

# Access to Care and Internet Use Related to Rural Residence and Race/Ethnicity in California

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# Disclosure

Dr. Taira has no conflicts of interest to disclose

# Background: Rural Health

- Rural residents tend to experience higher than average rates of illness and poorer access to services
- Physical and social isolation affects access to stores, parks, medical care and other services
- Especially problematic for older adults as the need for medical care increases and physical mobility decreases with age.
- Access may also be difficult for rural elders with chronic conditions as medical specialists are less likely to practice in rural areas

*Source: AHRQ National Healthcare Disparities Report. 2010*

# Background: Racial Disparities

- “Minority” Americans expected to comprise more than 40% of U.S. population by 2035
- Even after Affordable Care Act, Blacks and Hispanics less likely than Whites to:
  - Have usual source of care
  - Feel confident in ability to pay medical costs
- African American, Hispanic, Asian American, and American Indian and Alaska Native populations suffer higher mortality rates than non-Hispanic Whites
- Areas with greatest disparities include cardiovascular disease, obesity, and diabetes mellitus

*Sources: Kaiser Family Foundation, 2015. Centers for Disease Control and Prevention (CDC) report, Health Disparities and Inequalities*

# Objective

To examine the extent to which rural residence and race/ethnicity were related to access to care and likelihood of using the internet to access health information

# Methodology

- We analyzed data from the Adult California Health Interview Survey (CHIS) 2010-2014 (n=83,175)
- CHIS is nation's largest state health survey
- Telephone survey that uses traditional landline random-digit-dial RDD and cell-phone RDD sampling frames
- Interviews were conducted in English, Spanish, Chinese, Vietnamese and Korean.
- Multivariable logistic regression analyses were adjusted for age and gender, conducted in STATA v13, and weighted to reflect the survey's sampling design.

# Race and Ethnicity

## Ethnicity:

Latino or Hispanic

## Race:

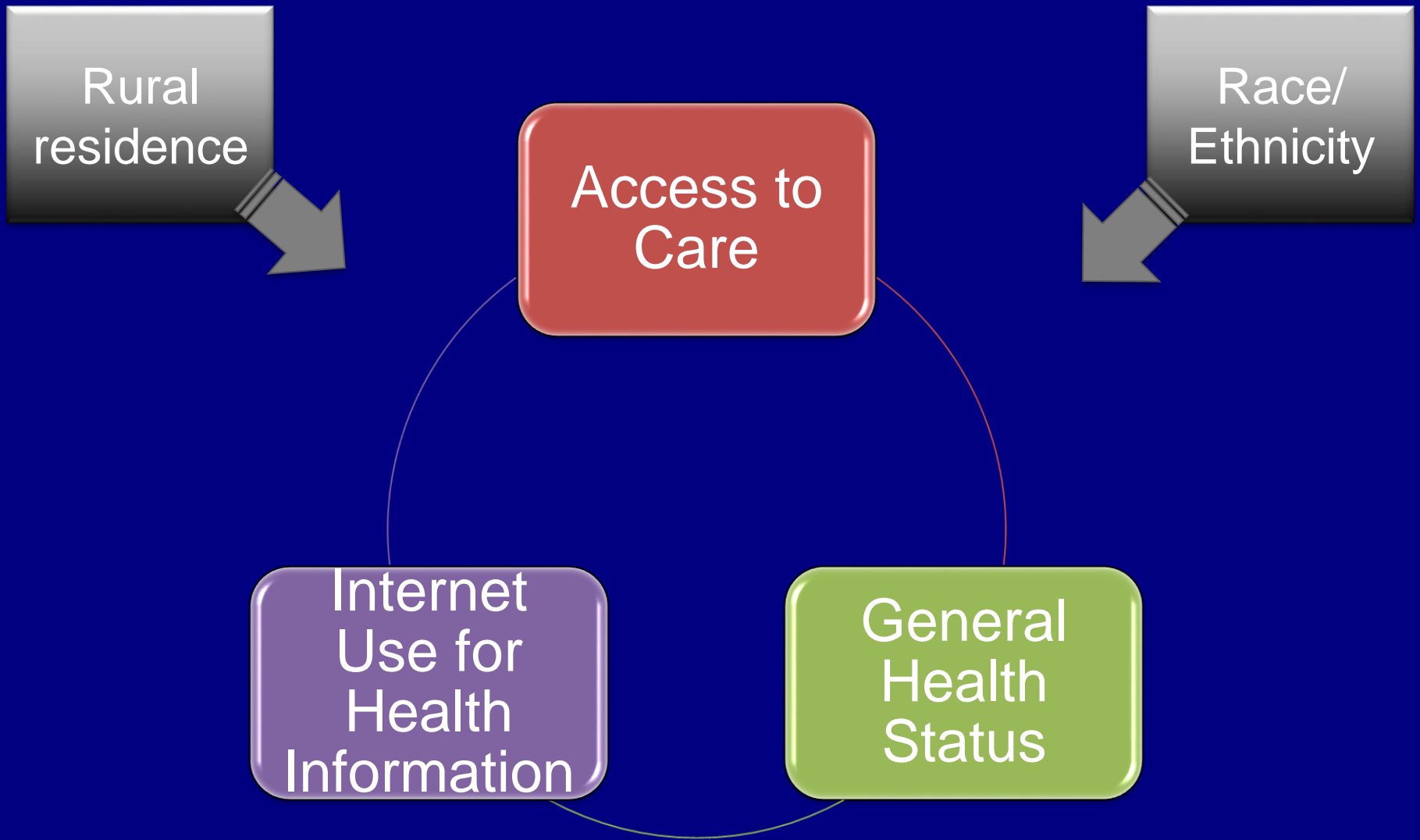
- White
- Black or African American
- Asian
- American Indian/Alaska Native
- Other Race
- Mixed Race

You said Asian, and what specific ethnic group are you, such as Chinese, Filipino, Vietnamese?  
If you are more than one, tell me all of them.

