

## INTRODUCTION

- There are approximately 1.2 million people living with HIV (PLWH) in the United States.<sup>1</sup>
- Without a cure, HIV can now be treated to achieve viral suppression, which has been shown to reduce HIV-related morbidity and mortality, concomitantly preventing HIV transmission.<sup>2</sup>
- Stable access and adherence to antiretroviral therapy (ART) and health care is critical in PLWH.
- In many other patient populations, the COVID-19 pandemic negatively impacted levels of healthcare resource utilization (HCRU).<sup>3</sup>

## OBJECTIVE

- We conducted a descriptive analysis of HCRU among PLWH in the US to assess trends in total healthcare and prescription spending by ethnicity, geographical location, and payer before (2015-2019) and after (2020-2023) the COVID-19 pandemic.

## METHODS

- Publicly available data from the Medical Expenditure Panel Survey (MEPS) were retrieved from 2016-2022. Descriptive analyses were stratified by census region, ethnicity, and payer. Expenses were adjusted to 2023 USD using the Consumer Price Index for all Urban Consumers (CPI-U) to account for inflation.
- Statistical comparisons were made using the Wilcoxon-Rank Sum test, and error bars signify 95% confidence intervals.

### 1. Data acquisition and integration into a master dataset

- Consolidated variables of interest from MEPS database into one dataset consisting of full year consolidated files (2015-2023), medical conditions files (2015-2023), prescribed medicines files (2015-2023), and panel 24 files (2019-2022).

