

Prevalence of CVD in First Australians: a literature review

Mr Alex M Sher

Mrs Ronell Wilson

Mrs Karen Thurect

Acknowledgement of Country

I respectfully acknowledge the traditional owners and custodians of the Kulin Nation, a place now known by its European name of Melbourne. I pay respect to Elders past, present and emerging.

Introduction

Thank you for this opportunity.

#RMA17

Rural
Medicine
AUSTRALIA

CVD burden

- 13% First Australians
- 5% non-Indigenous Australians
- Slow progress in closing this gap
- Women, elderly

Prevalence of Modifiable Risk Factors

- Daily smoking (rate ratio 2.6)
- Obesity (rate ratio 1.6)
- Inadequate daily fruit and vegetable intake (rate ratios 0.9 and 0.8)
- High blood pressure (rate ratio 1.2)
- Abnormal HDL (rate ratio 1.8)
- High triglycerides (rate ratio 1.9) and dyslipidaemia (rate ratio 1.1).

CVD in First Australian children

- Larkins, Pinto & Craig (2017): 5.8% of all children had HTN and 6.8% pre-HTN
- Larkins et al (2017): 15.6% of First Australian children had HTN and 12.3% pre-HTN (N=657)
- Care-giver BP and BMI strongest predictors
- More common in urban

RHD in First Australian children

- 4.7/1000 in Far North Qld to 15.0/1000 in the Top End of the NT
- Undetected disease substantial
- SES

Rehabilitation Framework

- For children: check BP with adjusted RRs
- Family and community based health promotion and intervention.
- Broad strategies tackling risk factors for MI
- Employ cultural sensitivity & a holistic approach
- Community engagement
- Inter-professional tailored approach
- Promote self-management and health promotion

SEWB Framework

- Community engagement
- Improve social determinants of health

Challenges & Successes

- Rural & remote.
- Socio-economic disadvantage
- Food security.
 - Success story: community engagement reverses local market pricing

Conclusion

A holistic, multi-disciplinary, socially integrated approach to health promotion is required to reduce CVD burden in First Australians.

Health promotion and community engagement are essential, as is early intervention.

References

- AIHW (2015). *Cardiovascular disease in Aboriginal and Torres Strait Islander peoples*. Retrieved from: <http://www.aihw.gov.au/cardiovascular-health/populations-of-interest/>
- Australian Institute of Health and Welfare. (2014). National drug strategy household survey 2013. Retrieved from <http://www.aihw.gov.au/alcohol-and-other-drugs/ndshs-2013/>
- Australian Bureau of Statistics. (2013). Australian and Torres Strait Islander Health Survey: First Results, Australia, 2012-2013. Retrieved from: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4727.0.55.001main+features802012-13>
- Australian Bureau of Statistics. (2011). The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples. Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/lookup/4704.0Chapter756Oct+2010>
- Archer, J. & Bunby, R. (2006). Epilepsy in Indigenous and non-Indigenous people in Far North Queensland. *The Medical Journal of Australia*, 184(12), 607-610. Retrieved from <https://www.mja.com.au/>
- Azzopardi, P., Brown, A., Zimmet, P., Fahy, R., Dent, G., Kelly, M., & Wren, S. (2012). Type 2 diabetes in young Indigenous Australians in rural and remote areas: diagnosis, screening, management and prevention. *Medical Journal of Australia*, 197(1), 32-36. doi: 10.5694/mja12.10036
- Brown, A., Carrington, M., McGrady, M., Lee, G., Zeitz, C., & Krum, H. (2014). Cardiometabolic risk and disease in Indigenous Australians: The heart of the heart study. *International Journal Of Cardiology*, 171(3), 377-383. doi:10.1016/j.ijcard.2013.12.026
- Creative Spirits. (2015, April 25). Aboriginal alcohol consumption. Retrieved May 29, 2015, from <http://www.creativespirits.info/aboriginalculture/health/aboriginal-alcohol-consumption#axzz3cKD0viAI>
- Ellis, M. E. (2005). Neuralgia: types, causes & treatments. Retrieved from <http://www.healthline.com/health/neuralgia#Types2>
- Gracey, M. (2014). Why closing the Aboriginal health gap is so elusive. *Intern Med J*, 44(11), 1141-1143. doi:10.1111/imj.12577
- Heart Foundation (2015). *Aboriginal Health*. Retrieved from: <http://www.heartfoundation.org.au/information-for-professionals/aboriginal-health/Pages/default.aspx>
- Heart Foundation. (2012). Cardiovascular risk profile of Aboriginal and Torres Strait Islander Peoples. Retrieved from <http://www.heartfoundation.org.au/SiteCollectionDocuments/Factsheet-Aboriginal-and-Torres-Strait-Islander-Peoples.pdf>
- Hayman, N. E., Wenitong, M., Zangger, J. A., & Hall, E. M. (2006). Strengthening cardiac rehabilitation and secondary prevention for Aboriginal and Torres Strait Islander peoples: a guide for health professionals. *Medical Journal of Australia*, 184(10), 485. Retrieved from: https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/ind1.pdf
- Australian Indigenous HealthInfoNet. (2014). What do we know about cardiovascular disease among Indigenous people? Retrieved from: <http://www.healthinonet.ecu.edu.au/health-facts/health-faqs/cvd>
- National Heart, Lung, and Blood Institute. (2013). What Are the Symptoms of a Heart Attack? Retrieved from <http://www.nhlbi.nih.gov/health/health-topics/topics/heartattack/signs>
- Neilson, G., Streatfield, R. W., West, M., Johnson, S., Glavin, W., & Baird, S. (1993).
- Rheumatic fever and chronic rheumatic heart disease in Yarrabah aboriginal community, north Queensland. Establishment of a prophylactic program. *Medical journal of Australia*, 158, 316-316. Retrieved from: <https://www.mja.com.au/>
- Penm, E. (2008). *Cardiovascular disease and its associated risk factors in Aboriginal and Torres Strait Islander peoples, 2004-05*. Australian Institute of Health and Welfare. Retrieved from: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442455071>
- Woods, J., Katzenellenbogen, J., Davidson, P., & Thompson, S. (2012). Heart failure among Indigenous Australians: a systematic review. *BMC Cardiovascular Disorders*, 12(1), 99. doi:10.1186/1471-2261-12-99
- Zou, T. M. (2009). Culture as common sense: perceived consensus versus personal beliefs as mechanisms of cultural influence. *Journal of Personality and Social Psychology*, 579-597. doi: 10.1037/a0016399

