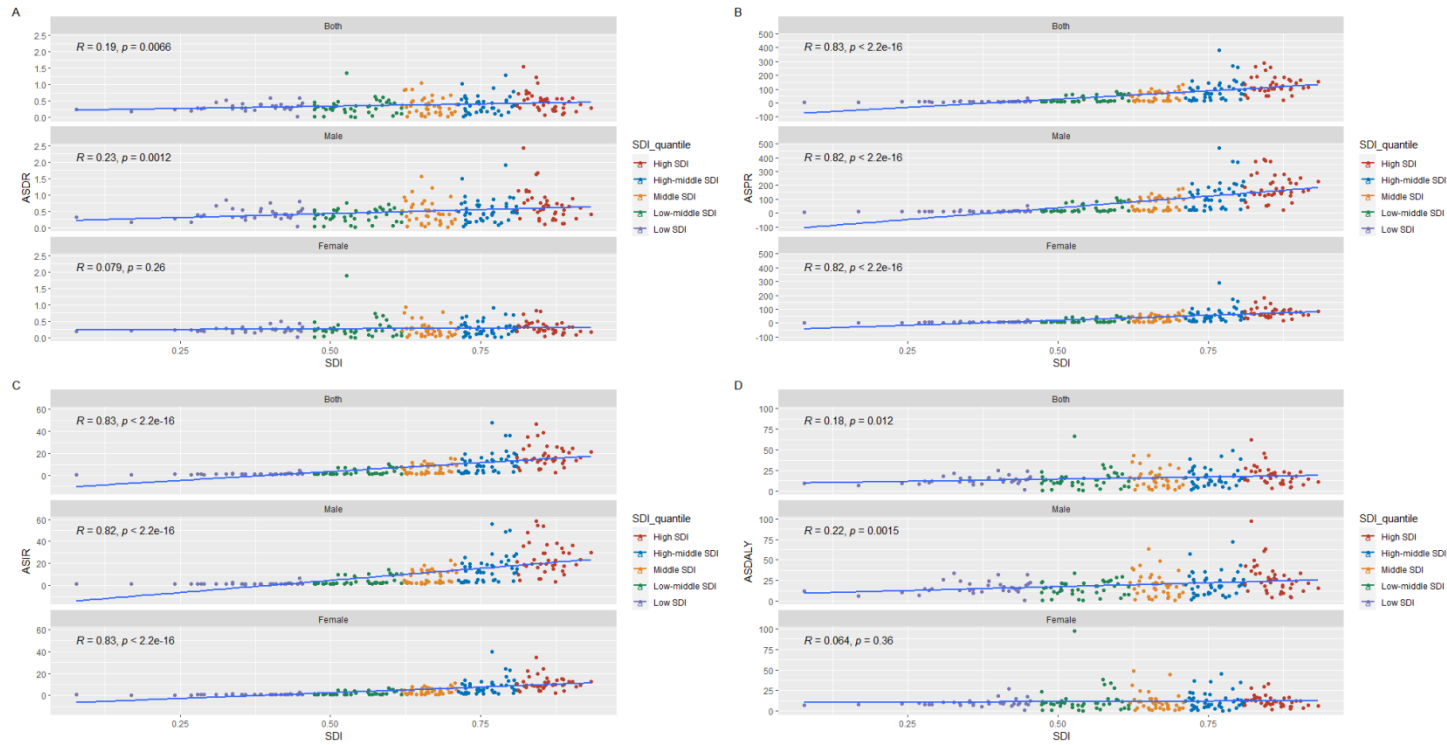
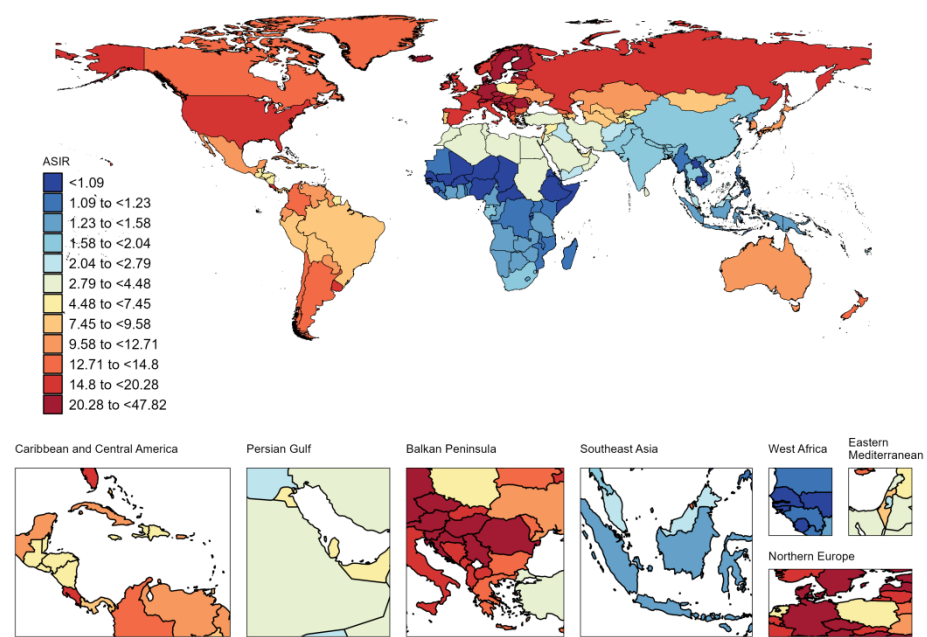


