



The Impending Global Crisis of Multiple Myeloma: A GBD-Based Comparative Analysis & 2050 Projections — South Asia vs High-Income Countries

Global Burden of Disease metrics, 1999–2023, with forecasts to 2050

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+59.9%

South Asia incidence (ASIR) rise, 1999–2023 (AAPC +2.08%)

–20.8%

High-income DALY rate (ASDR) decline, 1999–2023

+73.4%

ASDR rise in South Asian women — steepest of any group

+133%

Projected South Asia mortality (ASMR) rise by 2050

Background

As populations age, the burden of multiple myeloma (MM) is shifting. High-income countries (HICs) have historically borne the brunt, but rapid demographic transition in South Asia signals an impending crisis.

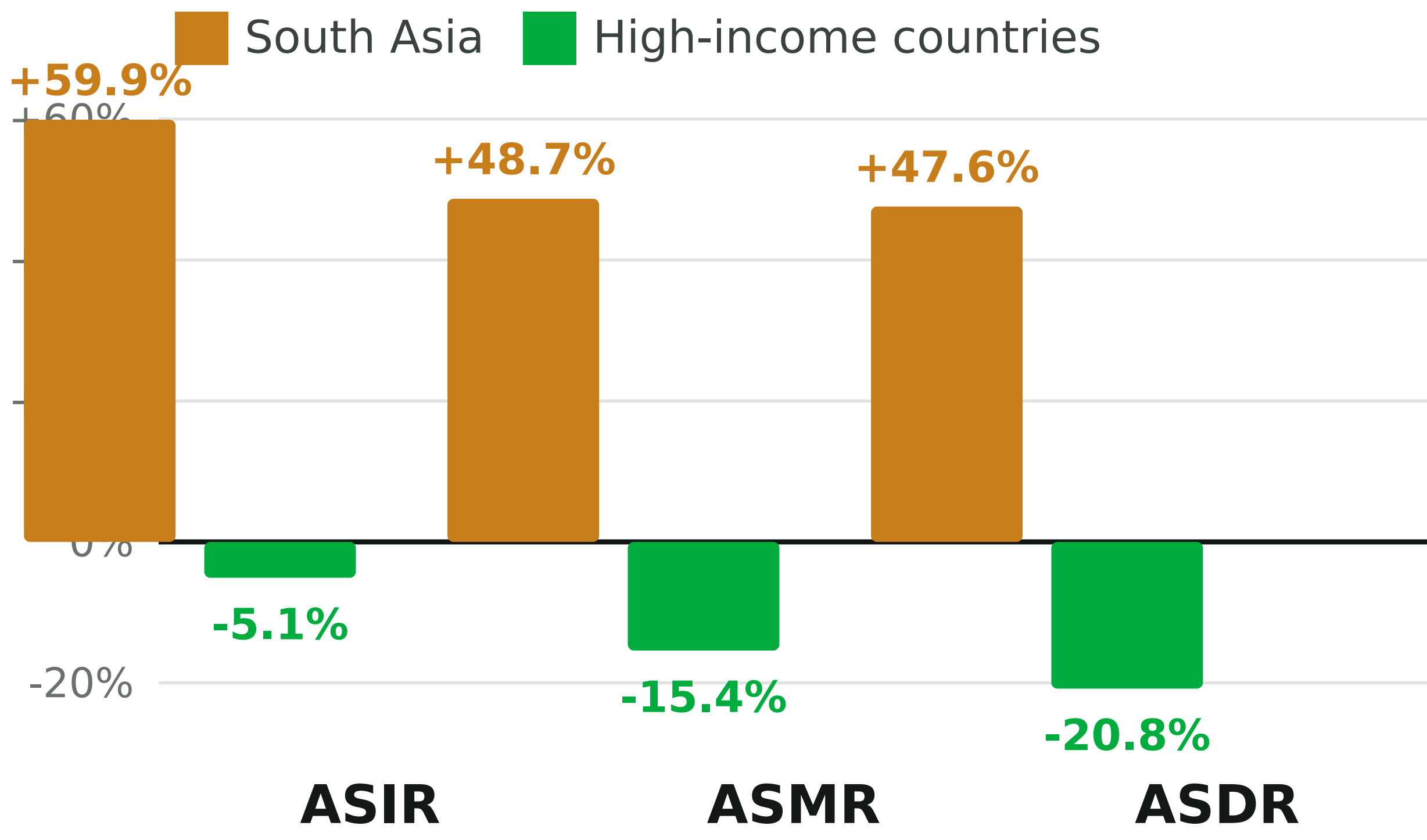
We compared current MM epidemiology and forecast the burden through 2050.

