

# 2013 Navajo Nation Health Survey Chinle Agency Results

Navajo Epidemiology Center/Navajo Department of Health



# Project Background

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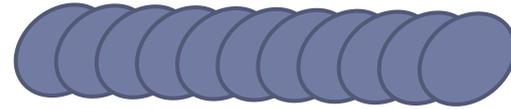
- ▶ Study #NNR-11.348 “Navajo Behavioral Risk Factor Surveillance Survey”
  - ▶ Navajo Nation Human Review and Research Board Approval July 24, 2012
  - ▶ Principal Investigator: Ramona Antone Nez, Director of Navajo Epidemiology Center
- ▶ Chinle Agency Council Approval, October 2010
- ▶ Purpose: to develop a Behavioral Risk Factor Surveillance System to monitor and evaluate health risk behaviors from residents on the Navajo Nation
- ▶ Aim: Reliable and valid collection of Navajo-specific information by survey questionnaire directly from Navajo Nation residents that can be monitored over time



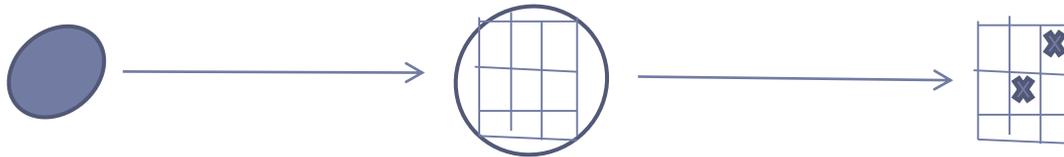
Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives. Protecting People™



Step 1. Select 11 Block Groups PPES/WR



Step 2. Superimpose square mile grid and eliminate cells w/no structures on aerial map.



Step 3. Within each block group, stratify remaining cells by high density vs. low density:

High Density-Overlaps CDA



Low Density-Does not overlap CDA



Step 4a. Within each high density cell:  
Select 4 Cells PPES/WR.

Step 5. Within each selected cell, map occupied houses in the field using CHR knowledge.

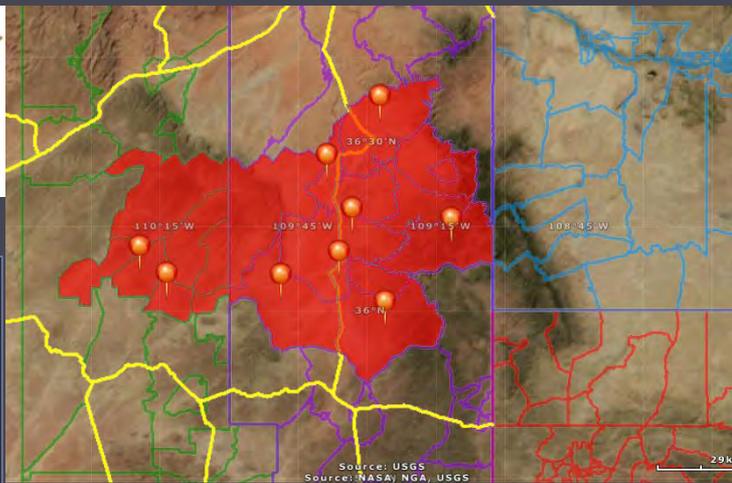
Step 6a. Randomly select 20 houses in each high density cell.

Step 6a. Randomly select 4 houses in each low density cell.

Step 7. From each selected house: enumerate the adults and randomly select one.

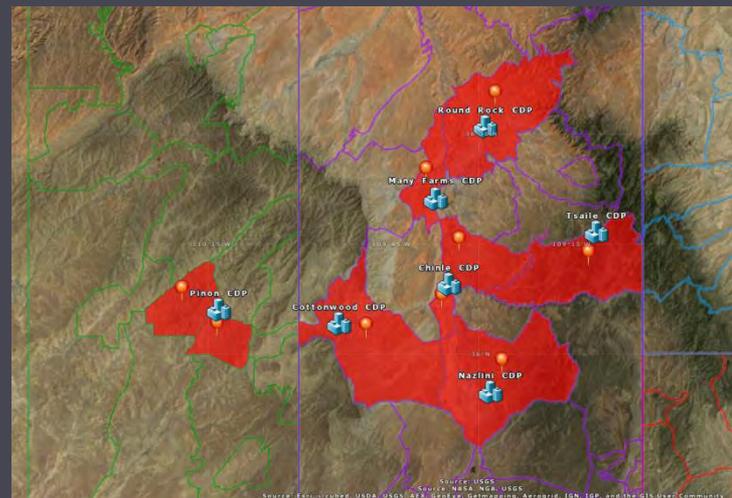


# Sample Methodology of Household Selection



## Chinle Agency

- ❖ 22 Census Block Groups (CBGs)
- ❖ The NNHS household sampling selection
  - ❖ 11 CBG based on a Probability Proportional to Size (PPS) with replacement, i.e., a CBG can be selected more than once. E.g. Pinon & Chinle



## Census Block Group Selection: 9 CBGs

- ❖ Total of 7 Census Designated Places (US Census)
  - ❖ Chinle, AZ (2 CBGs)
  - ❖ Cottonwood, AZ
  - ❖ Many Farms, AZ
  - ❖ Nazlini, AZ
  - ❖ Pinon, AZ (2 CBGs)
  - ❖ Round Rock, AZ
  - ❖ Tsalle/Wheatfields, AZ



# Survey Questionnaire

- ▶ 16 Core Sections
- ▶ 7 Optional Modules
- ▶ Additional Questions
  - ▶ Specific to Navajo Nation
- ▶ 199 Questions
  - ▶ Skip pattern
- ▶ Navajo Translation

## 2013 Navajo Behavioral Risk Questionnaire

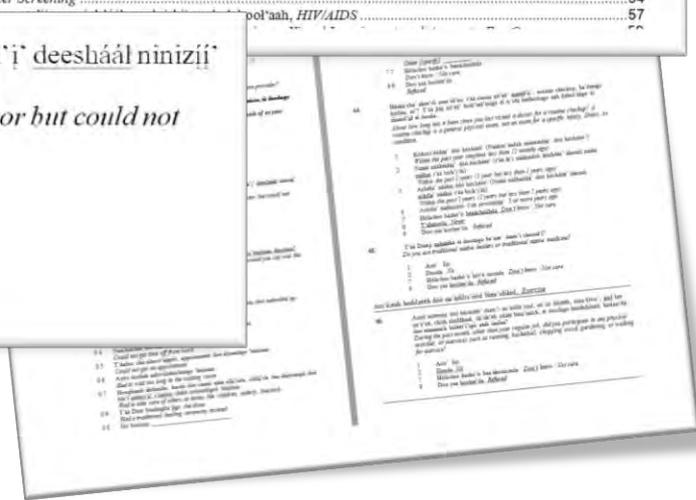
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42. Naakits' áadah nídeezidáá' dóó hóshdée' daats'í lahda azee' íil'íni bích'í' deeshaál níniizíí' ní't'ée' biniinaanii hólóogo t'áádooda?  
*Was there a time in the past 12 months when you needed to see a doctor but could not because of some reason?*

- 1 Aoo' Yes
- 2 Dooda No [skip to Q44]
- 7 Hóla/doo hazhó'ó baa ákonisinda *Don't know / Not sure*
- 9 Doo yaa hoolne'da *Refused*

- ▶ Phase I Goal
  - ▶ 1,220 total complete surveys by end of Fall 2013





# Challenges

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- ❖ Incentives for participation
- ❖ Navajo Translation
  - ❖ Navajo speaking – able to explain general health terminology
- ❖ Field Personnel
  - ❖ Qualified in survey questionnaire interviewing
  - ❖ 2010 Census Enumerators
- ❖ Non-response
  - ❖ Only 67% of houses identified from satellite images were occupied
  - ❖ Response rate among occupied houses was 57.7%
- ❖ Navajo Nation
  - ❖ I64 Review

