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Introduction

Respiratory illness is a major contributor to differences in life expectancy between Indigenous and non-Indigenous Australians. Asthma is one of the two most common causes of hospitalization in Indigenous Australians. With the increasing awareness of health professionals about growing health disparities, it is timely to draw attention to studies in community and public health that address this issue in respiratory health.

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Hospitalisation of Indigenous children in the Northern Territory for lower respiratory illness in the first year of life

Authors: O’Grady KA et al.

Comment: This was a historical cohort study of hospitalised episodes of acute lower respiratory infection (ALRI) in Australian Indigenous children aged less than 12 months, living in the Northern Territory (NT). The study reports that one in five NT Indigenous infants will be hospitalised with ALRI, and one in every thousand will have bronchiectasis in their first year of life. These rates are excessive and are substantially higher than those in American Indian or Alaskan Native infants.
Indigenous healthcare worker involvement for Indigenous adults and children with asthma

Authors: Chang AB et al.

Comment: Globally, Indigenous people with asthma are disproportionately represented in morbidity and mortality statistics. Appropriate models of care are important for the successful delivery of services. In this Cochrane review, the authors examined whether involvement of an Indigenous health care worker (IHW) in asthma education programs improved related outcomes in Indigenous children and adults with asthma. The authors found that the involvement of IHW in asthma programs was beneficial for most asthma outcomes except asthma exacerbations.

An education intervention for childhood asthma by Aboriginal and Torres Strait Islander health workers: a randomised controlled trial

Authors: Valery PC et al.

Comment: This is the first study on an education intervention for Indigenous children with asthma, delivered by Indigenous health care workers in Australia. It provides a useful community model for delivering asthma education to address the gap in health outcomes between Indigenous and non-Indigenous Australians.

Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases

Authors: Lewin S et al.

Comment: This Cochrane review looked at the effect of lay workers in primary and community health care for maternal and child health, and the management of infectious diseases. A lay health worker is a member of the community who has received some training in health promotion or performing some healthcare services, but is not a healthcare professional. The authors concluded that lay health workers provide promising benefits in improving tuberculosis treatment outcomes, and promoting uptake of immunisation and breast feeding when compared with usual care.
Smoke-free legislation and hospitalizations for childhood asthma

Authors: Mackay D et al.
Comment: This study has important public health implications emphasising the need for the introduction of smoke-free legislation. The authors report that the introduction of smoke-free legislation in Scotland led to a reduction in the annual rate of admissions for asthma in childhood.

Didgeridoo playing and singing to support asthma management in Aboriginal Australians

Authors: Eley R and Gorman D
Comment: Asthma is a major chronic disease in Aboriginal people. Compliance with asthma management is poor. This was a cross sectional, self-reported study engaging students from two schools, as well as members of the community, who were invited to participate through advertisements in the local media. Males were given a didgeridoo. Females received a mp3 player containing tracks and voice exercises. Singing and breathing exercises were taught by a professional. The project demonstrated that a programme of music intervention can engage Aboriginal adults and school students, support their asthma management and increase their cultural awareness. The study was limited by the absence of a control group and the large drop-out rate.

Management of bronchiectasis and chronic suppurative lung disease in Indigenous children and adults from rural and remote Australian communities

Authors: Chang AB et al.
Comment: This is a useful framework developed by the authors for management of bronchiectasis in Indigenous communities, based on available systematic reviews. The authors recommend and emphasize that successful diagnosis, management and prevention of bronchiectasis in Indigenous Australians requires access to comprehensive health care services, as well as improved housing, education and employment, and reduced levels of poverty.
Impact of public health interventions in controlling the spread of SARS: modelling of intervention scenarios

Authors: Krumkamp R et al.


URL: http://www.ncbi.nlm.nih.gov/pubmed/18462994

Comment: Emerging and re-emerging infectious diseases can appear unexpectedly, resulting in sudden international disease surveillance and response systems. The authors investigated the effects of different interventions using a mathematical modelling approach, with comparison based on the effective reproduction number. The analysis showed that early case detection followed by strict isolation could control a SARS outbreak. This study emphasizes the importance of early detection and isolation of SARS cases, to reduce the number of people being infected. However, they warn that doing so transfers cases to health care facilities, making infection control measures in hospitals essential in order to avoid within hospital spread.

Children hospitalized with 2009 novel influenza A (H1N1) in California

Authors: Louie JK et al.


URL: http://archpedi.ama-assn.org/cgi/content/abstract/164/11/1023

Comment: A review of statewide surveillance records in California found that among more than 300 children hospitalized during the 2009 flu pandemic, 27% were admitted to an intensive care unit (ICU) and 3% died. The majority of hospitalized children (67%) had underlying illnesses and those with congenital heart disease or cerebral palsy/developmental delay were at significantly increased risk of requiring intensive care or dying. The authors recommend that regardless of rapid test results, when 2009 novel influenza A(H1N1) is circulating, clinicians should maintain a high suspicion in children with febrile respiratory illness, and promptly treat those with underlying risk factors, especially infants.
Respiratory health effects of exposure to low–NOx unflued gas heaters in the classroom: a double-blind, cluster-randomized, crossover study

Authors: Marks GB et al.


URL: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2957932/?tool=pubmed

Comment: There have been long-standing concerns about adverse effects of gas appliances on respiratory health. This was a double-blind, cluster-randomized, cross over study of 400 primary school students attending 22 schools in New South Wales, Australia. The children's lung function was measured and they recorded their symptoms and medication use twice daily. Nitrogen dioxide (NO₂) and formaldehyde concentrations in classrooms were measured using passive diffusion badges. The researchers found that classroom exposure to low-NOx unflued gas heaters caused increased respiratory symptoms, particularly in atopic children, but was not associated with significant decrements in lung function. They recommend that it is important to seek alternative sources of heating that do not have adverse effects on health, but that also provide effective and efficient heating and have a favourable environmental profile.