# NON-HODGKIN LYMPHOMA MORTALITY TRENDS AND DISPARITIES: A SEER DATABASE ANALYSIS

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## Introduction

Non-Hodgkin lymphoma (NHL) is a relatively uncommon malignancy, accounting for just under 4% of all new cancer cases annually in the United States. The median age at diagnosis is 68 years, and the median age at death is 76 years. In recent years, the treatment landscape has evolved with the introduction of targeted therapies such as CAR T-cell therapy, antibody-drug conjugates (eg, polatuzumab vedotin), BTK inhibitors (eg, zanubrutinib), and bispecific antibodies (eg, glofitamab, epcoritamab).

## Aim

To evaluate national trends in non-Hodgkin lymphoma (NHL) mortality among U.S. adults aged 65 years and older from 2000 to 2023.

## Objectives

1. Assess changes in age-adjusted mortality rates (AAMRs) over time.
2. Identify differences in NHL mortality by sex and race/ethnicity.
3. Examine recent shifts in mortality trends in the era of novel therapies.

## Methods

We performed a retrospective analysis of NHL-related mortality trends in US adults aged ≥65 years from 2000 to 2023 using the Surveillance, Epidemiology, and End Results (SEER) program. Variables including age, sex, and race/ethnicity were extracted. Age-adjusted mortality rates (AAMRs) were calculated, and annual percent changes (APCs) with 95% CIs were estimated using Joinpoint regression.

## Results

Between 2000 and 2023, 585,288 NHL-related deaths were recorded. The overall AAMR declined from 47.2 per 100,000 in 2000 to 29.9 in 2023. From 2000 to 2008, AAMR declined to 39.3 (APC: -2.2%), followed by a slower decline to 32.6 in 2020 (APC: -1.5%), and then a sharper drop to 29.9 in 2023 (APC: -3.1%). Males consistently had higher AAMRs than females (48.5 vs 30.4), with male AAMR decreasing to 39.6 and female AAMR to 22.7 by 2023. Among racial/ethnic groups, non-Hispanic Whites had the highest average AAMR (40.4), followed by Hispanics (30.5), American Indian/Alaska Natives (30.4), Asian/Pacific Islanders (25.6), and non-Hispanic Blacks, who had the lowest (22.3).

## Discussion

NHL mortality rates have steadily declined over the past two decades, with an accelerated decrease from 2020 to 2023. These improvements likely reflect the impact of novel therapies and earlier detection. Nonetheless, disparities in mortality persist across sex and racial/ethnic groups, underscoring the need for targeted public health strategies and equitable access to advanced treatments.

## References

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