



# Economic and Humanistic Burden Among U.S. Adults with Non-Hodgkin Lymphoma (NHL): Analysis of National Survey Data

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## Introduction

- NHL - cancer of the lymphatic system representing a diverse group of hematologic malignancies.<sup>1</sup>
- Treatment of NHL is complex, often combining cytotoxic chemotherapy with immunotherapy and/or targeted therapies.
- Ongoing survivorship challenges may affect healthcare utilization & quality of life (QOL).
- Although prior studies have reported substantial economic burden among patients with NHL, the magnitude of this burden compared with other rare cancers remains inconsistent.<sup>2</sup>

## Objectives

- To compare healthcare expenditures & health-related quality of life (HRQoL) between U.S. adults with NHL & those with other rare cancers (leukemia, pancreas, brain, bone) using nationally representative data.

## Methodology

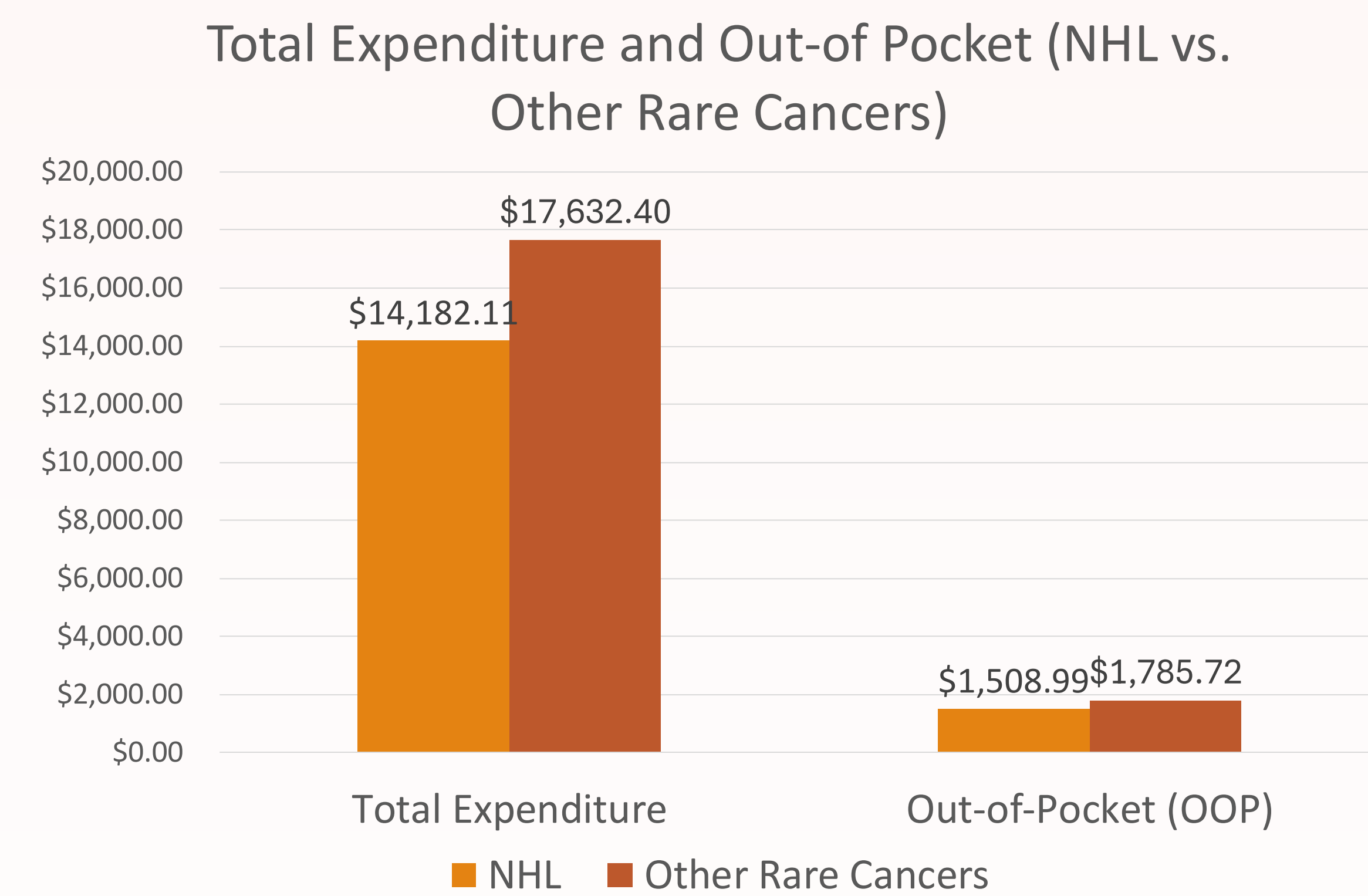
- Data Source: 2022 Medical Expenditure Panel Survey (MEPS). Survey-weighted analyses were performed to generate nationally representative estimates.
- Study Design: Cross-sectional analysis
- Population:
  - NHL Group: Adults >18 with lymphoma (CALYMPH=1).
  - Comparison Cancer Group: Adults > 18 with other rare cancers (CAOTHER=1), no NHL.
- Outcomes:
  - Expenditures: Total expenditure and out-of-pocket (OOP) across all care settings.
  - HRQoL: VR-12 physical (PCS) & mental (MCS) component summaries; activity limitations; psychological distress.
- Healthcare expenditures aggregated across multiple healthcare event files - prescribed medicines, inpatient hospitalizations, emergency department visits, outpatient visits, office-based visits, home healthcare, & other medical services. Survey-weighted means, proportions, & regression analyses were conducted to compare outcomes between groups.

