Rapid Review:
Acute Rheumatic Fever and Rheumatic Heart Disease in Australia

This summary and analysis of the April 2021 Australian Institute of Health and Welfare (AIHW) report into rates of acute rheumatic fever and rheumatic heart disease in Australia has been prepared by the End Rheumatic Heart Disease Centre of Research Excellence and RHDAustralia. The full report can be accessed on the AIHW website.

'Acute Rheumatic Fever and Rheumatic Heart Disease in Australia' is an AIHW report presenting data on acute rheumatic fever (ARF) and rheumatic heart disease (RHD). Within the report:

- All information is from data collected between 2015 – 2019;
- Data was sourced from jurisdictional RHD control program registers;
- Four jurisdictions contributed comparable data (Queensland, Western Australia, South Australia and Northern Territory). Data from New South Wales is presented separately given the RHD register has only been operational since 2016.

The burden of ARF and RHD is growing in Australia

- Between 2015 – 2019, 2,244, people were diagnosed with ARF across the four jurisdictions. Aboriginal and Torres Strait Islander people accounted for 95% of these diagnoses.
- The rate of definite or probable ARF notifications has **increased** from 67/100,000 in 2015 to 81/100,000 in 2019.
- 5,385 people living with RHD were recorded on state and territory registers, of whom 81% were Aboriginal and Torres Strait Islander people.
- 399 people with RHD died between 2015 – 2019. Aboriginal and Torres Strait Islander people accounted for 72% of these deaths and with a median age of death of 52.

Management and outcomes from ARF and RHD

- Regular antibiotic injections, known as secondary prophylaxis, are recommended for people who have had ARF to prevent recurrent episodes of ARF and reduce the development of RHD.
- Across the four jurisdictions most people (63%) received less than 80% of their prescribed secondary prophylaxis injections, leaving them vulnerable to recurrent ARF episodes and worsening RHD. Delivery of secondary prophylaxis doses has remained relatively stable over time.
- There were 131 reported ARF recurrences among people prescribed benzathine benzylpenicillin G (BPG). These recurrences were most likely in settings with lower delivery of secondary prophylaxis.
- 370 Aboriginal or Torres Strait Islander people had heart surgery for RHD between 2015 – 2019. The majority of these operations occurred in people under 45 years of age and most were female.

Limitations of this report

- Comparable information is only reported for four jurisdictions supported by the national Rheumatic Fever Strategy, with separate information provided about New South Wales. The burden of disease in Victoria, the Australian Capital Territory and Tasmania is not reported and remains unknown. There are currently no national data on the burden of ARF and RHD in Australia.
- The analysis of mortality data does not provide detail on cause of death, so it is not possible to know whether deaths were caused or contributed to by RHD.
- Information is not available at a community level because of concerns about small data blocks and confidentiality. This is congruent with established AIHW processes for reporting Aboriginal and Torres Strait Islander data but does not necessarily support the data sovereignty needs of communities that want to know more about their local burden of disease.
- No information is presented on the burden of Strep A infections of the throat and skin which cause ARF. Diagnosis and management of Strep A infections is outside the scope of the RHD registers where information in this report comes from. However, understanding the causes of ARF is critical to efforts to prevent new cases.

Main points

- The burden of ARF and RHD continues to grow among Aboriginal and Torres Strait Islander people in Australia. Modelling in the RHD Endgame Strategy indicates that this will continue without urgent action.

What needs to happen now

The 2020 Australian guideline for the prevention, diagnosis and management of acute rheumatic fever (ARF) and rheumatic heart disease (RHD) (3rd edition) places people with ARF and RHD, and their families and communities, at the centre of care. The Guideline recommendations reflect the important balance between cultural competence and clinical excellence and their implementation is critical.

The RHD Endgame Strategy provides a blueprint for decision makers in communities and government to end RHD in Australia by 2031. Launched by Federal Minister of Health, Hon Greg Hunt, in September 2020 with the endorsement of over twenty peak bodies, the RHD Endgame Strategy identifies five priority action areas for ending RHD in Australia: