

Sex and Regional Trends in Alzheimer’s Mortality with Atrial Fibrillation/Atrial Flutter in U.S. Older Adults (1999-2023)

Authors: Muhammad Ahmed¹

¹ Shaheed Mohtarma Benazir Bhutto Medical College Lyari, Karachi, Pakistan

Key take-away: Alzheimer’s disease mortality with coexisting atrial fibrillation/flutter rose sharply among older U.S. adults from 1999–2023, with higher long-term increases in females and the Midwest.

Introduction

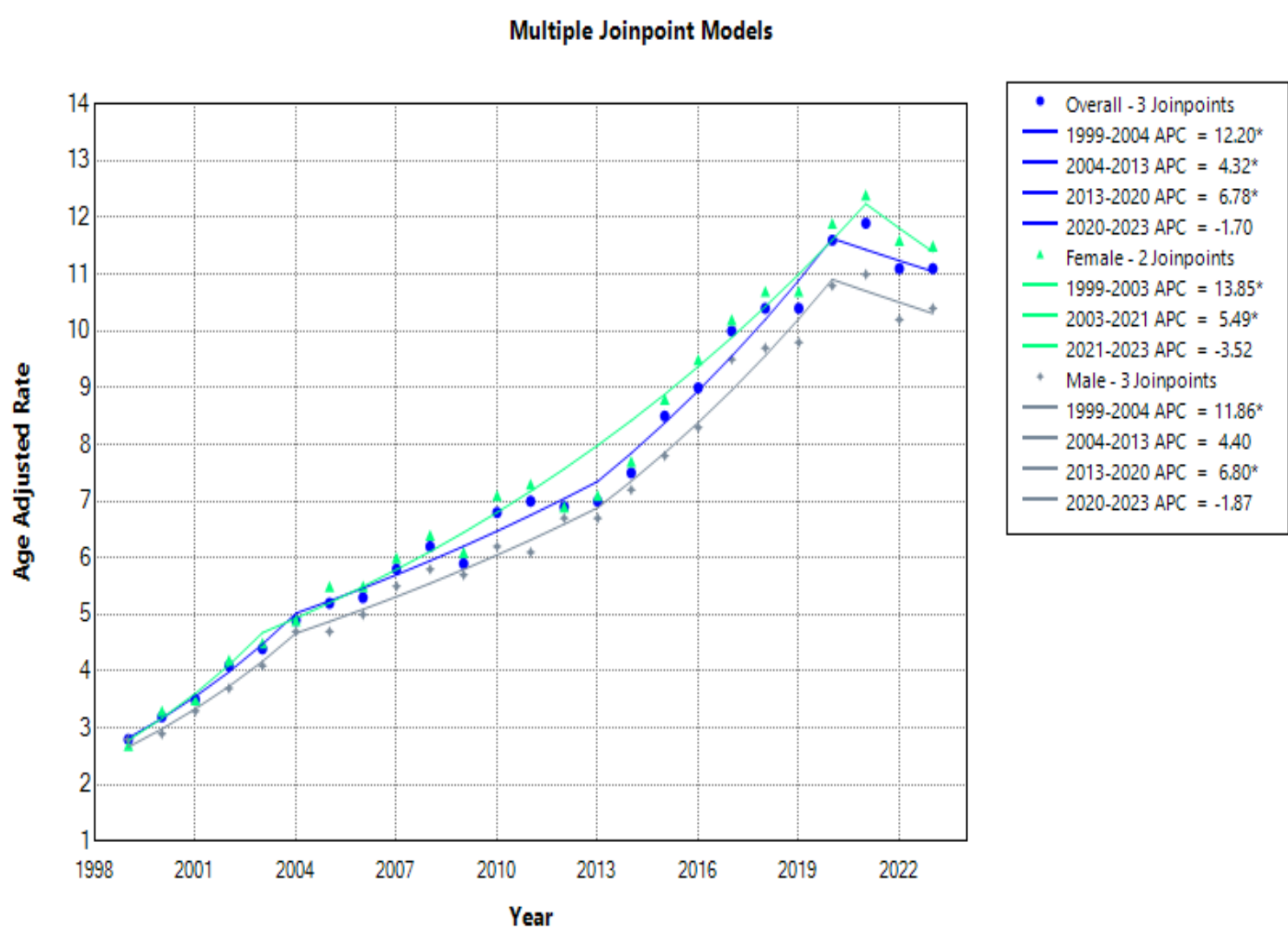
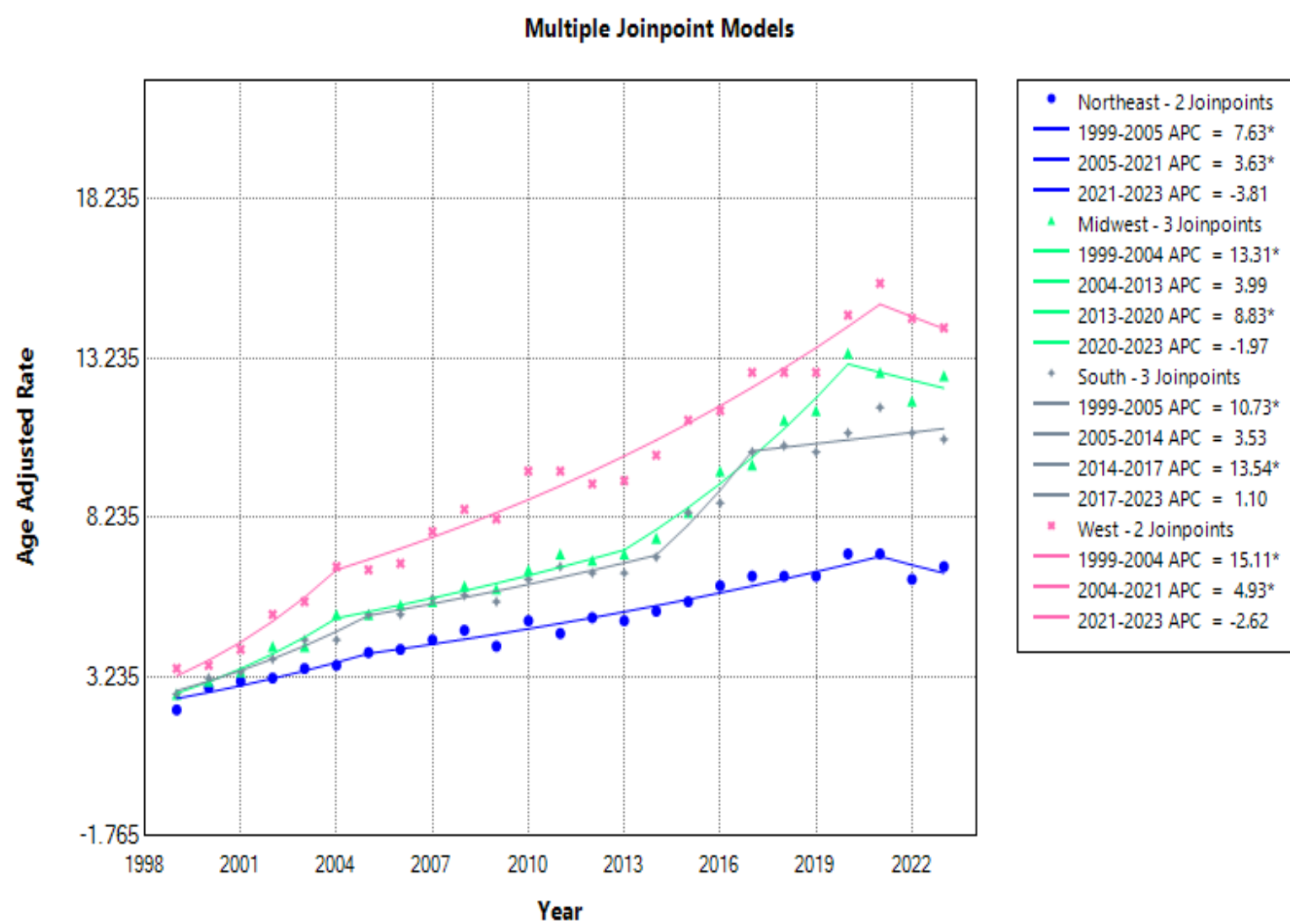
- Population-level trends in Alzheimer’s disease mortality with coexisting atrial fibrillation/flutter remain poorly characterized.

