

LONG-TERM MORTALITY TRENDS AND DISPARITIES IN CHRONIC MYELOID LEUKEMIA AMONG OLDER ADULTS IN THE UNITED STATES: A 1999–2024 CDC WONDER ANALYSIS

A. Khan¹, A. Ahmad², I A. Shah², S. Marjan³, H. Ullah²

- 1. Northwest Health-Porter, Valparaiso, IN, USA
- 2. Khyber Teaching Hospital, Peshawar, Pakistan
- 3. Lady Reading Hospital, Peshawar, Pakistan



INTRODUCTION

- Chronic myeloid leukemia (CML) is a myeloproliferative malignancy with improving survival following advances in targeted therapy
- However, mortality trends among older adults remain incompletely characterized using the most recent national data.

AIM

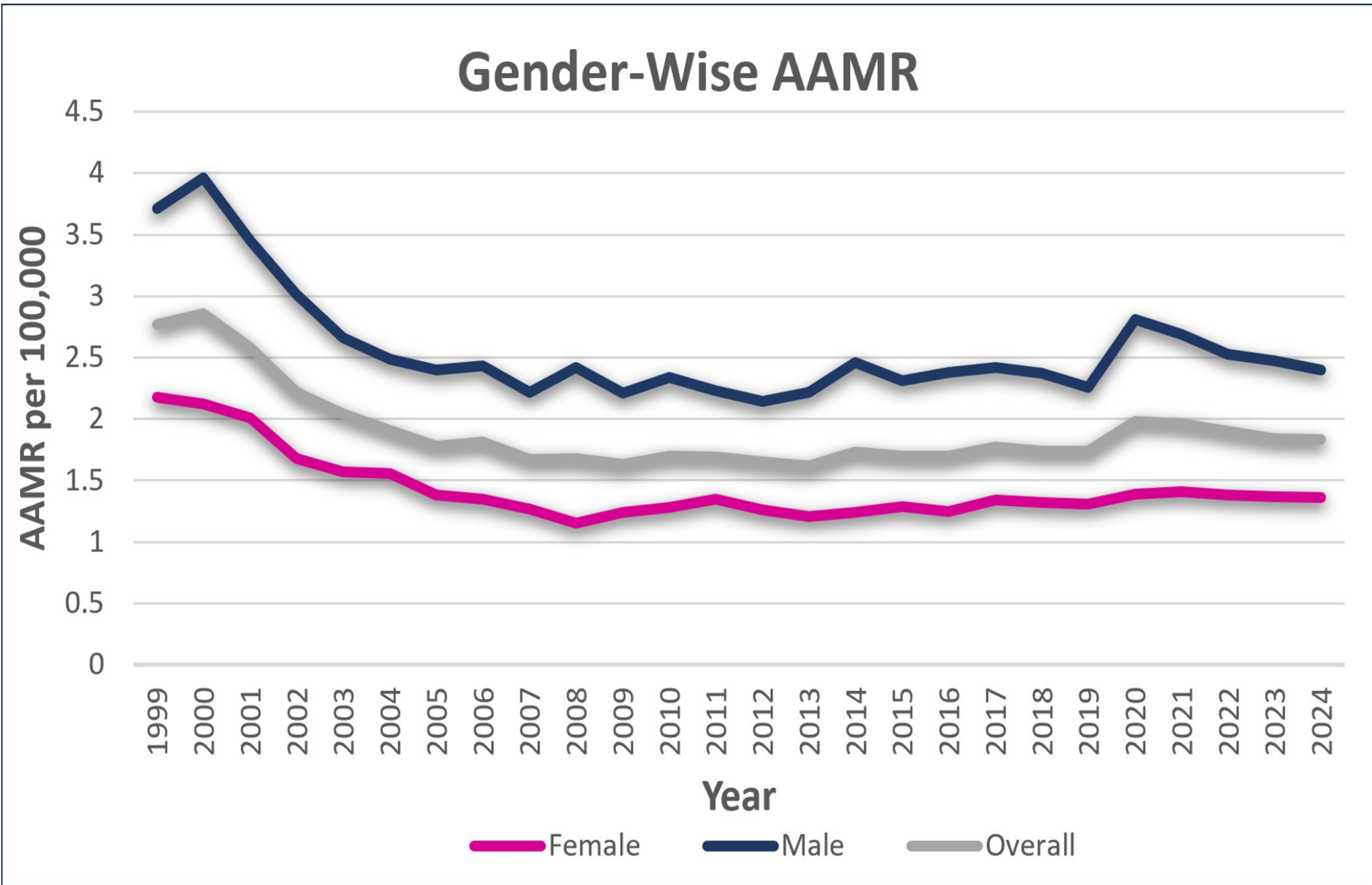
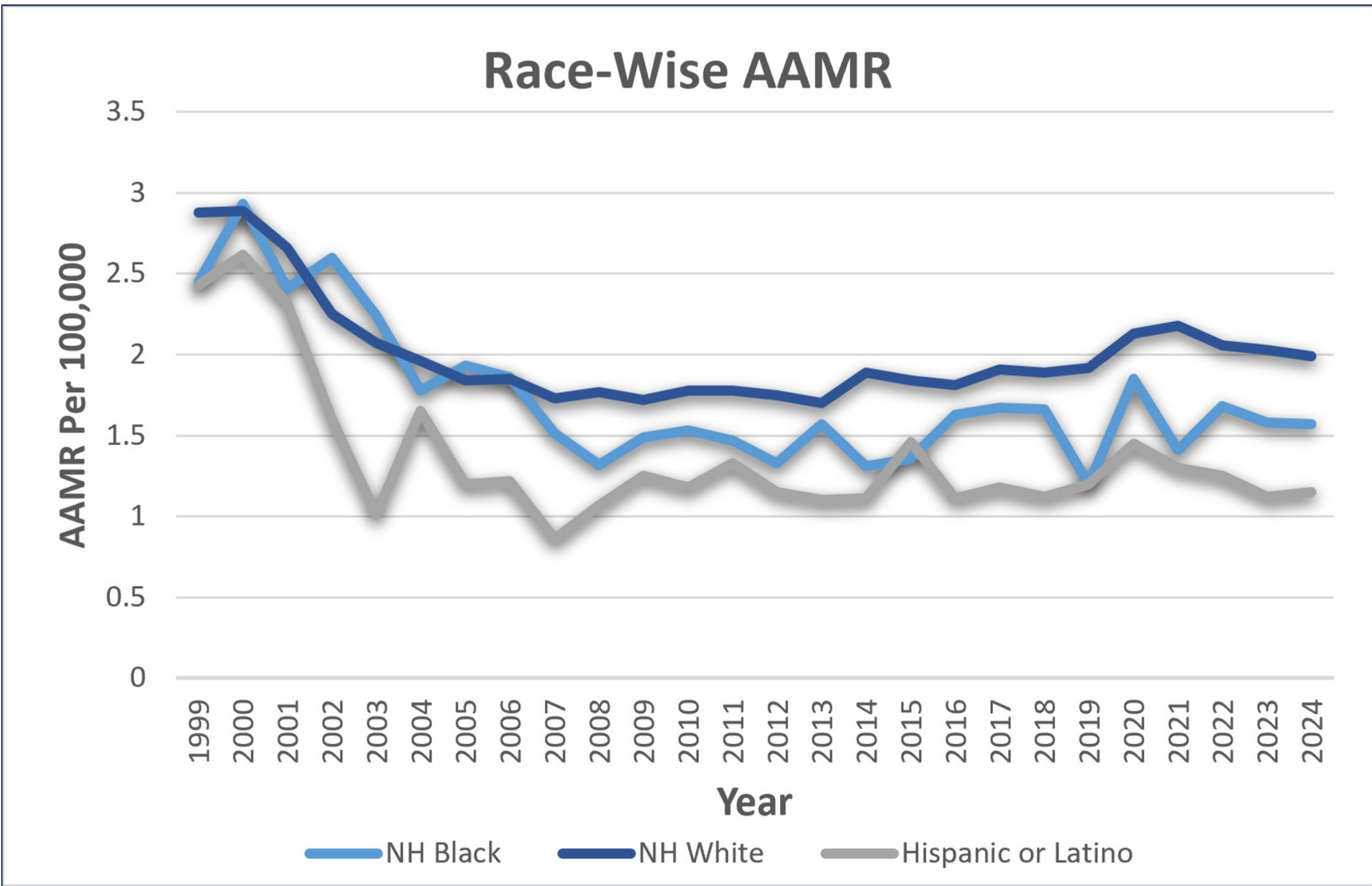
- To evaluate mortality trends in CML among
 - Older adults (55 and older) in the United States
 - From 1999 to 2024
 - Focusing on gender, racial, and regional disparities