Supplementary Figure.1 Global and gender-specific spearman analysis of CAVD and SDI region within working-age population



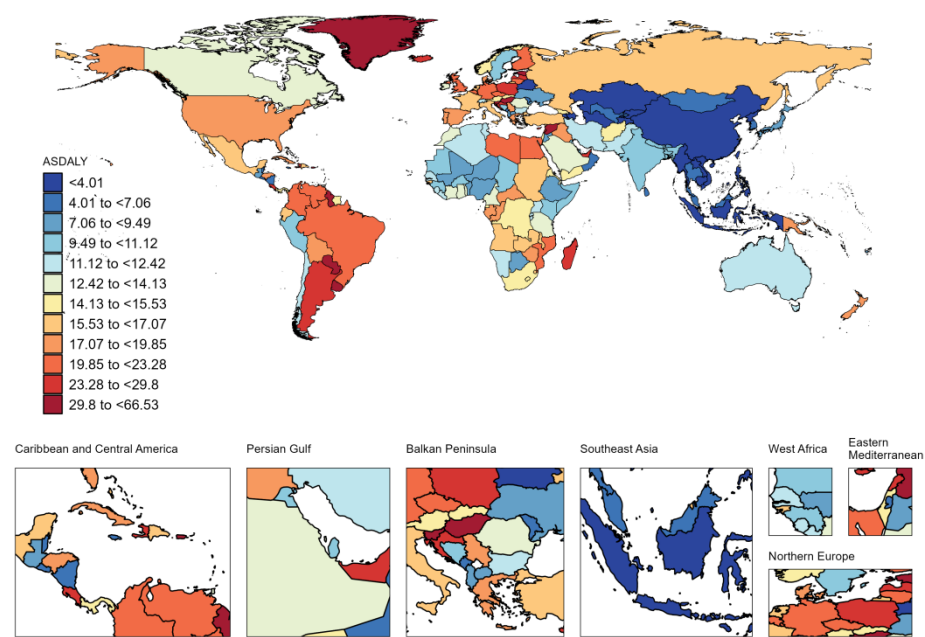
Abbreviation:SDI: Sociodemographic index; ASDALYs: Age-Standard Disability-Adjusted Life Years.

Supplementary Figure.2 World map of 204 countries and territories around the world with **CAVD**, disease burden and ASIR



