

Trends in Mortality from Hodgkin and Non-Hodgkin Lymphoma in the United States, 1999–2024: A CDC WONDER Analysis

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562,677

DEATHS, 1999–2024

13.48 → 7.18

AAMR PER 100,000 (1999 → 2024)

–2.47

AVERAGE ANNUAL PERCENT CHANGE

41.1%

DEATHS IN INPATIENT FACILITIES

Introduction

Mortality due to Hodgkin and non-Hodgkin lymphomas has decreased significantly over the last few decades, with advancements in earlier diagnosis and improved therapies. Despite these advancements, significant disparities continue to exist across genders, racial groups, and geographic regions.

Objective

To highlight the epidemiological disparities in Hodgkin and non-Hodgkin lymphoma-related deaths in the United States.

Methods

Retrospective analysis of death-certificate data from the CDC WONDER database, 1999–2024, for US adults aged 25 years and older across all 50 states and the District of Columbia. Hodgkin lymphoma was identified with ICD-10 codes C81.0–C81.9 and non-Hodgkin lymphoma with C82.0–C85.9, as underlying or multiple cause of death. Age-adjusted mortality rates (AAMR) per 100,000 were standardized to the 2000 US standard population and stratified by sex, age, race/ethnicity, census region, urbanization, and place of death. Annual percent change (APC) and average annual percent change (AAPC) with 95% CI were estimated by Joinpoint regression (v5.2.0, NCI); $p < 0.05$.

Age groups: 25–44, 45–64, and 65–85 years.

Results

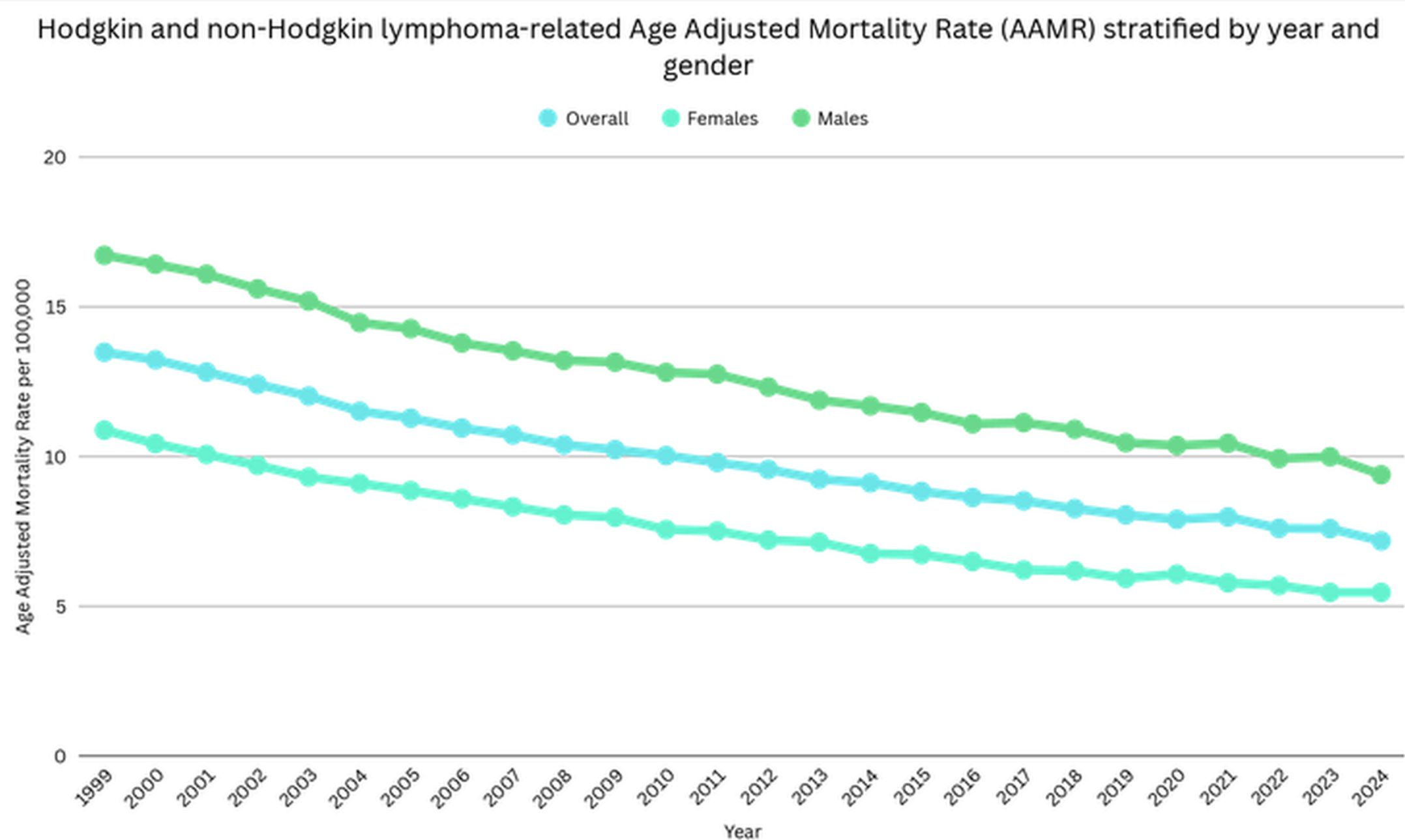
A total of 562,677 patients with Hodgkin and Non-Hodgkin lymphoma died from 1999 to 2024. The AAMR declined from 13.48 in 1999 to 7.18 in 2024 (AAPC = -2.47).