**[CODE ALL THAT APPLY]**

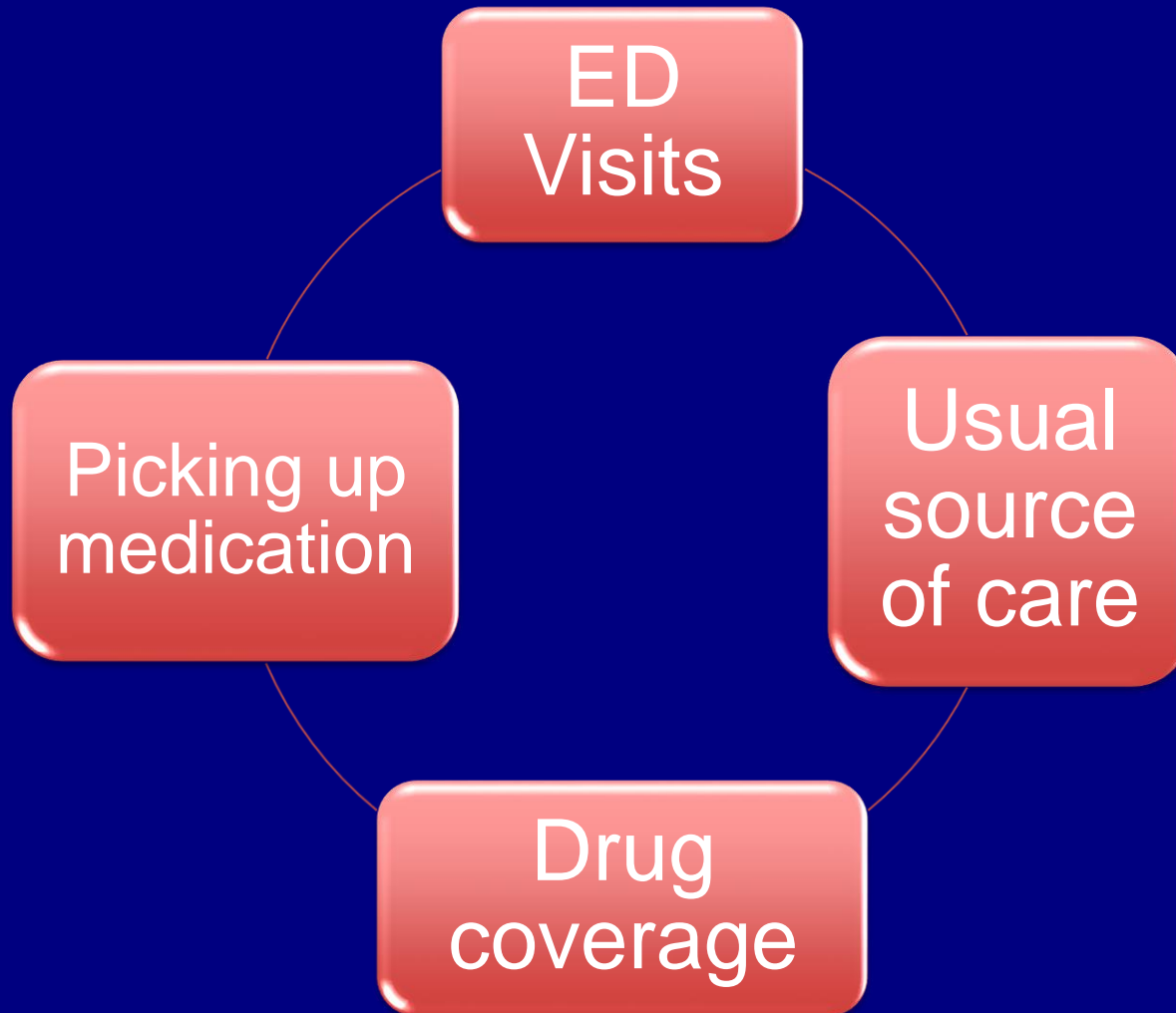
BANGLADESHI.....	1
BURMESE .....	2
CAMBODIAN .....	3
CHINESE .....	4
FILIPINO .....	5
HMONG .....	6
INDIAN (INDIA).....	7
INDONESIAN .....	8
JAPANESE .....	9
KOREAN .....	10
LAOTIAN.....	11
MALAYSIAN.....	12
PAKISTANI .....	13
SRI LANKAN.....	14
TAIWANESE .....	15
THAI .....	16
VIETNAMESE .....	17
OTHER ASIAN (SPECIFY: _____).....	91
REFUSED.....	-7
DON'T KNOW .....	-8