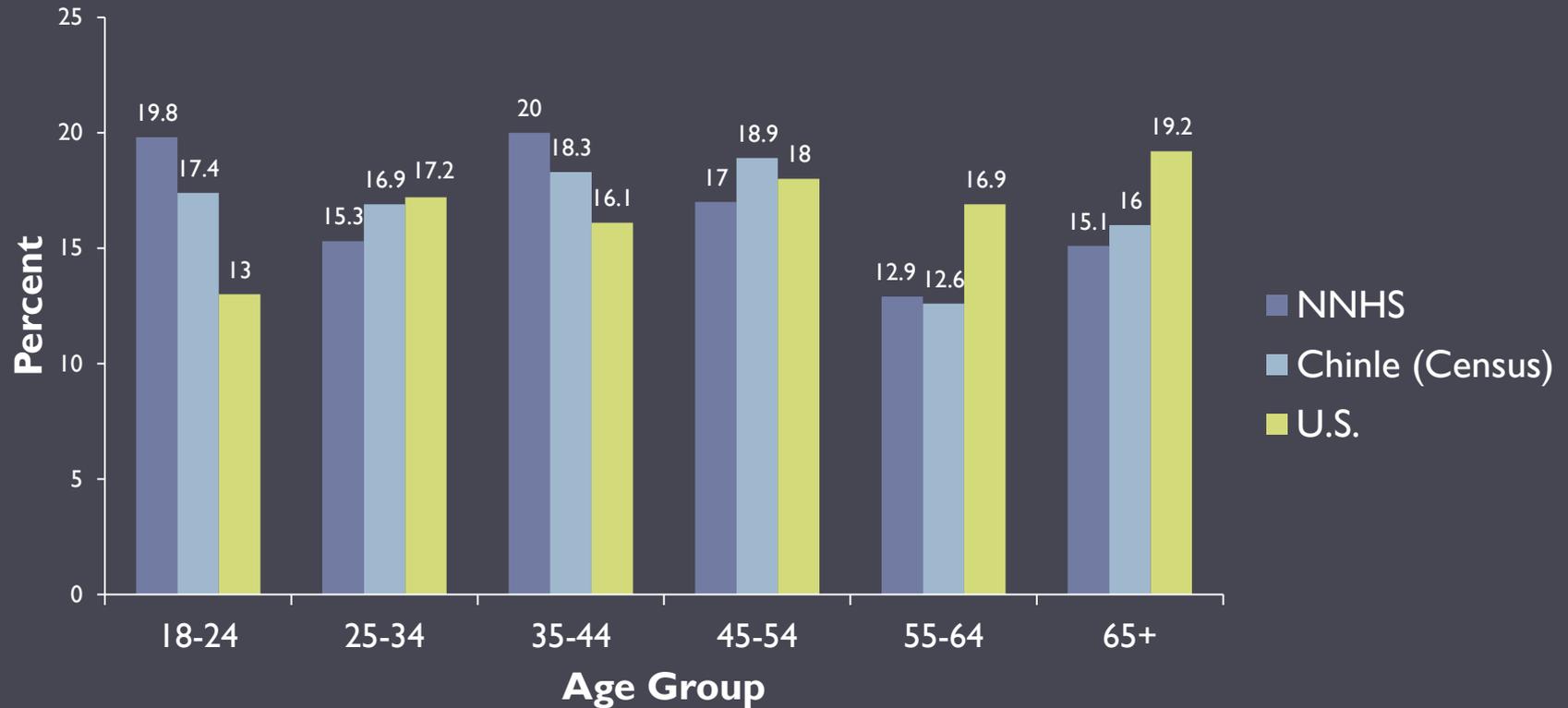
# Methodology: Analysis

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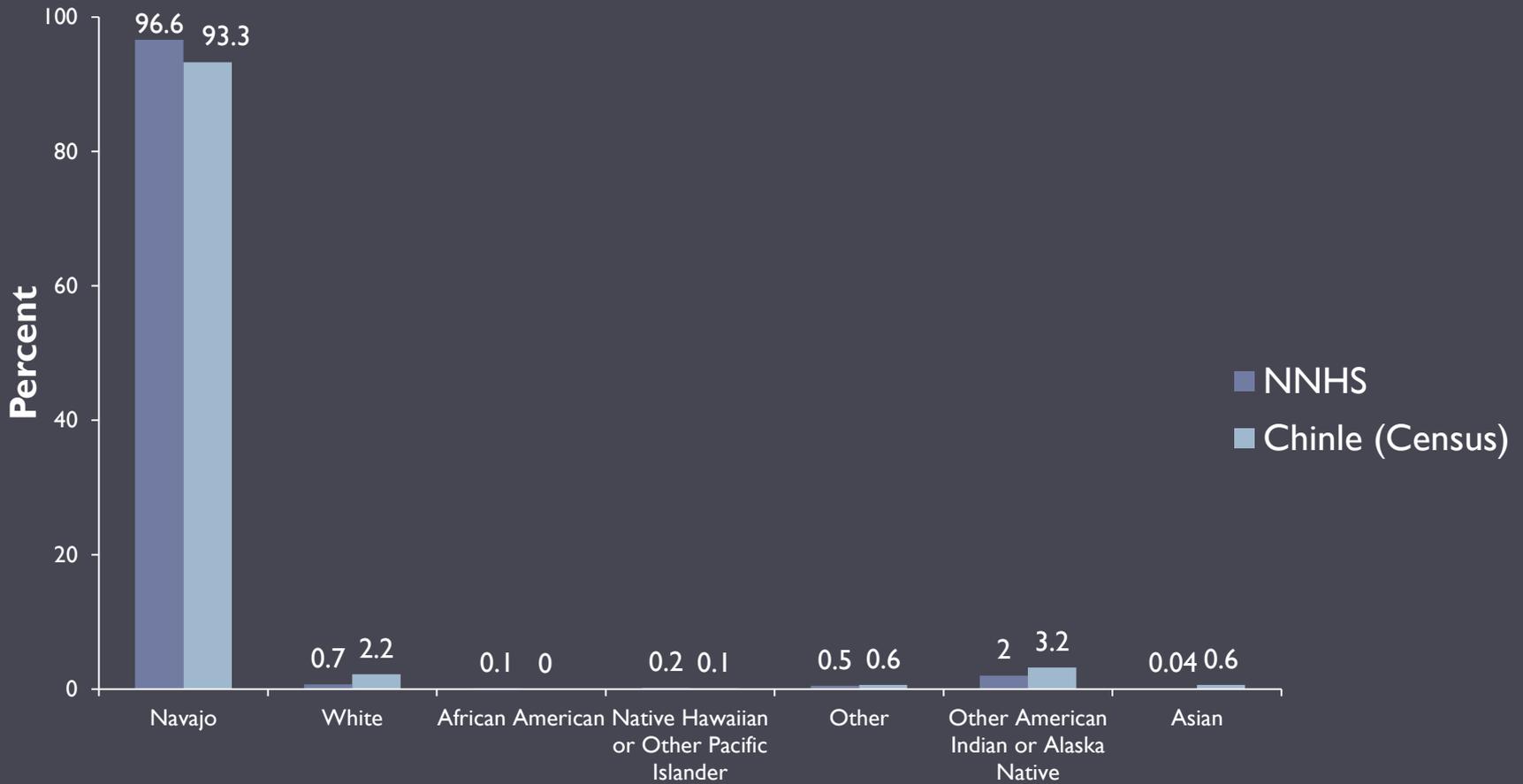
- ▶ Analysis accounted for differences between respondents in their probability of being selected to participate
- ▶ Analysis accounted for the lack of independence between respondents in the same Census Block Group or square mile cell
- ▶ Analysis corrected for different rates of participation across age and sex groups by re-weighting the data to match the age and sex distribution of the Census for Chinle

# DEMOGRAPHICS: What is your age?

## Age Distribution of Respondents



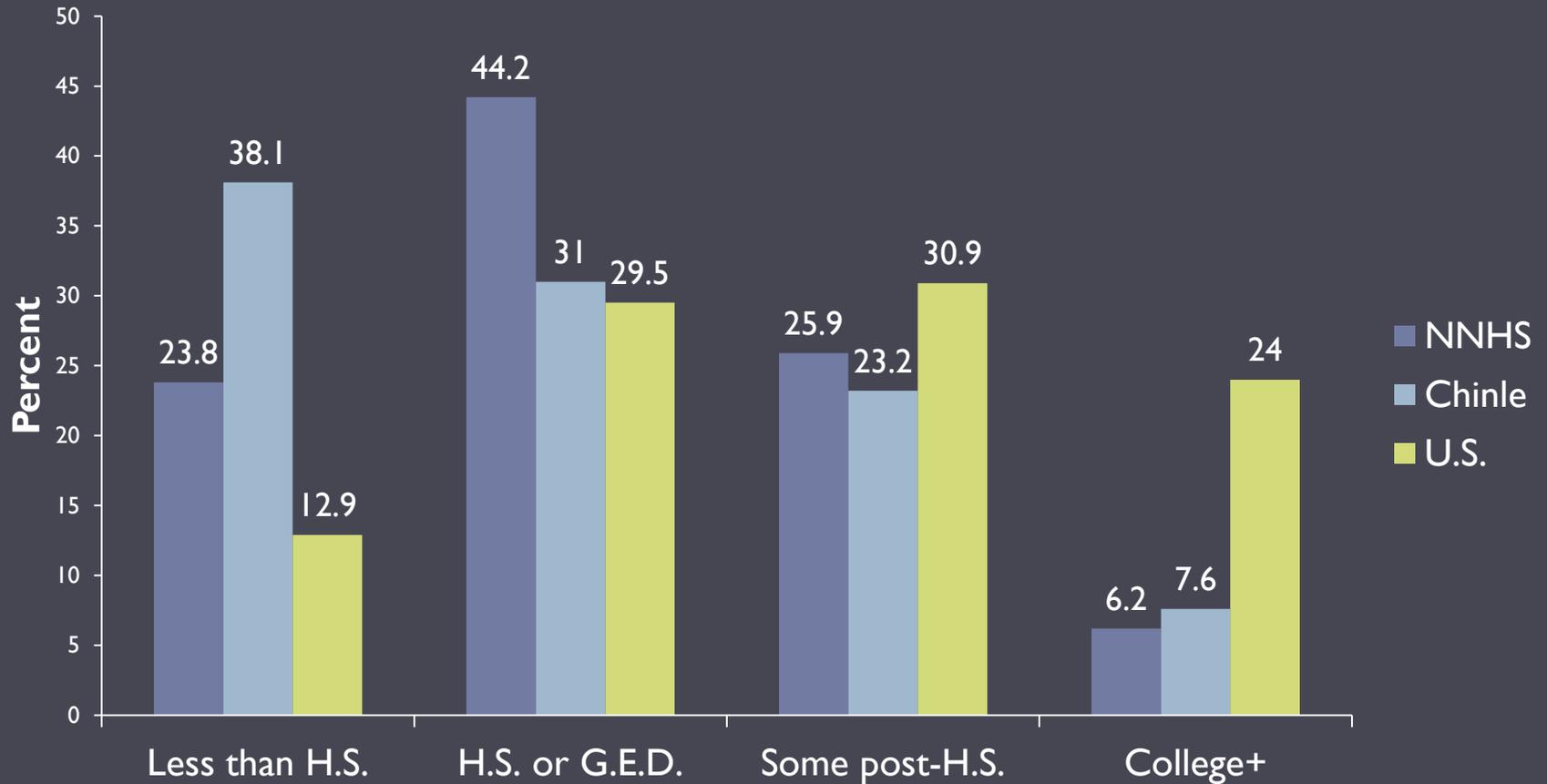
**DEMOGRAPHICS:** *Which one or more of the following would you say is your race?*