Trends by Sex

Figure 1

AAPC –2.47

Overall AAMR 13.48 → 7.18 per 100,000
Males –2.23 · Females –2.78 · 1999–2024

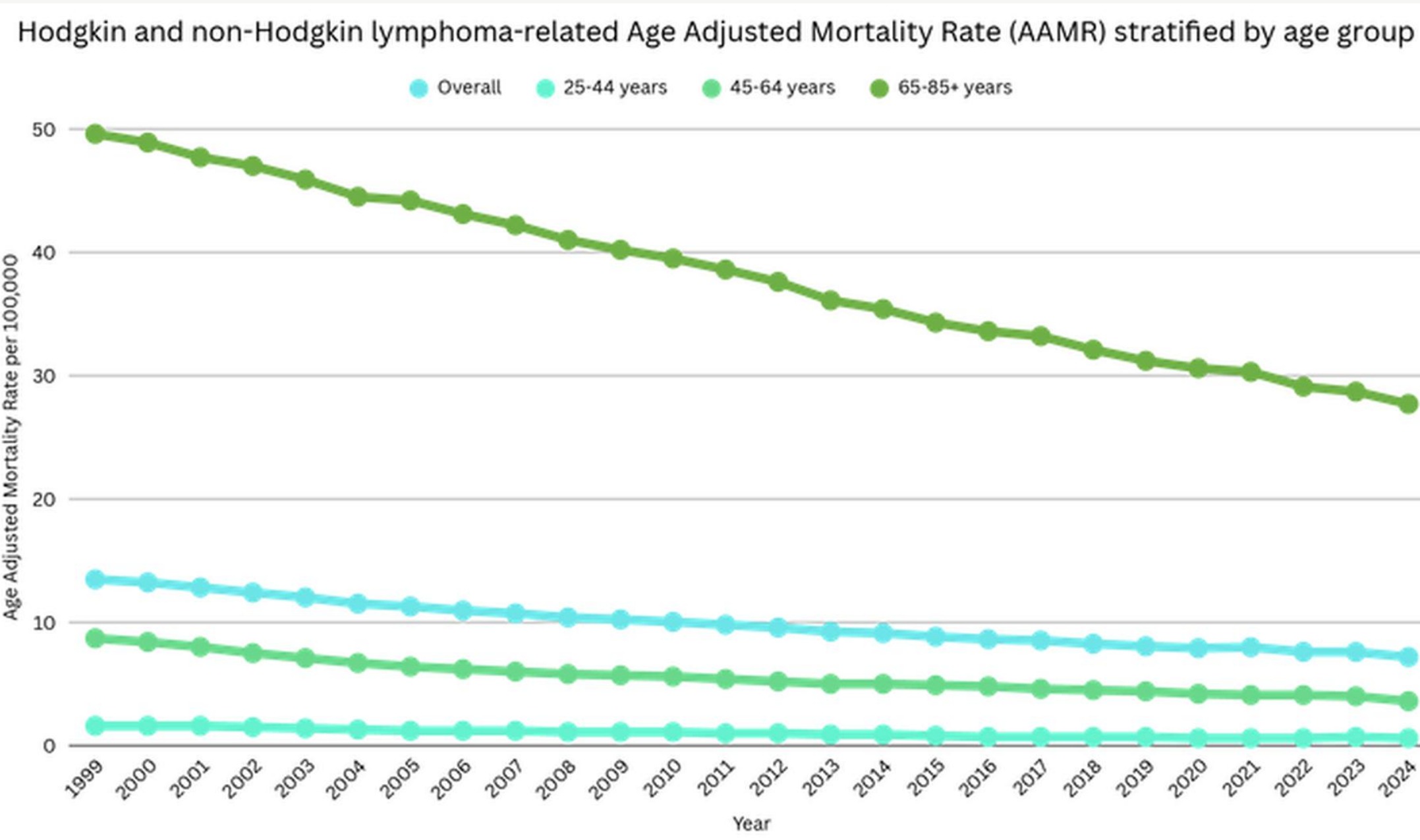


Trends by Age Group

Figure 2

AAPC –4.22

Steepest decline in adults aged 25–44 years
45–64 –3.30 · ≥65 –2.30 (CMR 27.7 in 2024)

