



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



## **Alternative health-related affordability measures, 2016-2017**

**Didem Bernard and Thomas Selden**

**March 7, 2020**

**Health Survey Research Methods Conference**

**Disclaimer: The views expressed in this presentation are those of the authors, and no official endorsement by the U.S. Department of Health and Human Services, or the Agency for Healthcare Research and Quality is intended or should be inferred.**

# Outline

- Background & Literature review
- Research goal
- Data
- Definitions of alternative affordability measures
  - ▶ Financial burden
  - ▶ Problem paying bills
  - ▶ Barriers to care
  - ▶ Usual source of care problem
  - ▶ Food insecurity

# Outline (cont.)

- Results for non-elderly and elderly adults
  - ▶ by insurance status
  - ▶ by race/ethnicity
  - ▶ by poverty
  - ▶ by presence of medical conditions
- Conclusion

# Introduction

- Several alternative measures of health-related financial strain have been studied in the literature. However, their intersection or union has not been examined using recent data.
- If these measures have a high degree of overlap, then tracking any one of these measures may be sufficient.
- If these measures have a low degree of overlap and if their prevalence varies across sub-populations, then tracking all of them would enable policy-makers to target potential reforms appropriately.

# Research Questions

- What is the prevalence of alternative health-related affordability measures?
- Does the prevalence of these measures vary by insurance status, race/ethnicity and health status?
- To what extent do these measures overlap?

# Literature Review

- Cohen and Zammitti (2017): NHIS 2011-2017 Problem paying medical bills (NHIS)
- Karpman and Caswell (2017): Past due medical debt (Urban Institute)
- Norton et al. (2016): The burden of medical debt (Kaiser Family Foundation)
- Collins et al. (2016) Insurance coverage, access to care and medical debt since the ACA: A look at California, Florida, New York and Texas (Commonwealth Fund)
- Schoen et al. (2008) How many are underinsured? Trends among adults, 2003 and 2007 (Commonwealth Fund)

# Data

- The Medical Expenditure Panel Survey is produced by the Agency for Healthcare Research and Quality (AHRQ) and the National Center for Health Statistics.
- Provides detailed, person-level information on socioeconomic characteristics, and healthcare use and expenditures from a nationally representative sample of households in the civilian, non-institutionalized population.
- Overlapping panel design, data are collected through 5 rounds of interviews during a 2.5 year period to cover use and expenditures over 2 calendar years.
- We use full year populations for 2016 & 2017 (food security collected only in these years)

# Outline

- Background & Literature review
- Research goal
- Data
- Definitions of alternative affordability measures
  - ▶ Financial burden
  - ▶ Problem paying bills
  - ▶ Barriers to care
  - ▶ Usual source of care problem
  - ▶ Food insecurity



# Out-of-pocket financial burden



Burden = Total Family Health Spending / After-tax Family Income

*Total family health spending* includes out-of-pocket expenditures on health insurance premiums in addition to out-of-pocket expenditures on health care services.

High Burden:  $\geq 20\%$  of Income

- The family-level burden concept recognizes that children and non-employed spouses may have health care costs that are burdensome from a family budget perspective.
- We estimate the number of persons who live in families with high burdens.

## Problem paying bills and medical debt (1/3)



- When answering the next questions, think about money that your family has spent on out-of-pocket expenses for medical care.
- We do **not** want you to count health insurance premiums, over the counter drugs, or costs that you will be reimbursed for.

## Problem paying bills and medical debt (2/3)



- In the past 12 months did anyone in the family have problems paying or were unable to pay any medical bills? Include bills for doctors, dentists, hospitals, therapists, medication, equipment, nursing home or home care.
- Respondents with positive response to this question are classified as having problems paying medical bills.

## Problem paying bills and medical debt (3/3)



- Does anyone in your family currently have any medical bills that are being paid off over time? This could include medical bills being paid off with a credit card, through personal loans, or bill paying arrangements with hospitals or other providers. The bills can be from earlier years as well as this year.
- Does anyone in your family currently have any medical bills that you are unable to pay at all?

# Problem paying bills and medical debt

	Paying bills over time= 0	Paying bills over time = 1
Problem = 0 Can't pay = 0	Debt = 0 Problem Debt = 0 75.2%	Debt = 1 Problem Debt = 0 12.8%
Problem = 1 Can't pay = 0	Debt = 0 Problem Debt = 0 1.5%	Debt = 1 Problem Debt = 1 4.1%
Problem = 1 Can't pay = 1	Debt = 1 Problem Debt = 1 2.2%	Debt = 1 Problem Debt = 1 4.1%

# Barriers to care questions

- Delayed in getting necessary
  - ▶ medical care
  - ▶ prescribed medications
  - ▶ dental care
- Unable to get necessary
  - ▶ medical care
  - ▶ prescribed medications
  - ▶ dental care

# Definition of barriers to care

- Delaying or foregoing necessary medical care, prescribed medications and/or dental care for one of the following reasons:
  - ▶ Could not afford care,
  - ▶ Insurance would not approve, cover or pay, or
  - ▶ Doctor refused family insurance plan

# Definition of usual source of care problem

- Individuals who do not have a usual source of care for financial reasons, or
- Report hospital emergency room as their usual source of care.



# Food insecurity questions

In the **last 30 days**,

- “{I/we} worried whether {my/our} food would run out before {I/we} got money to buy more.”
- “The food that {I/we} bought just didn’t last and {I/we} didn’t have money to get more.”
- “{I/we} couldn’t afford to eat balanced meals.”
- Was that **often**, **sometimes**, or **never** true for {you/your family} in the last 30 days?

