

Parliamentary Joint Select Committee on Northern Australia

12 September 2024

- RHD and strongyloidiasis are both preventable conditions.
- In Australia, Aboriginal and Torres Strait Islander people, particularly children and those in rural and remote places, are disproportionately affected by these diseases.
- Poor living conditions and environmental health factors, such as overcrowded living conditions, poor sanitation, and inadequate hygiene practices increase the risk of acute rheumatic fever (ARF), RHD and strongyloidiasis.
- Addressing the social determinants of health is critical to achieving health equity for Aboriginal and Torres Strait Islander people, and key to eliminating conditions such as RHD and strongyloidiasis in these communities.

Rheumatic Heart Disease

- ARF is a generalised inflammatory illness following an autoimmune response to a group A streptococcus, or Strep A infection.
- RHD is a serious disease of the heart involving damage to one or more of the four small heart valves that can remain after ARF. When the heart is damaged in this way, the heart valve is not able to function adequately.
- Rates of ARF and RHD for First Nations people are amongst the highest in the world.
- The Australian Government is committed to ending RHD as a public health issue by 2030 and is making significant investments to address ARF and RHD through the Rheumatic Fever Strategy (RFS) and the development of a vaccine against Strep A (funded through the Indigenous Health Research Fund).
- The Australian Government has partnered with the National Aboriginal Community Controlled Health Organisation (NACCHO) to deliver this nationally coordinated approach investing **\$45.4 million over four years (2021-22 to 2024-25)** to address RHD through the RFS.
- Working in genuine partnership to shape the way forward for the RFS through this model embodies the vision and priorities identified in the National Aboriginal and Torres Strait Islander Health Plan 2021-2031.
- The partnership model ensures the Government's investment in efforts to eliminate ARF and RHD is directed towards prevention, screening, diagnosis, and treatment on the ground.
- The Communicable Diseases Network Australia (CDNA) is currently considering an application for ARF and RHD to be included on the National Notifiable Disease List (NNDL).
- CDNA has endorsed a set of criteria to guide assessment for inclusion of a disease on the NNDL in order to advise the Minister for Health. Public health priority criteria include: necessity for public health response; utility and significance of notification for prevention programs; vaccine preventability; and importance for Indigenous health.
- All Commonwealth Rheumatic Fever Strategy funding is due to cease on 30 June 2025, future funding is a decision for Government.

Strongyloidiasis

- Strongyloidiasis is an infection caused by the nematode (worm) *Strongyloides stercoralis* that establishes itself in the gut. It lives in the soil predominantly in tropical and sub-tropical zones, and estimates suggest up to 370 million people are infected with the parasite globally.
- Like RHD, strongyloidiasis disproportionately affects First Nations Australians, and some remote communities have had prevalences up to 60%.
- If a person comes in contact with infected soil, the larvae may burrow through the person's skin, making their way to the lungs, then the gut where they become adult worms. The worms produce infective larvae capable of burrowing into the perianal skin and re-infecting the individual (auto-infection). Person-to-person transmission is uncommon.
- Most people infected with *S. stercoralis* do not have any symptoms.
- Symptoms associated with strongyloidiasis include skin symptoms (such as a migrating itchy rash from larvae burrowing under the skin), chest symptoms (such as wheeze and cough when the larvae reach the lungs), and gut symptoms (nausea, vomiting, weight loss, weakness or constipation).
- If an infected person experiences no symptoms and their immune system becomes weakened, they may become unwell years later.
- Immunocompromised people can develop a life-threatening condition called disseminated strongyloidiasis. This occurs when the immune system is weakened enough to allow large numbers of larvae to migrate beyond the gut and lungs throughout the body.
- This complication has been associated with HTLV-I infection which is present in Central Australian Aboriginal people, and with medical treatments such as chemotherapy and high dose steroids for a duration of more than 2 weeks. People in these groups who are about to start medications that affect the immune system, such as steroids or chemotherapy, should be tested for strongyloidiasis before starting treatment.
- Chronic infection is common if treatment is unsuccessful, and even a single larva can re-establish infection. In chronic infections, skin and chest symptoms can persist.
- Ivermectin is the drug of first choice to treat human strongyloidiasis, and is available on the Pharmaceutical Benefits Scheme (PBS) and the Repatriation PBS, as veterans who have seen active service in South East Asia form another significant risk group.
- Strongyloidiasis (extraintestinal) is a notifiable condition to be reported by laboratories in the Northern Territory. For status as a Nationally Notifiable Disease to have any practical effect, it is best if the disease is notifiable in most states and territories.