Note: According to the Navajo Population Profile, 92% of Chinle Agency population is Navajo alone or in Combination. However, that is for the entire population and not just 18 years and older.

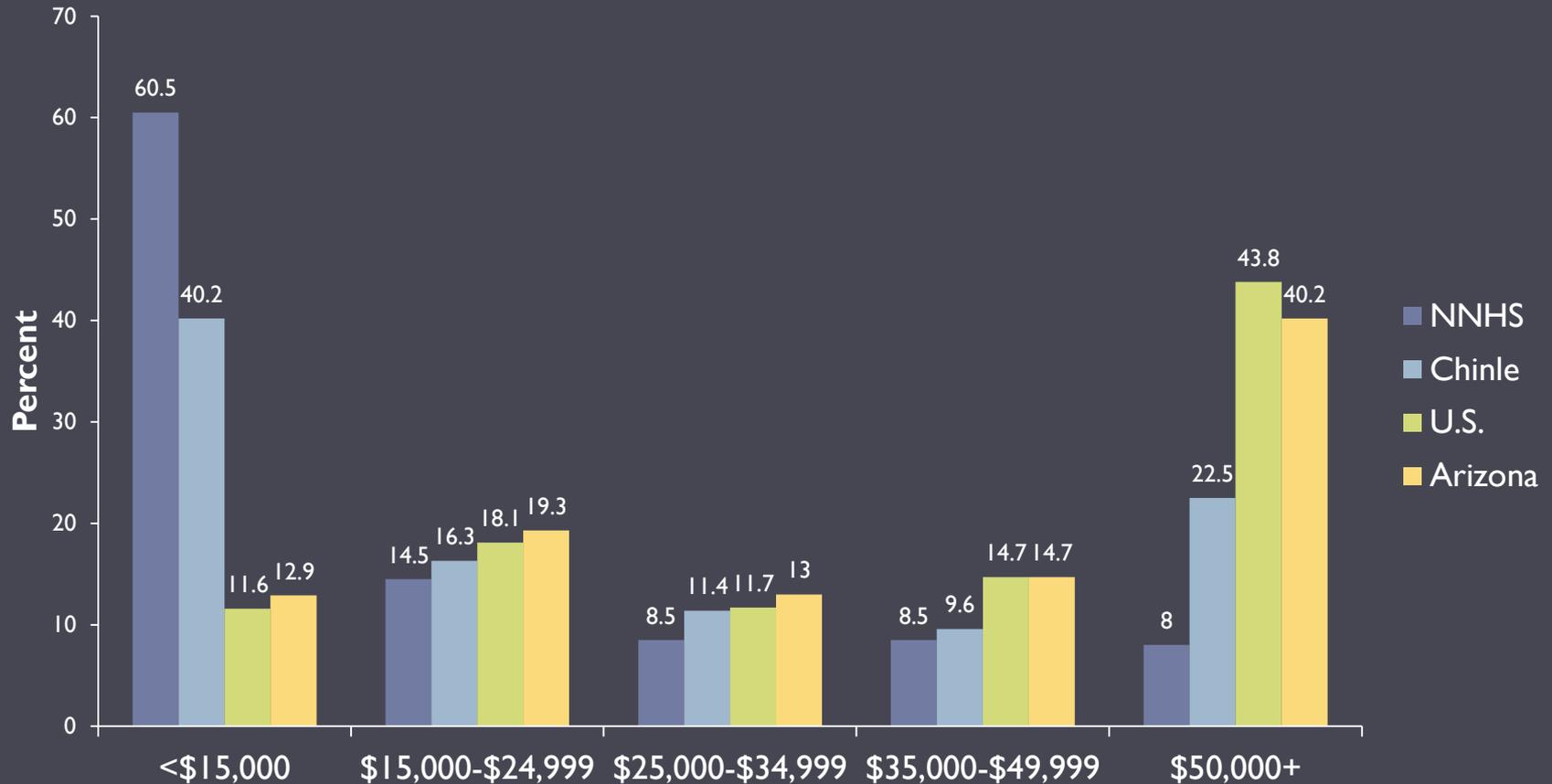
# DEMOGRAPHICS: *What is the highest grade or year of school you completed?*

Age Adjusted



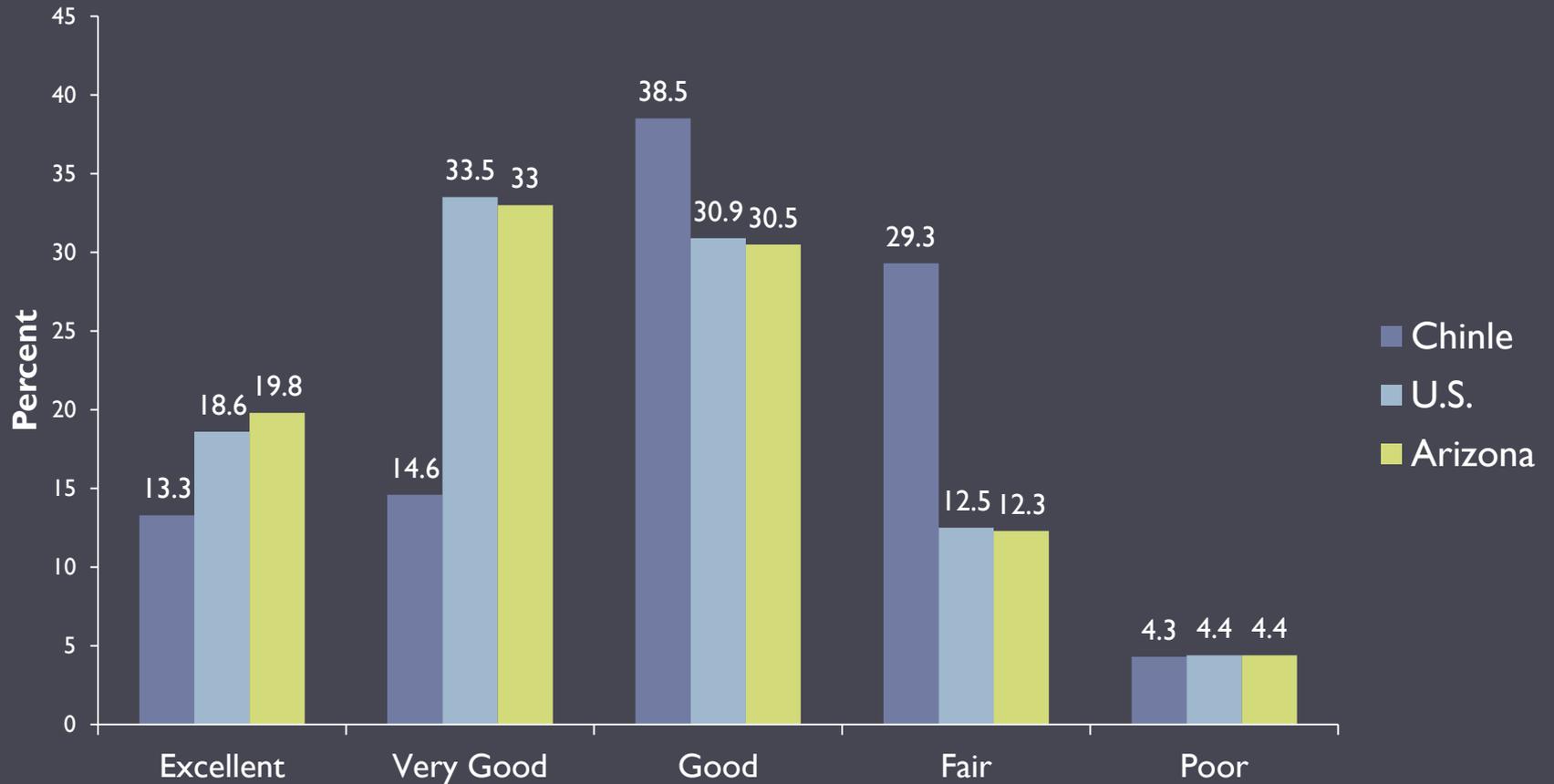
# Demographics: What is your annual household income from all sources