Methodology

- We used CDC WONDER mortality data from 1999-2023 to conduct a population-based trend analysis among U.S. adults aged ≥65 years.
- Alzheimer’s disease was identified as the underlying cause of death using ICD-10 codes G30.0-G30.9, and atrial fibrillation/flutter was identified as a contributing cause using ICD-10 code I48.
- Age-adjusted mortality rates were calculated per 100,000 population using the 2000 U.S. standard population.
- Trends were assessed overall and by sex using NCI Joinpoint regression to identify inflection points and estimate APC and AAPC with 95% CIs. Statistical significance was defined as $p < 0.05$.

Results

- Alzheimer’s disease mortality with atrial fibrillation/flutter rose substantially from 1999–2023, with an overall AAPC of 5.85% (95% CI: 5.36-6.72).
- Trends showed a sharp rise from 1999-2004, continued growth through 2020, and modest declines after 2020.
- Both sexes showed significant increases, with higher long-term growth in females than males.
- Female AAPC was 6.04% (95% CI: 5.62-6.69), while male AAPC was 5.79% (95% CI: 5.29-6.73).
- Regional trends varied, with the highest growth in the Midwest (AAPC: 6.49%; 95% CI: 6.03-7.38), followed by the West (6.31%), South (5.88%), and Northeast (3.97%).



Conclusions

- Alzheimer’s disease mortality with coexisting atrial fibrillation/flutter increased sharply from 1999-2023, with notable sex and regional differences.
- Females and the Midwest experienced the greatest long-term increases.

CONTACT



Muhammad Ahmed

Email:
muhammahmed55
15@gmail.com