Methods

- ◆ **Source.** Global Burden of Disease (GBD) metrics for MM, 1999–2023.
- ◆ **Metrics.** ASIR, ASMR, DALYs, ASDR, and mortality-to-incidence ratio (MIR).
- ◆ **Trends.** Joinpoint analysis for AAPC and significant temporal change.
- ◆ **Projections.** ASMR and ASDR forecast to 2050 via the GBD visualization tool.

A widening divergence, 1999–2023

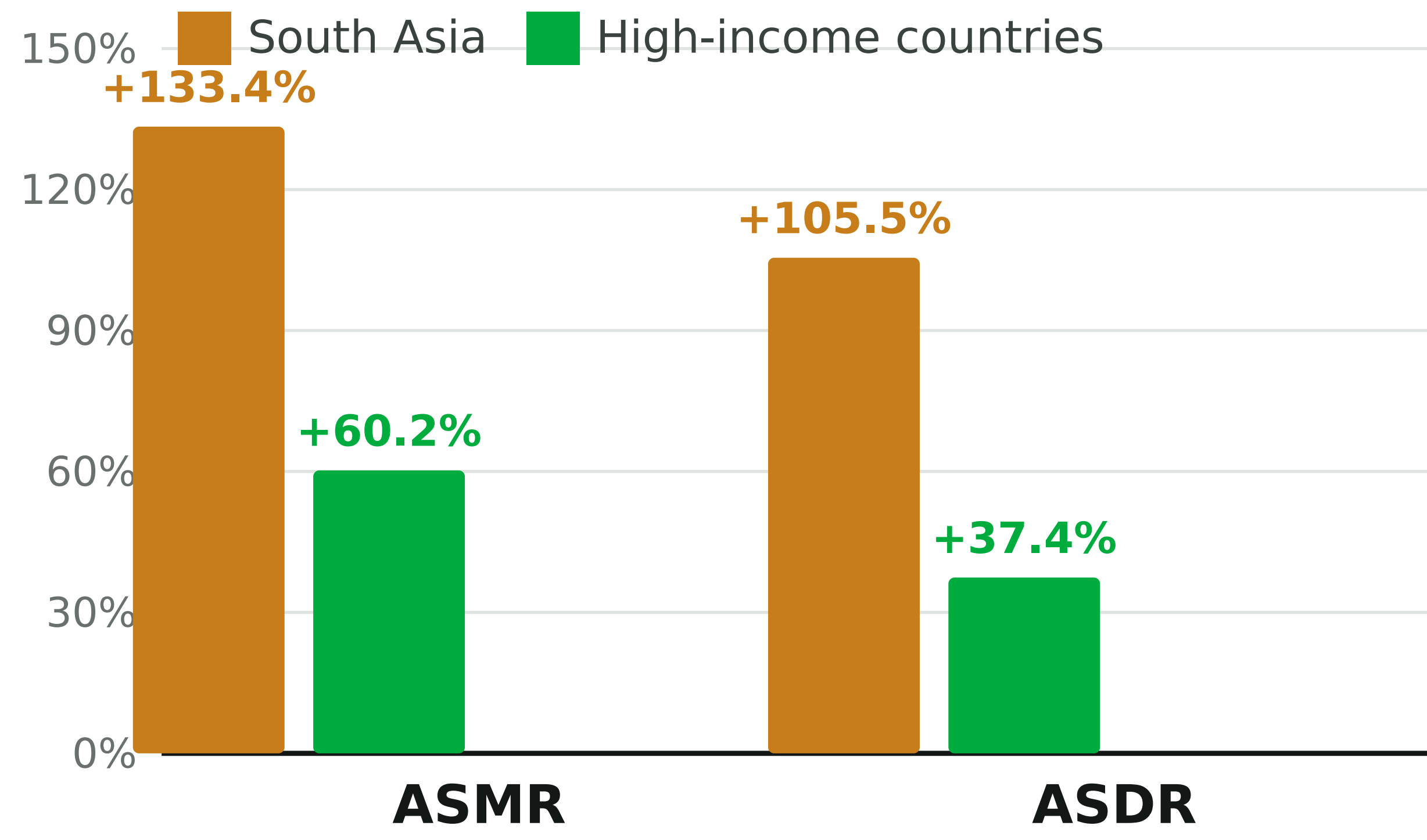
Change in age-standardized rates — South Asia rose as HICs fell



South Asia: ASIR +59.9%, ASMR +48.7%, ASDR +47.6% (all AAPC P<0.01). HICs declined across all three (ASDR –20.8%). ASIR = incidence, ASMR = mortality, ASDR = DALY rate.