Age Adjusted



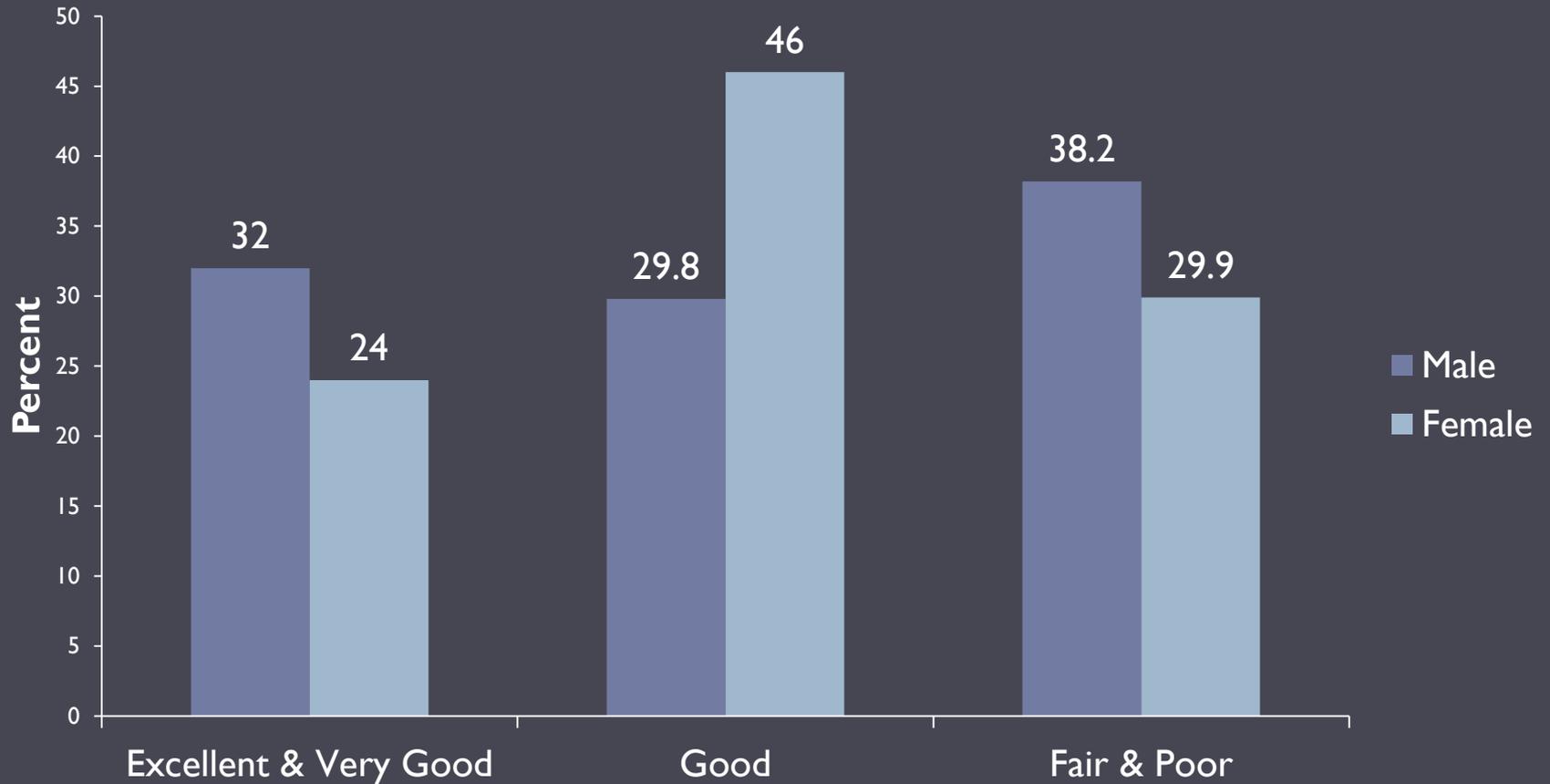
# GENERAL HEALTH: *Would you say that in general your health is...?*

Age Adjusted



# GENERAL HEALTH: *Would you say that in general your health is...?*

By Gender, Age Adjusted

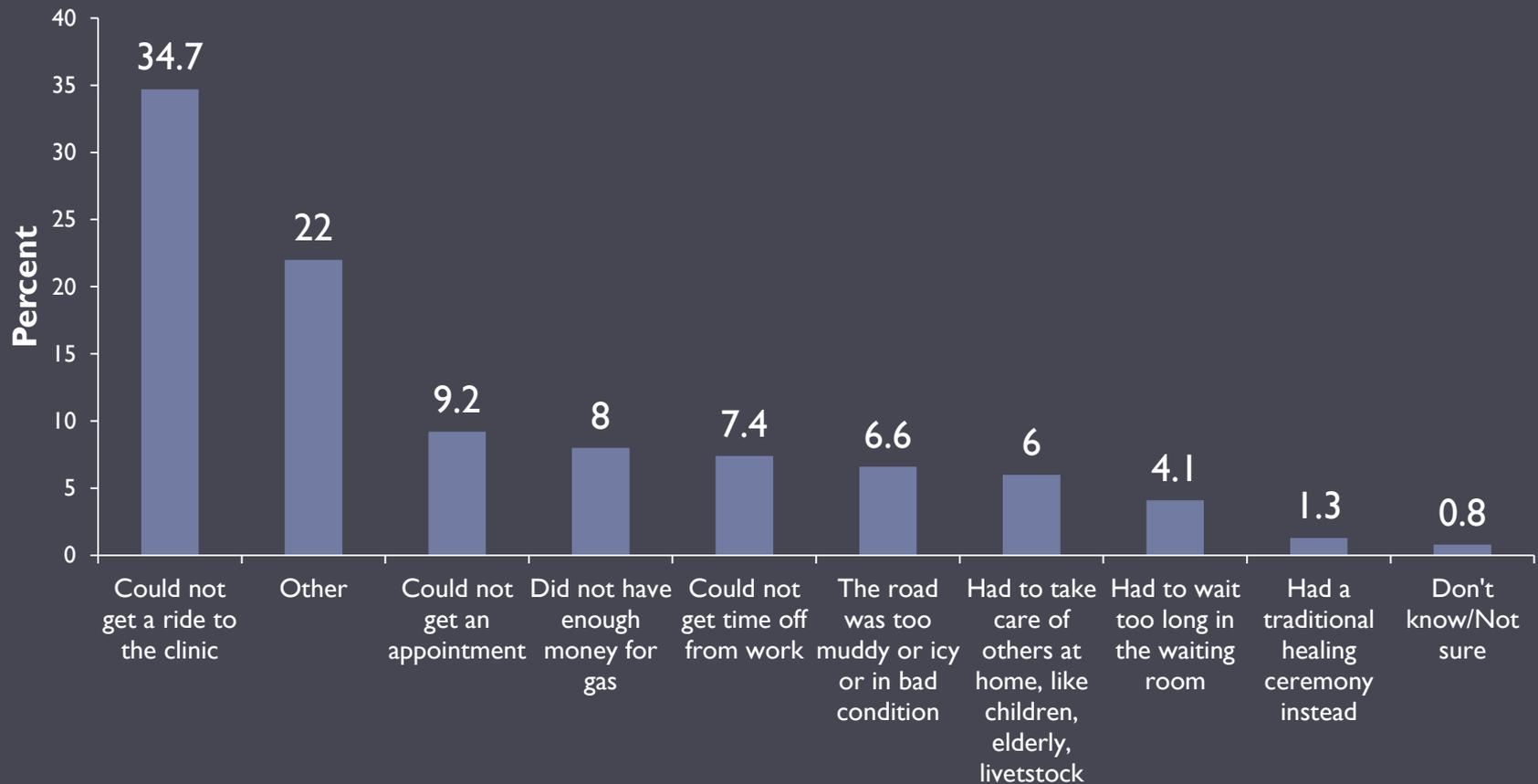


## Health Care Access

Question	Yes
<b>Do you have one person you think of as your personal doctor?</b>	30.3%
<b>Do you have more than one person you think of as your personal doctor?</b>	36.7%
<b>Was there a time in the past 12 months when you needed to see a doctor but could not because of some reason?</b>	27.0%
<b>Have you visited a doctor for a routine checkup in the past 12 months?</b>	63.3%
<b>Do you use traditional native healers or traditional native medicine?</b>	68.3%

**HEALTH CARE ACCESS:** *At that time when you needed to see a doctor but could not, what would you say was the main reason why...?*