METHOD

- Death certificate data from the CDC WONDER database (1999 to 2024) were analysed.
- Multiple causes of death were identified using MCD-ICD-10 codes: C92.
- Age-adjusted mortality rates (AAMR) per 100,000 persons
- Annual percent changes (APC) were calculated for adults aged 55 to 85+.
- Analyses were stratified by sex, race/ethnicity and Census region.

CONCLUSION

- CML mortality among older US adults declined from 1999 to 2024.
- Although persistent sex, racial, and regional disparities remained evident.
- Mortality rates were higher among males and NH Whites, with the Midwest demonstrating the highest regional burden.
- This study highlights the need for equitable healthcare access and continued surveillance



RESULTS

- A total of **36,745 deaths** were recorded due to CML in adults aged >55 years from 1999 to 2024.
- Overall mortality rates declined**, with the AAMR decreasing from 2.77 in 1999 to 1.83 in 2024 (APC, -1.07; 95% confidence interval [CI], -1.93 to -0.18; P =0.016).
- Mortality trends **declined in both sexes**.
 - Among **Females** greater overall reduction was observed (average APC [AAPC], -1.33%). Female AAMRs decreased from 2.18 to 1.36 over the same period.
 - For **Males** the average APC was (AAPC, -1.09%). Male AAMRs decreased from 3.71 in 1999 to 2.4 in 2024.
- By Race** in 2024, AAMR was highest among Non-Hispanic Whites (1.99), followed by Non-Hispanic Blacks (1.57) and Hispanic or Latino (1.15). Following the trend **NH White>NH Black> Hispanic**
- Geographically** the Midwest showed the highest rate (2.03), followed by the South (1.93), West (1.7) and Northeast (1.55) Following the trend **Midwest>South>West>Northeast**