# Food insecurity among those with food sensitive medical conditions

Individuals living in a family with

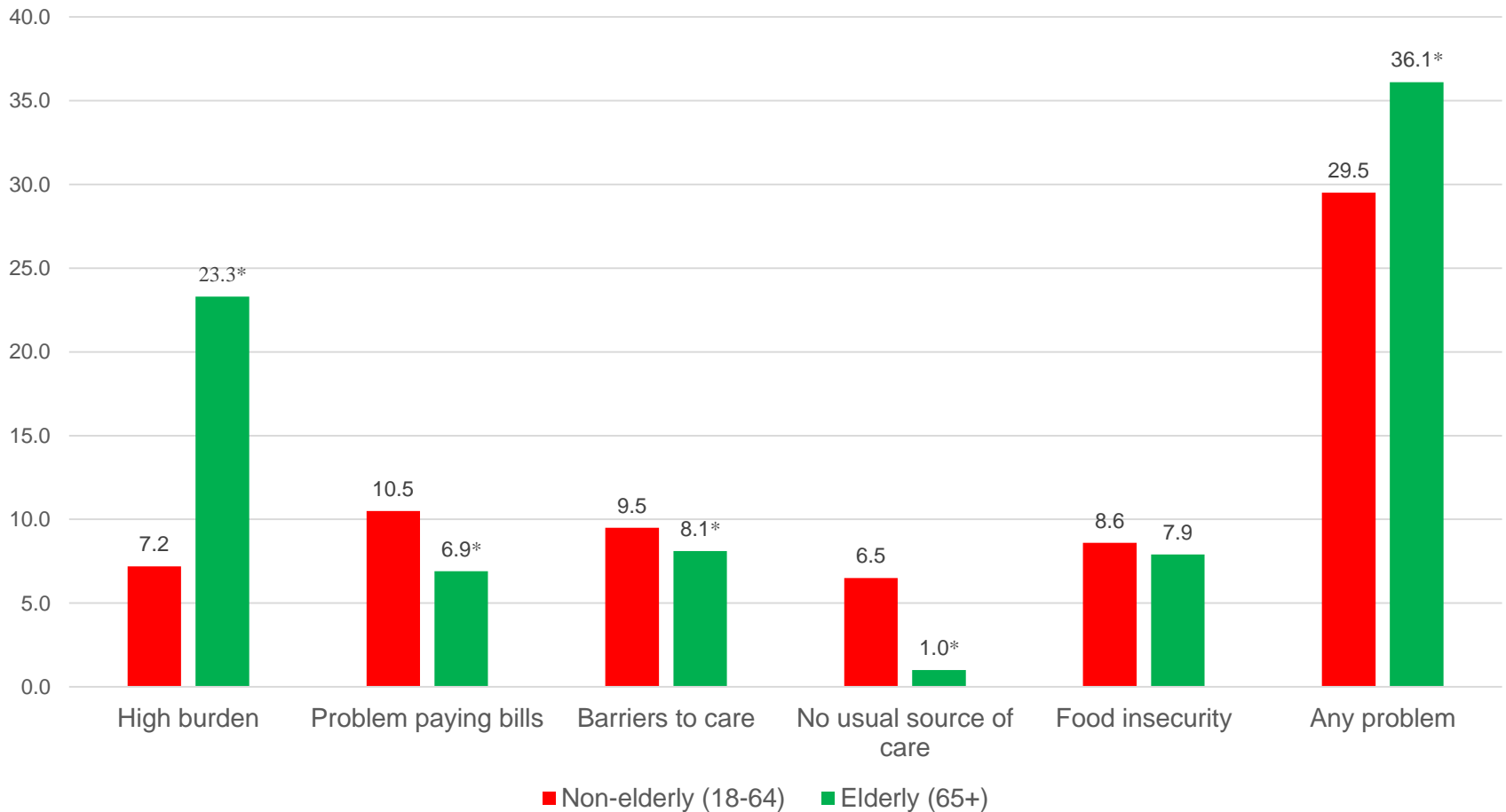
- “**often** or **sometimes**” response to any of these three questions,  
and
- a family member with a food sensitive medical condition (heart disease, high blood pressure, stroke, high cholesterol or diabetes)

# Affordability problem measures

- All measures are collected at the household level.
- Definition of family used in this analysis: Health Insurance Eligibility Units (HIEUs)
- Sub-family relationship units constructed to include adults plus those family members who would typically be eligible for coverage under the adults' private health insurance family plans
- We report the number of adults living in families with any of these affordability problems

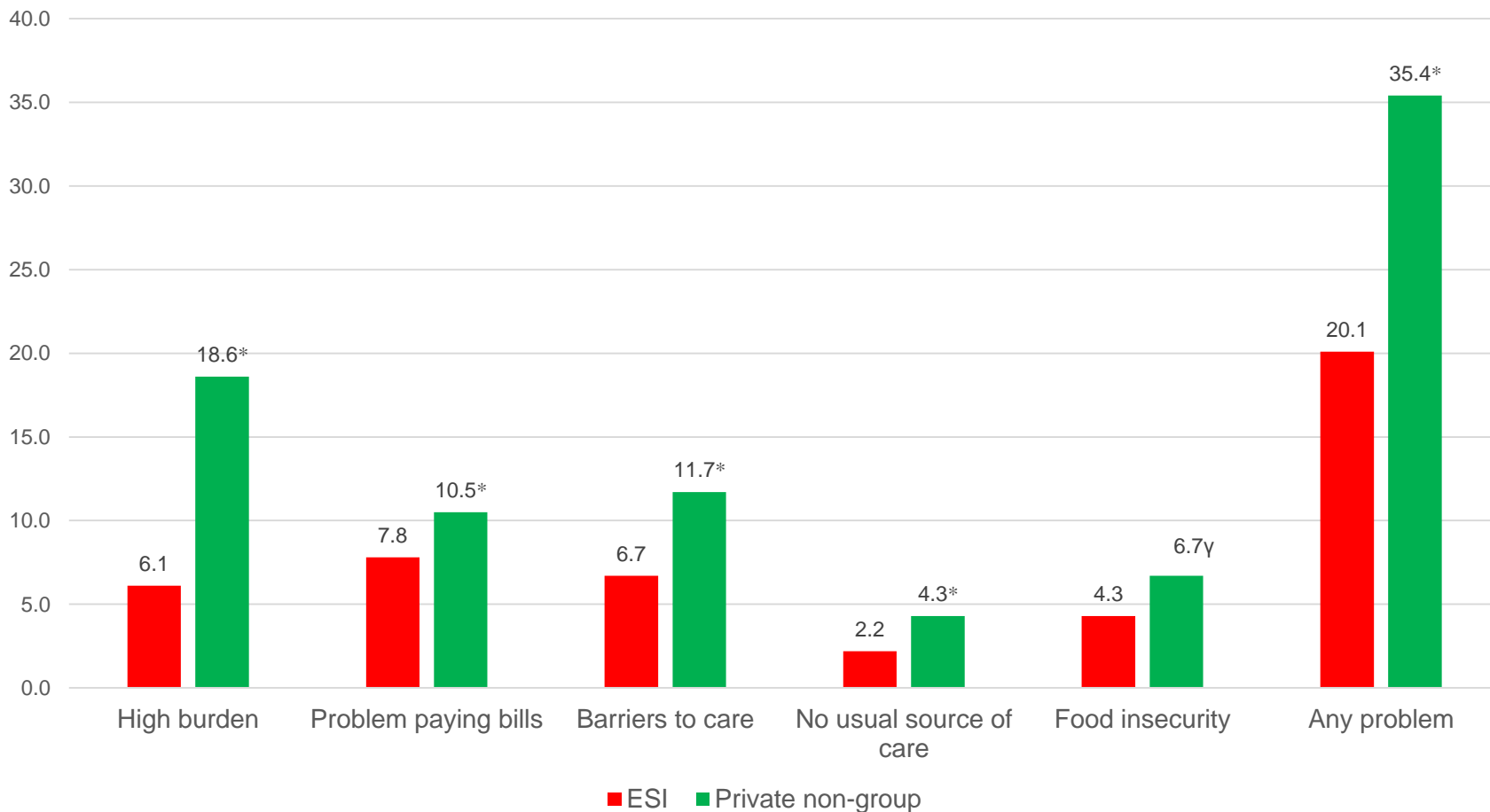
- Results for non-elderly and elderly adults
  - ▶ by insurance status
  - ▶ by race/ethnicity
  - ▶ by poverty
  - ▶ by presence of medical conditions
- Conclusion

