



# Beyond Survival: How Non-Hodgkin's Lymphoma Impacts Well-Being and Finances Compared to Other Cancers

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## Introduction

- Non-Hodgkin's lymphoma (NHL) is a type of cancer that begins in the lymphatic system, specifically lymphocytes.<sup>1</sup>
- NHL is associated with treatment complexity, frequent immunotherapy use, and long-term survivorship challenges.
- Nationally representative data describing health care expenditures and health-related quality of life (HRQoL) among adults with NHL remain limited.
  - Previous studies concluded a higher economic burden for patients with NHL compared to patients diagnosed with other cancers, but the amount economic burden is inconsistent across studies.<sup>2</sup>

## Objectives

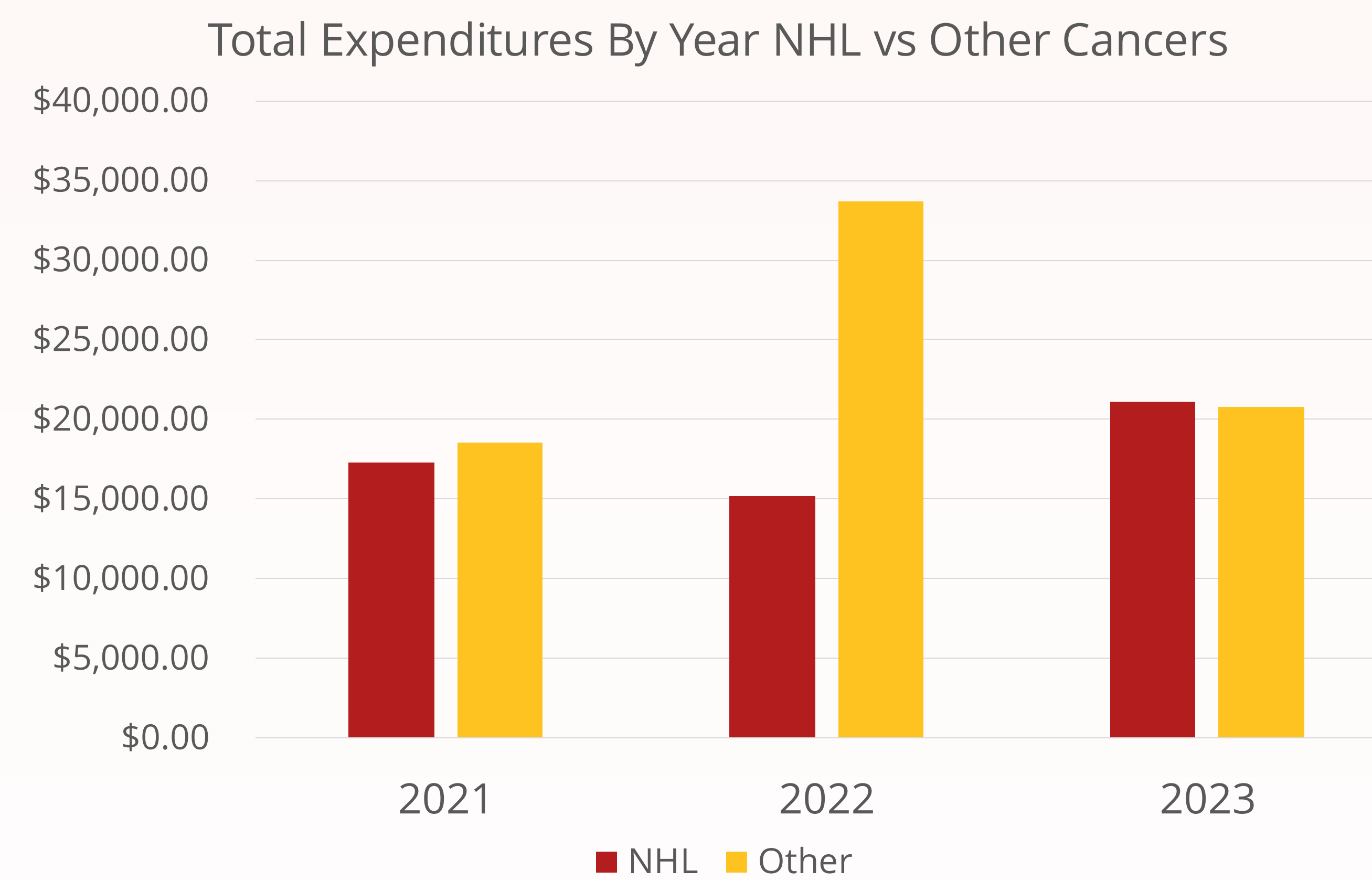
- To evaluate health care expenditures and characterize physical/mental HRQoL among U.S. adults with non-Hodgkin's lymphoma using Medical Expenditure Panel Survey (MEPS) data from 2021-2023.