[extra] CVD in First Australians

- Undiagnosed in many people (Brown et al., 2014)
- Elizabeth Penm (2008): First Australians have
 - 1.3x more CVD
 - 3x as many major coronary events
 - 2x as likely to die in hospital from CVD
 - 19x more likely to die from ARF and chronic RHD

Prevalence of Epilepsy in First Australians: a literature review

Mr Alex M Sher

Mrs Ronell Wilson

Mrs Karen Thurect

Acknowledgement of Country

I respectfully acknowledge the traditional owners and custodians of the Kulin Nation, a place now known by its European name of Melbourne. I pay respect to Elders past, present and emerging.

Outline

- Introduction
- Literature/Statistics
- Analysis
- What does this mean for practitioners?
- Next steps
- Limitations of data
- Conclusion

Plummer et al. (2014)

NT, QLD, SA, WA

- 5.6x greater seizure hospitalisation rate
- 3x higher seizure hospitalisation rate associated with an additional diagnosis
- Males aged 15-64 years over-represented

Archer & Bunby (2006)

CBH/Far North QLD

First Australians comprised:

- 30% (146/486) ED presentations with seizure
- 31% (130/418) epilepsy inpatient admissions
- 44% (28/63) of patients admitted with epilepsy

❖ Under-representation

Wilson, Hawkins, Green & Archer (2012)

Far North QLD ED presentations

- 15 month prospective cohort study, N=260
- 50% non-Indigenous and 45% First Australians completed the questionnaire
 - 47% of those First Australians (compared to 19% non-Indigenous patients) reported missing anti-epileptic tablets at-least twice weekly ($p < 0.05$)
 - First Seizure hospitalisation for 12% First Australians and 26% non-Indigenous patients

Common threads

Lengthier admissions (5.1x longer)

More severe conditions

First Australians

- 53% of adult patients with most severe forms of epilepsy (Archer & Bunby, 2006)
- Emergency vs elective admissions 3x greater (Plummer et al, 2014)
- Higher self-discharge (9.4% vs 1.4%) (Plummer et al, 2014)
- SES & admission rates (Plummer et al., 2014)

Why...?

- Inequitable health care utilisation
- Social disadvantage restricting access
- Inadequate health education causing non-compliance?
- Alcohol?

For practitioners

- Cultural awareness & sensitivity
- Health promotion & patient education
- First Australians in Healthcare
- Webster packs to assist with compliance?
- Find out any reasons for non-compliance

Limitations of data

- Limited
- Under-representation

Conclusion

- Possible that at a community level, there is an increased incidence of epilepsy amongst First Australians.
- Thus, efforts directed to increasing patient education, increasing First Australians in health care roles in rural areas and increasing access to health care may be beneficial.

References

- Australian Bureau of Statistics. (2014, October 20). 4727.0.55.001 - *Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13*. Retrieved from Australian Bureau of Statistics: <http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4727.0.55.001Main%20Features802012-13?opendocument&tabname=Summary&prodno=4727.0.55.001&issue=2012-13&num=&view=>
- Archer, J & Bunby, R (2006). Epilepsy in Indigenous and non-Indigenous people in Far North Queensland. *The Medical Journal of Australia*, 184(12), 607-610. Retrieved from <https://www.mja.com.au/journal/2006/184/12/epilepsy-indigenous-and-non-indigenous-people-far-north-queensland>
- Epilepsy Australia. (2004). *Epilepsy explained*. Retrieved from Epilepsy Australia: http://www.epilepsyaustralia.net/Epilepsy_Information/Epilepsy_explained/Epilepsy_explained.aspx
- Ian B. Wilson, S. H. (2011). Suboptimal anti-epilepsy drug use is common among Indigenous patients with seizures presenting to the emergency department. *Journal of Clinical Neuroscience*, 19(1), 187-189. doi:<http://dx.doi.org/10.1016/j.jocn.2011.07.004>
- National Institute of Neurological Disorders and Stroke. (2015, February 13). *NINDS Epilepsy Information Page*. Retrieved from National Institute of Neurological Disorders and Stroke: <http://www.ninds.nih.gov/disorders/epilepsy/epilepsy.htm>
- Plummer, C. (2014). Australia's seizure divide — indigenous versus non-indigenous seizure hospitalization. *Epilepsy & Behaviour*, 31, 363-368. doi:[doi:10.1016/j.yebeh.2013.09.042](https://doi.org/10.1016/j.yebeh.2013.09.042)
- Steven C. Schachter, P. O. (2013, July). *Is Epilepsy Inherited?* Retrieved from The Epilepsy Foundation: <http://www.epilepsy.com/learn/epilepsy-101/epilepsy-inherited>
- United Nations Development Program. (2013). *Table 1: Human Development Index and its components | Human Development Reports*. Retrieved from United Nations Development Program: <http://hdr.undp.org/en/content/table-1-human-development-index-and-its-components>

Thank You!



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

#RMA17

Rural
Medicine
AUSTRALIA