# Prevalence of affordability problems for non-elderly versus elderly adults



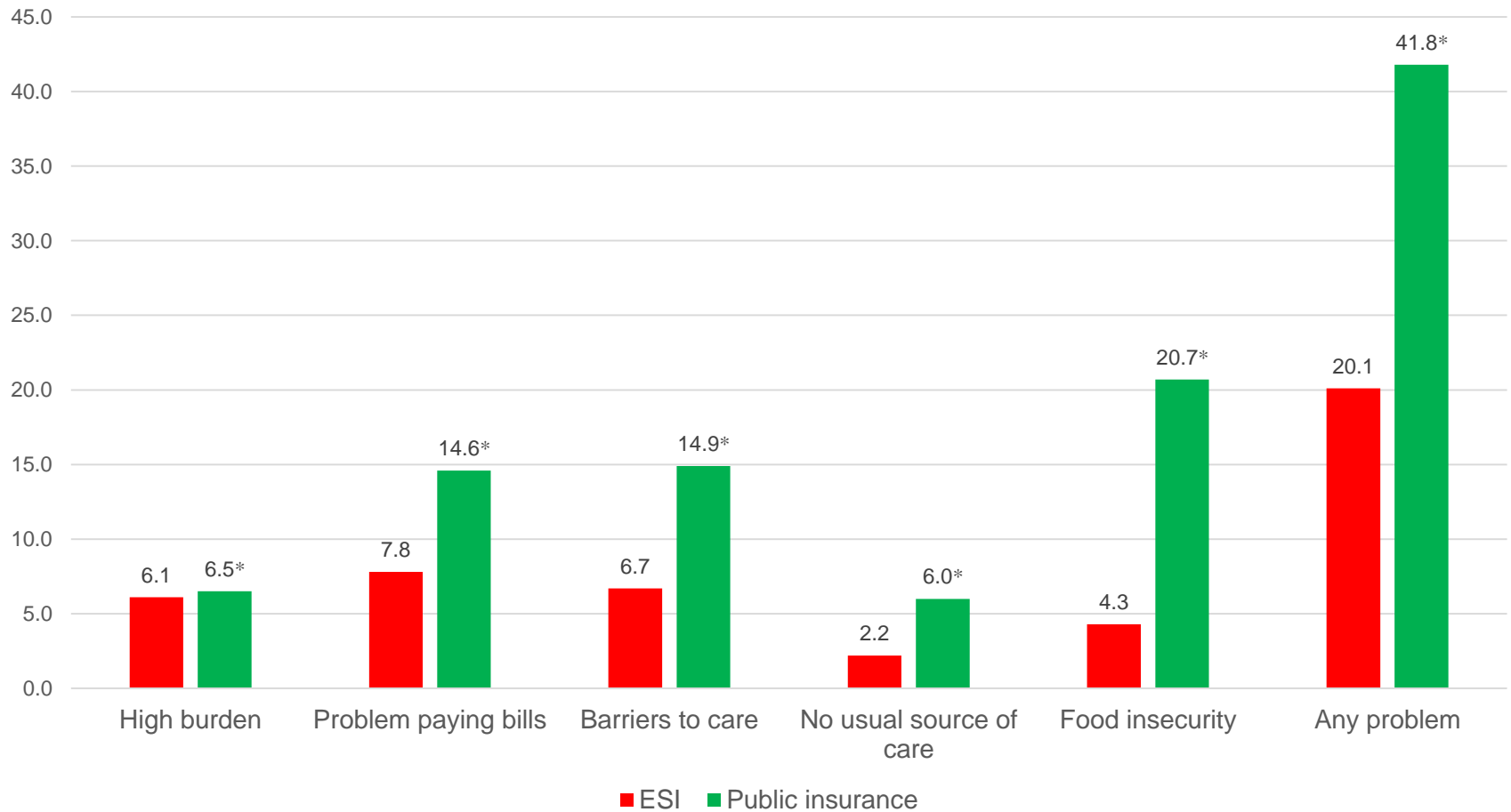
Significantly different from non-elderly adults at: \*=1 percent and  $\gamma$ =5 percent level.

# Prevalence of affordability problems for those with employer-sponsored insurance (ESI) versus private non-group insurance



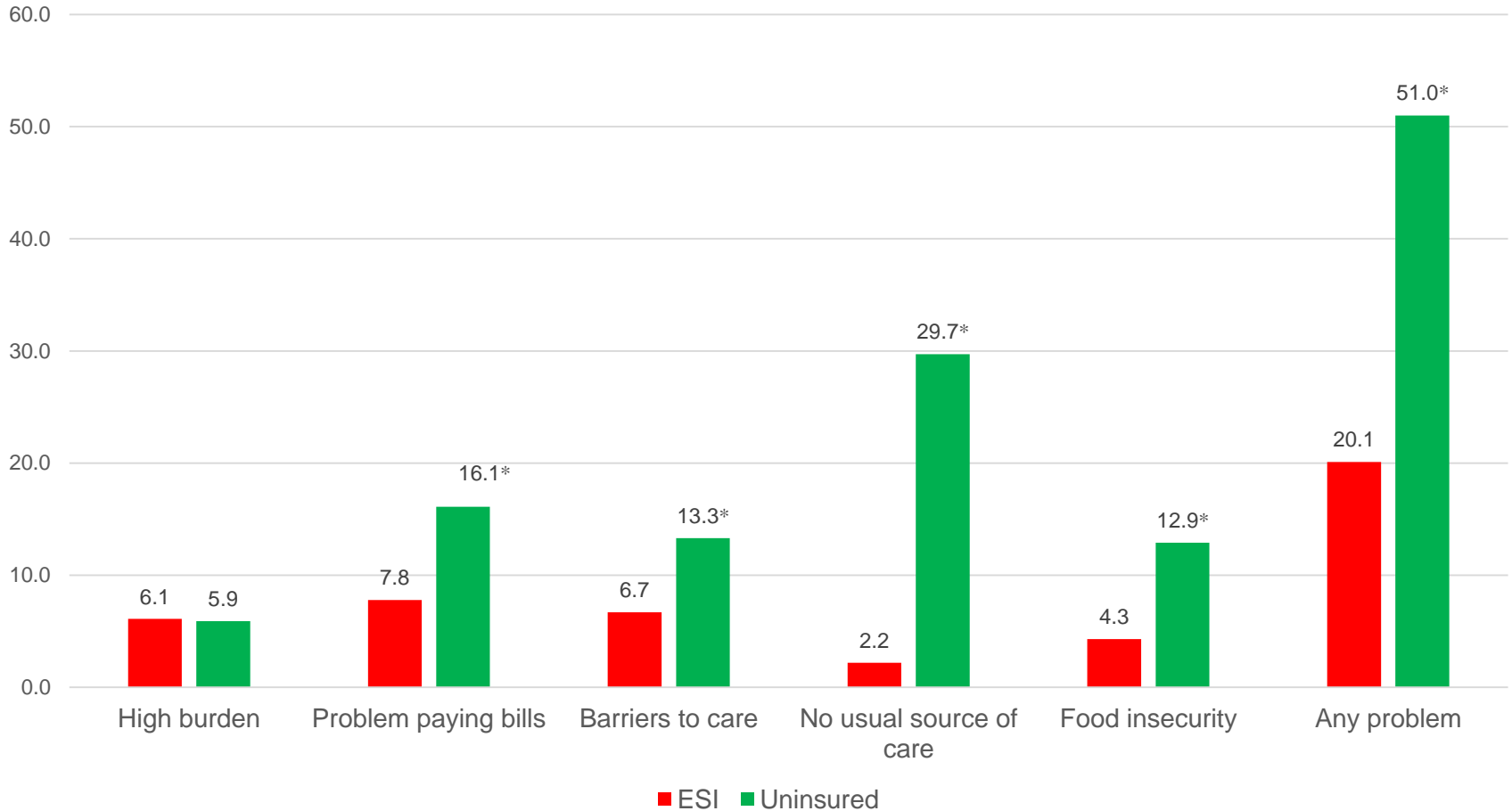
Significantly different from the non-elderly with ESI at: \*=1 percent and γ=5 percent level.