**Potential Disparities**

# 4 Dimensions of Access to Care



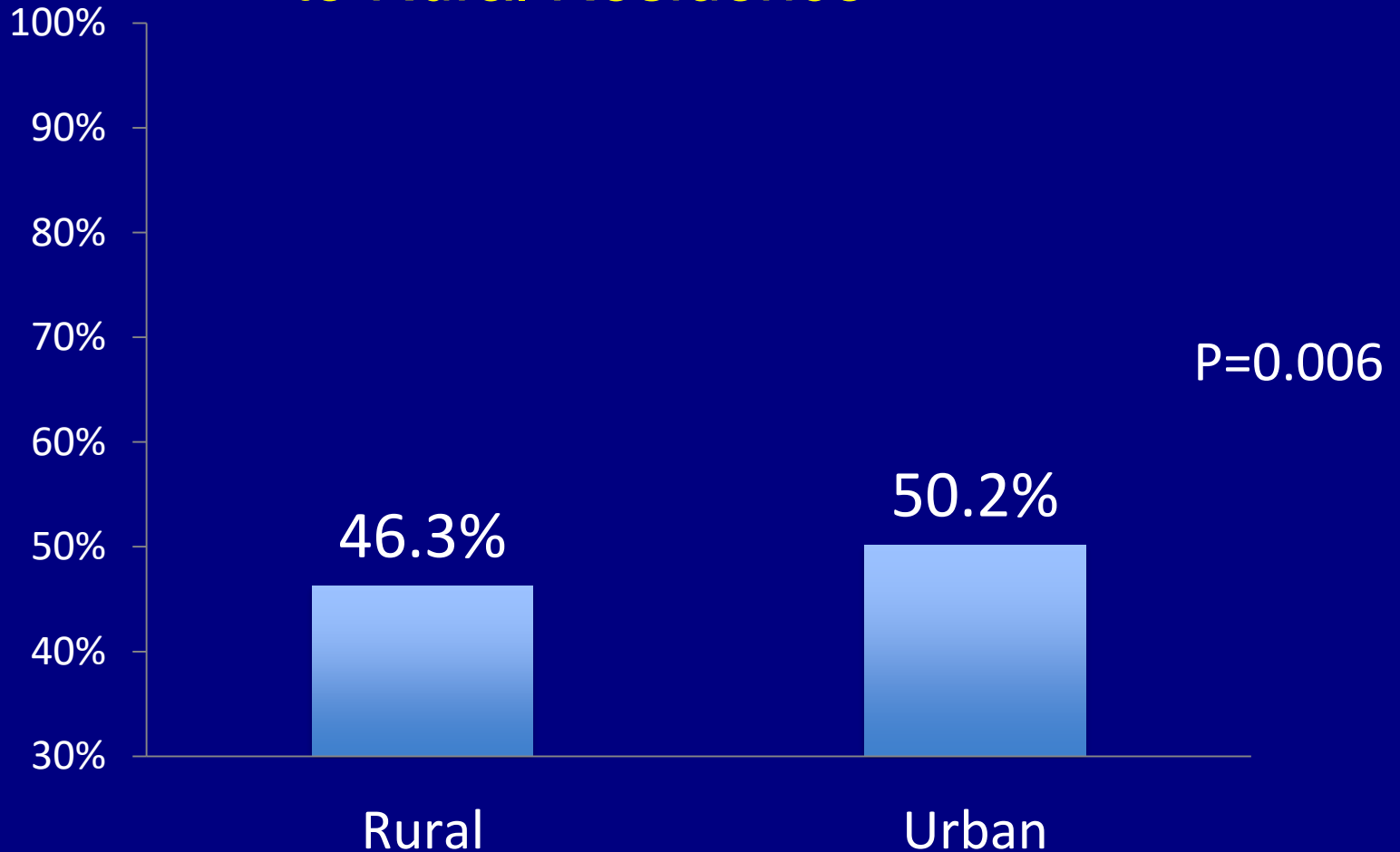
# Characteristics

Age	56.5 years SD(17.8)
Female	51.3%
Rural	12.9%

## Race/ethnicity:

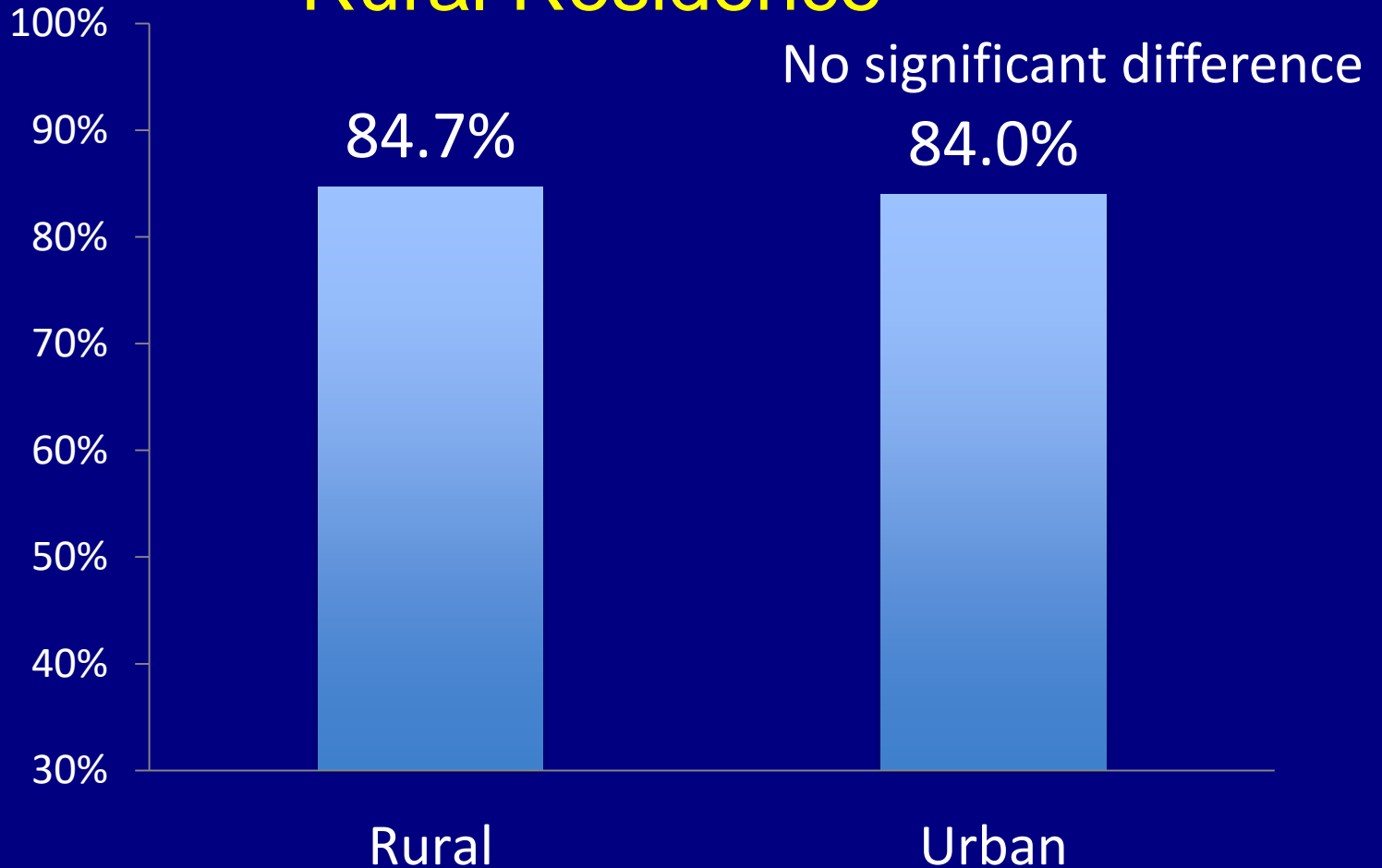
White	58.1%
Hispanic	21.0%
Black	6.0%
Chinese	3.8%
Filipino	3.5%
Korean	1.3%
Vietnamese	1.6%
American Indian	1.7%

# Figure 1. Very Good or Excellent Health Related to Rural Residence



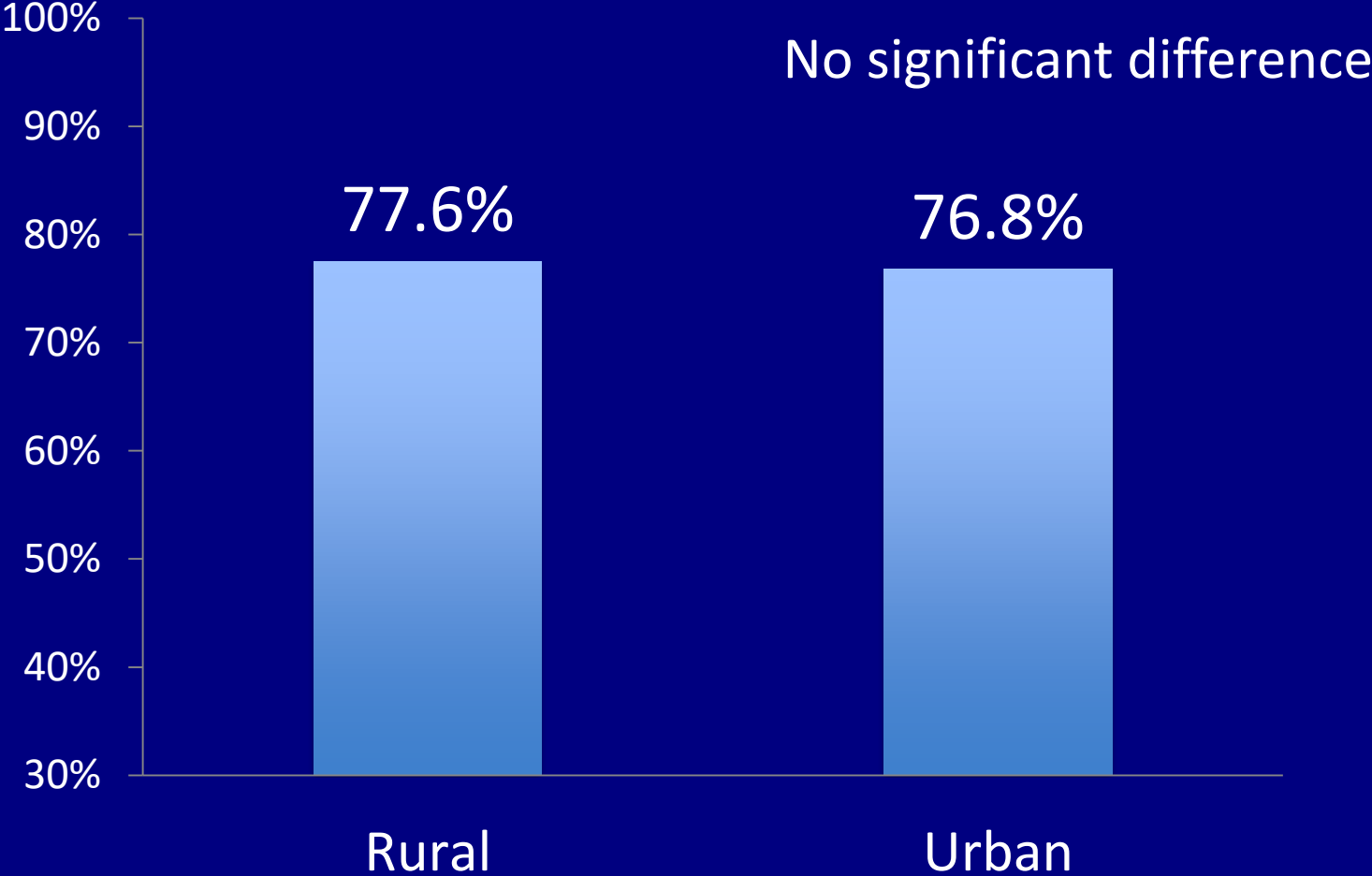
Note: Adjusted for age, sex, race/ethnicity.

