

Supplementary Tables—country rankings of ASMRs and DALY rates (per 100,000)

Each table lists 204 countries/regions ranked from lowest (rank =1) to highest (rank =204) by either the age-standardized mortality rate (ASMR, deaths) or the age-standardized DALY rate for the specified year and pathogen (see “val” columns). The 95% uncertainty intervals (95% UI) are provided in the “lower” and “upper” columns. All estimates are derived from GBD 2021.

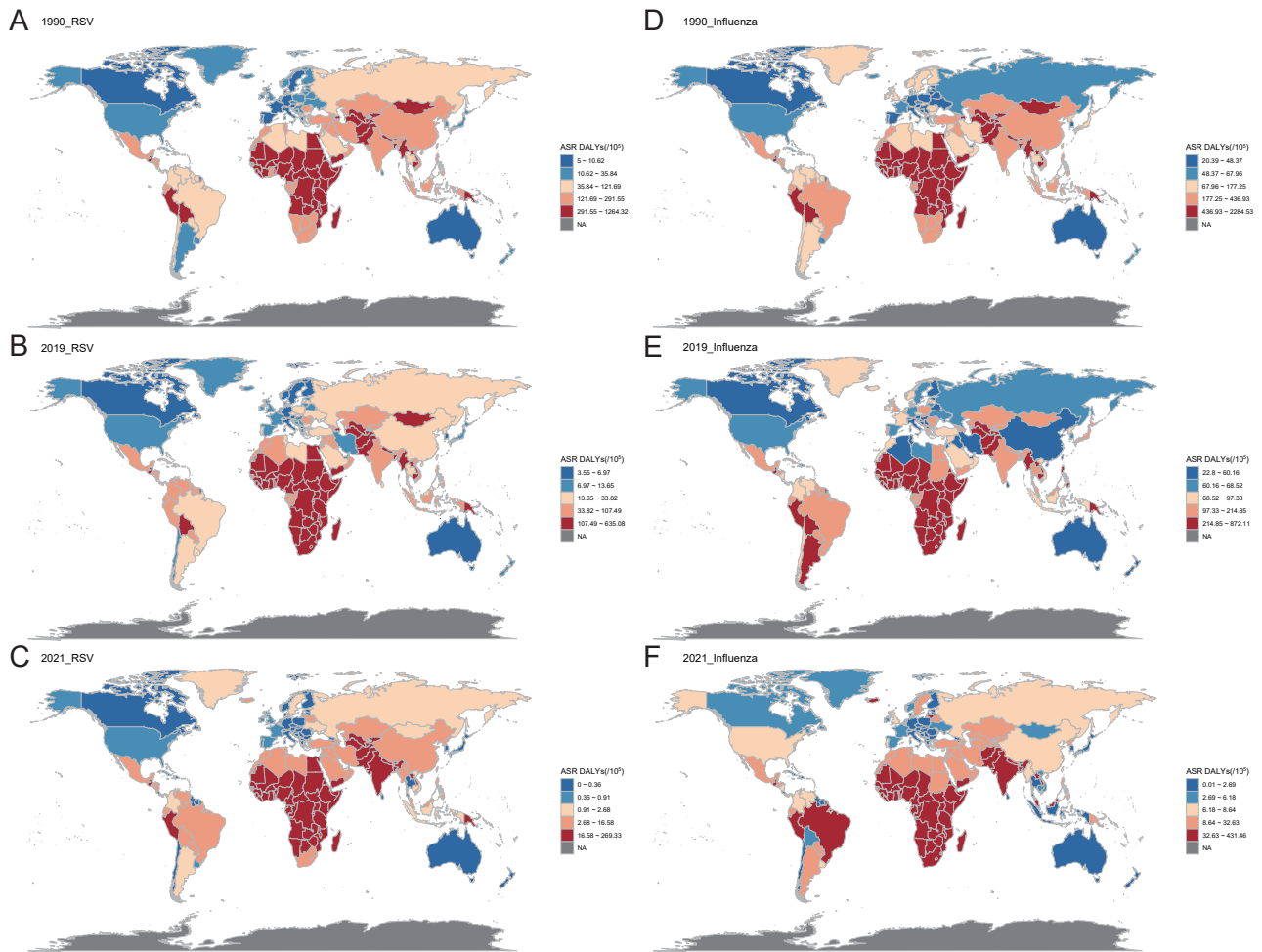


Figure S1 Global geospatial distribution and ranking of DALY ASRs for RSV and influenza, 1990, 2019, and 2021. Maps and country rankings (1-204) are constructed analogously to *Figure 1* (rates per 100,000; 95% UI available in tables). (A) 1990_RSV. (B) 2019_RSV. (C) 2021_RSV. (D) 1990_Influenza. (E) 2019_Influenza. (F) 2021_Influenza. (Related to *Figure 1*; supplementary table 1-12 available at <https://cdn.amegroups.cn/static/public/jtd-2026-1-0200-1.xlsx>).

Multiple Joinpoint Models

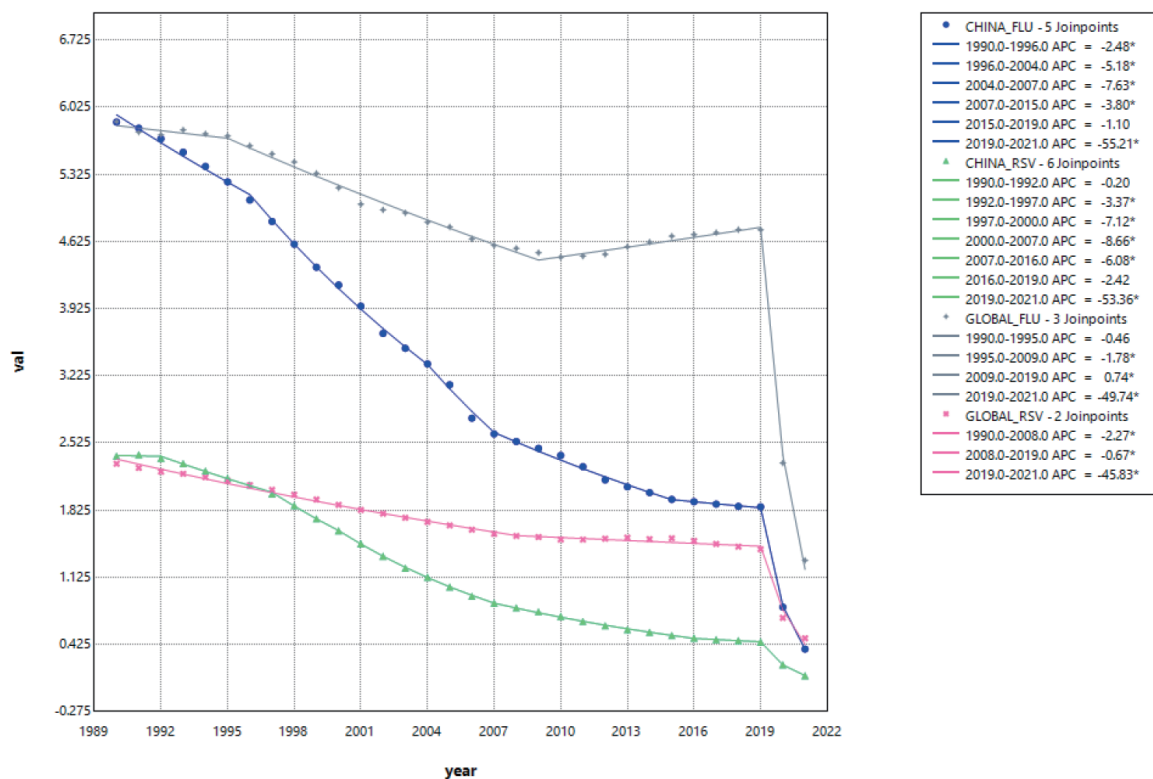


Figure S2 Joinpoint regression of age-standardized mortality rates (ASMRs) for RSV and influenza (Global and China), 1990–2021. Segmented log-linear trends are annotated with annual percent change (APC; 95% CI); asterisks denote $P < 0.05$.