# Prevalence of affordability problems for those with ESI versus public insurance



Significantly different from the non-elderly with ESI at: \*=1 percent and  $\gamma$ =5 percent level.

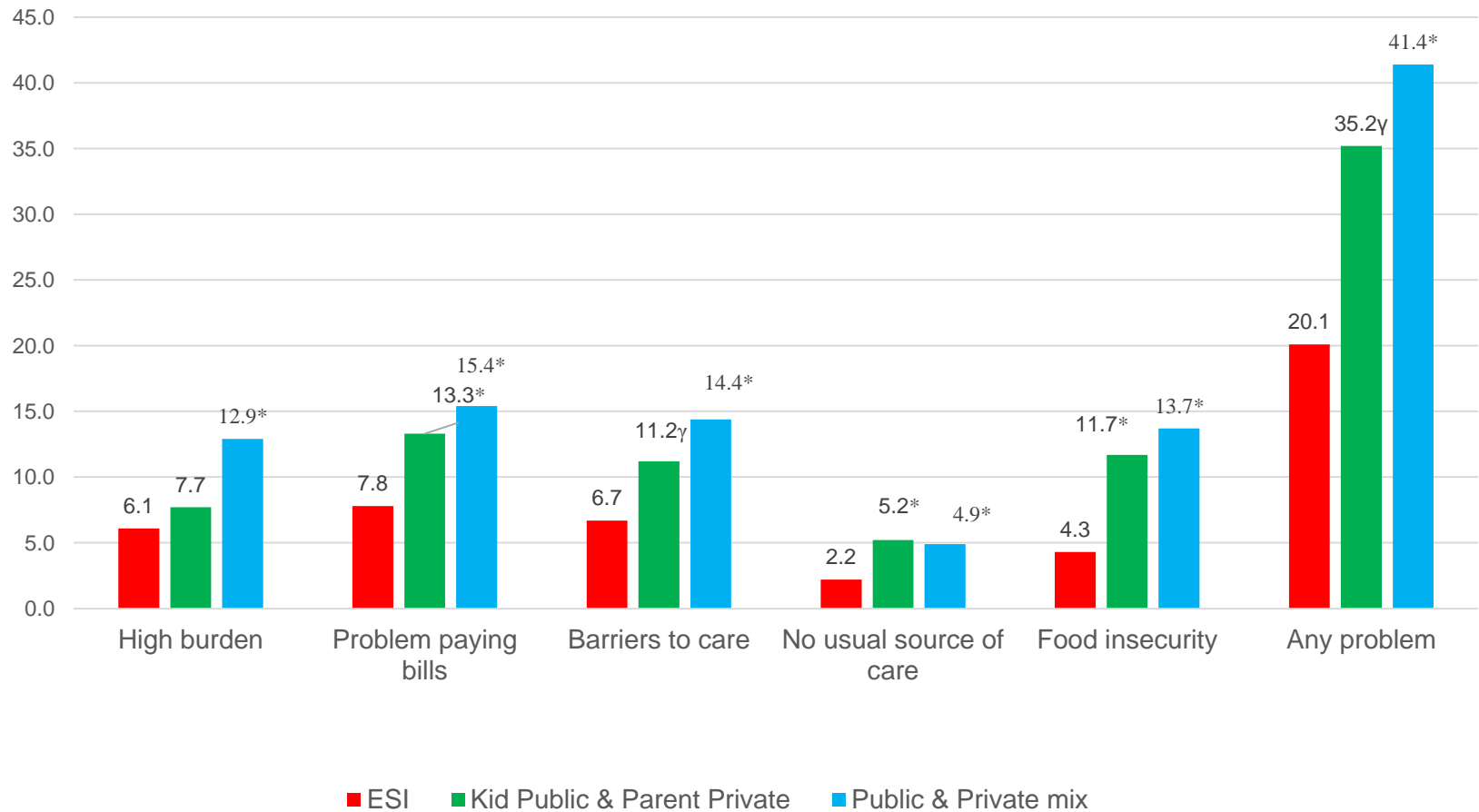
# Prevalence of affordability problems for those with ESI versus the uninsured



Significantly different from the non-elderly with ESI at: \*=1 percent and  $\gamma$ =5 percent level.