## Figure 2. Usual Source or Care Related to Rural Residence



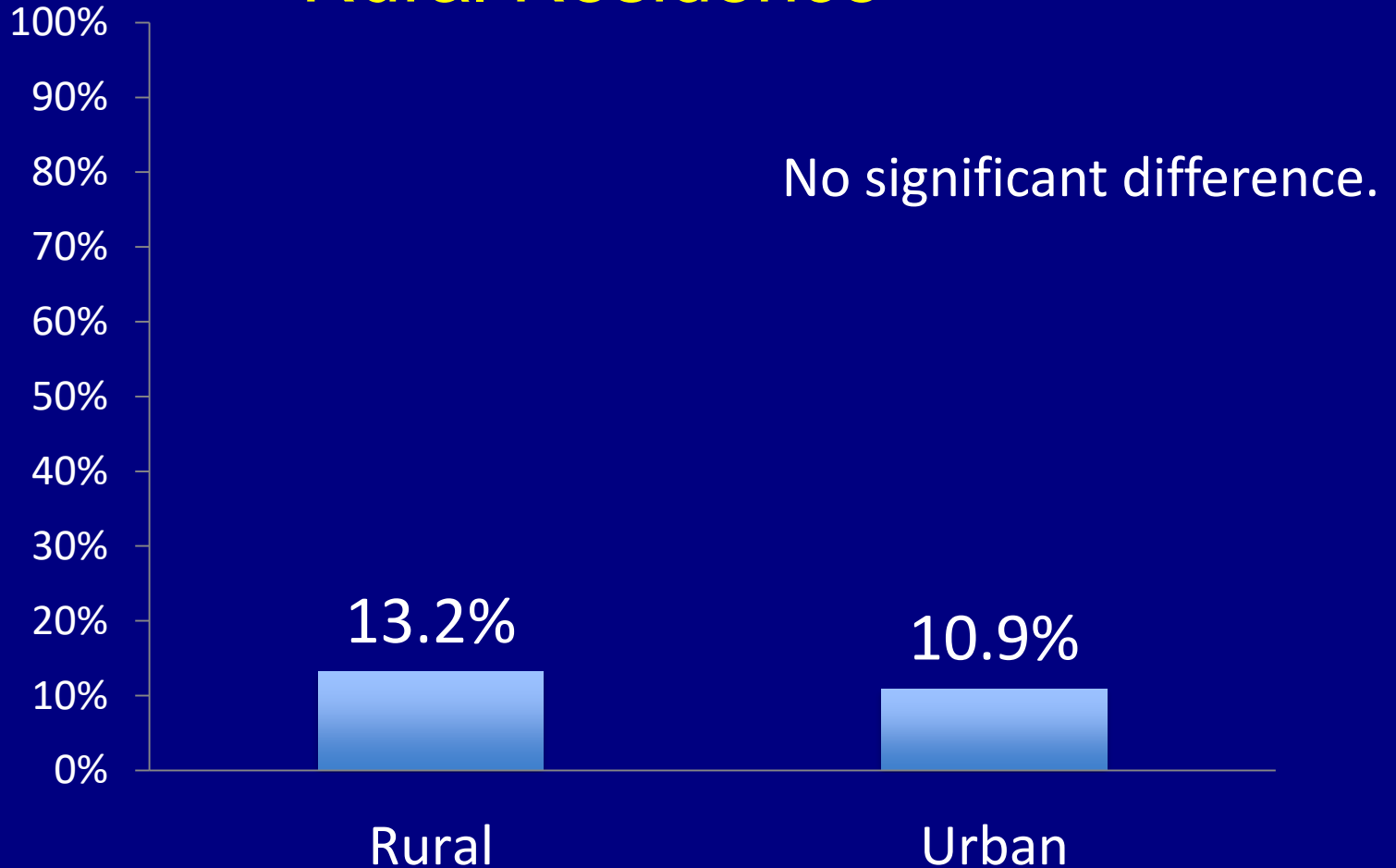
Note: Adjusted for age, sex, race/ethnicity.

# Figure 3. Drug Coverage Related to Rural Residence



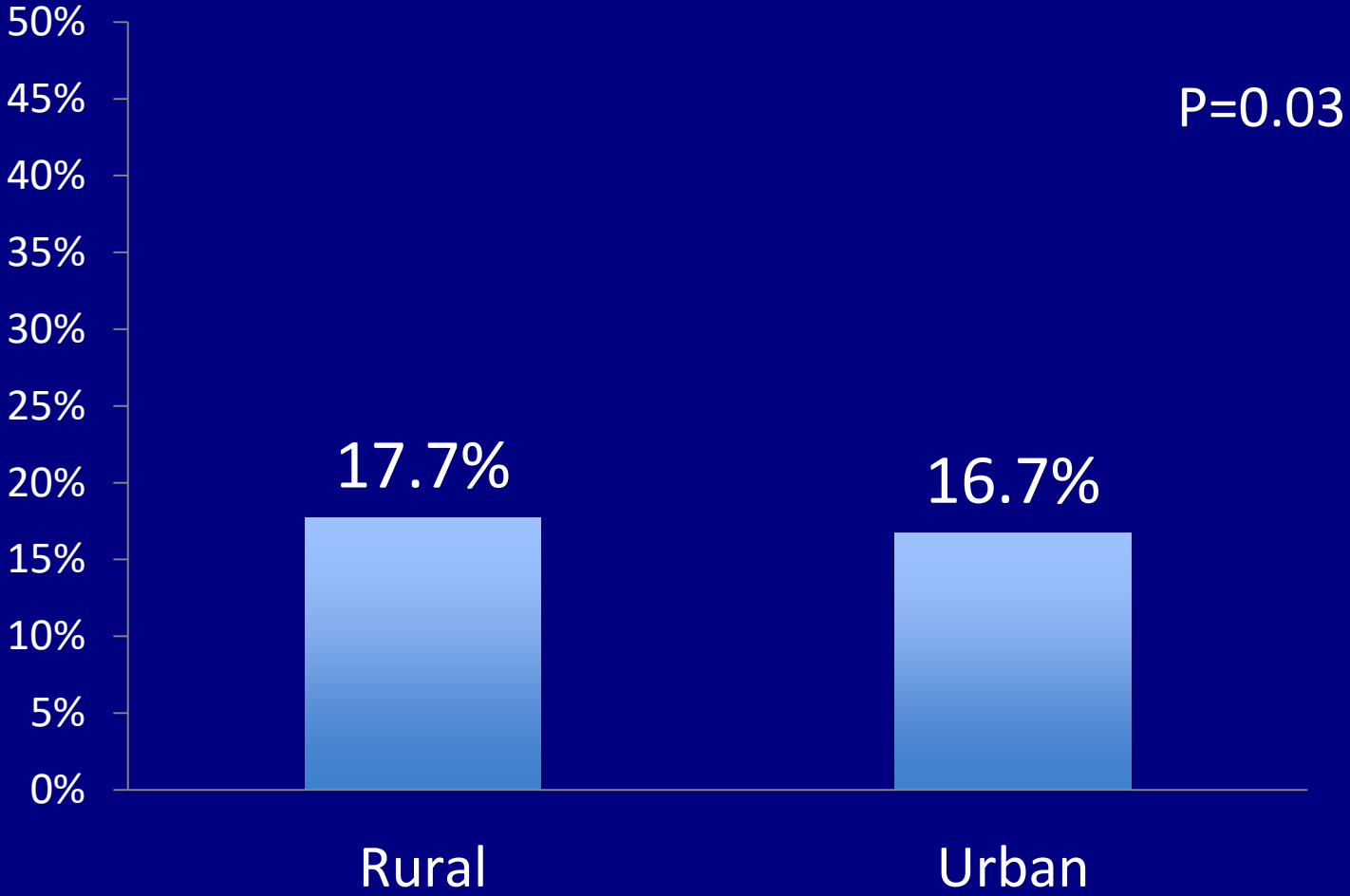
Note: Adjusted for age, sex, race/ethnicity.

