

# PhD defence David Hendrickx

## Revealing the public health significance of skin infections among Aboriginal children living in the Pilbara: A call to action in Western Australia

30 Apr 2018

University of Western Australia -

Booking recommended



Dit is de omschrijving

David Hendrickx will be awarded his PhD entitled “Revealing the public health significance of skin infections among Aboriginal children living in the Pilbara: A call to action in Western Australia” on **30 April 2018** by the University of Western Australia.

### Principal supervisor:

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### Co-supervisors:

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- Dr. Asha Bowen (Telethon Kids Institute / University of Western Australia)

### Abstract:

The aim of the work presented in this manuscript was to document for the first time the extent to which skin infections are a public health issue in Western Australia (WA) and to provide qualitative insights that will inform comprehensive, culturally secure and sustainable ways of improving the prevention and control of skin infections in remote Aboriginal communities. The need for this work followed from an earlier regional study that set out to assess the early child development status of children living in four remote Aboriginal communities in the Pilbara region of WA. The study, which reported high levels of developmental vulnerability among Aboriginal children aged 4-5 years, reported on concerns voiced by community people and stakeholders that suggested that skin infections were among the major issues impacting on child health in these communities.

Epidemiological and intervention studies over the past two decades have established the importance of skin infections and their sequelae among Australian Indigenous children living in remote communities of the Northern Territory (NT). Childhood scabies and impetigo prevalences as high as 50 and 70% respectively have emphasized the need for more effective skin infection prevention and control strategies in the region. However, limited data on the burden of skin infections are currently available for Western Australia. Its impact on children living in remote Aboriginal communities therefore remains largely undocumented, precluding the funding, development and implementation of comprehensive ‘healthy skin’ programs in the state.

Much of the work described here stems from the close collaborative relationships we have established with Aboriginal controlled health services and community organizations in the Pilbara. These collaborations have facilitated the implementation of a retrospective audit of early childhood clinic presentations to estimate the burden of skin infections in four remote Aboriginal communities, as well as a qualitative study that set out to document parent/carer, healthcare practitioner and other service provider attitudes and practices regarding skin infections and their treatment. In addition, we performed an extensive analysis of state-wide child hospitalization data to determine the occurrence of severe skin infections across WA and identify at risk groups. Finally, we undertook a systematic review to assess the possible health and wellbeing benefits that have been associated with swimming pools in remote Aboriginal communities, including possible reductions in the prevalence and severity of skin infections.

The findings presented in this thesis go some way in addressing the current gap in knowledge. Our principal findings are:

1. Skin infections are the most common infectious cause for children to present to primary care clinics in remote Aboriginal communities located in the Pilbara region of WA (16% of all early childhood clinic presentations).
2. Aboriginal children are 15 times more likely to be hospitalized with a skin infection compared to non-Aboriginal children, with Aboriginal infants living in remote areas being at a particularly high risk.
3. Health service utilization for skin infections in Pilbara communities is affected by a range of barriers. These include the need for more culturally secure and patient-centred healthcare provider practices, the normalization of skin infections, and the limitations of current skin infection treatment options.
4. As well as providing a safe social and cultural space for Aboriginal children and their families, swimming pools have been shown to improve skin health in remote Aboriginal communities.

Our findings confirm the high burden of skin infections among children living in remote Aboriginal communities in WA and provide direction in defining what is needed to improve the prevention and control of skin infections in remote Aboriginal communities. The outcomes of this work are being shared with Aboriginal controlled health services and community organizations in the Pilbara. Work is currently underway to trial alternative treatment strategies, address the normalization of skin infections through community-driven health promotion activities, and train healthcare practitioners in the identification and culturally secure management of skin infections.