# Prevalence of affordability problems for those with ESI versus private and public mixed insurance

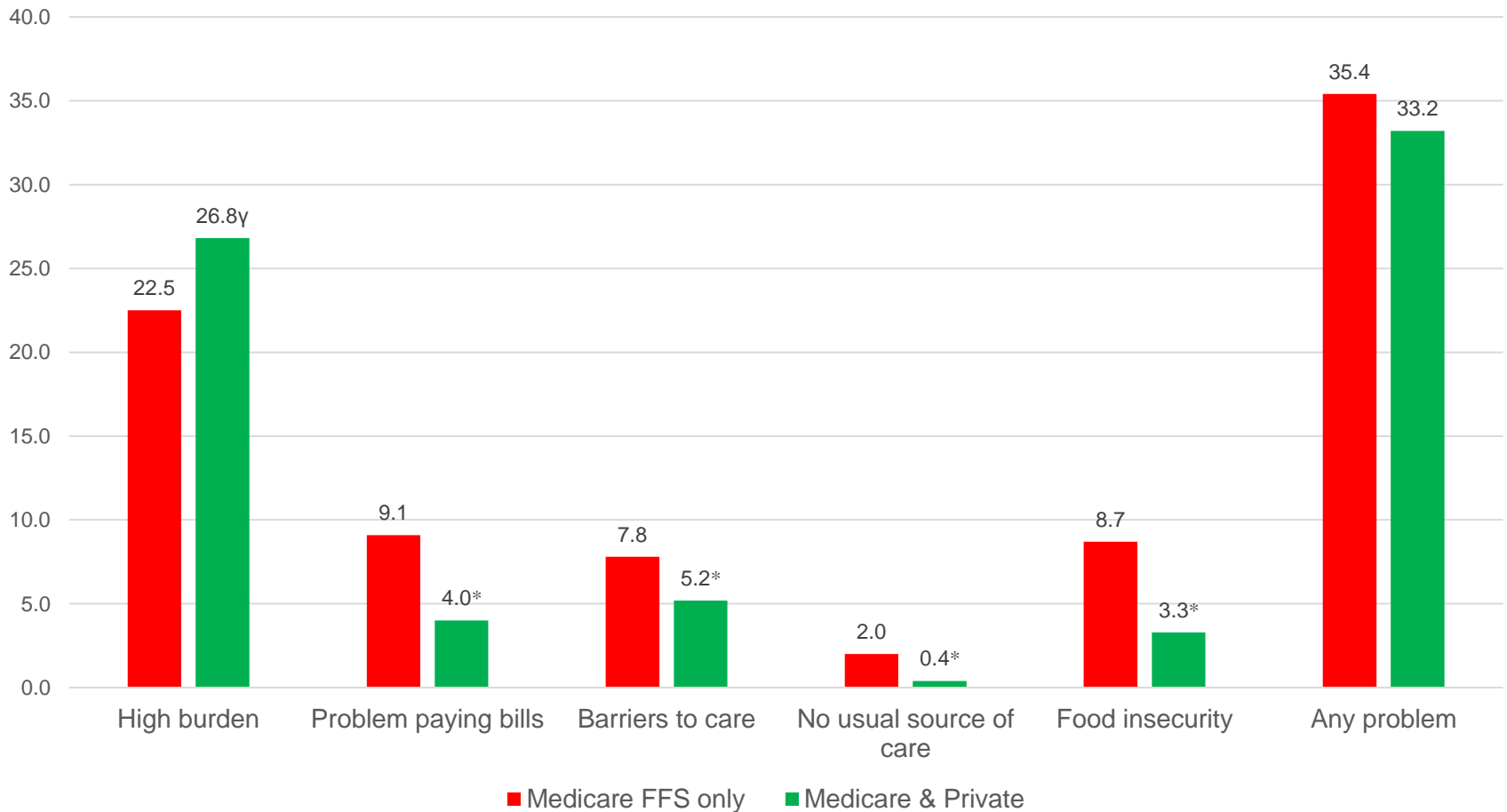


Significantly different from the non-elderly with ESI at: \*=1 percent and  $\gamma$ =5 percent level.

# Results by insurance status, 18-64

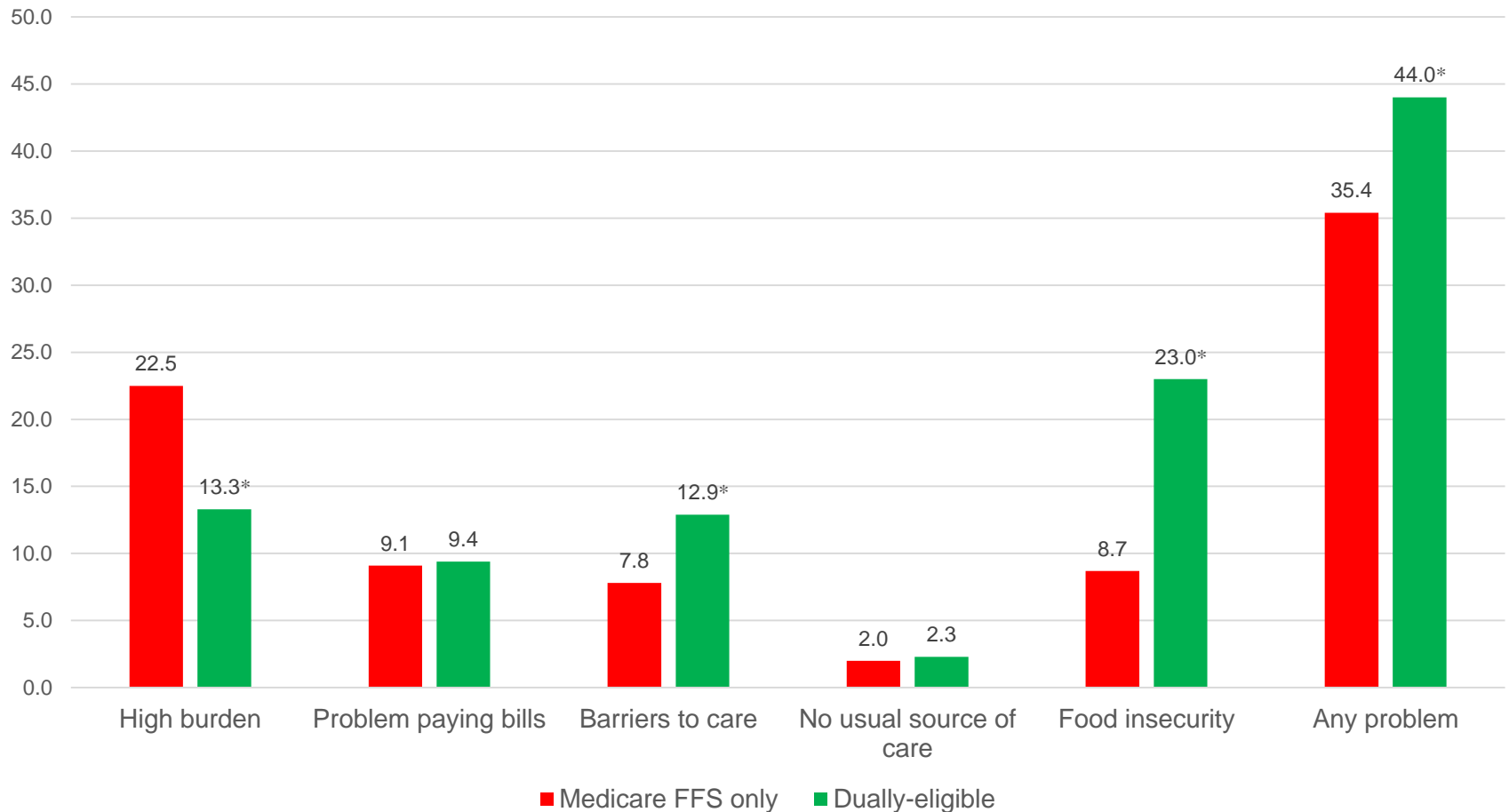
- Prevalence of high out-of-pocket burdens is highest among those with non-group coverage
- Barriers to care & food insecurity are highest among those with public coverage
- Lack of usual source of care is highest among the uninsured
- Problems paying medical bills is highest among those with public & private mixed coverage