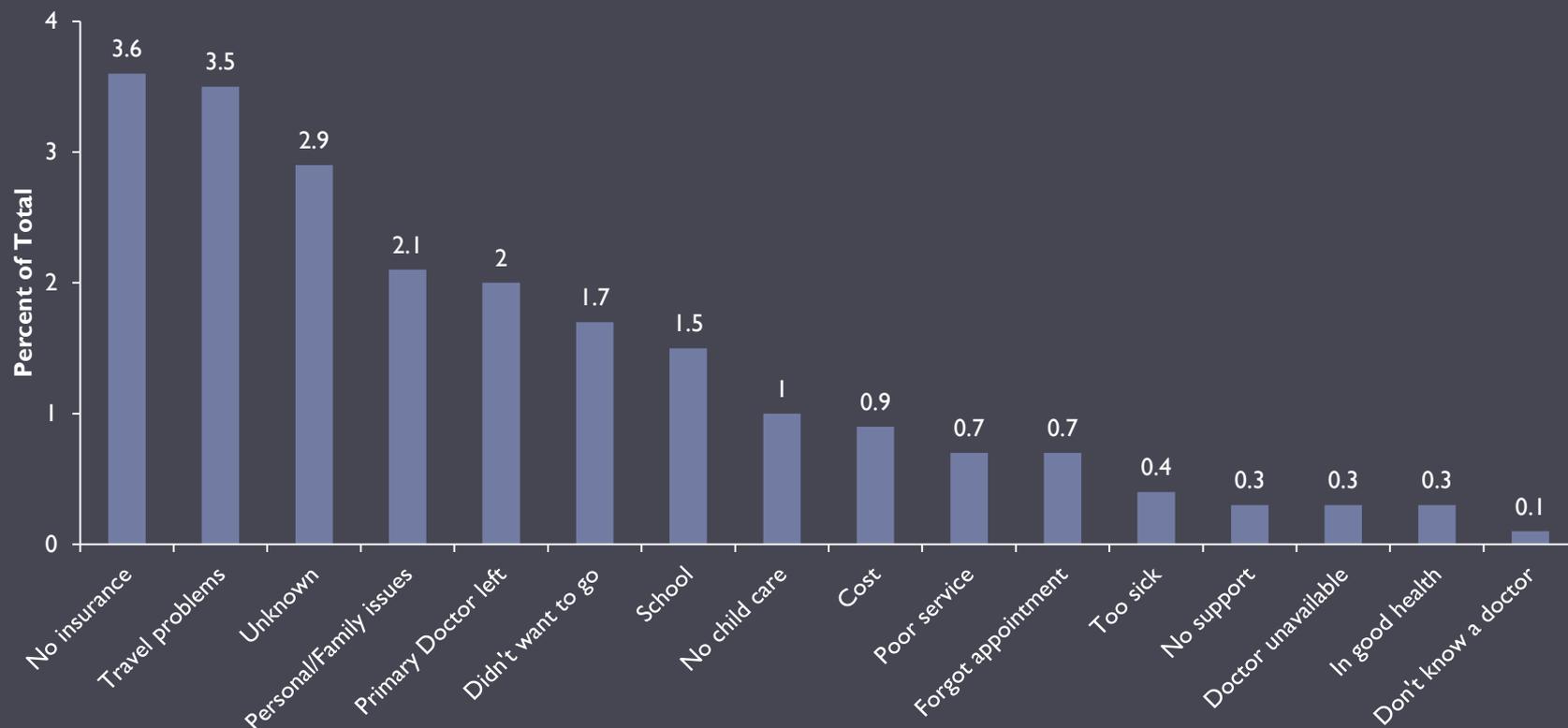
**Reported reasons you were unable to see a doctor**



# HEALTH CARE ACCESS: *At that time when you needed to see a doctor but could not, what would you say was the main reason why...?*