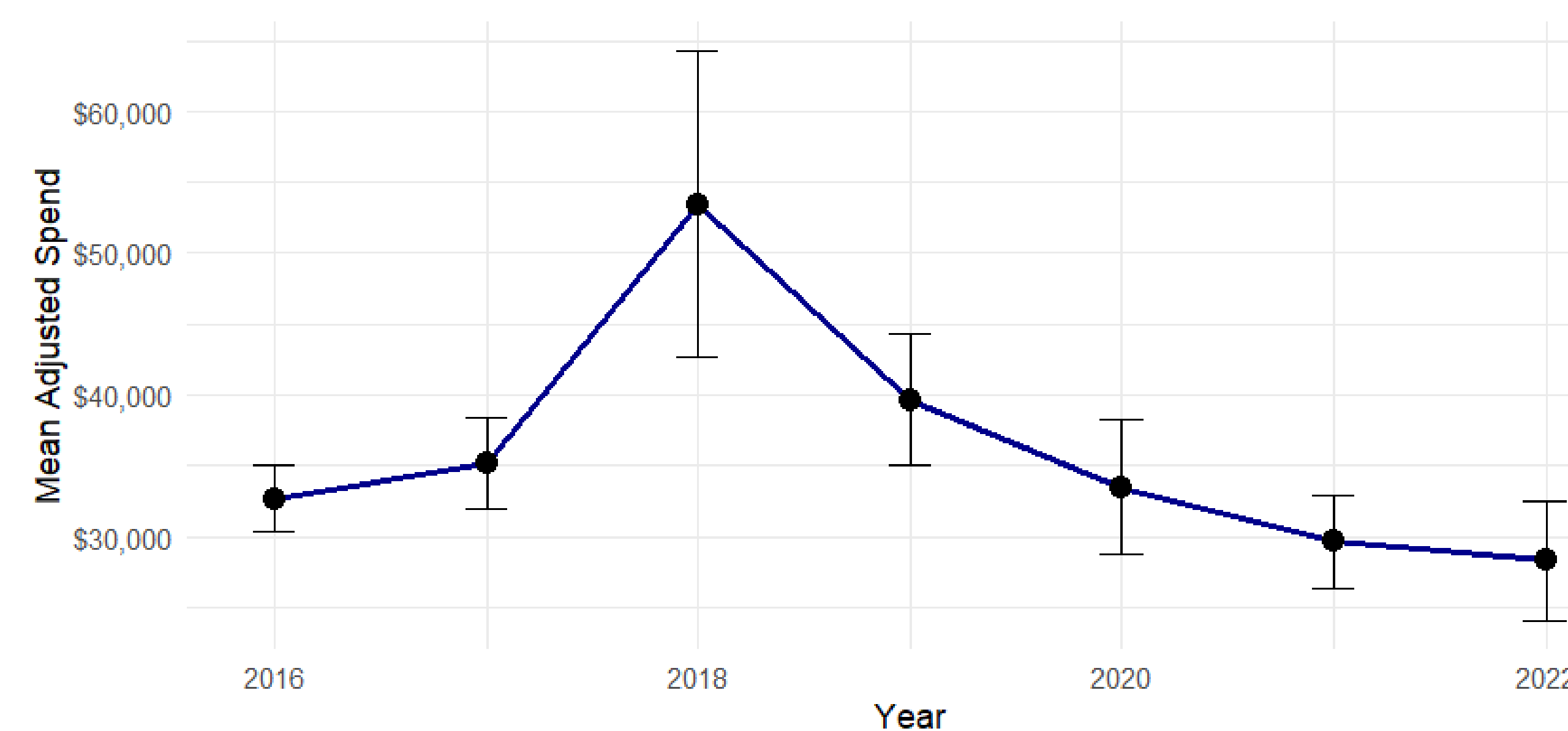
### 2. Cohort identification for PLWH

- The final variable: indicator was a binary variable flagging any individual meeting either:
  - Diagnosis codes: ICD-10 codes or ICD-9 codes and CCSR code.
  - ART: String matching algorithm identified individuals prescribed HIV-specific medications.

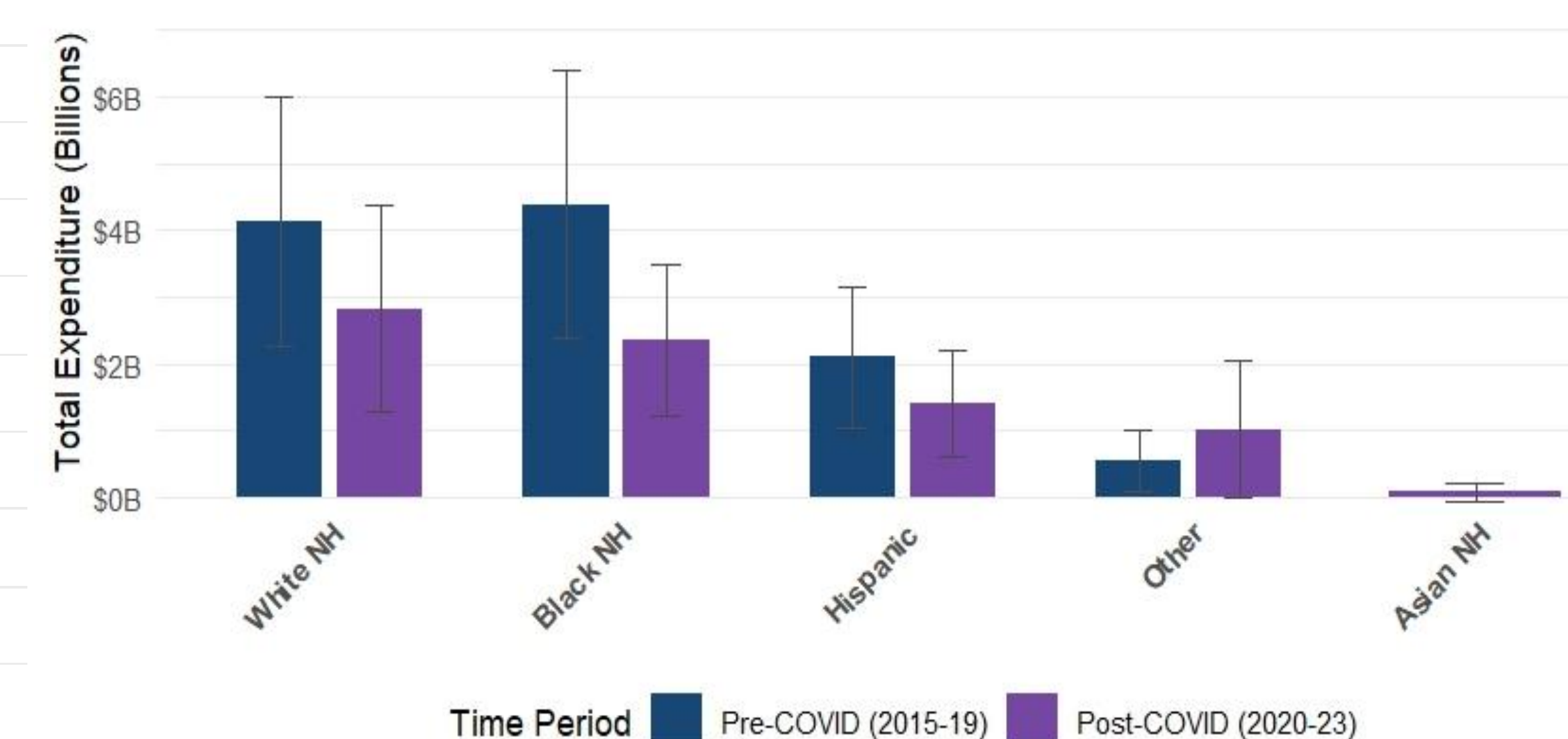
### 3. Economic and Survey adjustments

- Survey design accounted for by using longitudinal weights.
  - Nationally representative.
  - Accounts for deaths and dropping out of survey.