## Methodology

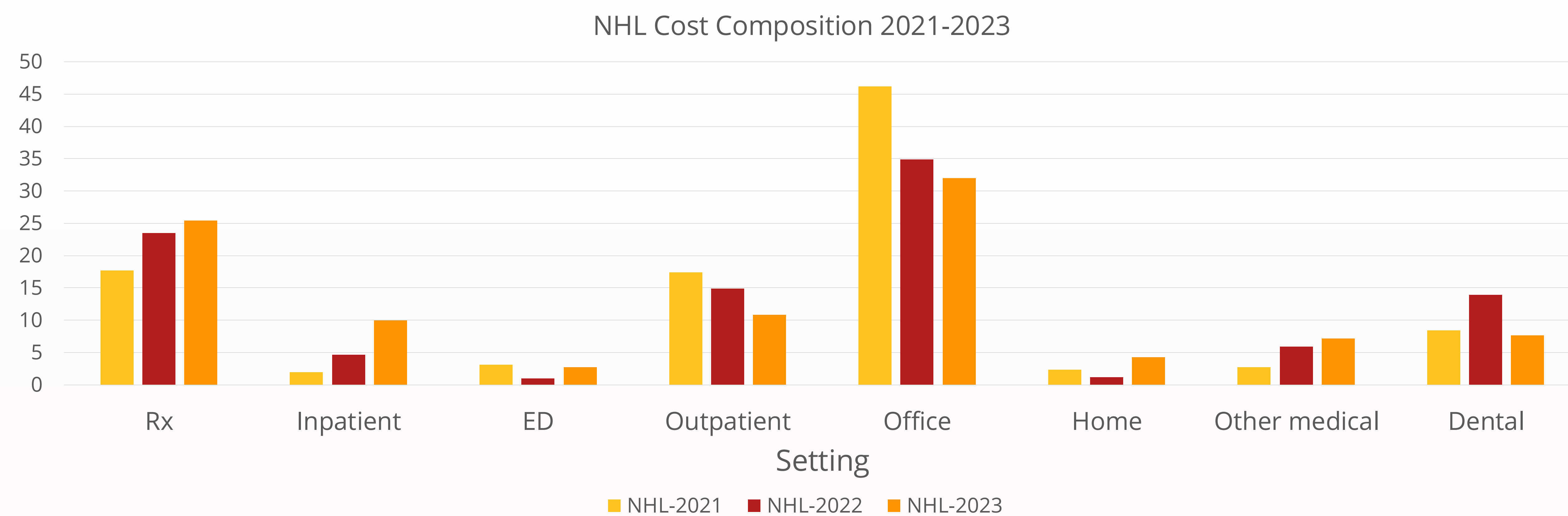
- Retrospective data analysis was conducted with using the Medical Expenditure Panel Survey (MEPS) 2021, 2022, and 2023 Full-Year Consolidated, Medical Conditions, and event-level files.
- Adults aged 18 years or older with self-reported cancer were identified. The primary exposure was non-Hodgkin's lymphoma (NHL), defined using the lymphoma indicator (CALYMPH=1). Adults with cancer but without HNL served as the comparison group.
- Direct medical expenditures were created by aggregating person-level costs across prescribed medicines, inpatient, emergency department, outpatient, office-based, home health, and other medical events.
- Health-related quality-of-life (HRQoL) indicators were constructed from MEPS VR-12-related items, including fair/poor general health, limitation in moderate activities, limitation in climbing stairs, accomplishing less due to physical health, work limitation due to physical health, pain interference with normal work, low calm/peaceful feelings, social limitation, and low energy.
- Survey-weighted means, proportions, and comparisons were conducted.