## Results

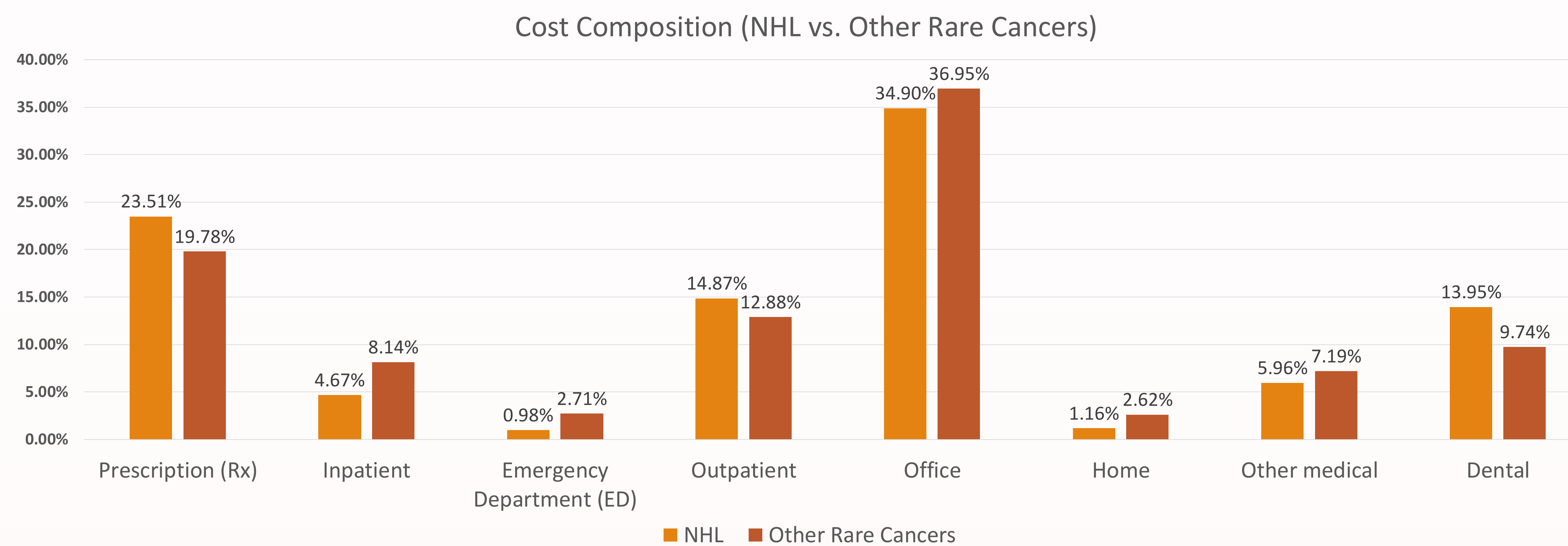
**NHL Group:** N=67 adults representing approximately 854,884 U.S. adults with NHL; Mean age: 57.6 years; Female: 60.9%

**Comparison Group:** N=426 adults representing approximately 5.19 million U.S. adults; Mean age: 59.2 years; Female: 52%