# Figure 4. Not Get Medications Related to Rural Residence



Note: Adjusted for age, sex, race/ethnicity.

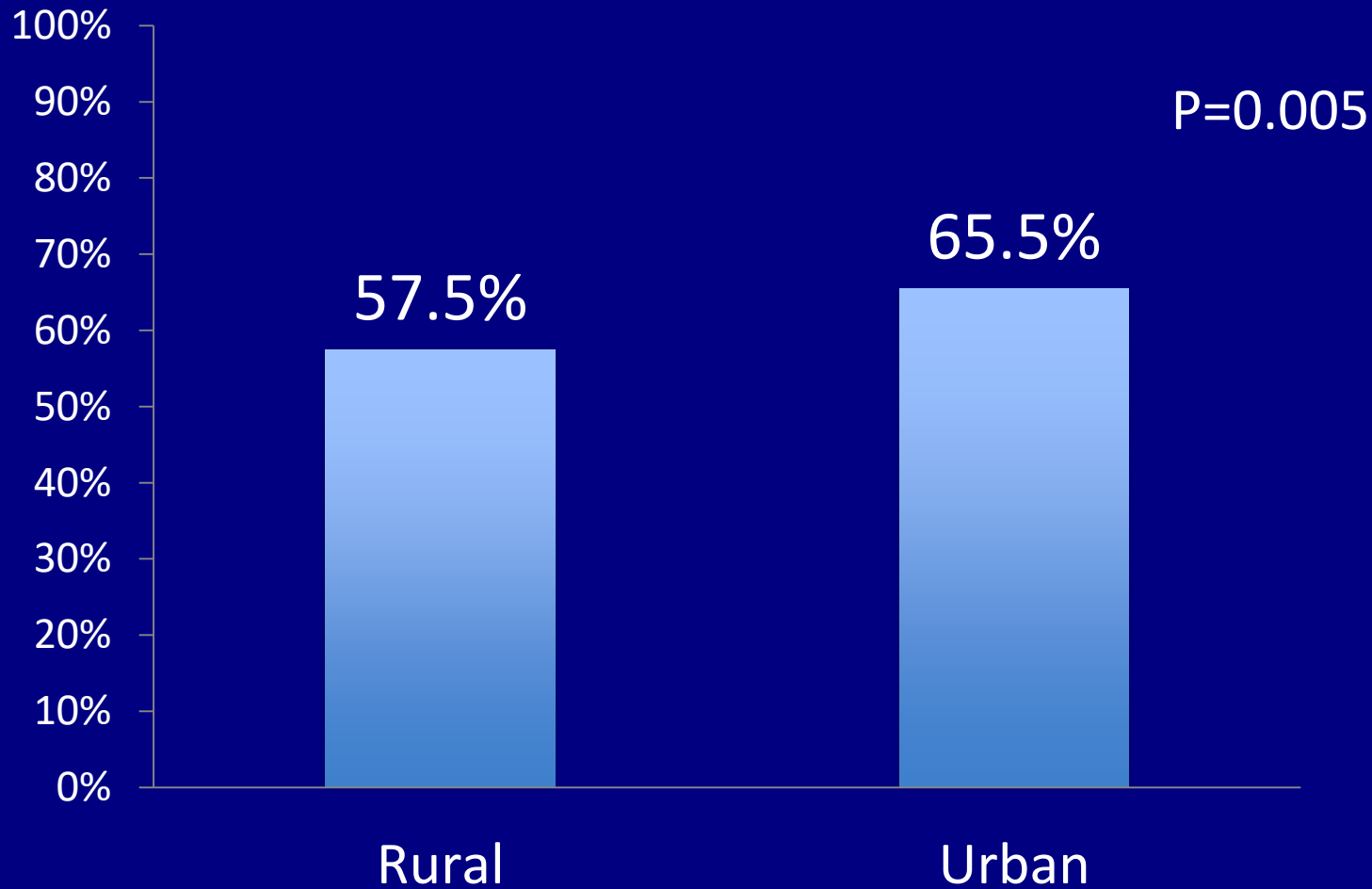
# Figure 5. Had Emergency Department Visit Related to Race and Ethnicity



Note: Adjusted for age, sex, race/ethnicity.

