F., Holl, R. W. Karges, W., Kieninger, D. M., Tigas, S., Bargiota, A., ... Miller, K. M. (2015). Glycaemic control of Type 1 diabetes in clinical practice early in the 21st century: An international comparison. *Diabetic Medicine*, 32(8), 1036-1050. <https://doi.org/10.1111/dme.12676>
- Mellor, D., McCabe, M., Ricciardelli, L., Mussap, A., & Tyler, M. (2016). Toward an understanding of the poor health status of Indigenous Australian men. *Qualitative Health Research*, 26(14), 1949-1960.
- National Aboriginal Community Controlled Health Organisation, (2017). *Aboriginal Male Healthy Futures Blueprint 2013-2030*. Canberra: NACCHO
- Newton, D., Keogh, L., Temple-Smith, M., Fairley, C. K., Chen, M. Y, Bayly, C. M., Williams, H., McNamee, K. M., Henning, D., Hsueh, A., Woodward-Fisher, J. R., & Hocking, J. (2013). Key informant perceptions of youth-focussed sexual health promotion programs in Australia. *Sexual Health*, 10(1), 47-56. <https://doi.org/10.1071/SH12046>
- National Health and Medical Research Council (2000). *How to use the evidence: Assessment and application of scientific evidence*. Canberra: National Health and Medical Research Council, Australian Government.
- NSW Health (2016). *NSW Sexually Transmissible Infections Strategy 2016-2020*. Sydney: NSW Government Health.
- Peiris, D., Brown, A., & Cass, A. (2008). Addressing inequities in access to quality health care for Indigenous people. *Canadian Medical Association Journal*, 179(10), 985-986. <https://doi.org/10.1503/cmaj.081445>
- Robin, N., & Leep, C. J. (2017). NACCHO's National Profile of Local Health Departments Study: looking at trends in local public health departments. *Journal of Public Health Management and Practice*, 23(2), 198-201. Doi: 10.1097/PHH.0000000000000536

- Senior, K., & Chenhall, R. (2005). Men's Business and women's business: Indigenous sexual Health. In: *Sexual Health: an Australian Perspective* (pp. 159-170). IP Communications
- Senior, K., Helmer, J., Chenhall, R., & Burbank, V. (2014). 'Young clean and safe?' Young people's perceptions of risk from sexually transmitted infections in regional, rural and remote Australia. *Culture, Health & Sexuality*, 16(4), 453-466.
<https://doi.org/10.1080/13691058.2014.888096>
- Simpson, A. J., Abur, W., & Charles, J. (2020). An exploration of interventions for healing intergeneration trauma to develop successful healing programs for Aboriginal Australians: A literature review. *Australian Indigenous Health Bulletin*, 1(1).
<http://dx.doi.org/10.14221/aihjournal.v1n1.1>
- Wang, B. (2015). Men's health. *Good Practice*, 5, 6-8.
- Ward, J. (2009). Bloodborne Viral and Sexually Transmitted Infections in Aboriginal and Torres Strait Islander People: Surveillance and Evaluation Report. *Aboriginal and Islander Health Worker Journal*, 33(6), 17.
- Ward, J., Bryant, J., Worth, H., Hull, P., Solar, S., & Bailey, S. (2013). Use of health services for sexually transmitted and blood-borne viral infections by young Aboriginal people in New South Wales. *Australian Journal of Primary Health*, 19(1), 81-86. <https://doi.org/10.1071/PY11032>
- Ward, J., Bryant, J., Wand, H., Pitts, M., Smith, A., Delaney-Thiele, D., Worth, H., & Kaldor, J. (2014). *Results of the first Australian study of knowledge, risk practices and health service access for Sexually Transmissible Infections (STIs) and Blood Borne Viruses (BBVs) among young Aboriginal and Torres Strait Islander people: the GOANNA survey*. Alice Springs: Baker IDI Heart and Diabetes Institute
- Waterworth, P., Pescud, M., Braham, R., Dimmock, J., & Rosenberg, M. (2015). Factors influencing the health behaviour of Indigenous Australians: Perspectives from

support people. *PLoS ONE*, 10(11), e0142323.