**Figure 1.** Average annual prescription spending per PLWH



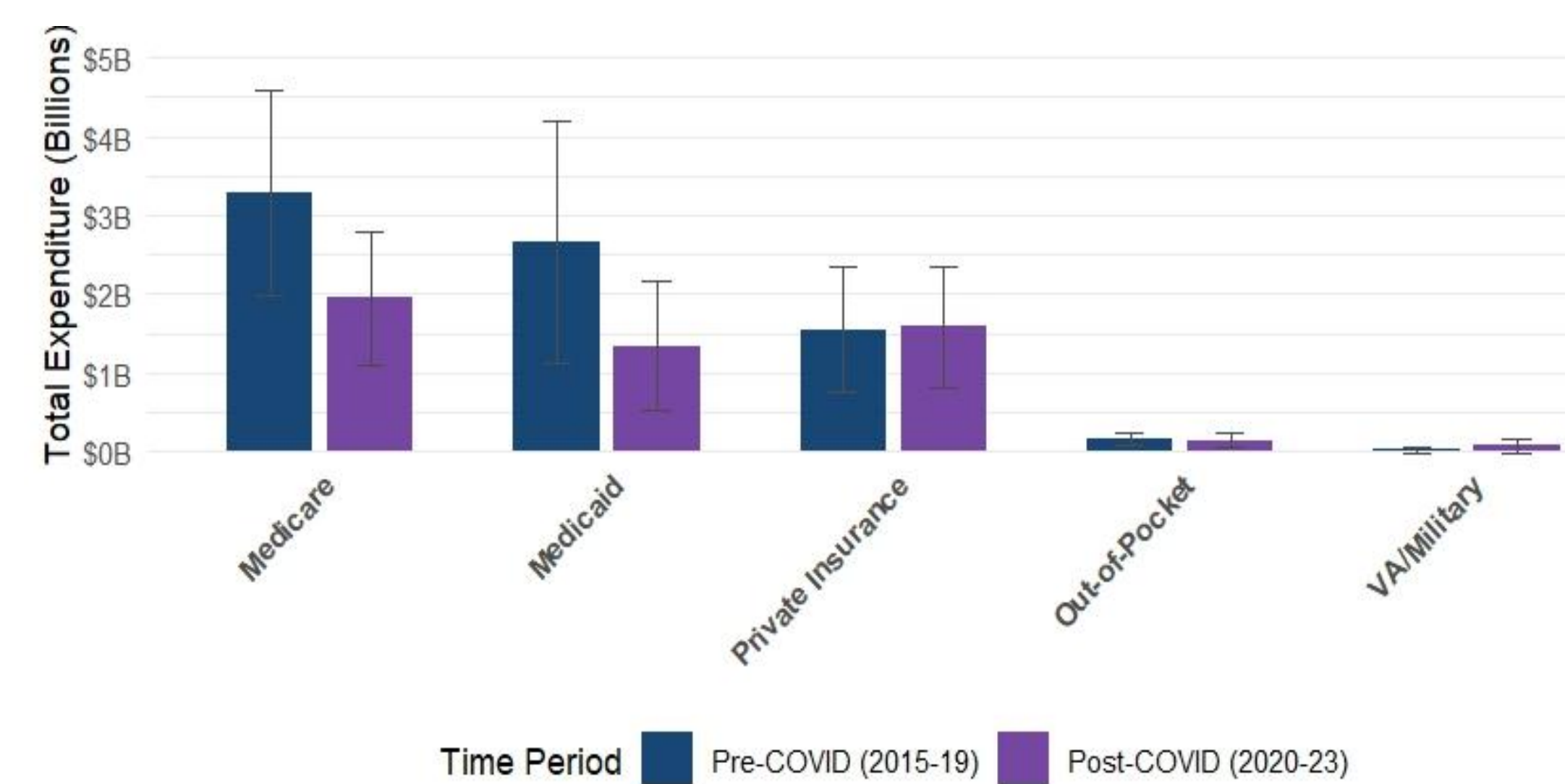
**Figure 2.** Total annual healthcare expenditure for PLWH by ethnicity



