

Distribution of Financial Hardship by Insurance Type Among US Families with Multimorbidity

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Background

- Multimorbidity can expose families to substantial financial risk because medical needs and financial resources are shared within families
- Insurance should reduce that risk but the degree may vary
- Evidence remains limited on how multimorbidity and insurance type jointly shape financial hardship at the family level

AIM

- To evaluate the association of family multimorbidity and insurance type with multiple forms of financial hardship among US families

Methods

Data Sources and Study Sample

- Pooled 2018-2019 Medical Expenditure Panel Survey, the Household Component files and Person-Round files
- 67,155 families representing US families, where family is the analytic unit

Outcome: Three Measures of Financial Hardship

- Catastrophic Health Expenditure (CHE): annual family out-of-pocket expenses exceeding a proportion of the total family income, with the threshold of 40%
- Medical Debt: whether family members are experiencing inability or difficulty in paying medical bills during the previous year
- Barriers to Care: whether family members have forgone or delayed medical care, dental care, or prescriptions due to affordability concerns
- Non-CHE: whether family does not have CHE but experience the other two
- Any Financial Hardship: whether any measures of financial hardship exist in the family

Variable of Interest: Multimorbidity and Insurance

- Family multimorbidity burden: 0, 1-2, 3+ priority chronic conditions within family
- Insurance: uninsured, public, or private coverage for the most-sick family member