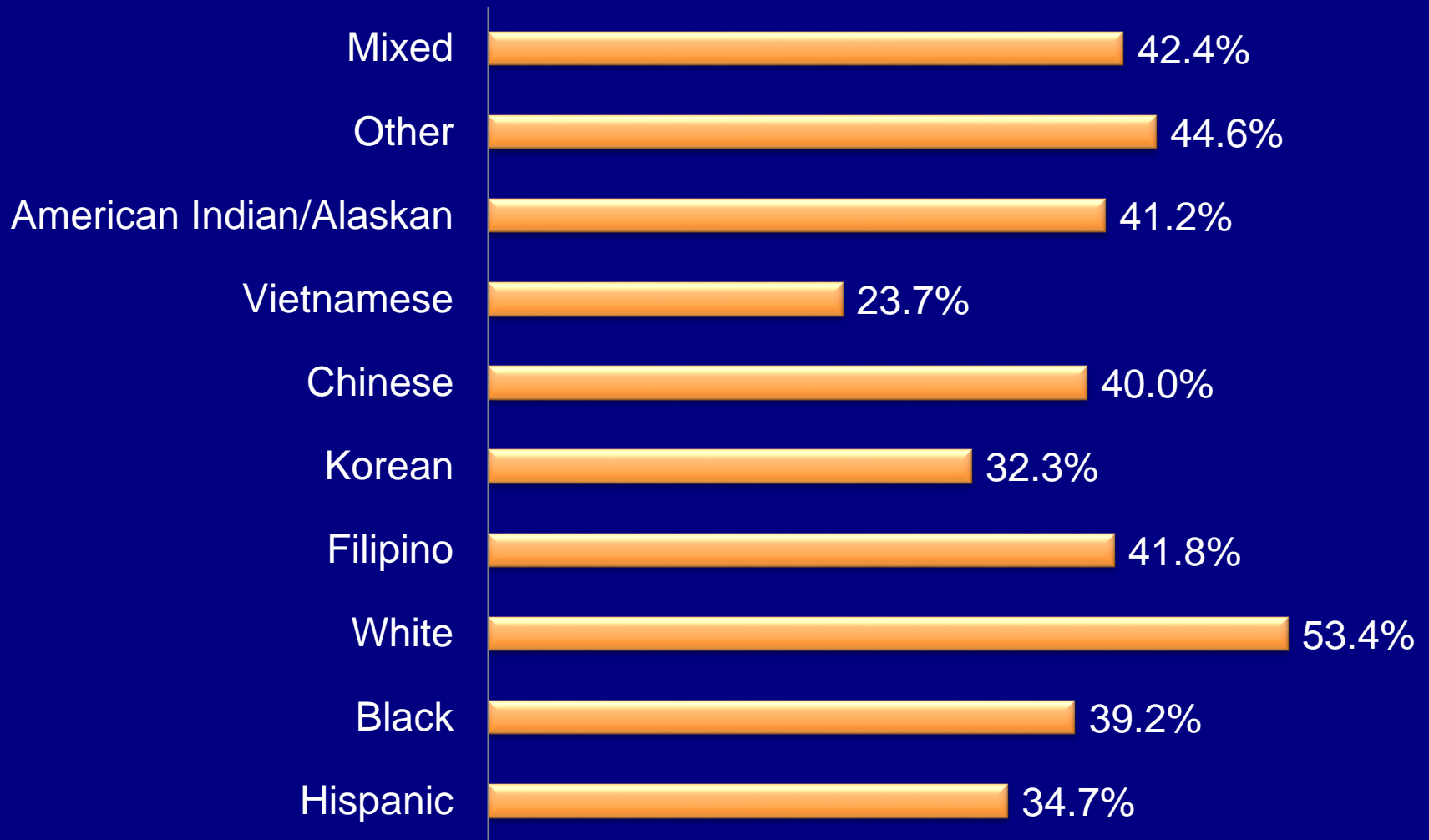


# Figure 6. Accessing Internet for Health Information Related to Rural Residence



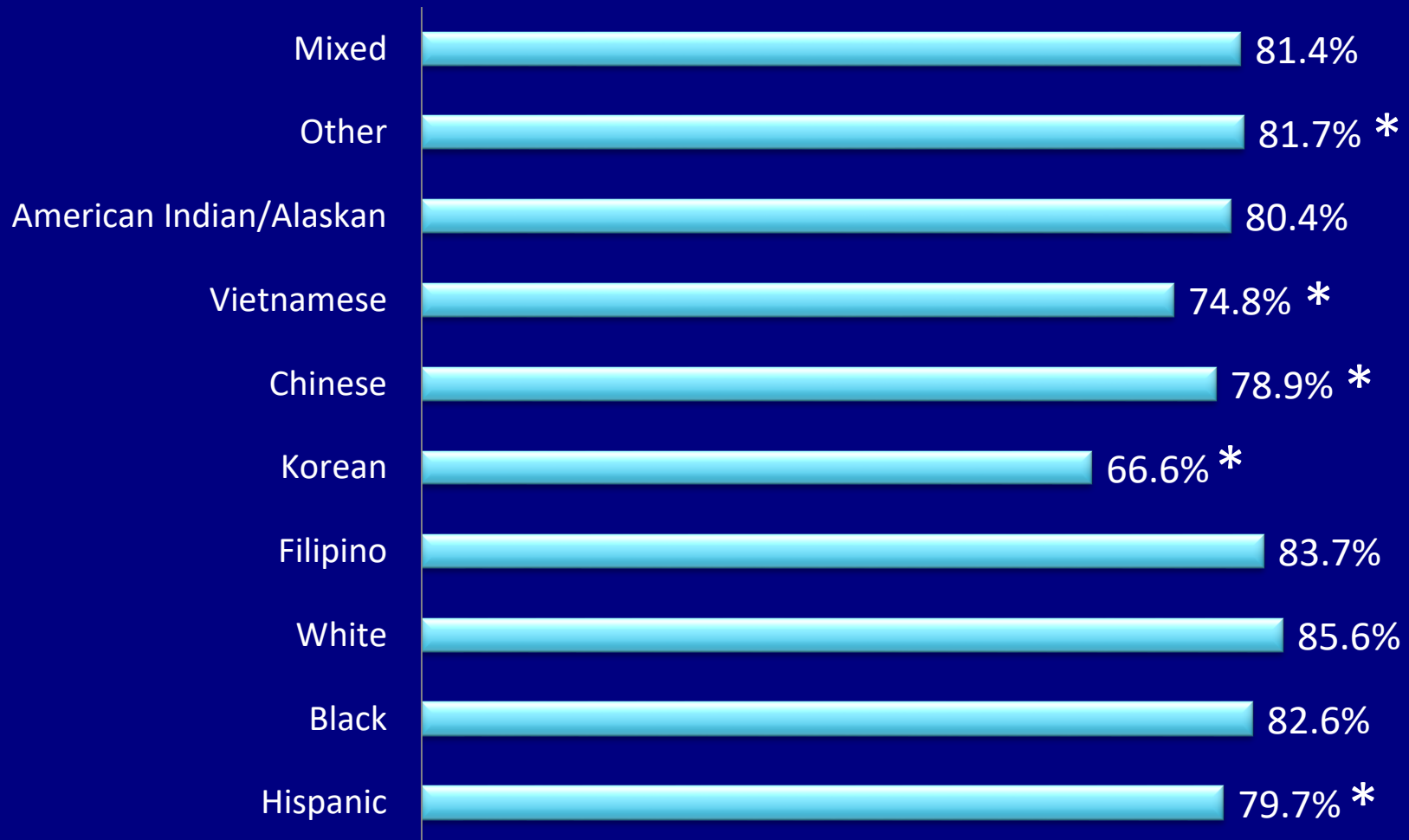
Note: Adjusted for age, sex, race/ethnicity.