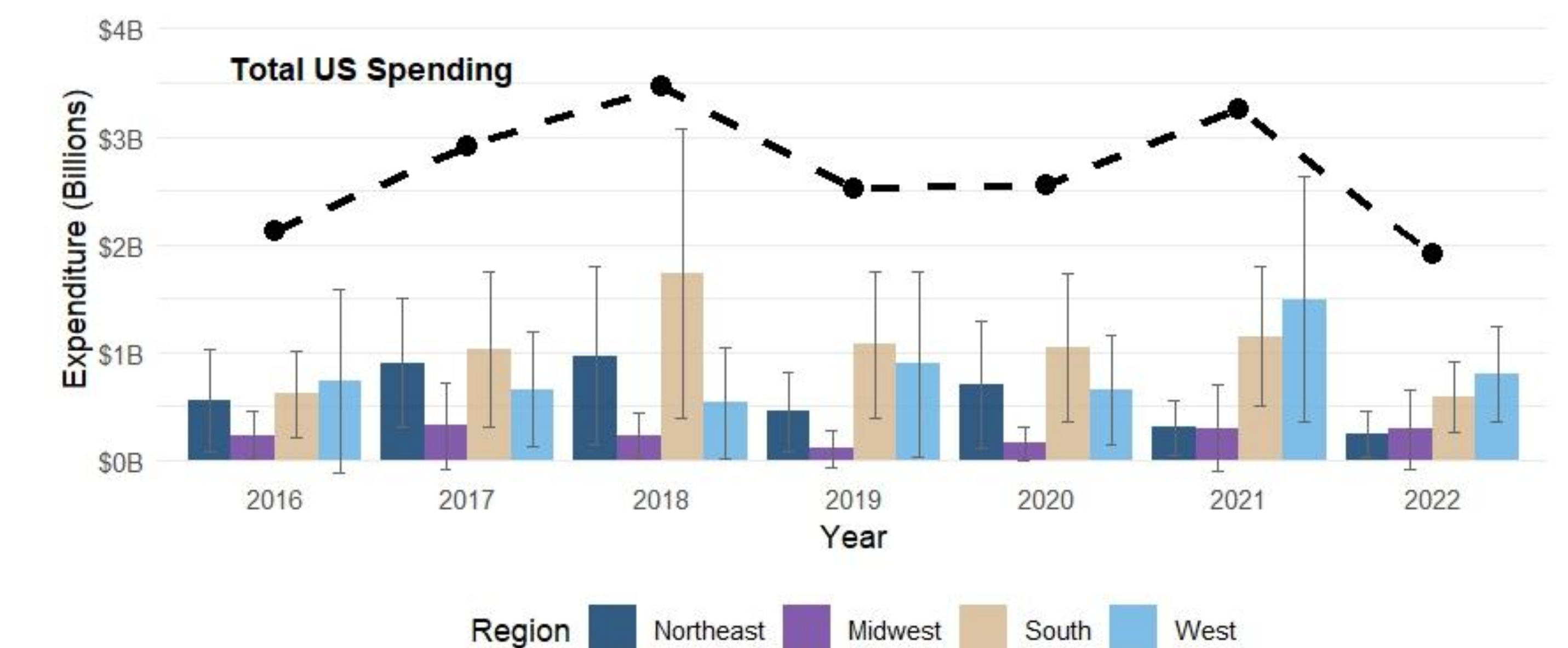
## RESULTS

- Comparing pre- and post-COVID data, annual aggregate spending decreased by 35.1% from \$8.44B to \$5.48B (p=0.0091) and annual mean spending per PLWH decreased by 24.6% from \$40,257.56 to \$30,356.52 post-COVID (p=0.0091). National healthcare expenditure decreased by 31%, from \$11.18B to \$7.71B (p=0.0098).
- Average annual prescription spending per PLWH decreased by from \$32,660.25 in 2016 to \$28,309.77 in 2022 (p=0.1656; **Figure 1**).
- All ethnicities except for Asian Non-Hispanic (due to missing data) and unclassified individuals showed reduced spending (**Figure 2**), and the only significant decrease in spending was in the Black Non-Hispanic group which saw a 46.5% decrease (p=0.0307).
- Prescription spending declined across Medicare, Medicaid and Out-of-pocket payers' expenditures; however, differences were non-significant (**Figure 3**). Private insurance and VA/military saw slight increases in spending.
- Geographically, there were decreases in spending of 57.1% and 4.6% for the Northeast and the South, while 24.6% and 9.0% increases were seen in the Midwest and West regions respectively between 2016-2022 (**Figure 4**).

**Figure 3.** National RX spending for PLWH by payer: Pre vs. post-COVID



**Figure 4.** Healthcare expenditure for PLWH: regional and national totals by year



## DISCUSSION & CONCLUSIONS

- The COVID-19 pandemic was associated with a decline in HCRU and spending among PLWH in the US, particularly among Black Non-Hispanic individuals.
- Patients residing in the Midwest and West census regions may have had improved healthcare access during this time over those in the Northeast and South.
- Overall trends suggest reduced healthcare access or utilization, highlighting potential disparities in care continuity during public health emergencies in the United States.

## REFERENCES

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## DISCLOSURES

- All listed authors are employees of Amaris Consulting and have no conflicts of interest to declare.