<https://doi.org/10.1371/journal.pone.0142323>

Wenitong, M., Adams, M., & Holden, C.A. (2014). Engaging Aboriginal and Torres Strait Islander men in primary care settings. *The Medical Journal of Australia*, 200 (11), 632-633. <https://doi.org/10.5694/mja14.00160>

Appendix A

NHMRC Hierarchy of Evidence and Journal Ranking

Author(s), Year	Title	Source (eg. journal, book, website)	Journal Ranking	Research Methodology	Evidence Ranking
Adams, M., de Kretser, D., & Holden, C. (2003).	Male sexual and reproductive health among the Aboriginal and Torres Strait Islander population	Rural and Remote Health. 3(153).	N/A	Opinion Peace	NHMRC VII Weak 1 Stars
Australian Institute of Health and Welfare. (2014).	Australia's Health 2014, Leading types of ill health.	http://www.aihw.gov.au/australias-health/2014/ill-health/#t1	N/A	Opinion Peace	NHMRC VII Weak 1 Stars
Australian Institute of Health and Welfare. (2012).	Health expenditure Australia 2010-11	Australian Institute of Health & Welfare (2012)	N/A	Report	NHMRC VII Weak 1 Stars
Australian Government. (2013)	National Aboriginal and Torres Strait Islander Health Plan 2013–2023	Journal of Management (2013)	Quartile 1 H-Index 224 Impact Factor: 16.662	Opinion peace	NHMRC VII Weak 3 Stars
Booth, A. L., & Carroll, N. (2008).	Economic status and the Indigenous/non-Indigenous health gap	Australian Journal of Primary Health 19(4) 319-324	Quartile 2 H-Index 30 Impact Factor: 1.31	Evaluation	NHMRC VII Weak 2 Stars
Cameron, S. (2015).	Measuring HIV-based discrimination and human rights abuses: Why bother	HIV Australia vol 13(1)	N/A	Report	NHMRC VII Weak 1 Stars
Cunningham, J., O'Dea, K., Dunbar, T., Weeramanthri, T., Shaw, J., & Zimmet, P. (2008).	Socio-economic status and diabetes among urban Indigenous Australians aged 15–64	Ethnicity & Health volume 13(1)	Quartile 1 H-Index 57 Impact Factor: 2.772	Cross-Sectional study	NHMRC IV Moderate 3 Stars

		years in the DRUID study				
	Durey, A., & Thompson, S. C. (2012).	Reducing the health disparities of Indigenous Australians: time to change focus.	BMC Health Services Research, (12), 1-11.	Quartile 1 H-Index 110 Impact Factor: 3.297	Opinion Peace	NHMRC VII Weak 2 Stars
	Forrest, B., & Plummer, D. (1999)	Factors affecting Indigenous Australians' access to sexual health clinical services	Venereology, volume 12(2)	N/A	Qualitative evaluation	NHMRC VI Weak 1 Stars
0	Gannon, M. (2017)	Indigenous taskforce: Indigenous sexual health	Australian Medicine, 29(17), 25.	N/A	Opinion Peace	NHMRC VII Weak 1 Stars
1	Guy, R., Ward, J. S., Smith, K. S., Su, J.-Y., Huang, R.-L., Tangey, A. & Donovan, B. (2012)	The impact of sexually transmissible infection programs in remote Aboriginal communities in Australia: a systematic review	Sexual Health, 9(3), 205-212.	Quartile 1 H-Index 43 Impact Factor: 2.71	Systematic review. controlled trial	NHMRC V Moderate 4 Stars
2	Gwynn, K., Jeffries, T. & Lincoln, M. (2018)	Improving the efficacy of healthcare services for Aboriginal Australians	Australian Health Review, 43(3), 314-322.	Quartile 2 H-Index 46 Impact Factor: 1.99	Systematic review	NHMRC V Moderate 3 Stars
3	Haining, A. (2004).	Sexual health for New South Wales Aboriginal people: A literature review	Honours Thesis: Indigenous Health Studies.	N/A	Literature review	NHMRC VI Weak 2 Stars
	Harfield, S. G., Davy, C., McArthur, A., Munn, Z., Brown, A., &	Characteristics of Indigenous primary health care service delivery	Globalization and Health 14(1): 12.	Quartile 1 H-Index 53	Systematic scoping review	NHMRC V Moderate 4 Stars