# Figure 1. Very Good or Excellent Health Related to Race and Ethnicity



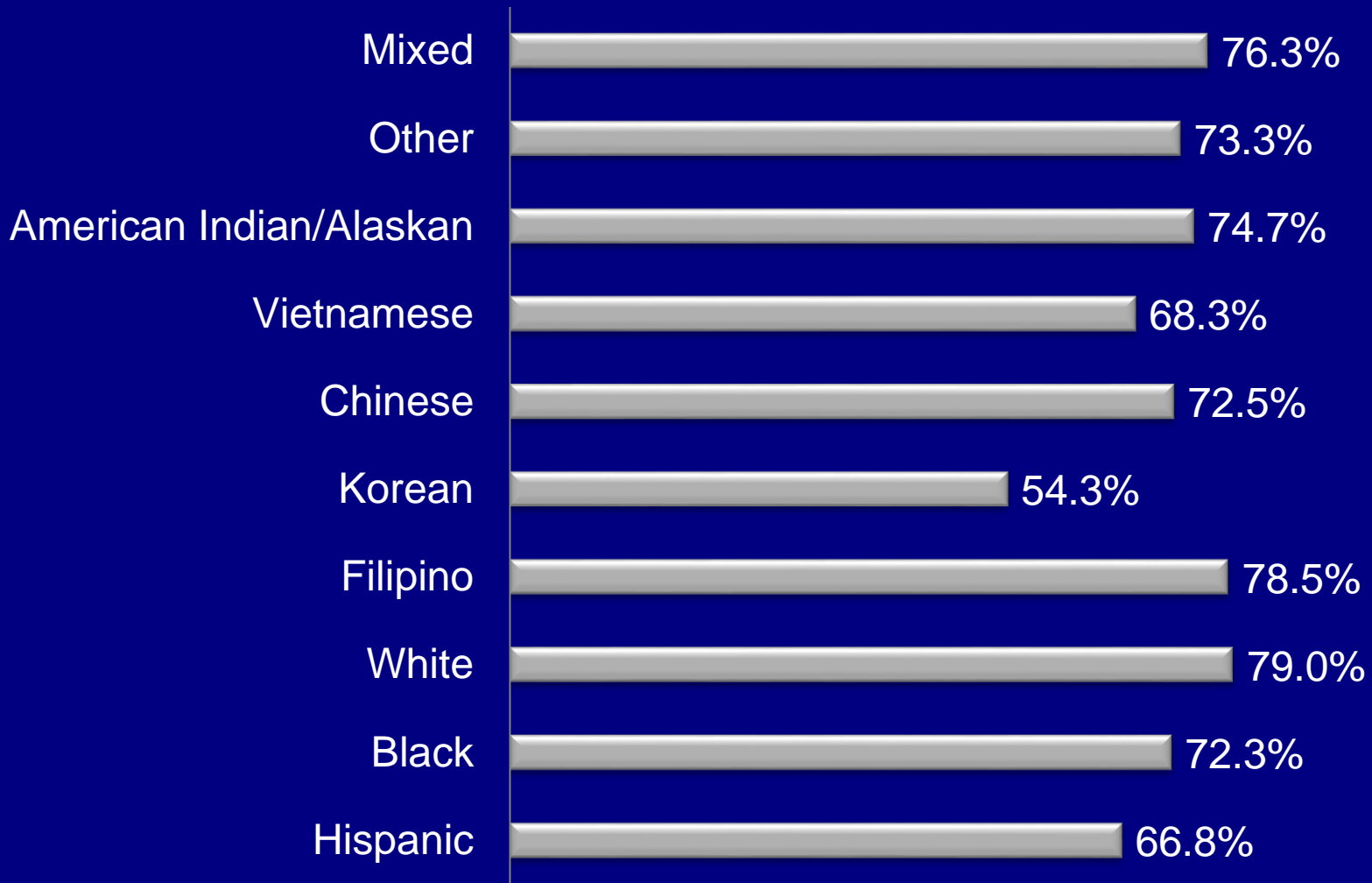
Note: Adjusted for age and sex. All groups significantly different from Whites at  $P < 0.05$

## Figure 2. Usual Source or Care Related to Race and Ethnicity



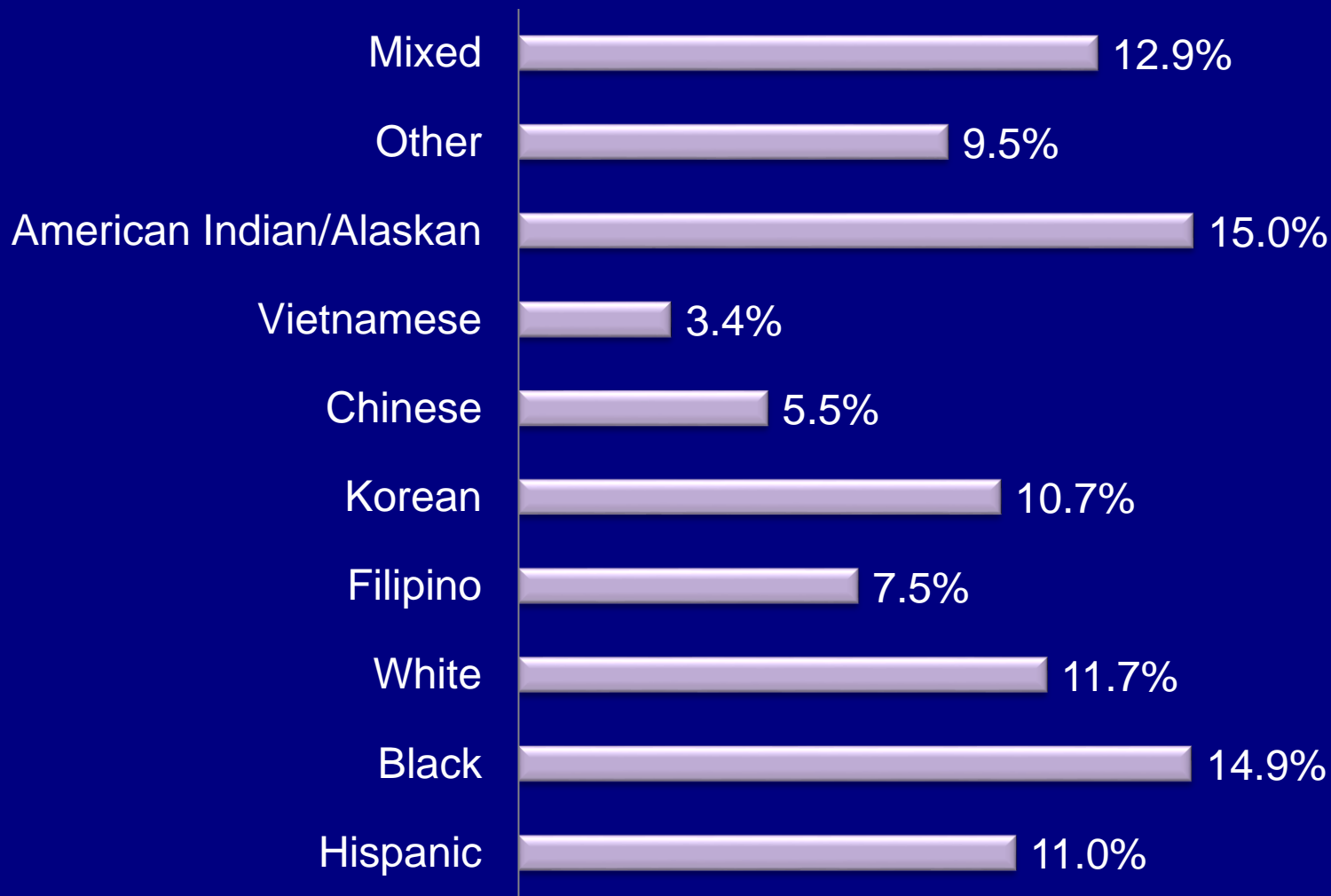
Note: Adjusted for age, sex, rurality. \* indicates significantly different from Whites at  $P < 0.05$