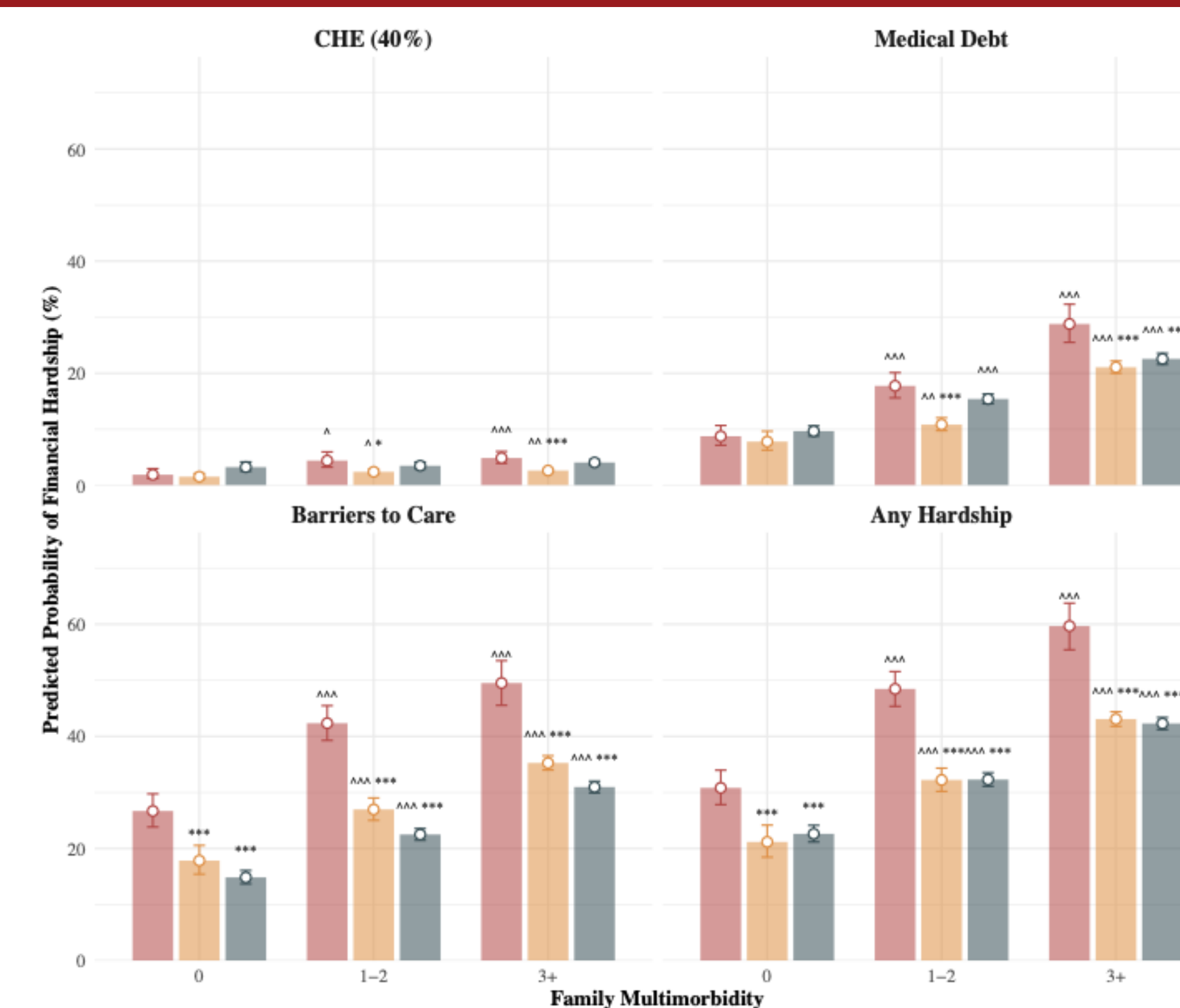
Statistical Analysis

- Survey-weighted interaction logistic models estimated adjusted predicted probabilities across multimorbidity-by-insurance groups
- Secondary within-group analyses examined public subtype and HDHP status.