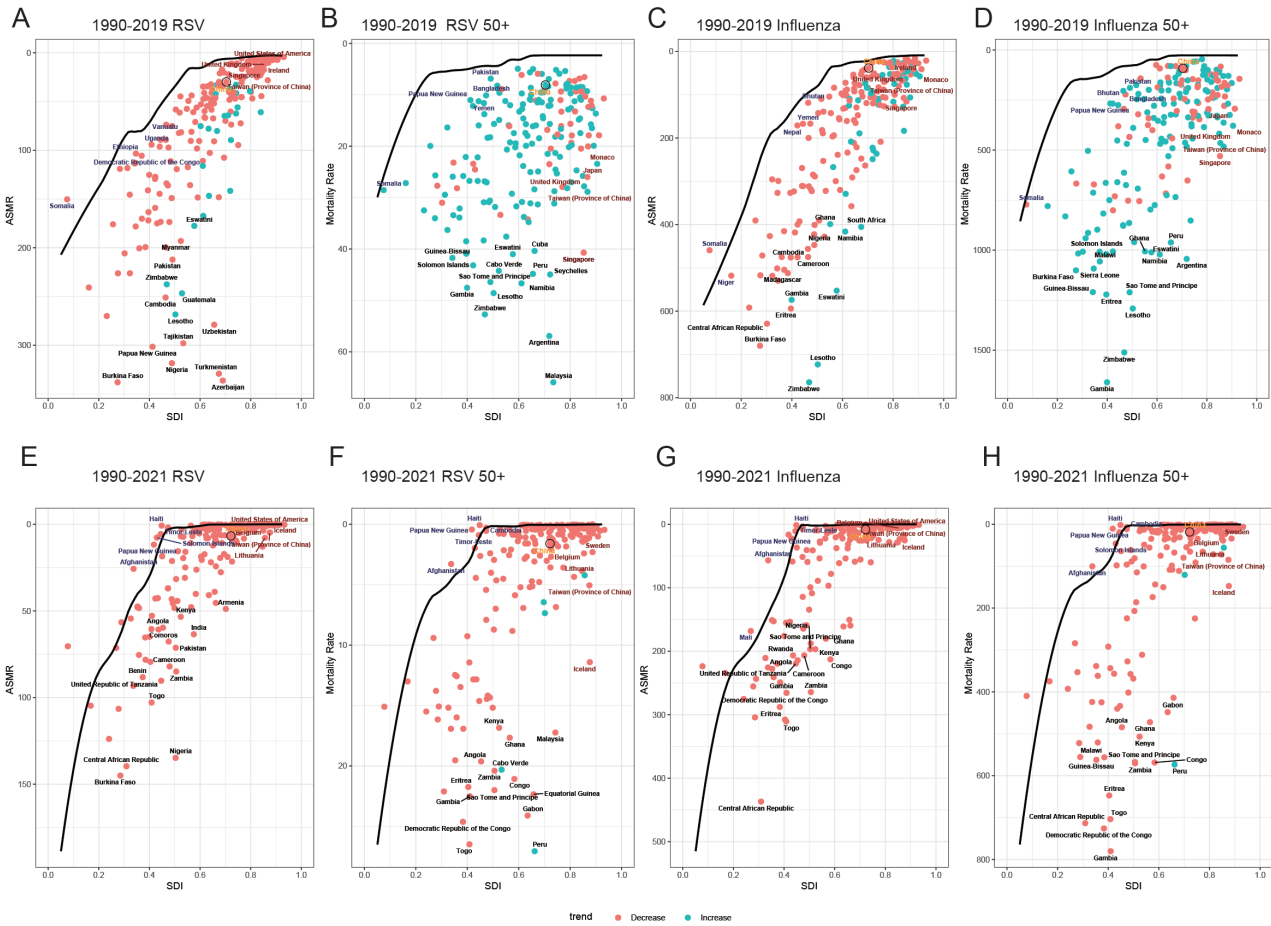


Figure S3 Efficiency-frontier analysis of ASMR *vs.* Socio-demographic Index (SDI) for RSV and influenza. Panels depict country-level ASMR (y-axis) against SDI (x-axis) with an empirical efficiency frontier (solid black curve) delineating the best observed performance at each SDI. The vertical distance from each country to the frontier is defined as the effective gap (unrealized improvement potential). Countries/regions are plotted as points (n=204); the 15 largest effective gaps are emphasized with black labels. Blue highlights denote exemplar frontier countries/regions with SDI < 0.5 and small gaps; red highlights denote SDI > 0.85 countries/regions with comparatively large gaps for their development level. Point color encodes trend over the indicated interval: pink = ASMR decrease, green = ASMR increase (1990–2019 or 1990–2021, as specified in each panel). China is circled with a black ring and labeled in orange for emphasis.