## Results

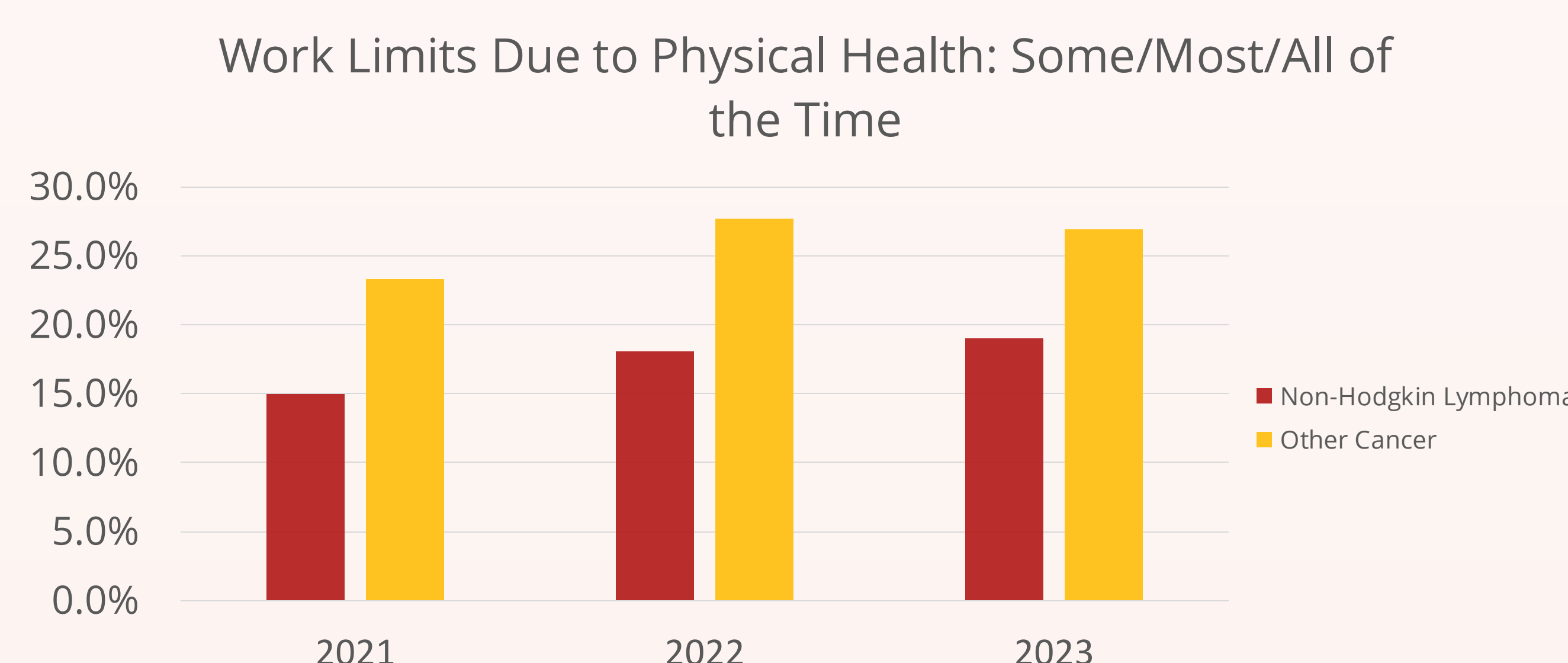
The study identified 206 unweighted adults with NHL across MEPS 2021–2023, representing approximately 2.67 million U.S. adults with NHL. Annual NHL sample sizes were 74 in 2021, 68 in 2022, and 64 in 2023. The weighted mean age of adults with NHL was similar across years: 60.7 (SD 15.0) in 2021, 61.6 (SD 12.2) in 2022, and 60.3 (SD 13.7) in 2023.