Interpretation

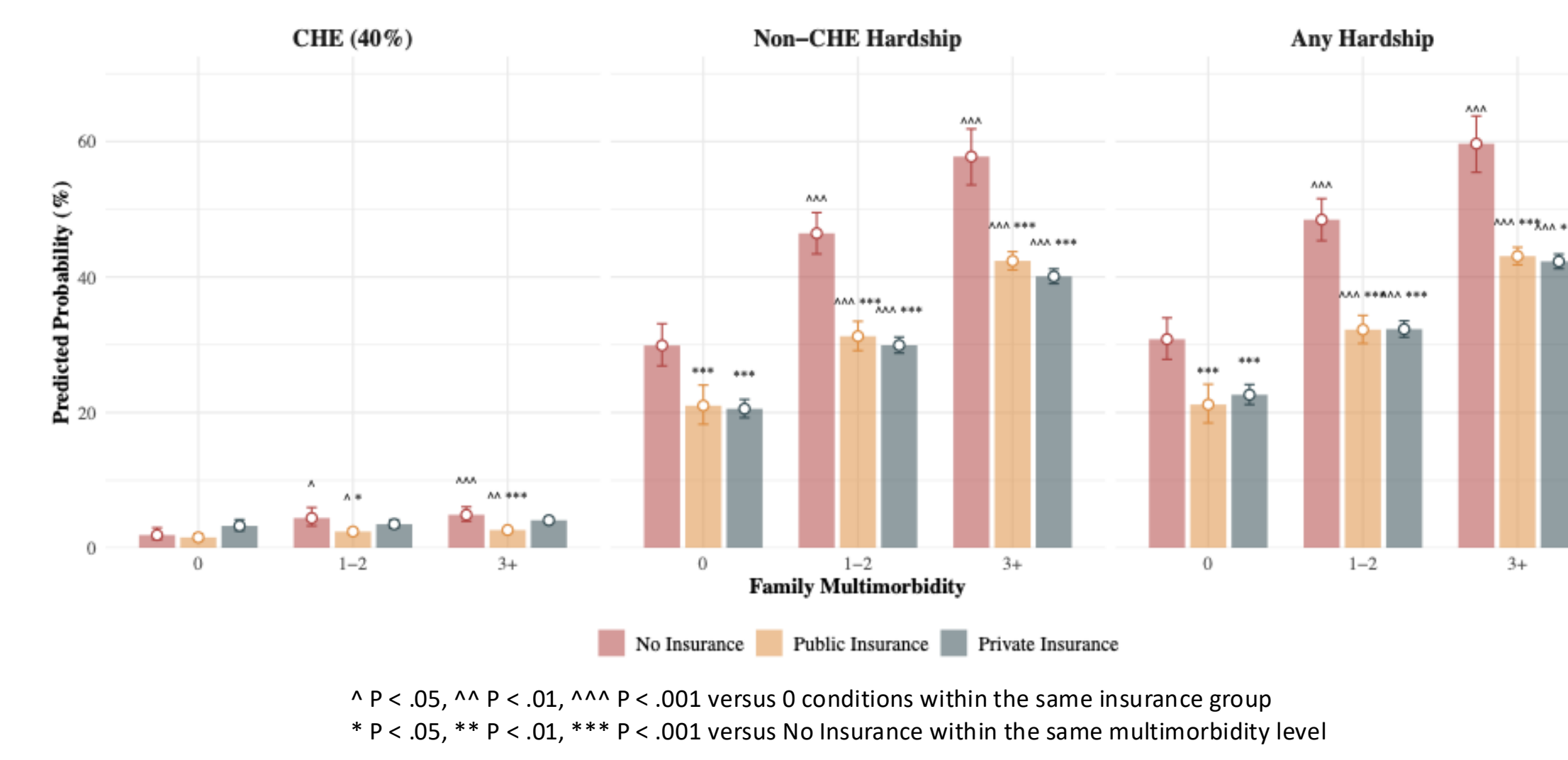
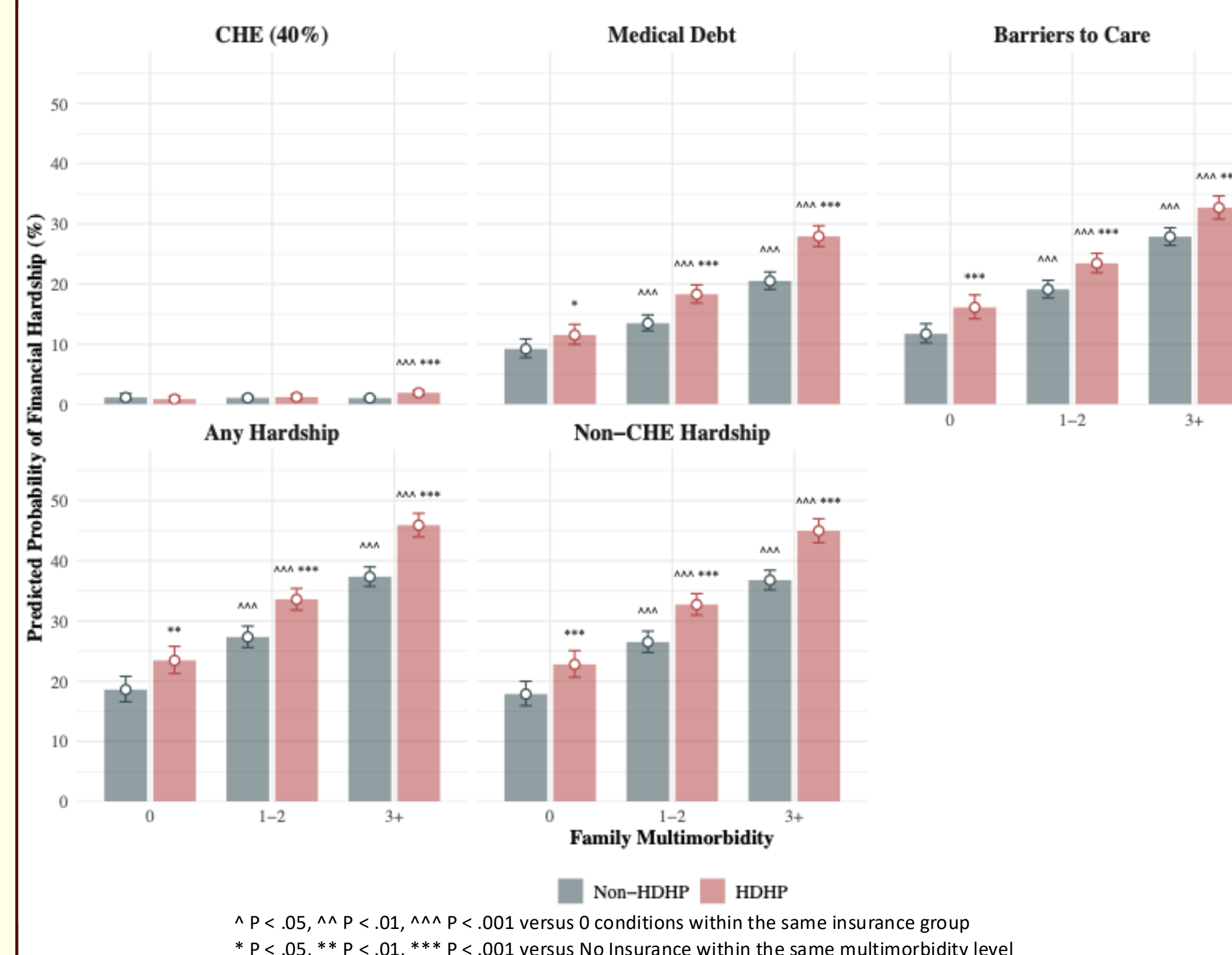
- Findings describe observed associations and should not be interpreted as causal effects

