

Diverging Dementia Deaths and DALYs Across Income Groups, 1990–2023 (GBD 2023)

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Dementia mortality **rose in low- and middle-income countries** but remained stable in high-income countries (1990–2023)
Brazil consistently exceeded its income-group peers in both mortality and DALYs

BACKGROUND

- Dementia is a leading cause of disability and death globally — over 57 million people affected, >60% in LMICs
- Burden trajectories may diverge by economic context due to differences in diagnostic access, risk factor prevalence, and health systems
- GBD 2023 provides harmonized estimates enabling fair cross-country comparisons of mortality and DALYs over time

OBJECTIVE

Characterize 1990–2023 trends in age-standardized dementia mortality and DALYs by World Bank income group, highlighting Brazil

METHODS

Design: Ecological time-series study

Data source: GBD 2023 Results Tool (IHME), 1990–2023

Countries: 204 countries/territories; both sexes

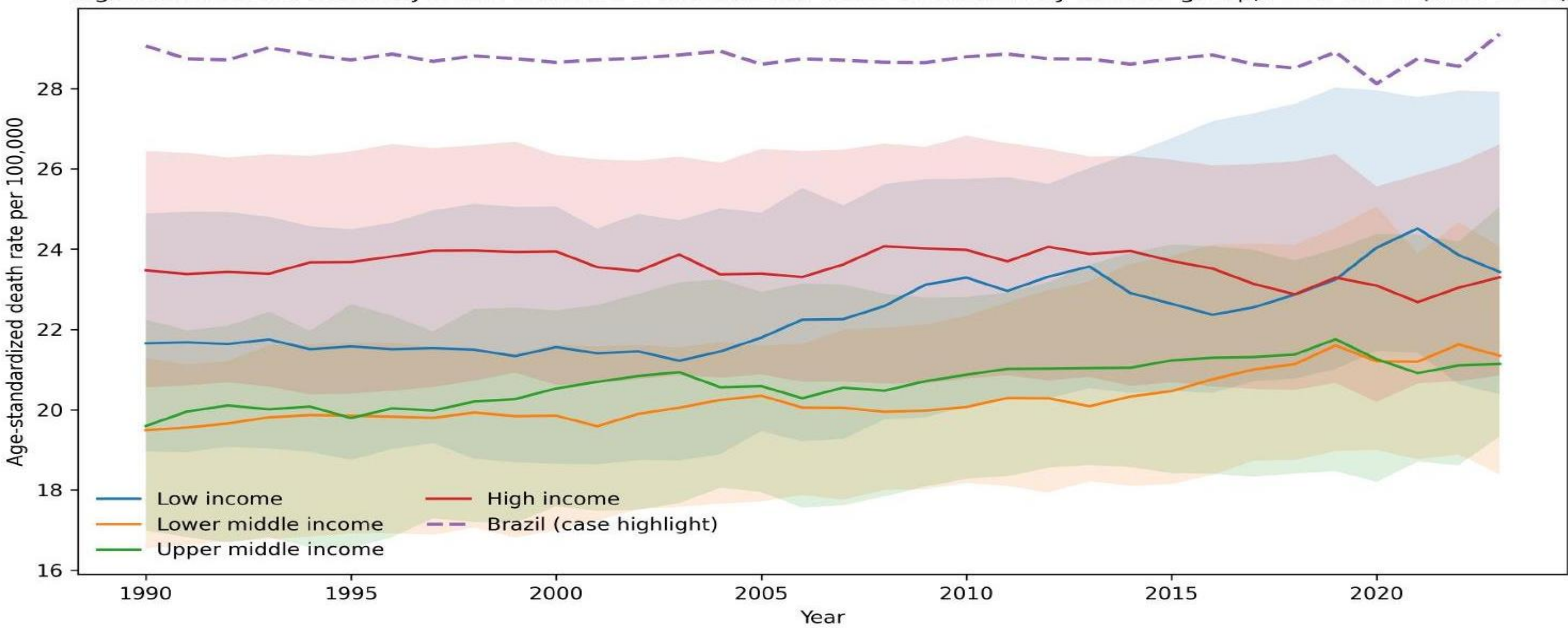
Grouping: World Bank income classification (fixed)

Outcomes: Age-standardized mortality rate and DALY rate (per 100,000)