**Figure 1.** Across MEPS 2021–2023, survey-weighted total annual expenditures fluctuated among adults with NHL and adults with other cancers. NHL expenditures were \$17,294 in 2021, \$15,216 in 2022, and \$21,113 in 2023; other cancers were \$18,543, \$33,720, and \$20,781, respectively. These findings suggest that NHL-related costs remained substantial and were comparable to the broader cancer population by 2023.



**Figure 2.** Office-based care represented the largest share of NHL-related costs across all years, although it declined from 46.14% in 2021 to 34.90% in 2022 and 31.96% in 2023. Prescription (Rx) costs increased over time, rising from 17.67% in 2021 to 23.51% in 2022 and 25.45% in 2023. Inpatient costs also increased, from 2.00% in 2021 to 9.98% in 2023. Outpatient costs declined from 17.45% to 10.81% over the study period. Other medical costs increased from 2.76% in 2021 to 7.20% in 2023, while home-based costs rose from 2.35% to 4.26%. Dental costs fluctuated, increasing from 8.46% in 2021 to 13.95% in 2022 before declining to 7.63% in 2023. Emergency department (ED) costs remained a small proportion overall, varying from 3.17% in 2021 to 2.72% in 2023.



**Figure 3.** Work limitations due to physical health were reported by a meaningful share of adults with NHL in all years: 15.0% in 2021, 18.1% in 2022, and 19.0% in 2023. Although lower than the corresponding estimates among adults with other cancers, the persistent work-related limitations highlight an HRQoL burden among NHL survivors.

## Limitations

- NHL status and cancer history were identified from self-reported MEPS data, which may introduce recall or misclassification bias.
- Annual NHL sample sizes were small, which may reduce precision and contribute to wide confidence intervals.
- MEPS does not capture detailed clinical factors such as NHL subtype, stage, treatment regimen, or time since diagnosis.
- Cross-sectional survey analyses describe associations and cannot establish causality.
- HRQoL indicators were based on selected MEPS VR-12 items rather than lymphoma-specific quality-of-life instruments.

## Conclusion

- Adults with NHL experienced substantial annual medical expenditures, with total costs comparable to other cancers by 2021 and 2023.
- Office-based care and prescription medications were major drivers of NHL-related spending across the study period.
- NHL survivors reported meaningful HRQoL limitations, particularly in physical functioning and normal work limitations due to pain.
- Findings support survivorship care models that address both financial toxicity and quality-of-life burden in adults with NHL.

## Next Steps

Need additional MEPS years to improve precision for NHL subgroup estimates. Conduct adjusted analyses controlling for demographics, comorbidity, insurance, and socioeconomic factors.

## References

1. American Cancer Society. What Is Non-Hodgkin Lymphoma? | Types of Non-Hodgkin Lymphoma. Accessed March 17, 2026. <https://www.cancer.org/cancer/types/non-hodgkin-lymphoma/about/what-is-non-hodgkin-lymphoma.html>
2. Zakeri M, Li J, Sangsriy SS, Aparasu RR. Incremental health care expenditures for non-Hodgkin lymphoma in comparison with other cancers: Analysis of national survey data. *JMCP*. 2023;29(5):480-489. doi:10.18553/jmcp.2023.29.5.480

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