# Prevalence of affordability problems for those with Medicare FFS only versus Medicare and Private



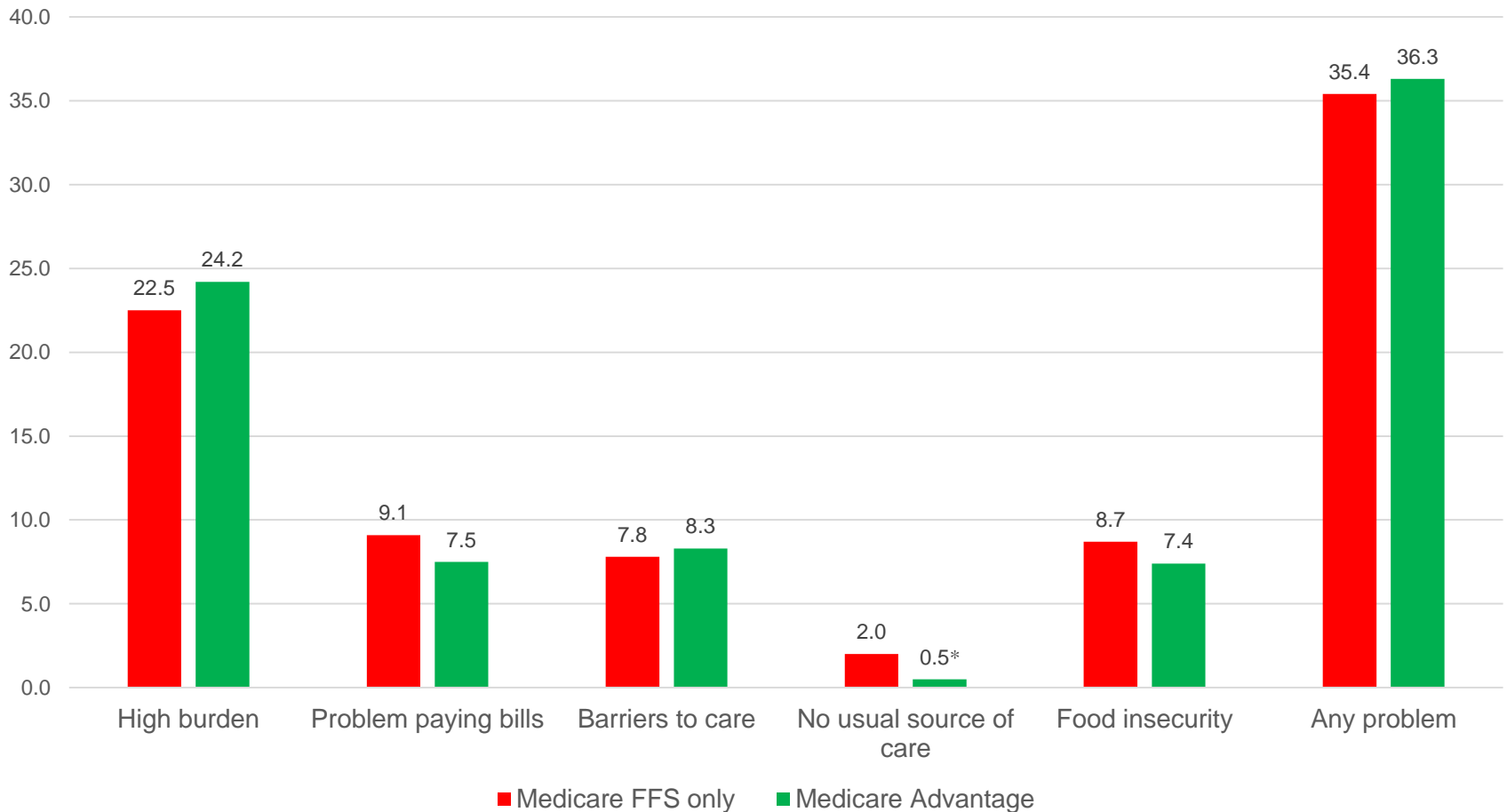
Significantly different from those with Medicare FFS only at: \*=1 percent and  $\gamma$ =5 percent level.

# Prevalence of affordability problems for those with Medicare FFS only versus those with dual eligibility



Significantly different from those with Medicare FFS only at: \*=1 percent and  $\gamma$ =5 percent level.

# Prevalence of affordability problems for those with Medicare FFS only versus Medicare Advantage

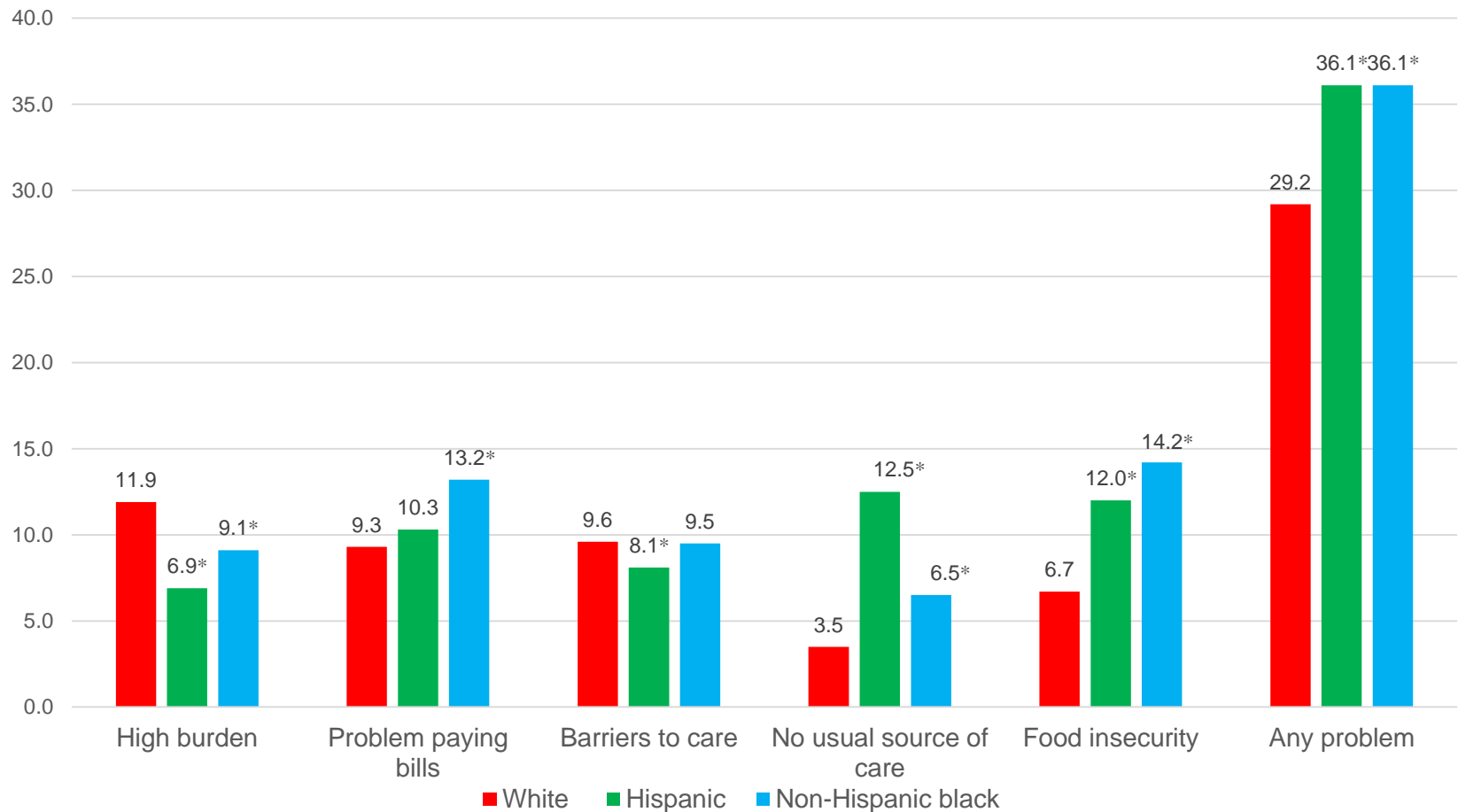


Significantly different from those with Medicare FFS only at: \*=1 percent and  $\gamma$ =5 percent level.