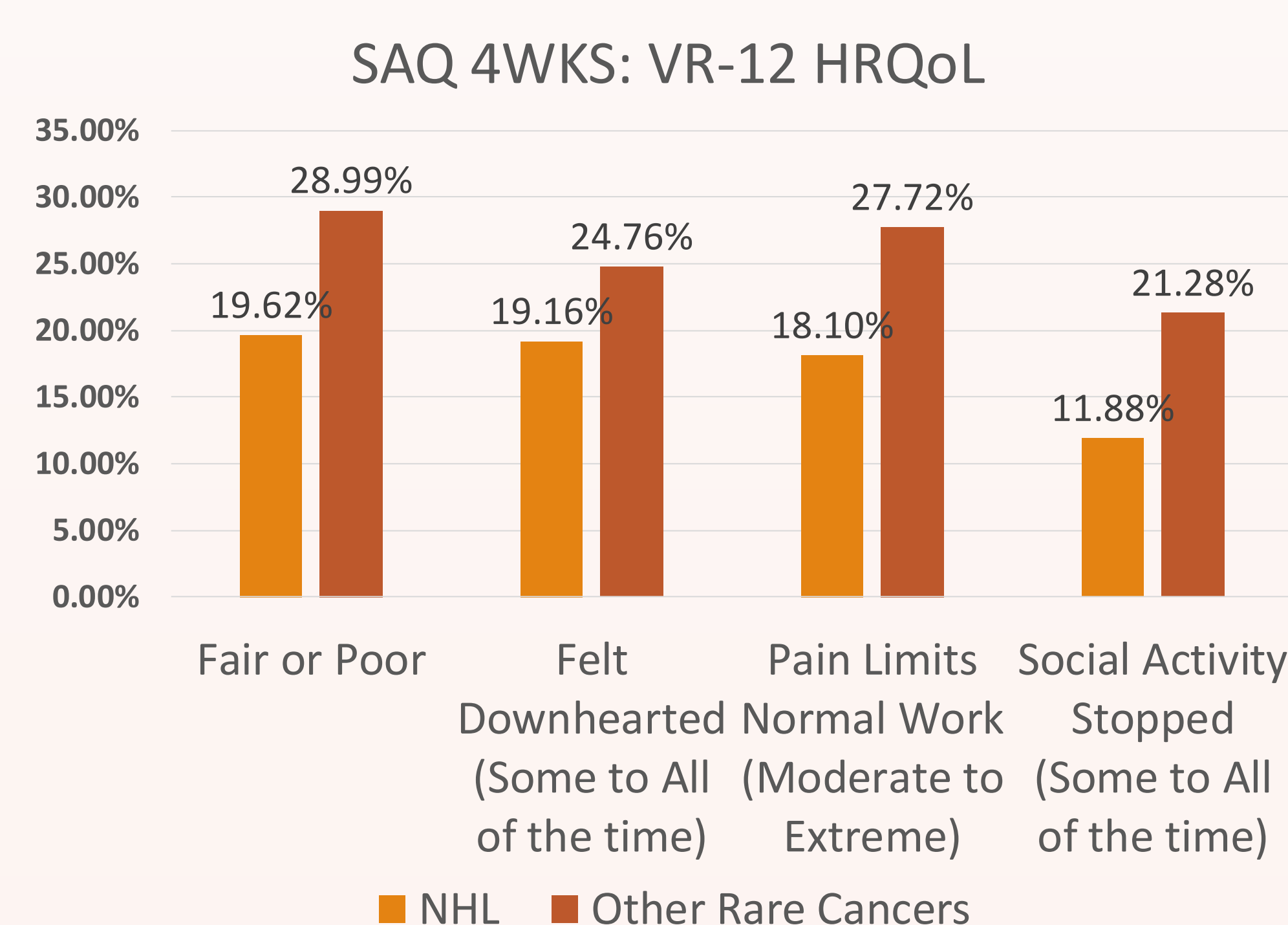
Ethnicity (NHL Group vs. Comparison Group): Non-Hispanic White: 82.9% vs. 75.2%; Hispanic: 0.67% vs. 12.9%; Asian 1.96% vs. 5.32%



**Figure 1.** Survey-weighted annual healthcare expenditures among U.S. adults with NHL & other rare cancers demonstrated substantial economic burden in both groups. In 2022, adults with NHL had an average total annual healthcare expenditure of approximately \$14,182, including \$1,509 in OOP costs, while adults with other rare cancers incurred approximately \$17,632 in total expenditures & \$1,786 in OOP costs.



**Figure 2.** Office-based visits represented the largest component of healthcare expenditures, accounting for approximately 34.9% of total healthcare costs in 2022. Prescription medication costs represented 23.5% of expenditures, followed by outpatient services (14.9%) and dental care (14.0%). In comparison, adults with other rare cancers demonstrated a similar expenditure distribution pattern, although inpatient and emergency department costs were proportionally higher. These findings suggest that ambulatory care and medication utilization remain major contributors to the economic burden associated with NHL survivorship.



**Figure 3.** Meaningful impairments in HRQoL were reported in 2022. In the NHL Group 19.6% reported fair or poor general health status, 19.2% experienced feelings of being downhearted some to all of the time, 18.1% reported pain-related limitations in normal work activities, & 11.9% reported social activity limitations. Although HRQoL impairments were generally more pronounced among adults with other cancers, these findings highlight the persistent physical, emotional, and functional burden experienced by 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 & 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 & cannot establish causality.
- HRQoL indicators were based on selected MEPS VR-12 items rather than lymphoma-specific quality-of-life instruments.

## Conclusion

- U.S. adults with NHL experience a substantial economic & humanistic burden comparable to other rare cancers.
- High healthcare utilization & OOP costs persist.
- Significant impairments in physical function, daily activities, & mental health are prevalent.
- Implication: These findings underscore the urgent need for:
  - Targeted supportive care programs
  - Survivorship interventions
  - Financial navigation support to improve outcomes in the NHL population.

## Next Steps

- Pool multiple years of MEPS data
- Analyze NHL-specific treatment patterns
- Evaluate cost-effectiveness of supportive care interventions.

## References

- 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>
- Zakeri M, Li J, Sangirya 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

## Acknowledgements

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