Results



Financial Hardship Missed When Only Catastrophic Health Expenditure Is Measured

- CHE captured only a small share of total family financial hardship compared with non-CHE hardship and any hardship
- Among families with 3+ chronic conditions, non-CHE hardship was 57.8% for uninsured families, 42.4% for publicly insured families, and 40.1% for privately insured families, whereas CHE was only 4.9%, 2.7%, and 4.1%, respectively.
- Focusing only on CHE would therefore understate the broader affordability and access burden faced by families with multimorbidity.



Characteristics of Population

67,155 families representing about 139.9 million US families

Selected Characteristics

Characteristic	0 Condition	1-2 Conditions	3+ Conditions	Overall
Unweighted sizes	9,911	18,343	38,901	67,155
Weighted, millions	23.9	40.7	75.3	139.9
No insurance, %	13.7	7.6	3.2	6.3
Public insurance, %	14.9	20.5	36.8	28.3
Private insurance, %	71.4	71.9	60.0	65.4
CHE >40% income, %	1.9	2.5	3.6	3.0
Medical debt, %	10.4	15.8	2.9	27.6
Barriers to cost, %	21.1	27.3	29.9	27.6
Any hardship, %	27.6	35.6	40.3	36.8

Key Takeaways

- Family multimorbidity was associated with substantially higher financial hardship across all insurance groups
- Public and private insurance were both associated with lower medical debt, barriers to care, and overall hardship than no insurance, but substantial hardship remained among insured families with high multimorbidity
- Financial hardship extended well beyond catastrophic health expenditure alone; non-CHE hardship captured a much larger burden of unmet financial protection
- Within insurance types, financial protection was not uniform: Medicaid generally appeared more protective than Medicare, and HDHP families experienced greater hardship than non-HDHP families

Limitations

- This was a cross-sectional observational analysis, so findings should be interpreted as descriptive associations rather than causal effects of insurance coverage
- Outcomes and chronic conditions were based on MEPS self-report and may be subject to recall or reporting error.
- Insurance type was assigned using the most-sick family member, which is analytically useful but may not fully capture within-family coverage complexity.