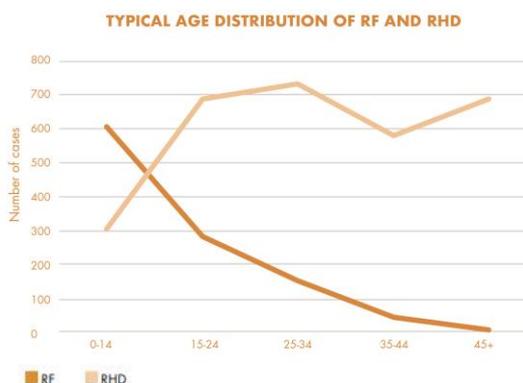
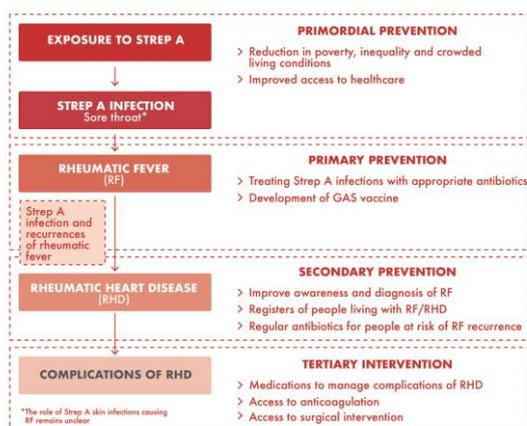


What is rheumatic fever & rheumatic heart disease?

Rheumatic fever (RF) is caused by an abnormal immune response to infection with a bacteria called Group A Streptococcus (GAS), usually in the throat. Susceptible young people can develop symptoms of rheumatic fever (RF) in the weeks following GAS infection, including joint pain, fevers, skin changes and abnormal movements. During an episode of RF the heart may also become inflamed and some children require urgent surgery. The symptoms of RF resolve over a few weeks, however, damage to the heart valve is usually permanent and referred to as rheumatic heart disease (RHD). With repeated episodes of RF the damaged heart valves become thickened and do not work properly.



Complications of RHD

Heart valves damaged by RHD lead to heart failure when the heart can no longer effectively pump blood. RHD also increases the risk of stroke, heart rhythm abnormalities, arrhythmias and heart valve infections. Women with RHD are at greatest risk during pregnancy and labour.

Who is at risk for RF and RHD?

- The peak incidence of RF is between 5 and 15 years of age.¹
- Without intervention people with RHD become symptomatic in young adulthood
- Without treatment, life expectancy is significantly reduced by RHD and associated complications

Burden of disease

- At least 33 million people globally live with RHD globally and 319,000 die annually of the disease.²
- The vast majority of people who live with RHD live in low and middle income countries.²
- Indigenous and vulnerable communities in high resource settings also experience RHD.³
- The majority of deaths resulting from RHD are premature and occur in young adults. Most people who die of RHD are aged under 40 years.^{3,4}

What can be done?

Clinical management is important for individuals and comprehensive, register based, control programs are required for populations. Almost exclusively, the people who die of RHD live in low- and middle-income countries or in vulnerable communities in high-income countries. Their deaths are preventable with medical knowledge and antibiotics which have existed for more than half a century. In most high resource settings socioeconomic and medical determinants have functionally eradicated RHD. Yet preventing, diagnosing and treating RF and RHD remains a fitful struggle in low resource settings. Death and disability from RHD continues to extract an enormous social, economic and cultural toll on young adults and their communities. More information is available on our website below.

1. AIHW. Aboriginal and Torres Strait Islander Health Performance Framework 2017: Acute rheumatic fever and rheumatic heart disease. Australian Institute of Health and Welfare; 2017.
 2. Watkins DA, Johnson CO, Colquhoun SM, et al. Global, Regional, and National Burden of Rheumatic Heart Disease, 1990-2015. *N Engl J Med* 2017; **377**(8): 713-22.
 3. Carapetis JR, Currie BJ. Mortality due to acute rheumatic fever and rheumatic heart disease in the Northern Territory: a preventable cause of death in aboriginal people. *Aust N Z J Public Health* 1999; **23**(2): 159-63.
 4. Zuhlke L, Karthikeyan G, Engel ME, et al. Clinical Outcomes in 3343 Children and Adults With Rheumatic Heart Disease From 14 Low- and Middle-Income Countries: Two-Year Follow-Up of the Global Rheumatic Heart Disease Registry (the REMEDY Study). *Circulation* 2016; **134**(19): 1456-66.