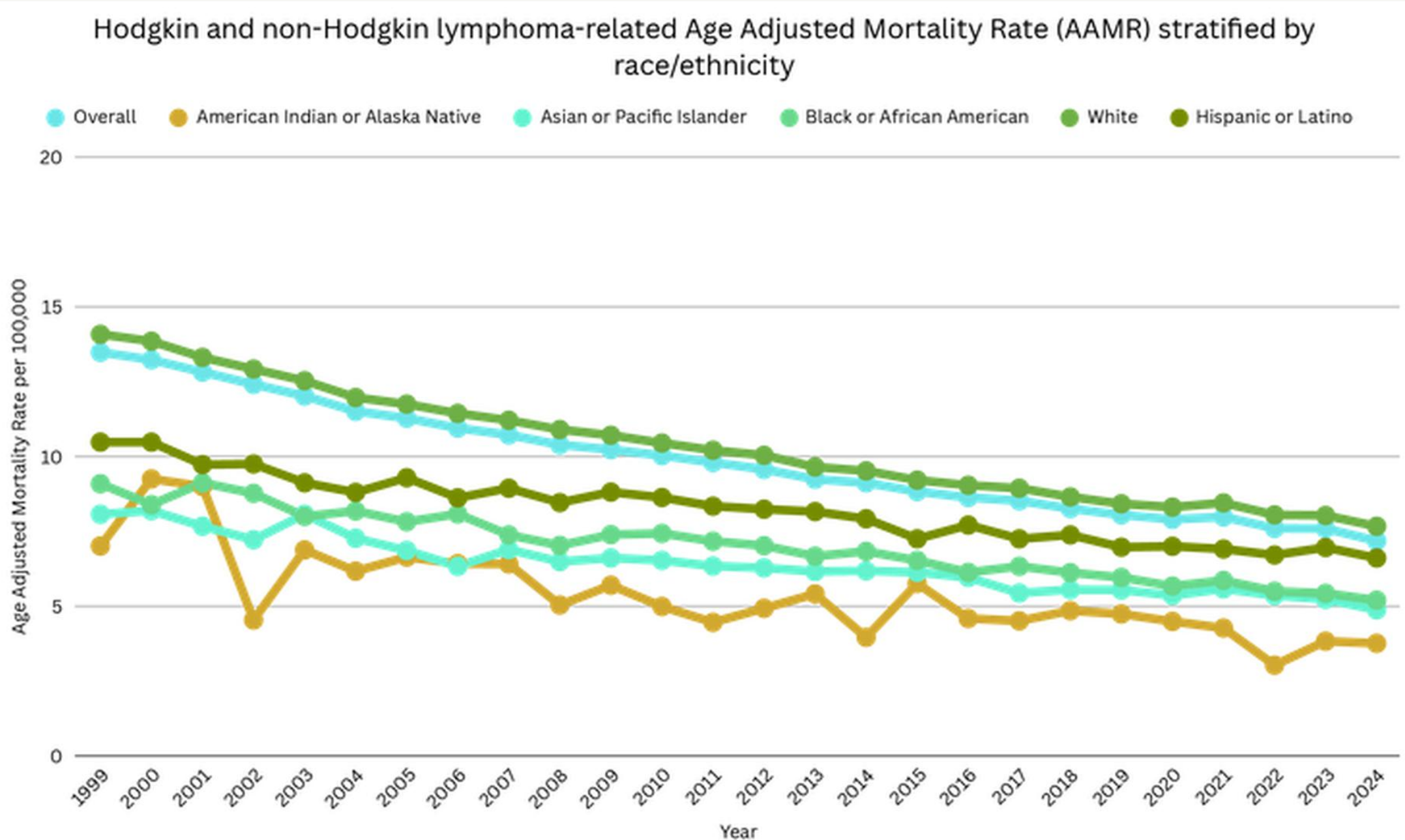


Trends by Race and Ethnicity

Figure 3

–1.73 to –2.86

AAPC range across race and ethnicity
Lowest: Hispanic or Latino · Greatest: American Indian or Alaska Native

