

## Rheumatic heart disease in Australia—a Dickinsonian disease still prevalent in the Top End

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Acute rheumatic fever (ARF) is an autoimmune sequelae of group A streptococcal (GAS) infection mostly affecting children 6-14 years of age. Recurrent episodes of ARF lead to cumulative heart valve damage and the development of rheumatic heart disease (RHD). RHD is a chronic, sometimes fatal disease that often requires heart valve surgery. It is estimated that RHD affects 15.6 to 19.6 million people worldwide and causes 233,000 to 492,000 deaths each year. ARF and RHD are particularly prevalent in remote Aboriginal communities.

RHDA was established to support RHD control programs in the Northern Territory, Queensland, South Australia and Western Australia by providing technical assistance, advocacy and policy development. RHDA has established a data collection and reporting system to measure the quality of local health service delivery and to provide epidemiological data across participating jurisdictions. Preliminary analysis of data will be discussed and used to determine how we can use the data to leverage better health outcomes linked to the social determinants of health.

In partnership with the National Heart Foundation and the Australian Cardiac Society the evidence based Australian Guideline for Prevention, Diagnosis and Management of ARF/RHD was developed and disseminated and, translated into an iPhone and Android app platform for use in clinical and remote settings. RHDA also works to increase community awareness and prevention of ARF/RHD with a particular focus on primordial prevention through the development of resources that have been designed specifically for use in Aboriginal and Torres Strait Islander (ATSI) communities following a process of community engagement.

ARF and RHD remain a major health problem in Indigenous people in the top end with rates remaining the highest in the world. The Australian Northern Territory has the highest rate of ARF in the world with RHD affecting approximately 25 Aboriginal people in every 1,000 of which 45% require heart valve surgery in Australia, most of whom are less than 25 years old.

Timely diagnosis of an initial ARF episode and subsequent use of antibiotic prophylaxis is the best method of preventing RHD. This paper summarises current strategies to improve health outcomes for ATSI drawing on international and Australian experience.

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