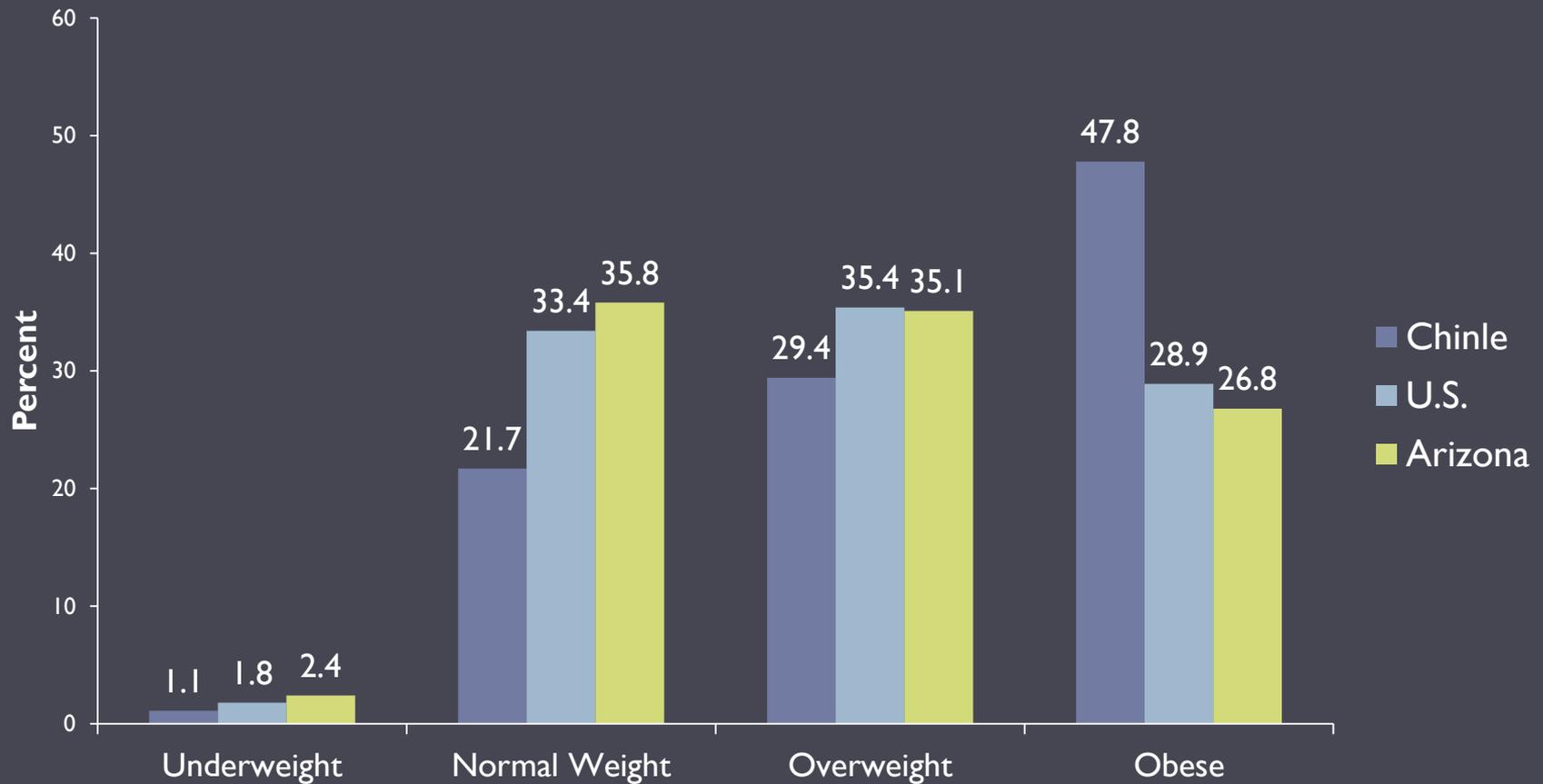
## Other Reasons

### Other Reasons You Were Unable to See a Doctor

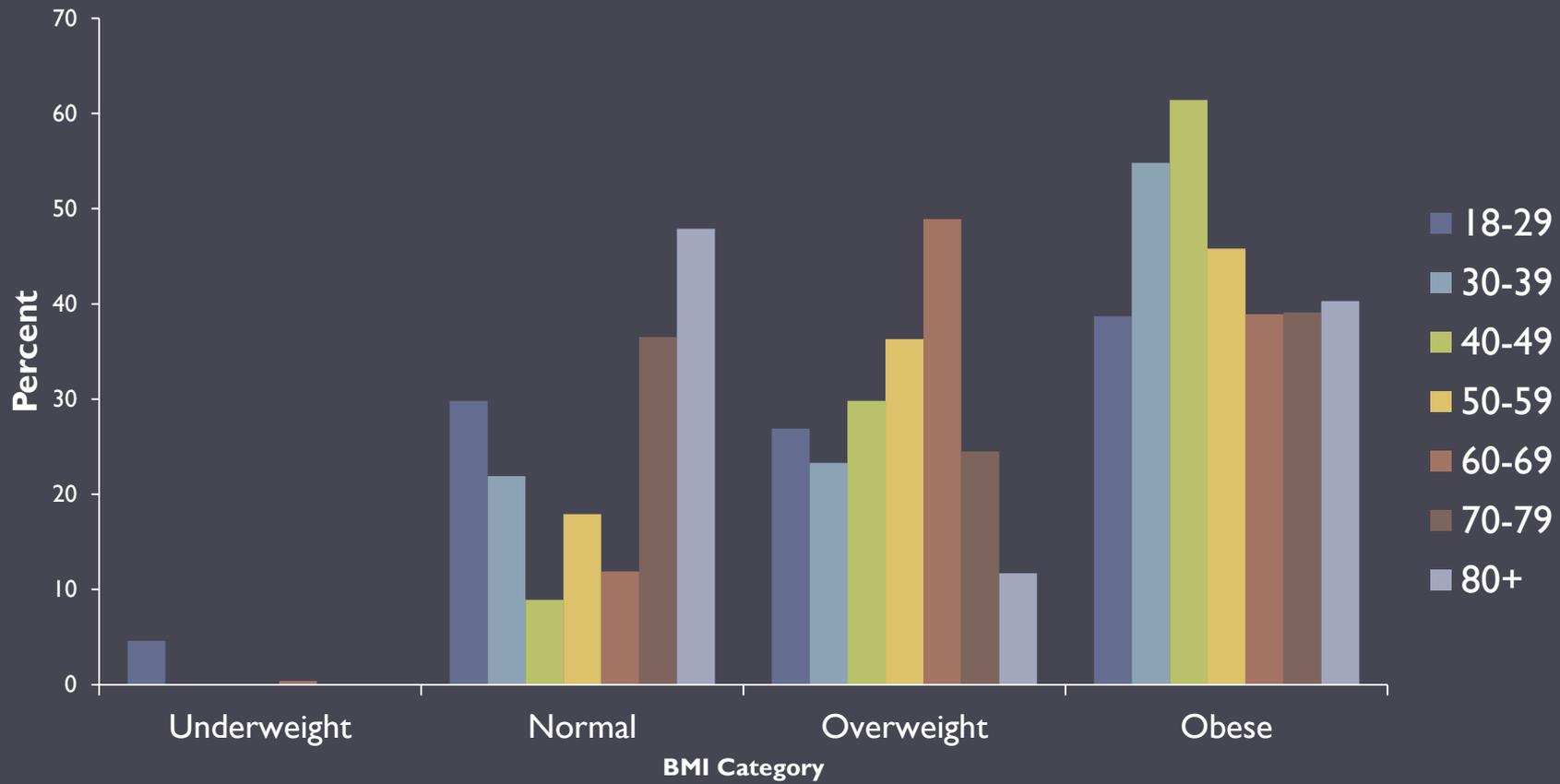


# Body Mass Index (BMI)

## Weight Classification by BMI

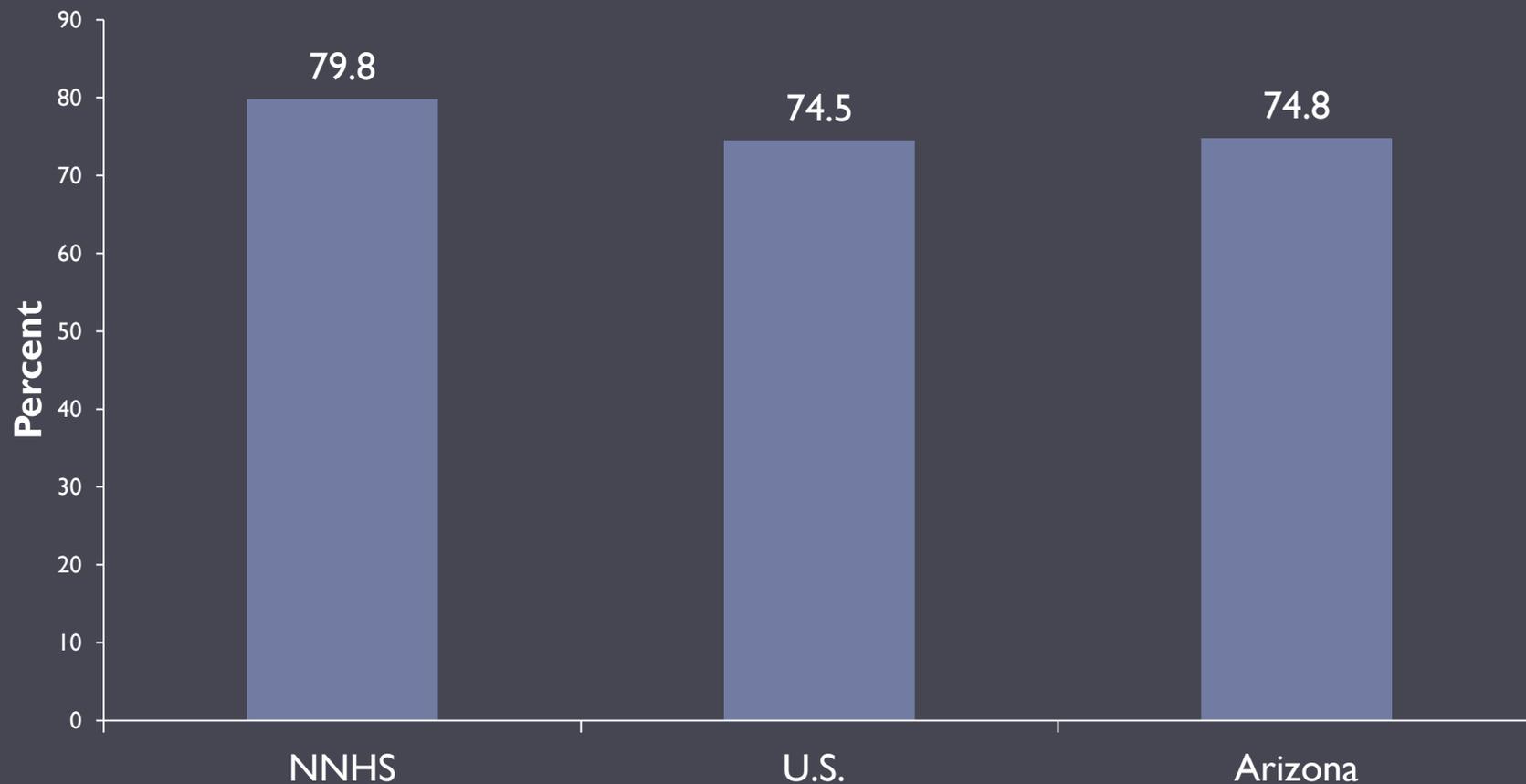


# BMI Category by Age



**PHYSICAL ACTIVITY:** *During the past month, did you participate in any physical activities or exercises...?*

Age Adjusted



Physical Activity: What type of physical activity or exercise did you spend the most time doing during the past month?

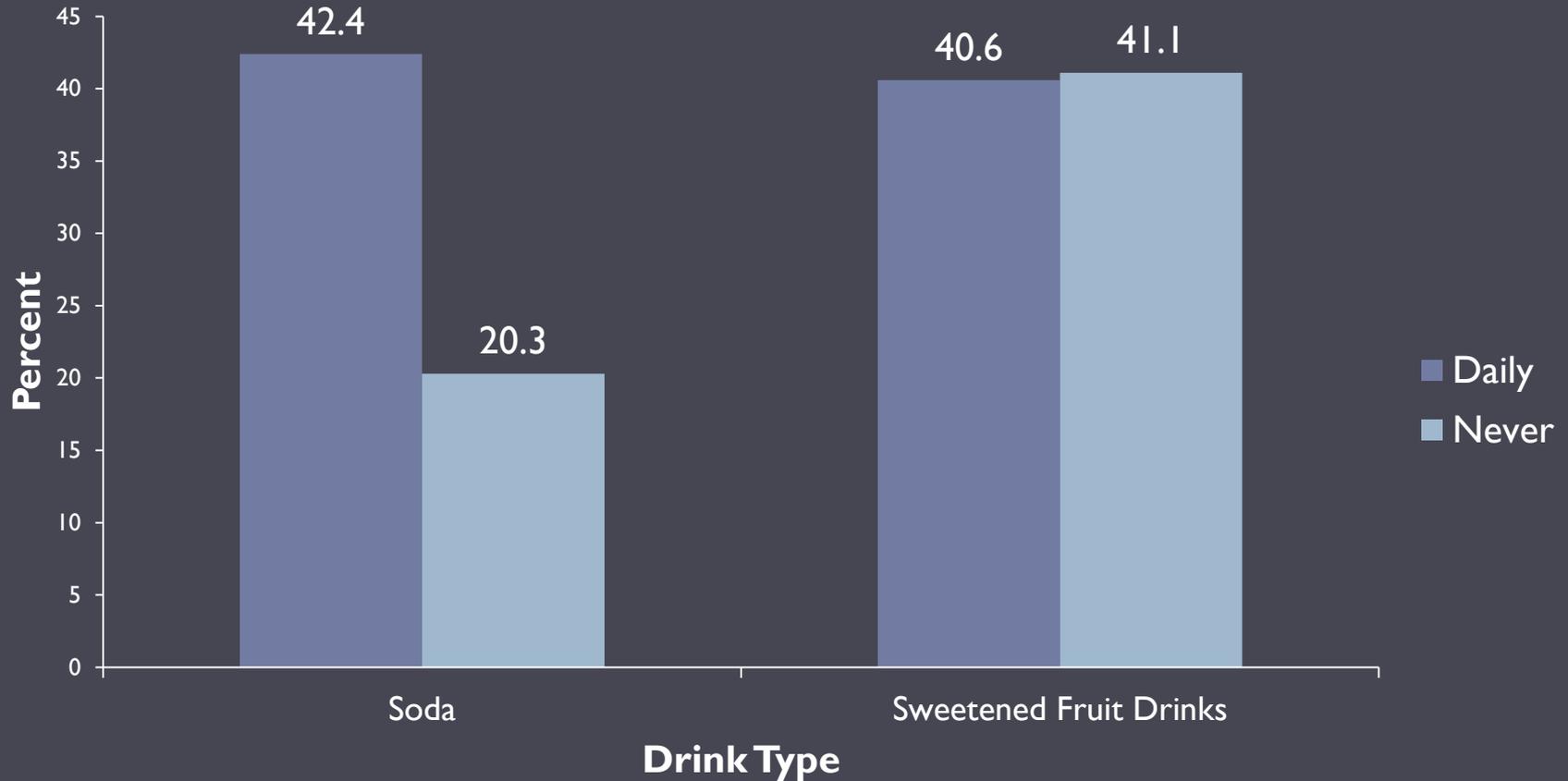
Activity	Percent	Activity	Percent
Walking	55.2	Jogging	11.6
Home Exercise	4.3	Basketball	4.0
Herding Sheep	3.0	Running	2.9
Gardening	2.8	Chopping Wood	2.6
Calisthenics	1.7	Horseback Riding	1.6
Softball/Baseball	1.5	Health Club Exercise	1.3
Volleyball	1.3	Bicycling for pleasure	1.1
Weight Lifting	1.0	All others	4.3

