

31 January 2019 – At the Seventy-first World Health Assembly in May 2018, Member States endorsed resolution WHA71.14 on rheumatic fever and rheumatic heart disease. The resolution called for WHO to launch a coordinated global response to rheumatic heart disease. In response, the WHO Regional Office for the Eastern Mediterranean, in consultation with various partners such as Reach (to stop rheumatic heart disease) and the World Heart Federation, has begun the process of developing a regional framework and regional network of experts to initiate action on rheumatic heart disease. The regional framework will serve as a roadmap on how to implement the global resolution at regional level and guide countries on how to develop or adapt comprehensive and effective national rheumatic heart disease programmes.

What is rheumatic heart disease?

Rheumatic heart disease is a preventable yet serious public health problem in low- and middle-income countries and in marginalized communities in high-income countries. The disease results from damage to heart valves caused by one or several episodes of acute rheumatic fever, an autoimmune inflammatory reaction to throat infection caused by Group A streptococci (streptococcal pharyngitis). It most commonly occurs in childhood, and can lead to death or life-long disability. Effective early intervention can prevent premature death from rheumatic heart disease.

Who does the disease affect?

The disease affects some 33 million people globally and in 2015, rheumatic heart disease was estimated to have been responsible for 305 000 deaths and 11.5 million disability-adjusted life years lost. Of these deaths, 60% were premature (before 70), with the majority of people dying from rheumatic heart disease being under 40 years of age and thus causing great social, economic and developmental challenges to young adults and their communities. In the Eastern Mediterranean Region, rheumatic heart disease persists in certain countries such as Egypt, Sudan and Yemen.

In addition to this, rheumatic heart disease disproportionately affects girls and women, who run a two times higher risk to develop rheumatic heart disease compared to men, and females accounted for two thirds of patients with rheumatic heart disease admitted to selected hospitals in 12 countries in the African Region, India and Yemen. Where rheumatic fever and rheumatic heart disease are endemic, rheumatic heart disease is the principal heart disease seen in pregnant women, causing significant maternal and perinatal disease and death.

What are some of the contributors and consequences of rheumatic heart

disease?

Socioeconomic and environmental factors such as poor housing, undernutrition, overcrowding and poverty are well-known contributors to the incidence, magnitude and severity of rheumatic fever and rheumatic heart disease. The economic cost to countries with a persistently high incidence of rheumatic heart disease is significant. The most devastating effects are on children and young adults in their most productive years.

Rheumatic fever and rheumatic heart disease lead to increased school absenteeism and drop-out, and lost wages.

Prevent, control and eliminate rheumatic heart disease

The prevention, control and elimination or eradication of rheumatic heart disease is increasingly being recognized as an important developmental issue by countries. Secondary prevention of rheumatic fever and rheumatic heart disease is among the policy options for countries in WHO's Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020. Moreover, the targets for Sustainable Development Goal 3 (Ensure healthy lives and promote well-being for all at all ages) include reducing premature death from noncommunicable diseases by one third, ending preventable deaths of newborn and children under 5 years of age, and reducing the global maternal mortality ratio to <70 100 000 live births all by 2030 most deaths from rheumatic heart disease are premature and controlling eliminating will contribute to fulfilling global goals.

There are 3 levels of prevention for rheumatic heart disease: reducing the risk factors for rheumatic fever (primordial prevention); primary prevention of rheumatic fever and rheumatic heart disease; and secondary prevention (prophylaxis) of rheumatic fever and rheumatic heart disease.

Reducing the risk factors for rheumatic fever (primordial prevention)

Primordial prevention aims to avoid episodes of streptococcal pharyngitis by tackling poverty, improving living and housing standards, and increasing access to health care.

Primary prevention of rheumatic fever and rheumatic heart disease

Primary prevention of rheumatic fever can be achieved through the effective treatment of

streptococcal pharyngitis with penicillin and is most effective when delivered as part of routine child health care and integrated into existing health strategies and community programmes. For that, more effective strategies for diagnosis are needed. Group A streptococcal infection accounts for 20–40% of cases of pharyngitis in children. Compared with culture of throat swabs, rapid antigen-detection tests offer diagnosis at the point of care and therefore need to be part of such strategies.

Secondary prevention (prophylaxis) of rheumatic fever and rheumatic heart disease

Secondary prophylaxis through the administration every 3–4 weeks of injections of benzathine benzylpenicillin to patients with a previous history of rheumatic fever and/or rheumatic heart disease is effective at preventing streptococcal pharyngitis and a recurrence of rheumatic fever. It requires case finding, referral, registration, administration of penicillin injections and regular follow-up. Establishment of registries of known patients has proven to be effective in reducing disease and death, and these sources should be included in existing national disease surveillance mechanisms, where available.

For countries where rheumatic heart disease is endemic the main strategies for prevention, control and elimination include:

- improving standards of living;
- expanding access to appropriate care;
- ensuring a consistent supply of quality-assured antibiotics for primary and secondary prevention; and
- planning, development and implementing feasible programmes for prevention and control of rheumatic heart disease, supported by adequate monitoring and surveillance, as an integrated component of national health systems responses.

[Rheumatic fever and rheumatic heart disease: Report by the Director-General](#)

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