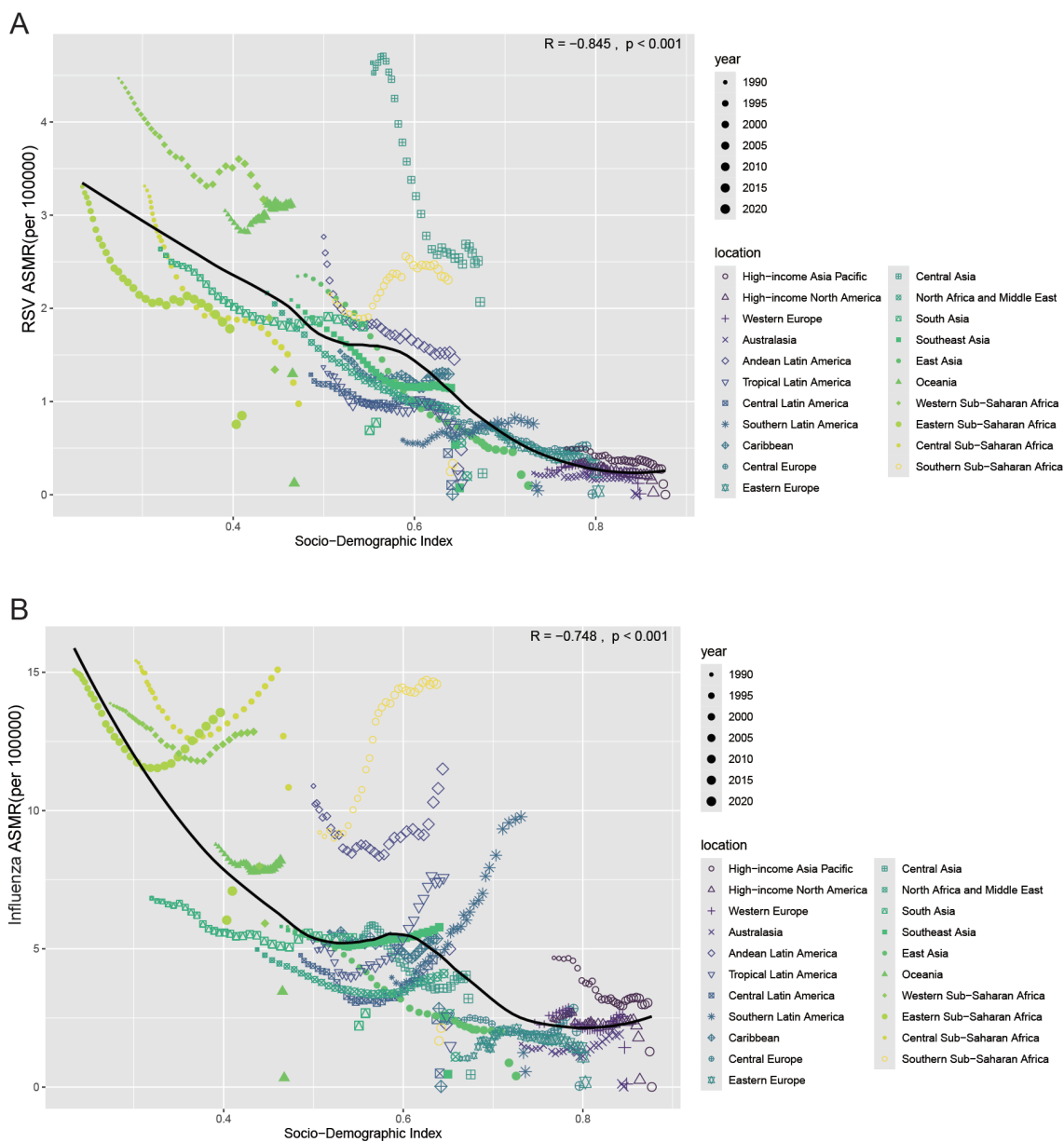


Figure S4 Regional SDI-ASMR gradient across 21 global regions. Scatterplots relate regional ASMR (y-axis) to SDI (x-axis) for RSV (A) and influenza (B). APC, annual percent change; ASMR, age-standardized mortality rate; ASR, age-standardized rate; CI, confidence interval; DALY, disability-adjusted life-year; RSV, respiratory