# Results by insurance status, 65+

- Prevalence of high out-of-pocket burdens is highest among those with Medicare and private coverage
- Barriers to care and food insecurity are highest among those with dual-eligibility
- Those with Medicare FFS only and those with Medicare Advantage have similar rates of affordability problems

# Prevalence of affordability problems by race/ethnicity



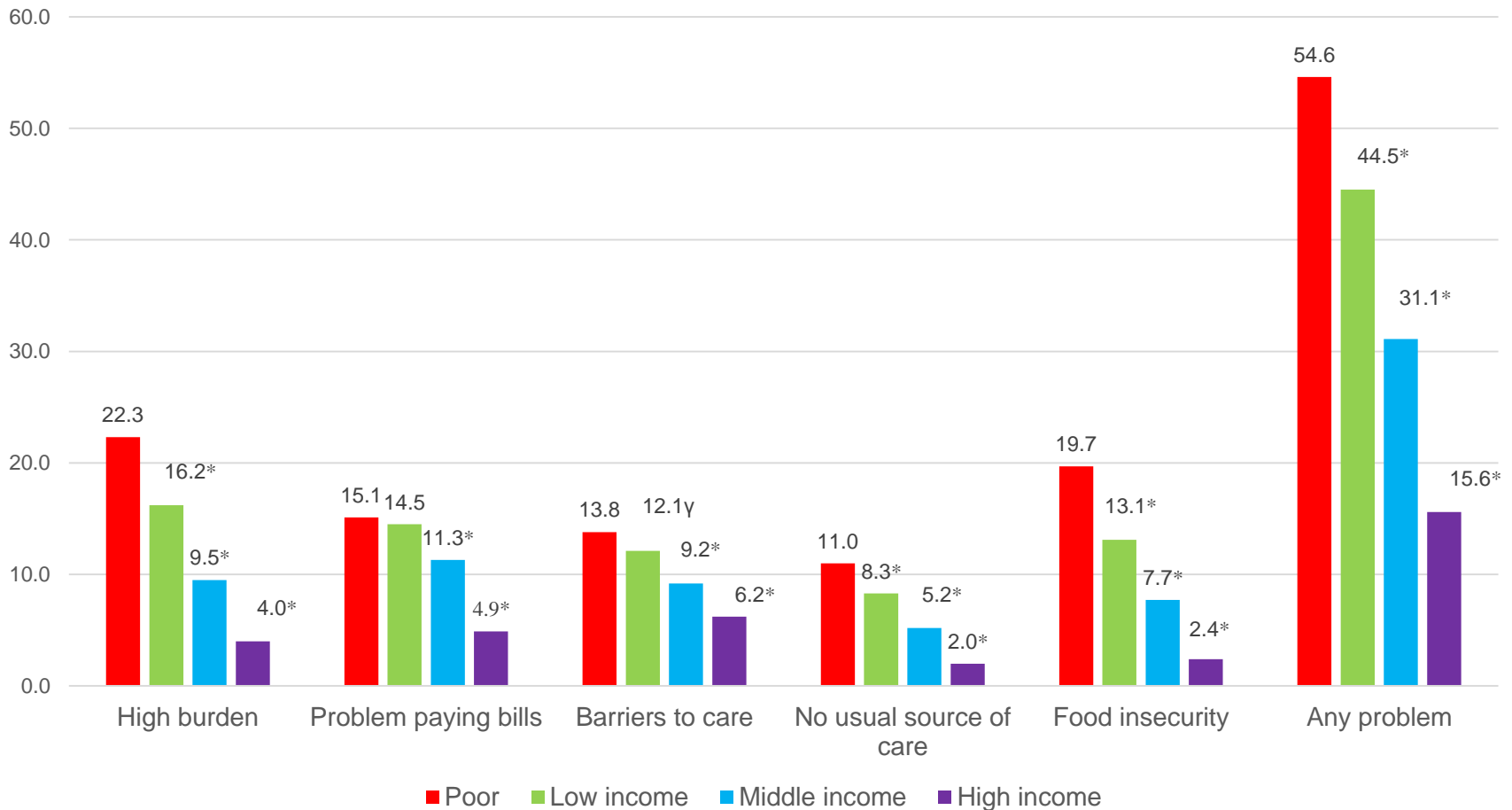
Significantly different from Whites at: \*=1 percent and  $\gamma$ =5 percent level.

# Results by race/ethnicity

- Prevalence of high out-of-pocket burdens is higher among Whites compared to Hispanics and Non-Hispanic Blacks
- Problems paying medical bills is higher among Non-Hispanic Blacks compared to Whites and Hispanics
- Barriers to care are lower among Hispanics compared to Whites and Non-Hispanic Blacks
- Lack of usual source of care and food insecurity are higher among Hispanics and Non-Hispanic Blacks

