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## Temporal Trends and Burden of Rheumatic Heart Disease in South Asia: A Comprehensive Analysis of Three Decades from Global Burden of Disease Study

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**Background:** The objective of this study is to conduct a temporal analysis of rheumatic heart disease (RHD) disease burden trends over a 30-year period (1991 to 2021), focusing on prevalence, deaths, and disability-adjusted life years (DALYs) in the South Asia (SA). **Methods:** In this ecological study, we analyzed data regarding burden of RHD from the Global Burden of Diseases (GBD) study spanning the years 1991 to 2021 for the SA Region. Estimates of the number RHD-related prevalence, deaths, and DALYs along with age-standardized rates (ASR) per 100,000 population and 95% uncertainty intervals (UI) were evaluated. **Results:** The overall prevalent cases of RHD in the 2021 were  $54785.1 \times 103$  ( $43328.4 \times 103$  to  $67605.5 \times 103$ ), out of which  $14378.8 \times 103$  ( $11206.9 \times 103$  to  $18056.9 \times 103$ ) were from SA. The ASR of point prevalence showed upward trend between 1991 and 2021, at global level and for SA with an average annual percentage change (AAPC) of 0.40 (0.39 to 0.40) and 0.12 (0.11 to 0.13), respectively. The overall number of RHD related deaths in the 2021 were  $373.3 \times 103$  ( $324.1 \times 103$  to  $444.8 \times 103$ ), out of which  $215 \times 103$  ( $176.9 \times 103$  to  $287.8 \times 103$ ) were from SA, representing 57.6% of the global deaths. The ASR of deaths also showed downward trend between 1991 and 2021, at global level and for SA with an AAPC of -2.66 (-2.70 to -2.63) and -2.07 (-2.14 to -2.00), respectively. The ASR of DALYs showed downward trend between 1990 and 2019, at global level and for South Asian region with an AAPC of -2.47 (-2.49 to -2.44) and -2.22 (-2.27 to -2.17), respectively. **Conclusion:** The rising age-standardized prevalence of RHD remains a global concern, especially in South Asia which contribute to over 50% of global RHD-related deaths. Encouragingly, declining trends in RHD-related deaths and DALYs hint at progress in RHD management and treatment on both a global and regional scale.

### Biography

DR Abdul Hameed completed his MBBS in 2014, after he persuaded post fellowship in cardiology, after completing fellowship in cardiology, he joined as an interventional fellow in NICVD in 2023, currently in 2nd year of his fellowship.