Physical Activity: What other type of physical activity gave you the next most exercise during the past month?

Activity	Percent	Activity	Percent
Walking	18.2	Home Exercise	12.9
Horseback Riding	10.2	Gardening	8.6
Other	7.5	Chopping Wood	7.1
Jogging	6.9	Basketball	5.9
Weight Lifting	3.1	Herding Sheep	2.9
Bicycling for pleasure	2.3	Health Club Exercise	2.3
Hiking	2.0	Running	2.0
Calisthenics	1.7	Softball/Baseball	1.4
Raking lawn	1.2	All others	3.8

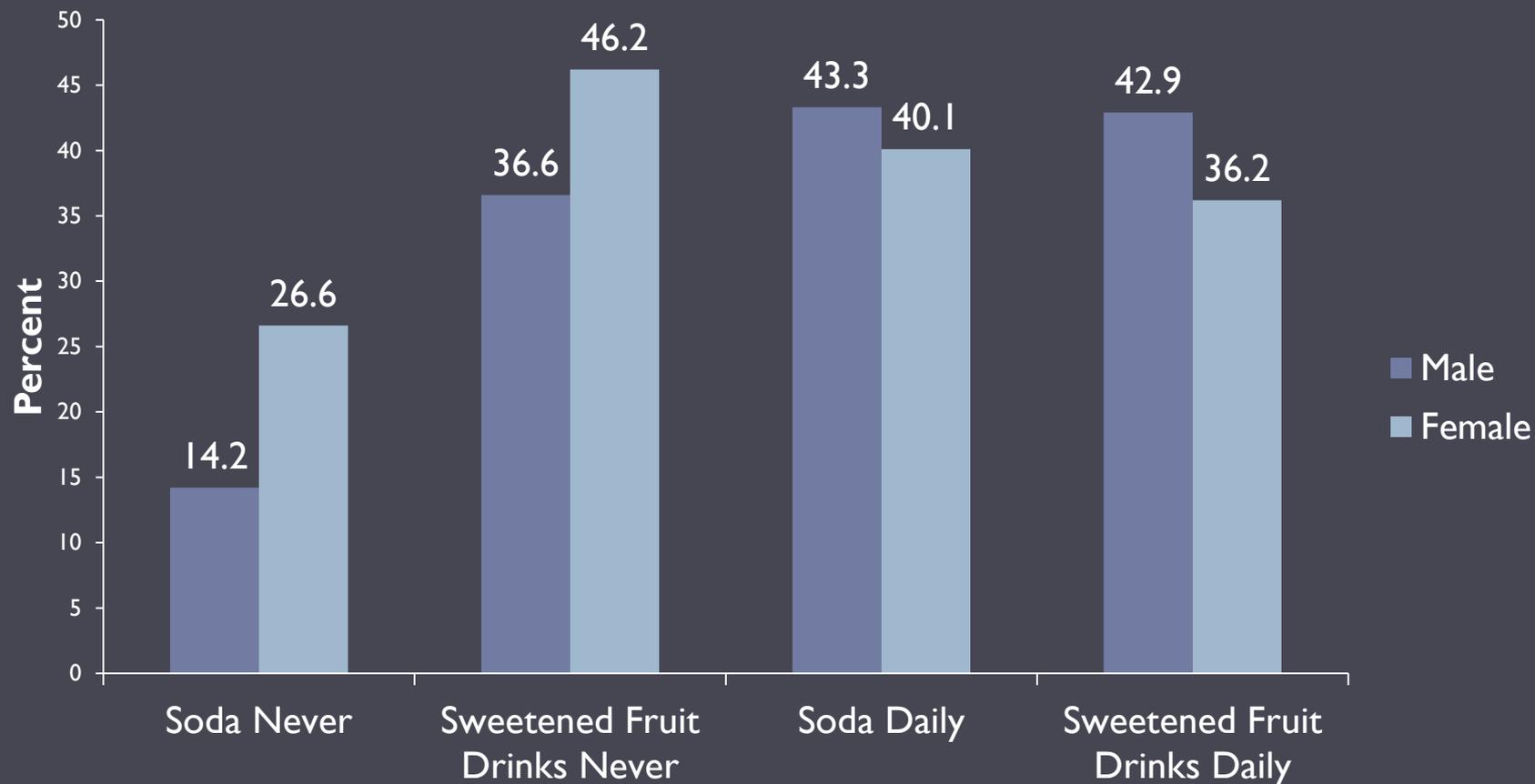
SUGAR SWEETENED BEVERAGES and MENU LABELING: *During the past 30 days, how often did you drink regular soda... sweetened fruit drinks?*

### Soda and Sweetened Fruit Drink Consumption



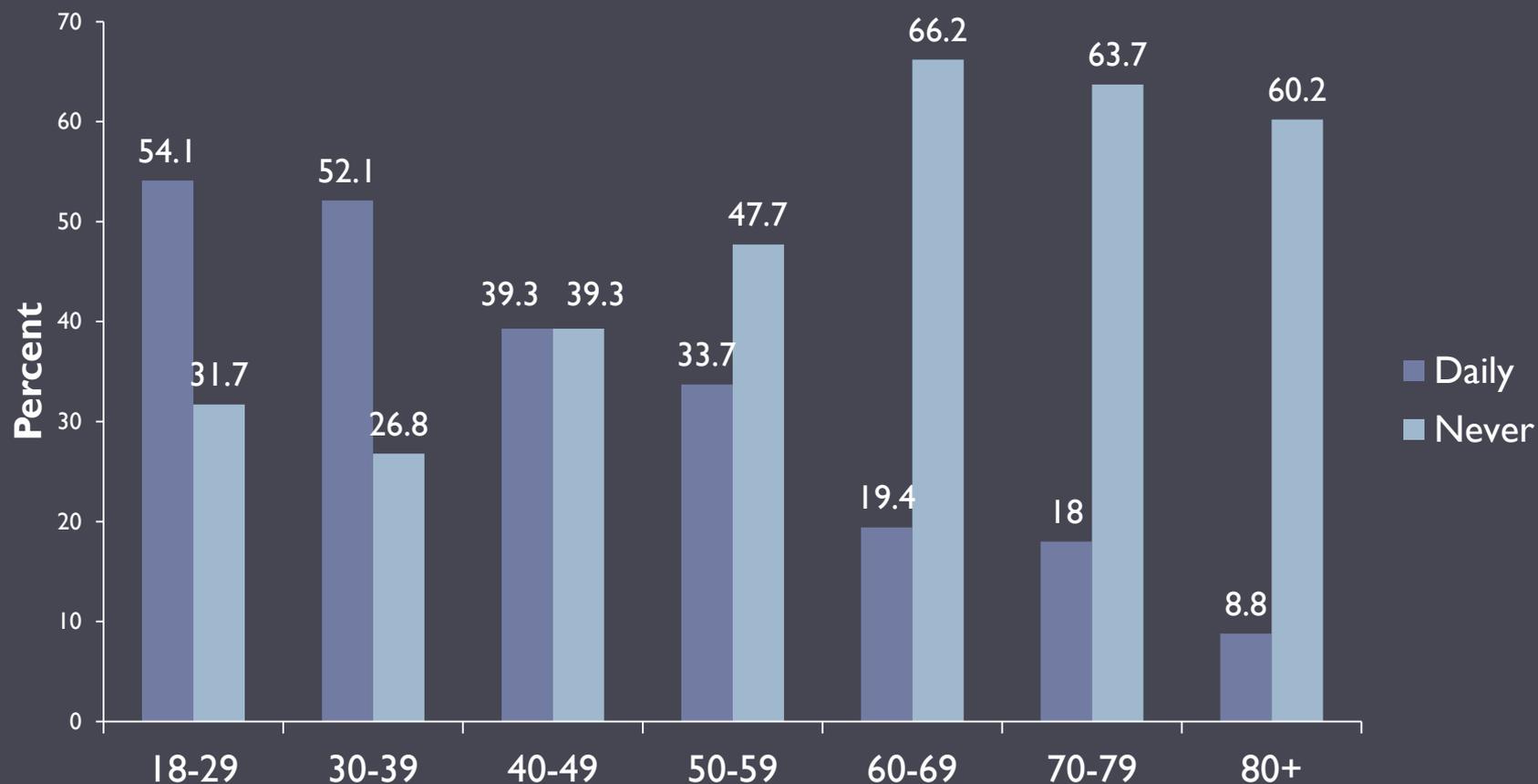
# SUGAR SWEETENED BEVERAGES and MENU LABELING: *During the past 30 days, how often did you drink regular soda... sweetened fruit drinks?*

