



The Effect of a Recent Cancer Diagnosis on Poverty Status among Older Adults in the US: A Secondary Analysis of Health and Retirement Study Data

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Introduction

- Advances in diagnosing and treating cancer have helped improved outcomes for many patients, but there are persistent challenges for people who are diagnosed with cancer, particularly related to financial costs.¹
- Financial toxicity** is defined as a financial burden resulting from cancer treatment.²
- As physical toxicity of cancer treatment has decreased on average, financial toxicity has increased.² It is estimated that approximately 50% of cancer survivors in the United States have experienced financial toxicity.¹
- Objective:** To estimate the effect of a recent cancer diagnosis on older adults' household poverty status.

Methods

We used longitudinal panel data from Waves 6-14 of the Health and Retirement Survey for this study.³

Exclusion criteria:

- Cancer history in waves 6-12
- Household income below federal poverty threshold in wave 13

Our results suggest that a cancer diagnosis can increase financial toxicity, even in a short period, for older adults.

Analyses

The primary outcome **to assess financial toxicity** was household poverty status in Wave 14, and the exposure was reporting a cancer diagnosis in Wave 14.

A composite variable indicating household poverty in Waves 6-12 was included as a potential confounder. Additional covariates included marital status, educational attainment, Hispanic ethnicity, race, sex, age, and retirement status. An interaction term between marital status and sex was also included.

Missing data were addressed using multiple imputation. We used the doubly robust estimation (DRE) method with multivariable logistic regression for this study. Analyses were conducted in RStudio.

Results

Our study included 14,845 respondents; most were White (68%), and female (57%). The average age was 65 years, and 338 reported a cancer diagnosis between Waves 13 and 14.

The DRE's average treatment effect showed a 0.07 increase in household poverty status among those with a cancer diagnosis, compared to those with no cancer diagnosis.

This indicates household income falling below the federal poverty line in the same period as a cancer diagnosis (95% CI: 0.03, 0.11). Model diagnostics indicated good fit (area under curve = 0.79).

References

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