	Brown, N. (2018).	models a systematic scoping review		Impact Factor: 4.386		
5	Kirby Institute. (2012).	Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Surveillance and Evaluation Report	Aboriginal and Torres Strait Islander Health Worker Journal, volume, 33, issue 6, November/ December (2009)	N/A	Evaluation report	NHMRC VII Weak 1 Stars
6	MacDonald, J. J. (2006).	Shifting paradigms: a social-determinants approach to solving problems in men's health policy and practice	Medical Journal of Australia 185(8), 456-458	Quartile 2 H-Index 131 Impact Factor: 7.738	Opinion peace	NHMRC VII Weak 2 Stars
7	MacPhail, C., & McKay, K. (2018).	Social determinants in the sexual health of adolescent Aboriginal Australians: a systematic review	Health & Social Care in the Community, 26(2), 131-146	Quartile 1 H-Index 68 Impact Factor: 2.821	Systematic review	NHMRC V Moderate 4 Stars
8	Marmot, M. (2011).	Social determinants and the health of Indigenous Australian	Medical Journal of Australia, Volume 194(10), 512-513.	Quartile 2 H-Index 131 Impact Factor: 7.738	Opinion peace	NHMRC VII Weak 2 Stars
9	McCalman, J., Tsey, K., Bainbridge, R., Rowley, K., Percival, N., O'Donoghue, L., Brands, J., Whiteside, M. & Judd, J. (2014).	The characteristics, implementation and effects of Aboriginal and Torres Strait Islander health promotion tools: a systematic	BMC Public Health 14(1): 1-12.	Quartile 1 H-Index 143 Impact Factor: 4.003	Systematic Literature	NHMRC V Moderate 4 Stars

		literature search				
0	Mellor, D., McCabe, M., Ricciardelli, L., Mussap, A., & Tyler, M. (2016).	Toward an understanding of the poor health status of Indigenous Australian men	Qualitative Health Research, 26(14), 1949-1960.	Quartile 1 H-Index 113 Impact Factor: 5.038	Qualitative	NHMRC VI Weak 3 Stars
1	Newton, D., Keogh, L., Temple-Smith, M., Fairley, C.K., Chen, M.Y., Bayly, C.M., Williams, H., McNamee, K.M., Henning, D., Hsueh, A., Woodward-Fisher, J.R. & Hocking, J. (2013)	Key informant youth-focussed sexual health promotion	Sexual health 10(1): 47-56	Quartile 1 H-Index 43 Impact Factor: 2.71	Opinion peace	NHMRC VII Weak 3 Stars
2	21) NSW Health (2016).	Expanded HIV pre-exposure prophylaxis (PrEP) implementation in communities in New South Wales, Australia (EPIC-NSW): design of an open label, single arm implementation trial.	BMC Public Health	Quartile 1 H-Index 143 Impact Factor: 4.003	Observation	NHMRC VI Weak 3 Stars
3	Peiris, D., Brown, A., & Cass, A. (2008)	Addressing inequities in access to quality health care for indigenous people	CMAJ-JAMC179 (10), 985-986 4 th November 2008	Quartile 1 H-Index 186 Impact Factor: 8.3	Opinion peace	NHMRC VII Weak 3 Stars
4	Senior, K., & Chenhall, R. (2014).	Men's Business, Women's Business-Indigenous Sexual Health	<i>Sexual Health: A Multidisciplinary Approach:</i> (273-287).	N/A	Cross sectional survey	NHMRC V Moderate 2 Stars

			Melbourne: IP Communicati ons			
5	Ward,J. (2009).	Bloodborne Viral and Sexually Transmitted Infections in Aboriginal and Torres Strait Islander People: Surveillance and Evaluation Report	Aboriginal and Torres Strait Islander Health Worker Journal, 33(6), 17 th November/ December (2009)	N/A	Cross sectional survey	NHMRC V Moderate 2 Stars
6	Ward, J., Bryant, J., Worth, H., Hull, P., Solar, S., & Bailey, S. (2013).	Use of health services for sexually transmitted and blood- borne viral infections by young Aboriginal people in New South Wales	Australian Journal of Primary Health, 19(1), 81-86 February (2012)	Quartile 2 H-Index 30 Impact Factor: 1.31	Cross sectional survey	NHMRC V Moderate 3 Stars
7	Ward, J., Bryant, J., Wand, H., Pitts, M., Smith, A., Delay-Thiele, D.,Kaldor, J. (2014).	Results of the first Australian study of knowledge, risk practices and health service access for Sexually Transmissible Infections (STIs) and Blood Borne Viruses (BBVs) among young Aboriginal and Torres Strait Islander people: The Goanna Survey	Baker Heart and Diabetes Institute.	N/A	Cross sectional survey	NHMRC VI Weak 1 Star
8	Wang, B. (2015).	Men's health. Good Practice	Good Practice no.5 May.	N/A	report	NHMRC VII Weak 1 Star

9	Wenitong, M., Adams, M., & Holden, C. A. (2014).	Engaging Aboriginal and Torres Strait Islander men in primary care setting	The Medical Journal of Australia, 200(11), 632-633.	Quartile 2 H-Index 131 Impact Factor: 7.738	report	NHMRC VII Weak 3 Stars
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