Projections to 2050

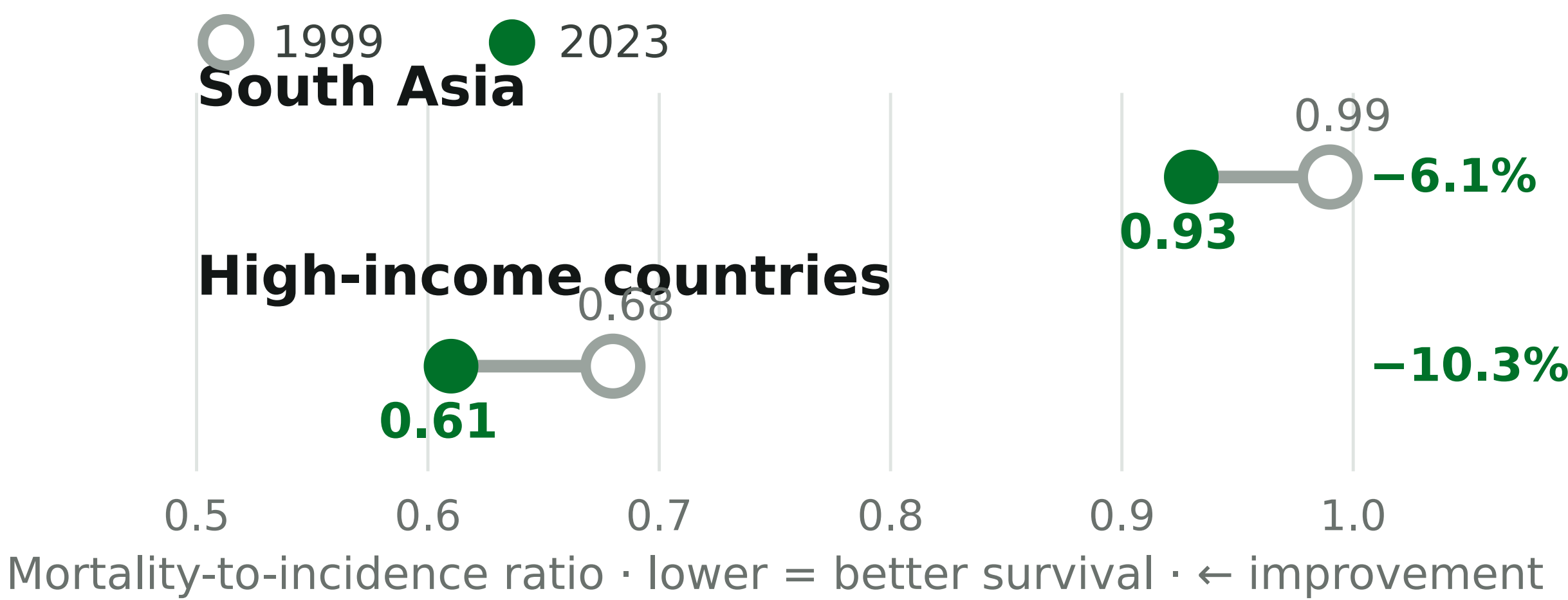
Expected increase in age-standardized rates by 2050



Both regions rise with aging, but South Asia's projected escalation (ASMR +133.4%, ASDR +105.5%) roughly doubles that of HICs (+60.2%, +37.4%), widening the gap.

Survival gap: mortality-to-incidence

MIR, 1999 → 2023 — South Asia stays far higher



South Asia's MIR fell only modestly (0.99 → 0.93, –6.1%) and remains near 1.0 — most who develop MM die of it — versus a larger improvement in HICs (0.68 → 0.61, –10.3%).

Women bear the sharpest rise

In South Asia, the DALY rate (ASDR) among **women rose 73.4%** from 1999–2023 — the steepest escalation of any subgroup, pointing to a disproportionately rising burden.

Conclusions

- ◆ A stark divergence: HICs achieved declines in incidence, mortality, and DALYs, while South Asia escalated across every metric.
- ◆ **South Asian women** face the fastest-growing burden.
- ◆ Projections to 2050 suggest the gap will **widen further** — a potential public-health crisis.
- ◆ Priorities: early detection, affordable therapies (incl. generic novel agents), and region-specific innovation such as India's low-cost CAR T-cell platforms.