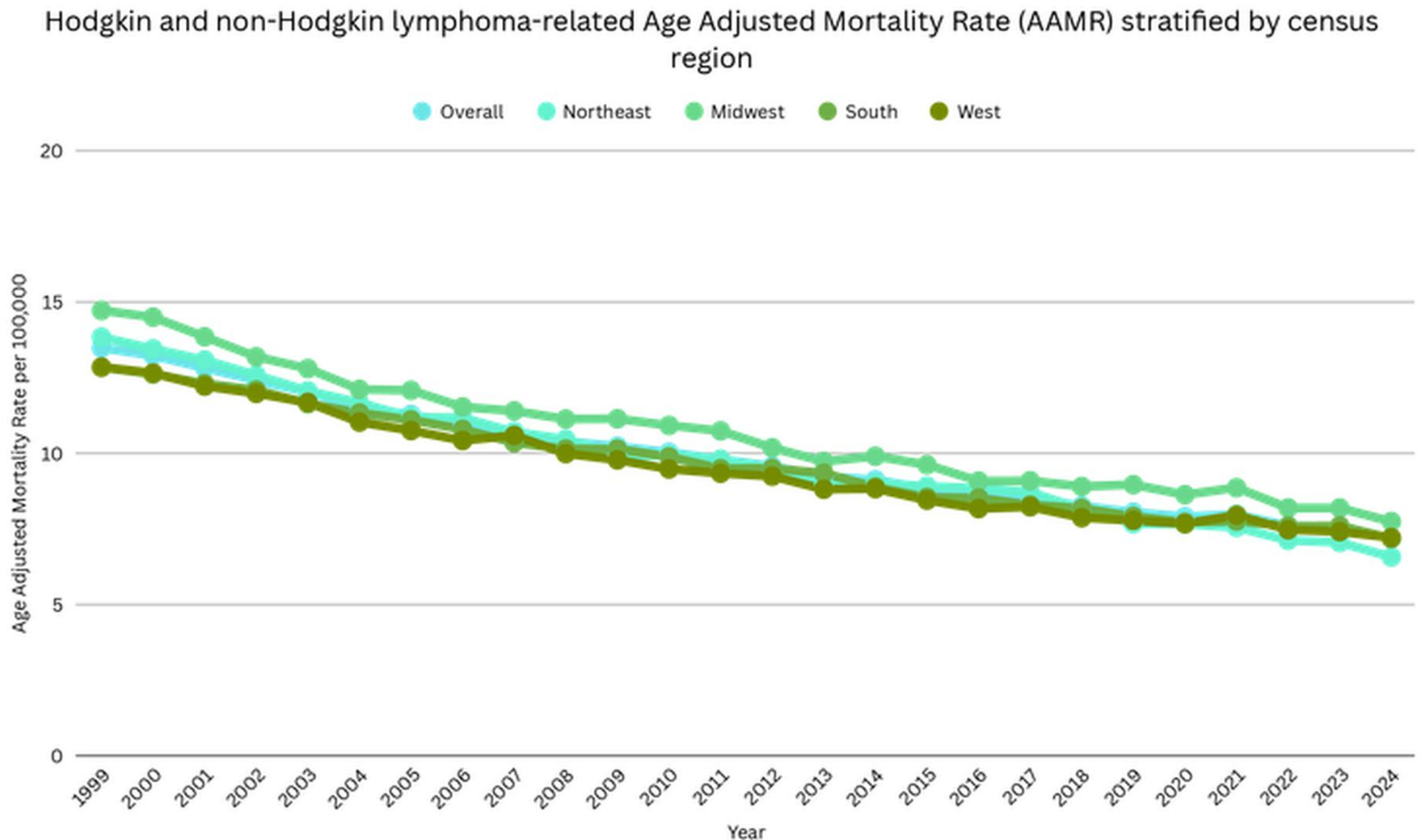


Trends by Census Region

Figure 4

AAPC –2.88

Northeast had the highest decline
Midwest –2.50 · South –2.24 · West –2.22

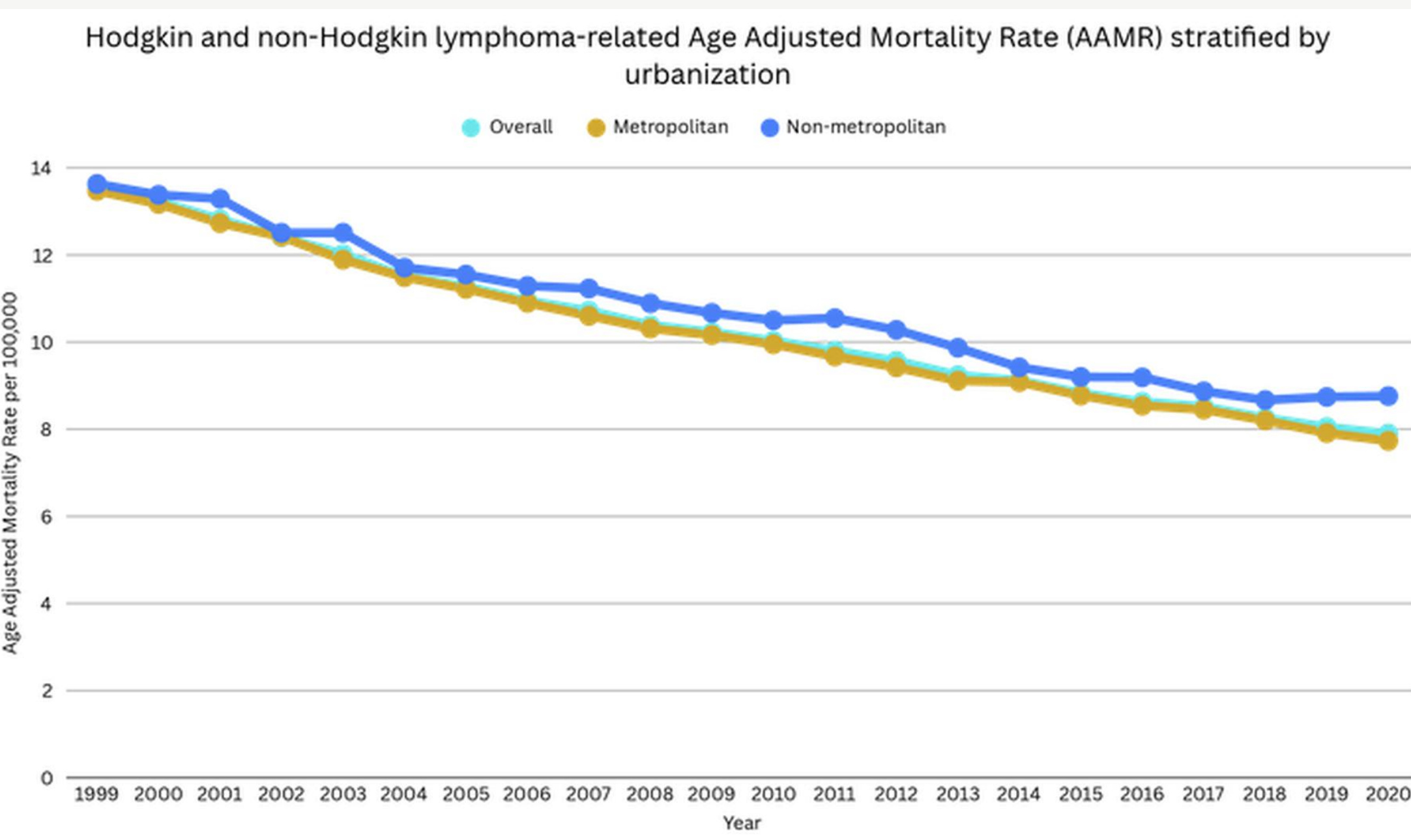


Trends by Urbanization

Figure 5

–2.60 vs –2.06

Metropolitan vs non-metropolitan AAPC
