

Alzheimer Disease And Other Dementia Burden In The Balkan Region: A Secondary Analysis Of The GBD 2023 Study

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The Balkan region exhibits massive disparities in Alzheimer's burden; Albania faces a sharp rise across all metrics (mortality, DALYs, and incidence), while countries like Croatia and Moldova demonstrate significant declines, highlighting the urgent need for localized healthcare strategies.

INTRODUCTION

Alzheimer’s disease and other dementias (ADOD) represent a rapidly growing public health concern, particularly within aging populations. Despite diverse demographic and socioeconomic profiles, the Balkan region lacks comprehensive analyses of its dementia burden. This study aims to quantify and compare ADOD mortality and morbidity trends across Balkan countries over four decades.

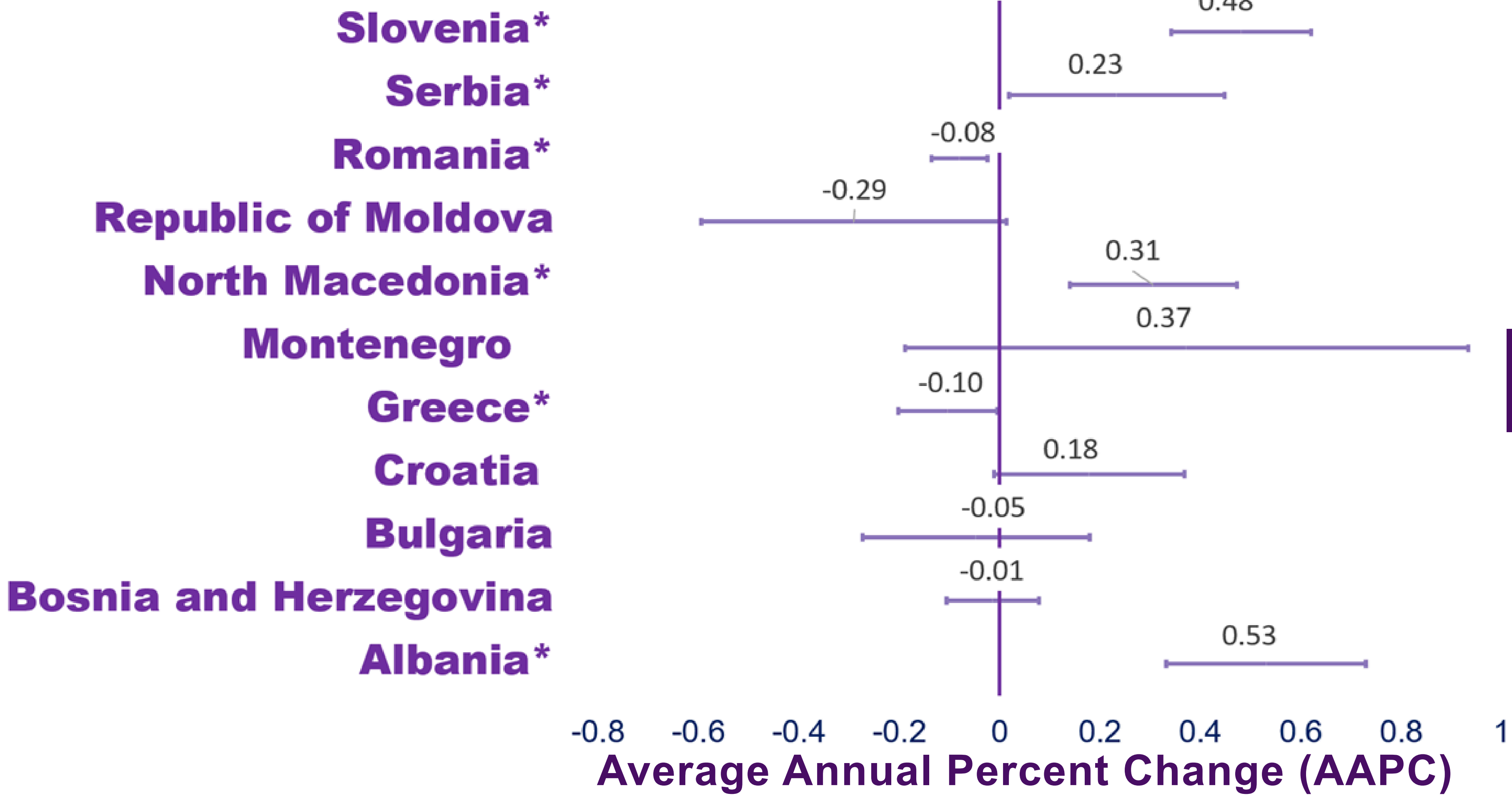
METHODS

- **Data Source:** Abstracted from the Global Burden of Disease (GBD) 2023 study.
- **Metrics:** Analyzed age-standardized death rates (ASDR) from 1980–2023, as well as incidence, prevalence, and Disability-Adjusted Life Years (DALYs) from 1990–2023.
- **Analysis:** Temporal trends were assessed using Joinpoint regression to compute the Average Annual Percentage Change (AAPC) with 95% Confidence Intervals (CI).

RESULTS

- **Mortality (ASDR):** Albania exhibited the sharpest regional rise (see chart), surging from 20.59 in 1980 to 26.01 in 2023 (AAPC: 0.53, 95% CI: 0.33–0.73). The Republic of Moldova maintained the lowest overall mortality.
- **Disability (DALYs):** Greece recorded the highest burden, reaching 458.13 in 2023. Conversely, Moldova saw the lowest values and the steepest decline (AAPC: -0.32).
- **Morbidity Trends:** Incidence and prevalence showed extreme heterogeneity. Serbia experienced the steepest incidence rise (AAPC: 0.047), while Croatia demonstrated the largest decline (AAPC: -0.083). Greece reported the highest overall prevalence (777.77 in 2023), whereas North Macedonia consistently reported the lowest.

Average Annual Percent Change in Age-Standardized Death Rates (1980–2023)



*Indicates a statistically significant trend (P < 0.05). Error bars represent 95% Confidence Intervals.

CONCLUSIONS

- **Uneven Trends:** The ADOD burden shows extreme heterogeneity across the Balkans.
- **Areas of Concern:** Albania faces a comprehensive surge across all metrics, including mortality, DALYs, prevalence, and incidence.
- **Pronounced Declines:** Conversely, countries like Croatia and Montenegro demonstrate significant reductions in dementia metrics.
- **Public Health Implications:** These stark disparities highlight the urgent need for targeted, country-specific strategies to manage dementia and address regional health inequities.

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