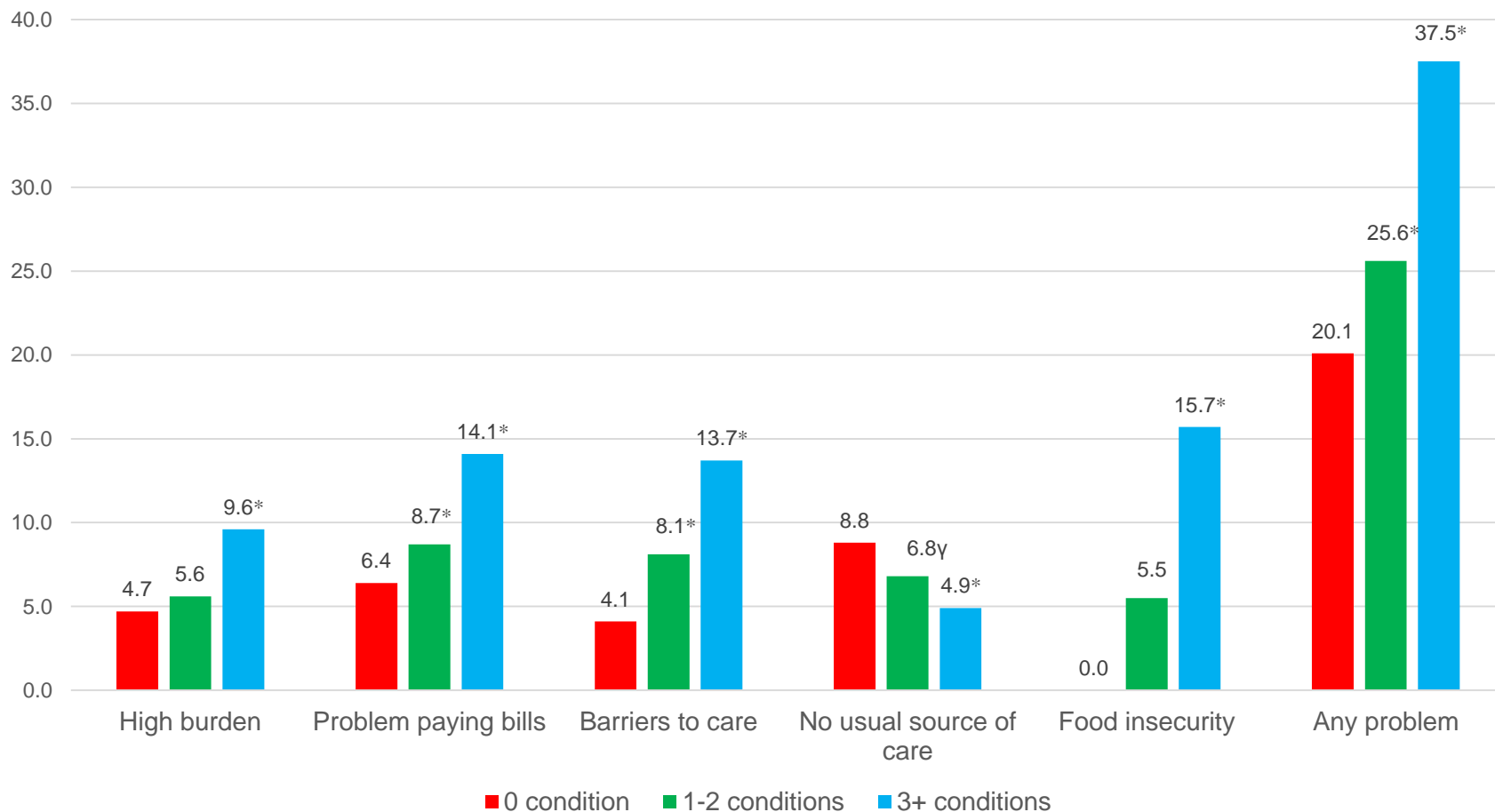


# Prevalence of affordability problems by poverty status



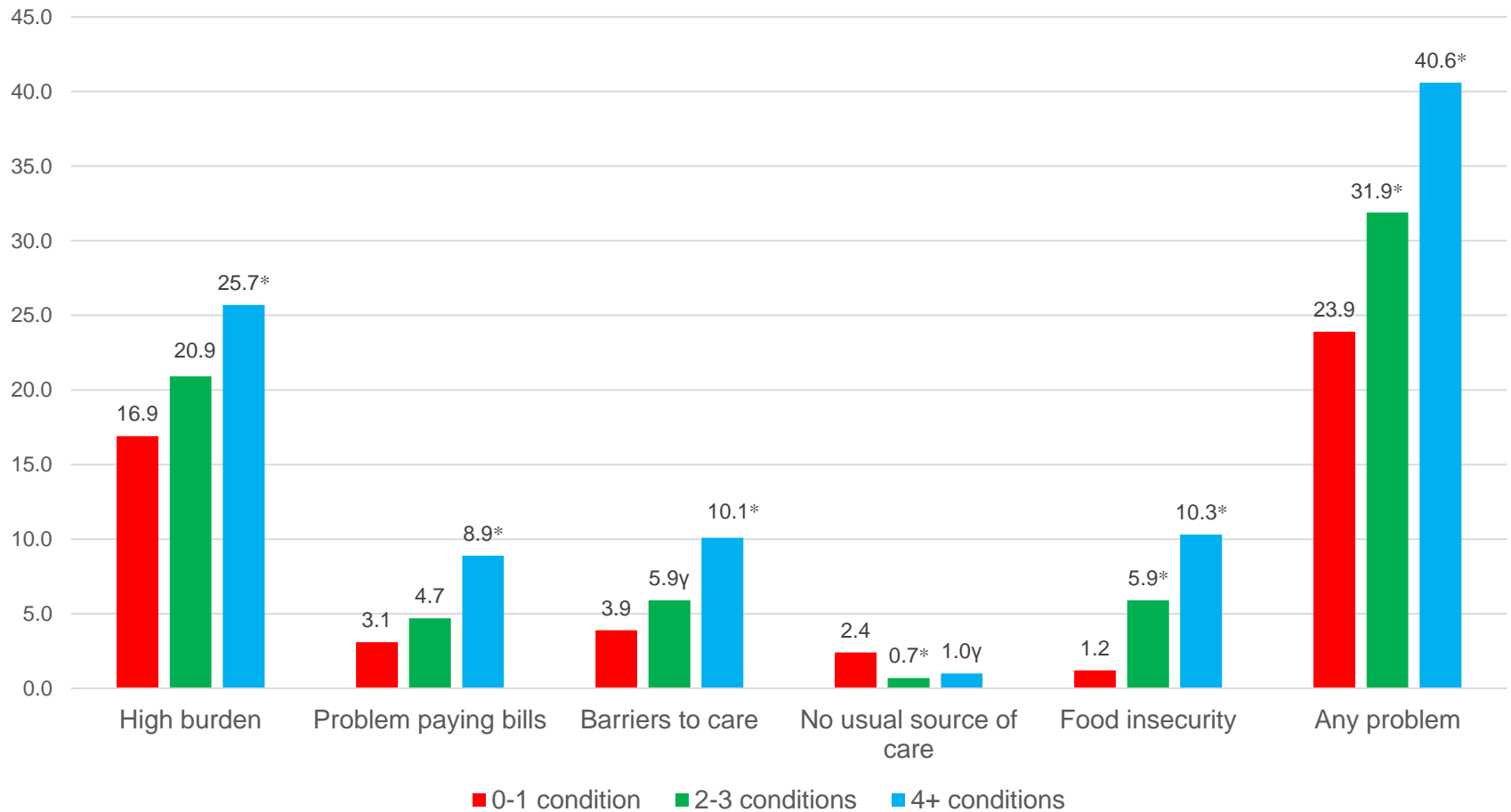
Significantly different from the poor at: \*=1 percent and  $\gamma$ =5 percent level.

# Prevalence of affordability problems by presence of medical conditions, non-elderly adults



Significantly different from those with no medical conditions at: \*=1 percent and  $\gamma$ =5 percent level.

# Prevalence of affordability problems by presence of medical conditions, elderly adults



Significantly different from those with 0-1 conditions at: \*=1 percent and  $\gamma$ =5 percent level.

# Results by poverty and presence of medical conditions

- Among the poor, 19.7 percent have food insecurity and food sensitive medical conditions
- Among the poor, 54.6 percent have at least one of these five affordability problems
- 37.5% of the non-elderly (who live in a family in which someone has 3+ conditions) and 40.6% of the elderly (who live in a family in which someone has 4+ conditions) have at least of these affordability problems

# Conclusions

- There is wide variation in the prevalence of each measure by insurance type
- Having all these measures in the same survey enables us to identify those with multiple affordability problems
- The overlap in these alternative affordability measures is higher among those with multiple medical conditions

# Conclusions (cont.)

- Medical debt and high burdens are persistent over time and are positively correlated with barriers to care
- High prevalence of affordability problems, foregoing or delaying care may lead to higher expenditures in the long-run especially for those with chronic conditions