syncytial virus; SDI, Socio-demographic Index; UI, uncertainty interval.

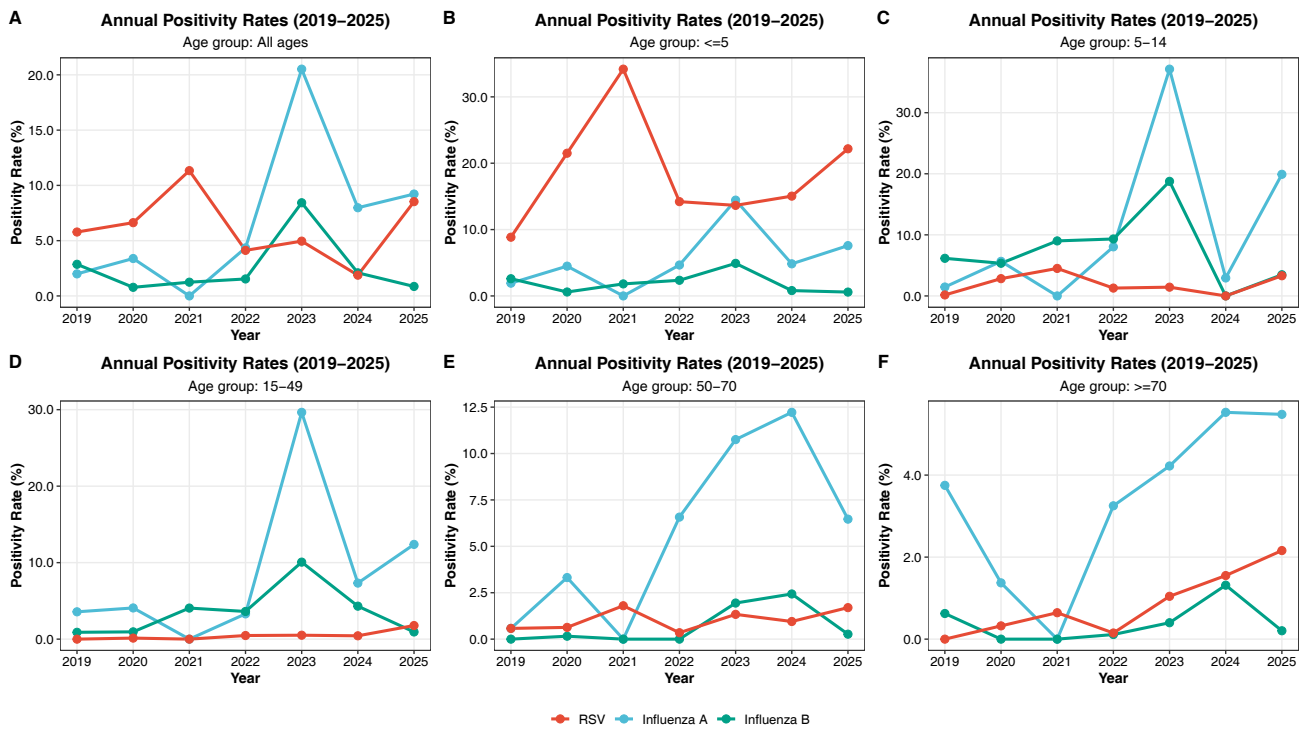


Figure S5 Annual positivity rates of RSV, influenza A, and influenza B (2019–2025) among patients undergoing respiratory multi-pathogen testing, shown overall (A) and stratified by age groups: ≤ 5 (B), 5–14 (C), 15–49 (D), 50–70 (E), and ≥ 70 years (F).