2020 AAMR 7.73 vs 8.76 · 1999–2020



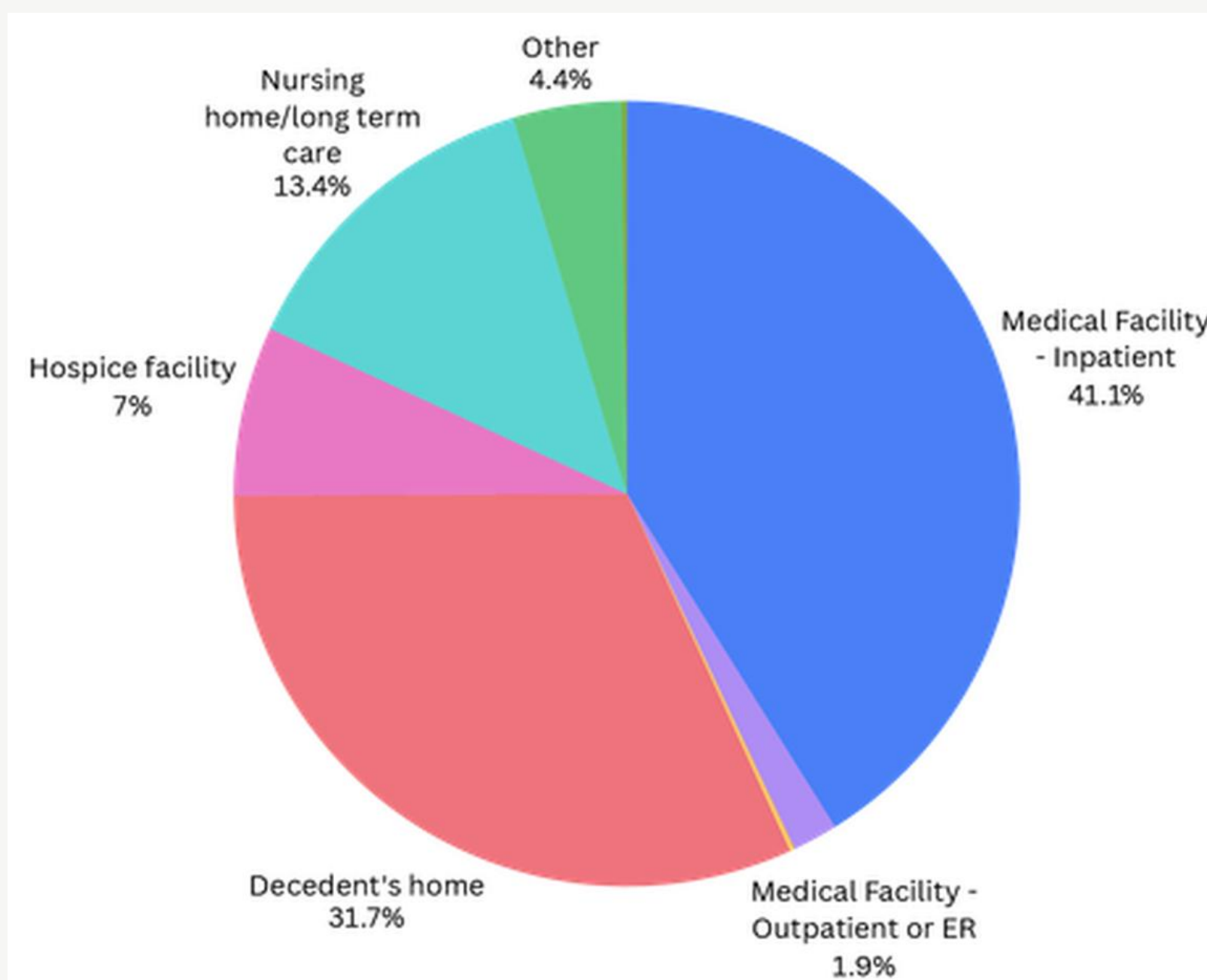
Place of Death

Figure 6

41.1%

Died in an inpatient medical facility

Home 31.7% · Nursing home 13.4% · Hospice 7.0%



Conclusion

Mortality in patients with Hodgkin and non-Hodgkin lymphoma has decreased over the last two decades. However, mortality disparities still persist across sex, race and ethnicity, census region, and urban–rural setting. Further actions must be taken to explore the potential causes, and targeted therapies should be implemented.