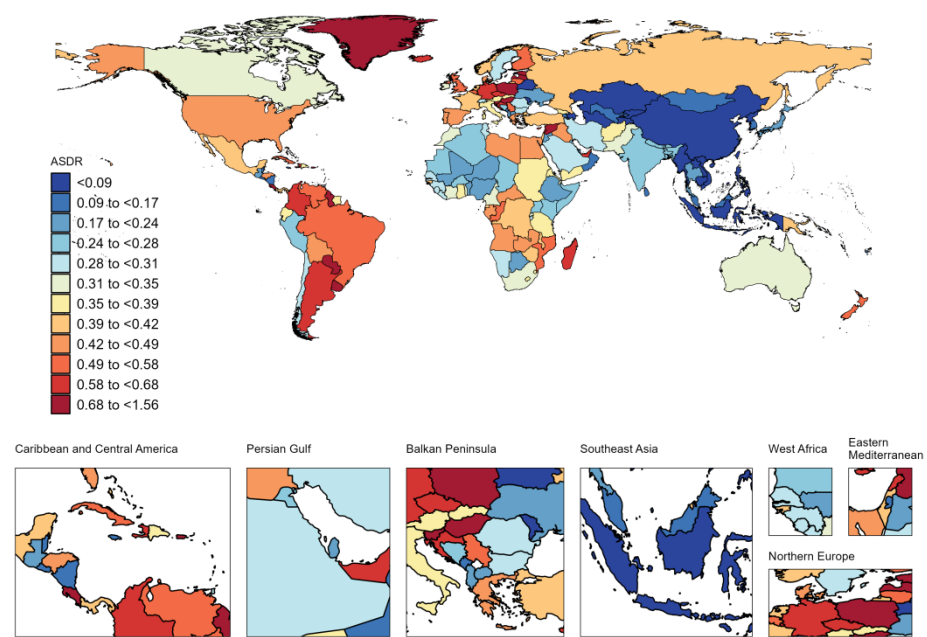
Abbreviation: ASIR: Age-standard incidence rate.

Supplementary Figure.3 World map of 204 countries and regions around the world with **CAVD** burden ASDALyS



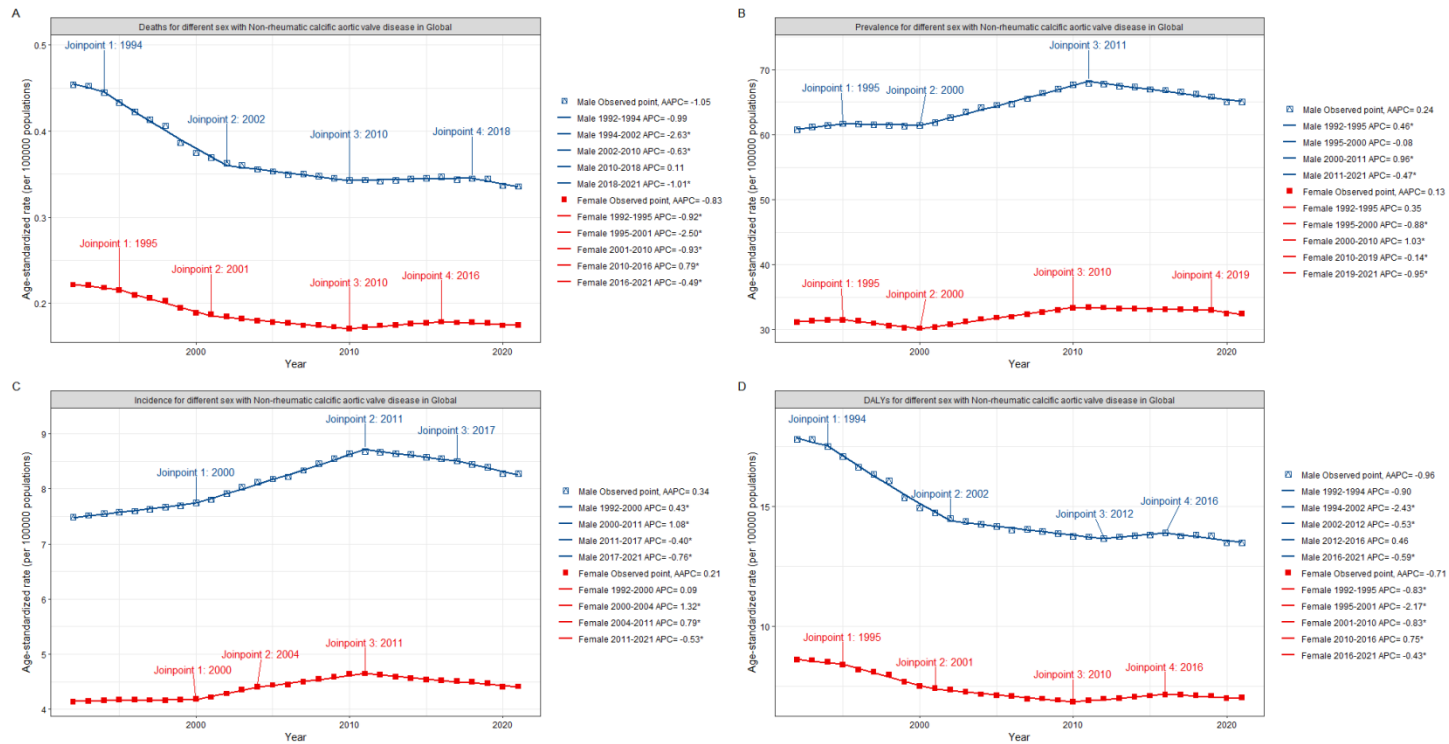
Abbreviation: ASDALyS: Age-standard Disability-Adjusted Life Years rate.

