

# Household Meal Preparation Responsibility and Sociodemographic Factors with Hypertension Among Black Adults: A Cross-Sectional Analysis of NHANES 2021-2023

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## Background

- Hypertension affects approximately 58% of non-Hispanic Black adults in the United States.
- Dietary intake is an important modifiable risk factor for hypertension.
- Home meal preparation has been associated with healthier dietary patterns, while foods prepared away from home may contain more sodium.
- Little is known about whether household meal-preparation responsibility is associated with hypertension.
- Understanding this relationship may identify potential behavioral pathways contributing to hypertension disparities.

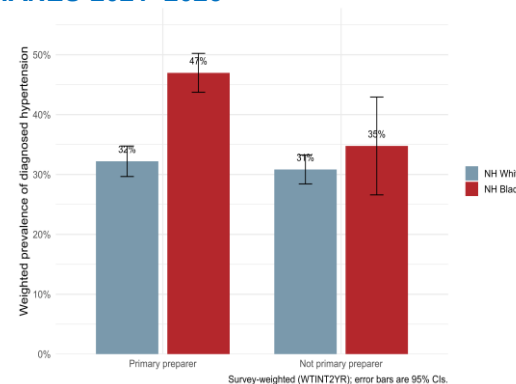
## Methods

- We conducted a cross-sectional analysis using data from the 2021–2023 National Health and Nutrition Examination Survey (NHANES).
- The study population included non-Hispanic Black and non-Hispanic White adults aged ≥20 years, with an analytic sample of 4,675 participants.
- The primary exposure was self-reported responsibility for household meal planning or preparation (DBQ930).The outcome was self-reported physician-diagnosed hypertension (BPQ020).
- We used survey-weighted logistic regression to examine the association between household meal-preparation responsibility and hypertension.
- Models were adjusted for age, sex, race/ethnicity, educational attainment, native origin, and family income-to-poverty ratio.
- Statistical analyses were conducted using R version 3.4.

## Results

- Household meal-preparation responsibility was not significantly associated with hypertension (aOR = 0.90; 95% CI: 0.76–1.08).
- Non-Hispanic Black adults had more than twice the odds of hypertension compared with non-Hispanic White adults after adjustment (aOR = 2.14; 95% CI: 1.69–2.71).
- Older age was independently associated with higher odds of hypertension.
- Lower family income was also independently associated with hypertension.

## Weighted prevalence of diagnosed hypertension by meal-preparation responsibility and race, NHANES 2021–2023



## Implications

- Household meal-preparation responsibility was not associated with diagnosed hypertension in this nationally representative sample.
- A broad measure of meal-preparation responsibility may not adequately capture dietary pathways contributing to hypertension risk.
- Persistent racial and socioeconomic disparities suggest that upstream social and structural factors may be more important intervention targets.
- Future research should examine direct measures of diet quality, meals consumed away from home, longitudinal associations, and objectively measured blood pressure.



References available on request.

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