Summary: Annual median (IQR) by income group; Brazil as case highlight

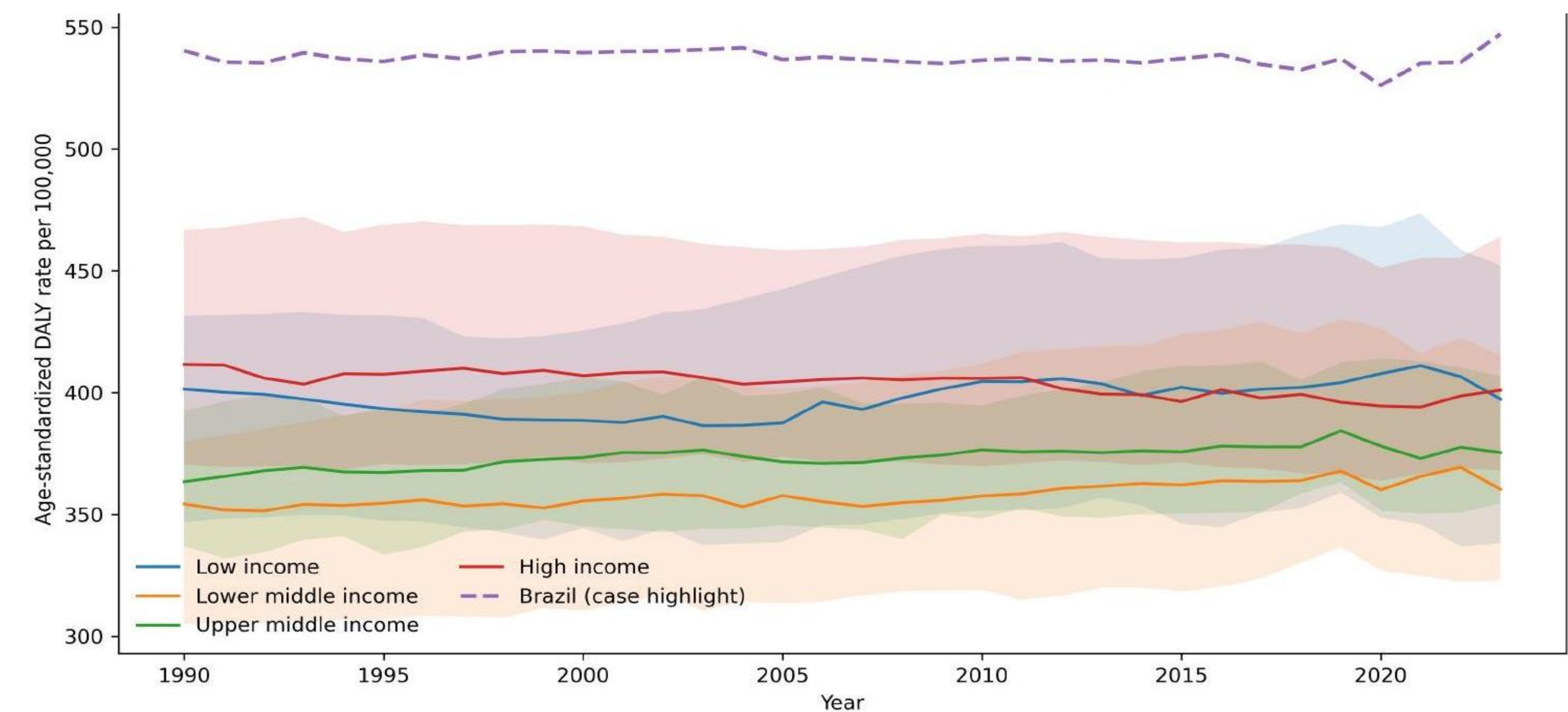
RESULTS

Age-standardized Mortality Rate (Deaths per 100,000)



Low- & middle-income: +8–10% rise in mortality (1990→2023)
High-income: essentially stable (−0.7%) | **Brazil:** 29.4 vs upper-middle median 21.1 in 2023

Age-standardized DALY Rate (DALYs per 100,000)



DALY rates changed more modestly across all strata
High-income: 411.6→401.0 **Low-income:** 401.5→397.4 **Brazil:** 547 vs upper-middle median 375 in 2023

CONCLUSIONS

- Dementia mortality **rose ~8–10%** in low- and middle-income strata; **stable** in high-income countries (1990–2023)
- DALY rates changed **more modestly** across all groups — mortality trends ≠ total burden trends
- **Brazil** substantially exceeded the upper-middle income median in both mortality (29.4 vs 21.1) and DALYs (547 vs 375) in 2023
- Findings support integrating dementia prevention into cardiovascular, metabolic, and sensory-health policies in resource-constrained settings

LIMITATIONS

- Ecological design — country-level associations do not imply individual-level causality
- GBD estimates are modeled — uncertainty varies by data availability across countries
- Fixed income classification may not capture historical income transitions
- Differences in diagnostic capacity and cause-of-death certification across settings may influence rates

REFERENCES

- Livingston G et al. Lancet. 2024;404(10452):572-628. doi:10.1016/S0140-6736(24)01296-0
- WHO. Dementia fact sheet. 2025. who.int/news-room/fact-sheets/detail/dementia
- IHME. GBD 2023 Results Tool. vizhub.healthdata.org/gbd-results
- World Bank. Country and Lending Groups. 2024.