Supplementary Figure.4 World map of **CAVD** burden for 204 countries and regions in the world



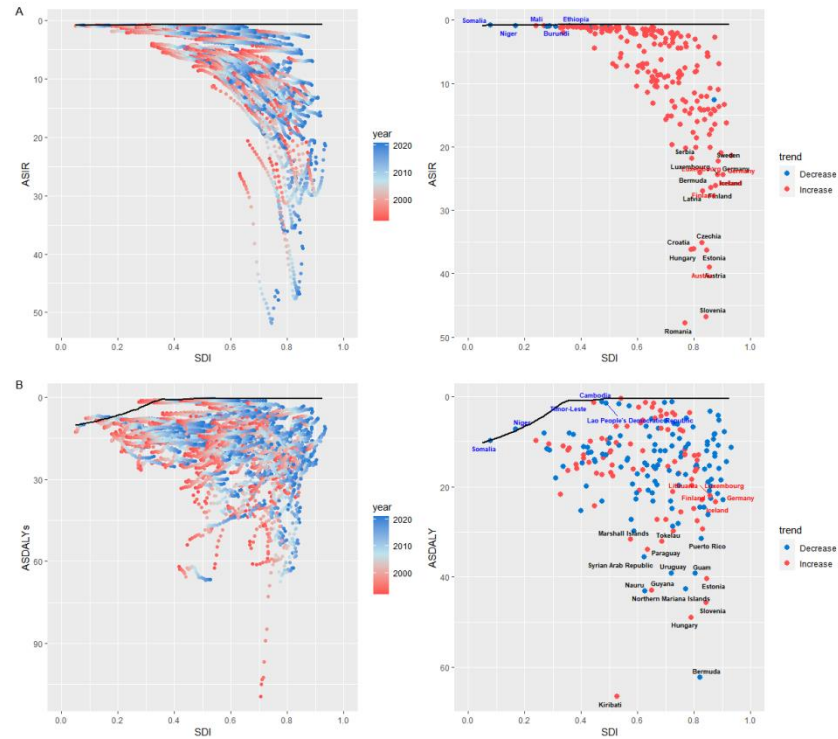
Abbreviation: ASDR: Age-standard death rate.

Supplementary Figure.5 Joinpoint model of the disease burden of **CAVD in a global gender-specific **working-age** population**



Abbreviation: AAPC: Average annual percent change; APC: Annual; percent change; DALYs: Disability-Adjusted Life Years.

Supplementary Figure 6: Frontier analysis of CAVD in the working-age population



The boundaries of the frontier analysis are marked in solid black, and countries and regions are shown as points. The red and blue gradients are used to show the SDI and rate trends for each country or region. The red dot indicates an increase in the burden of disease between 1992 and 2021, and the blue dot indicates an increase in the burden of disease during this period. The top 15 countries (the countries with the highest leading values for CAVD gap in the working-age population) are marked in black. Countries that are far from the frontier analysis are marked with red names. Countries with fewer gaps are marked with blue names compared to cutting-edge analysis. Abbreviation: SDI: Sociodemographic index; ASIR: Age-standard incidence rate; ASDALYs: Age-standard Disability-Adjusted Life Years rate.