# Figure 3. Drug Coverage Related to Race and Ethnicity



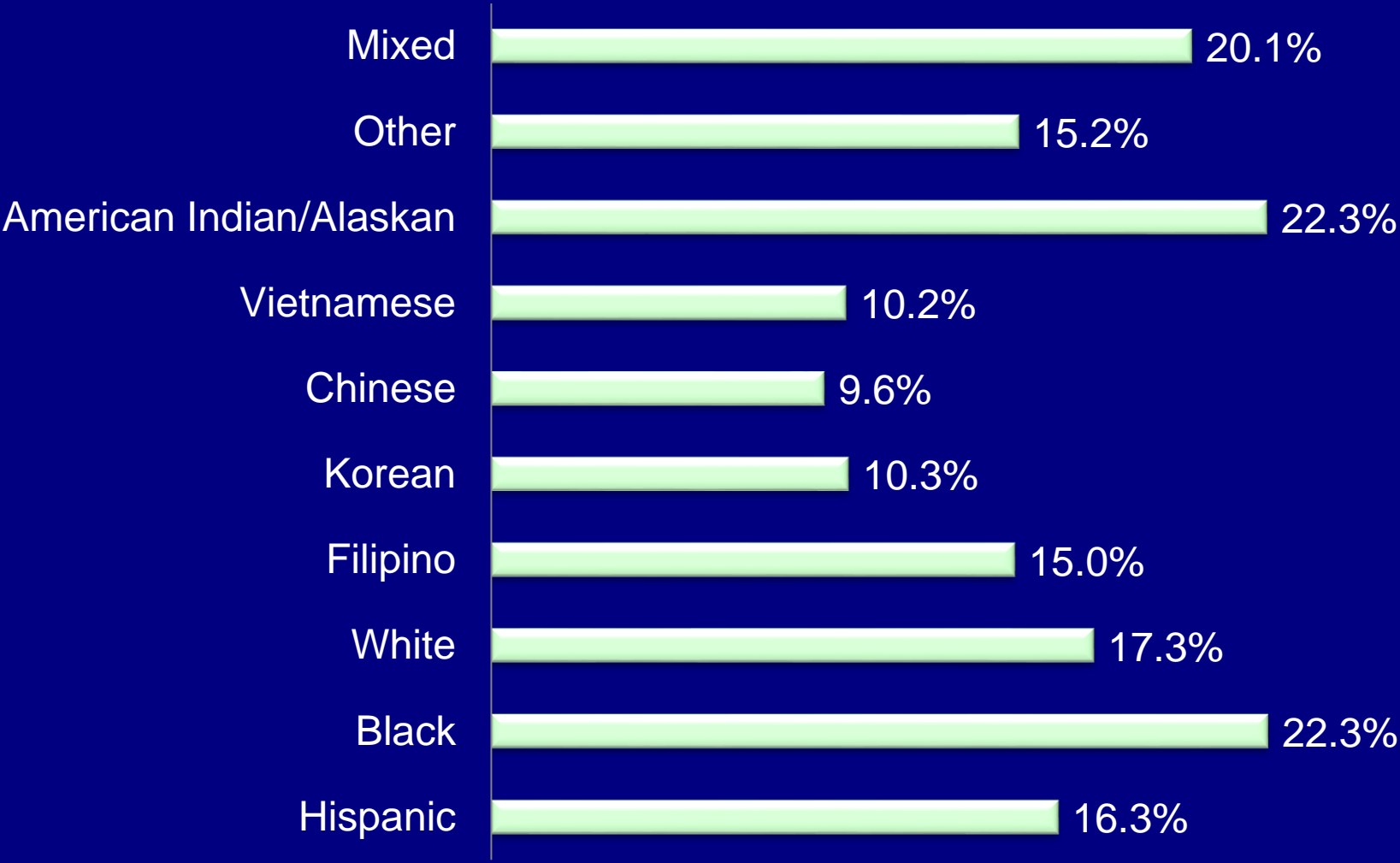
Note: Adjusted for age and sex. All significantly different from Whites except Filipinos, AIAN, Mixed

# Figure 4. Not Get Medications Related to Race and Ethnicity



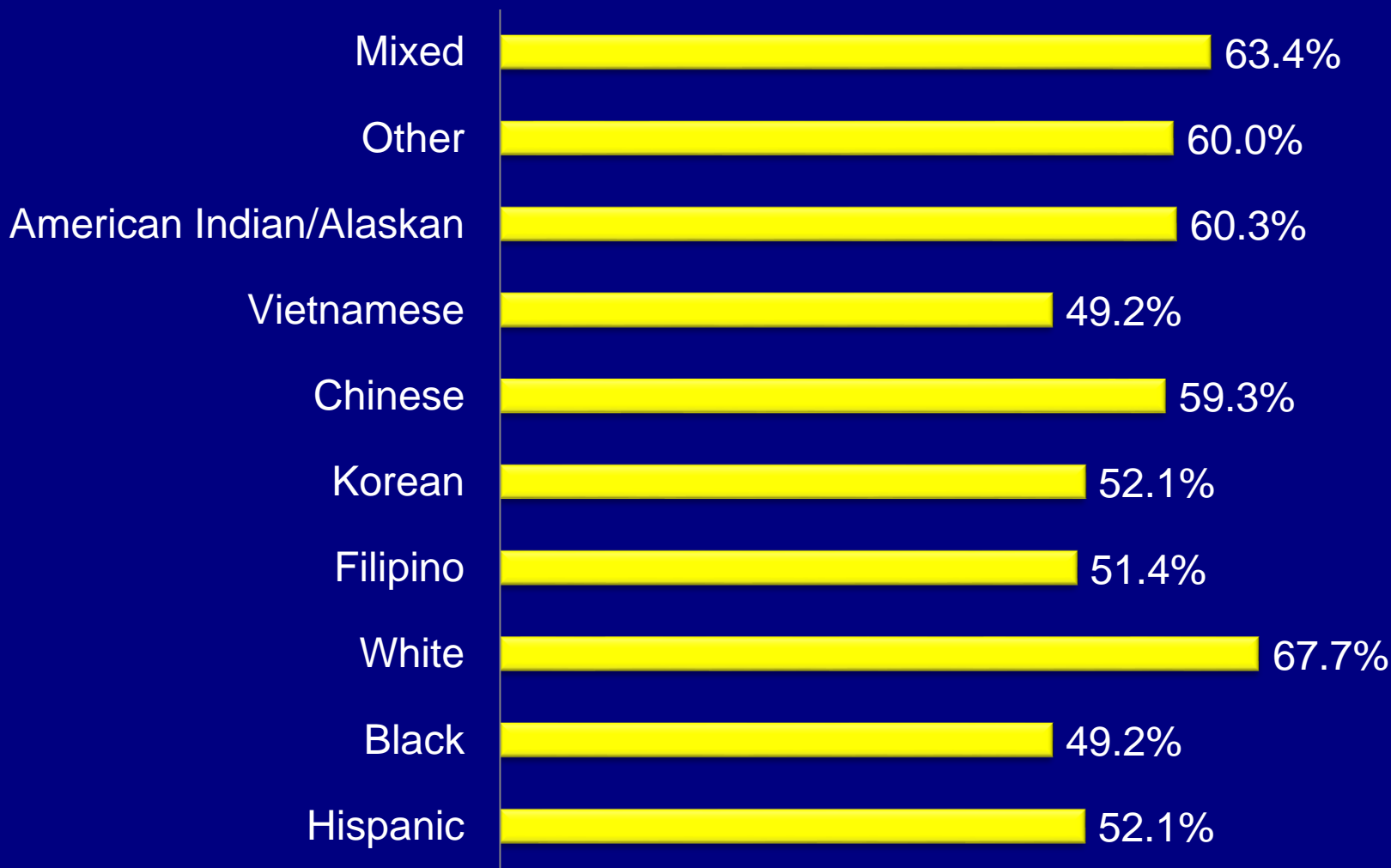
Note: Adjusted for age and sex. All significantly different from Whites except Koreans, Mixed, and Hispanics

# Figure 5. Had Emergency Department Visit Related to Race and Ethnicity



Note: Adjusted for age and sex. All significantly different from Whites except Filipinos and Hispanics.

# Figure 6. Accessing Internet for Health Information Related to Race and Ethnicity



Note: Adjusted for age and sex. All significantly different from Whites except Indian and Mixed.

# Limitations

- Data are self-reported
- Only adjusted for age and gender
- Data are only from California
- Survey didn't ask about other health-related uses of the internet



# Conclusion

- Despite reduced access to care and worse health status, rural residents and non-whites were significantly less likely to use the internet to access health information.
- Efforts to increase comfort with the internet among rural residents and non-whites might facilitate uptake of eHealth initiatives that might be particularly beneficial for these groups.

# References

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