Consumption by Gender, Age Adjusted



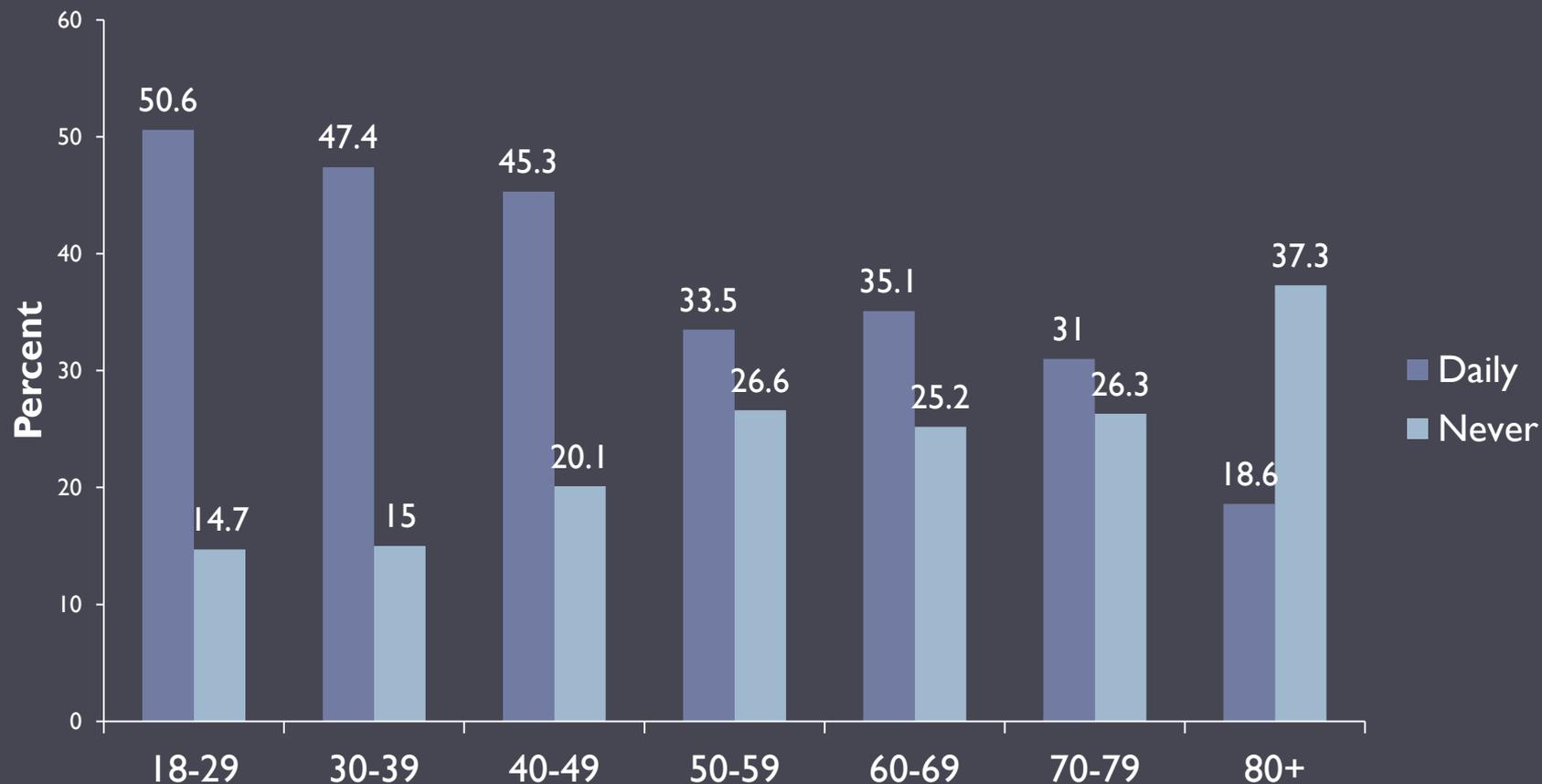
# SUGAR SWEETENED BEVERAGES and MENU LABELING: *During the past 30 days, how often did you drink regular soda... sweetened fruit drinks*

Sweetened Fruit Drinks by Age Group

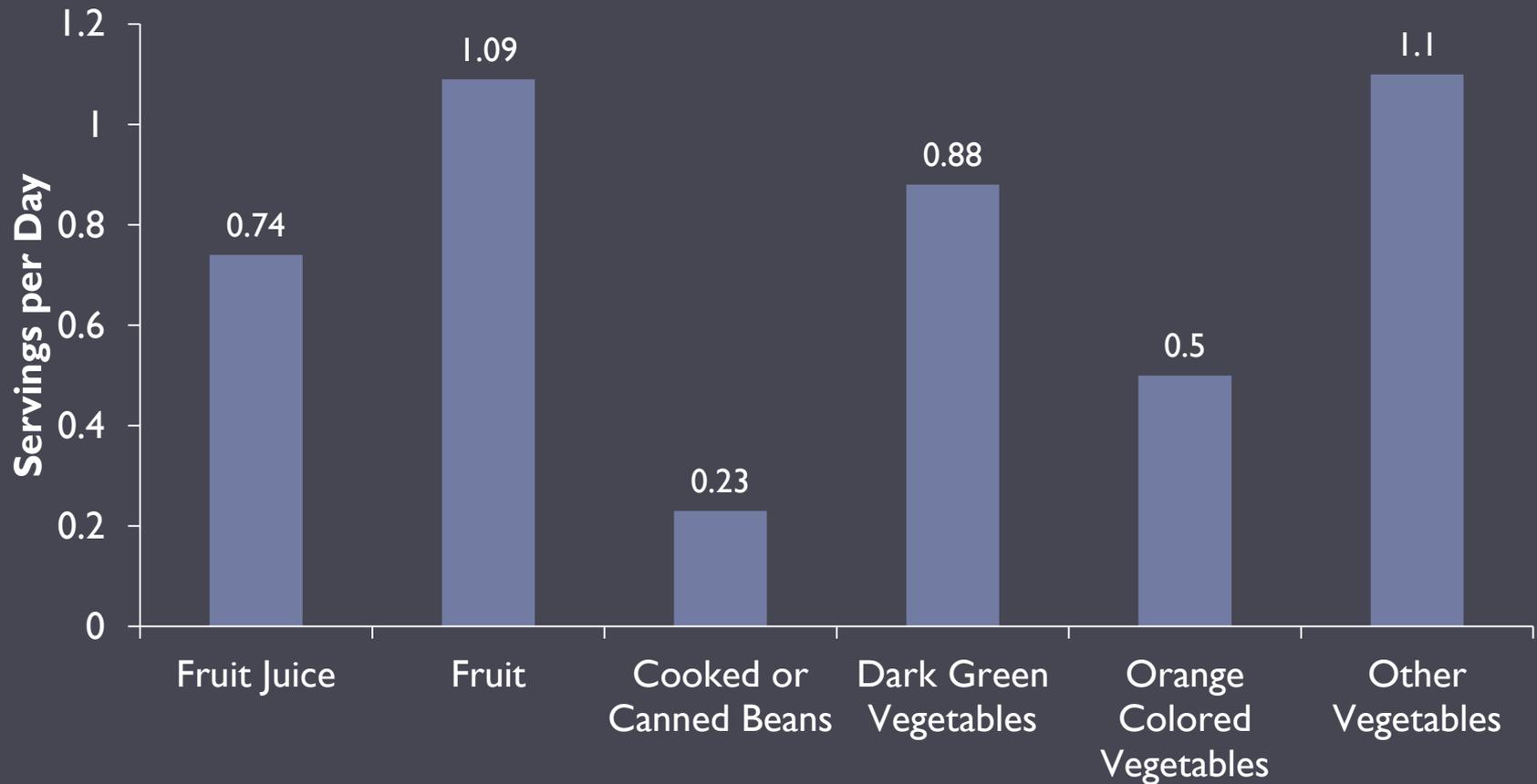


# SUGAR SWEETENED BEVERAGES and MENU LABELING: *During the past 30 days, how often did you drink regular soda... sweetened fruit drinks*

Soda by Age Group

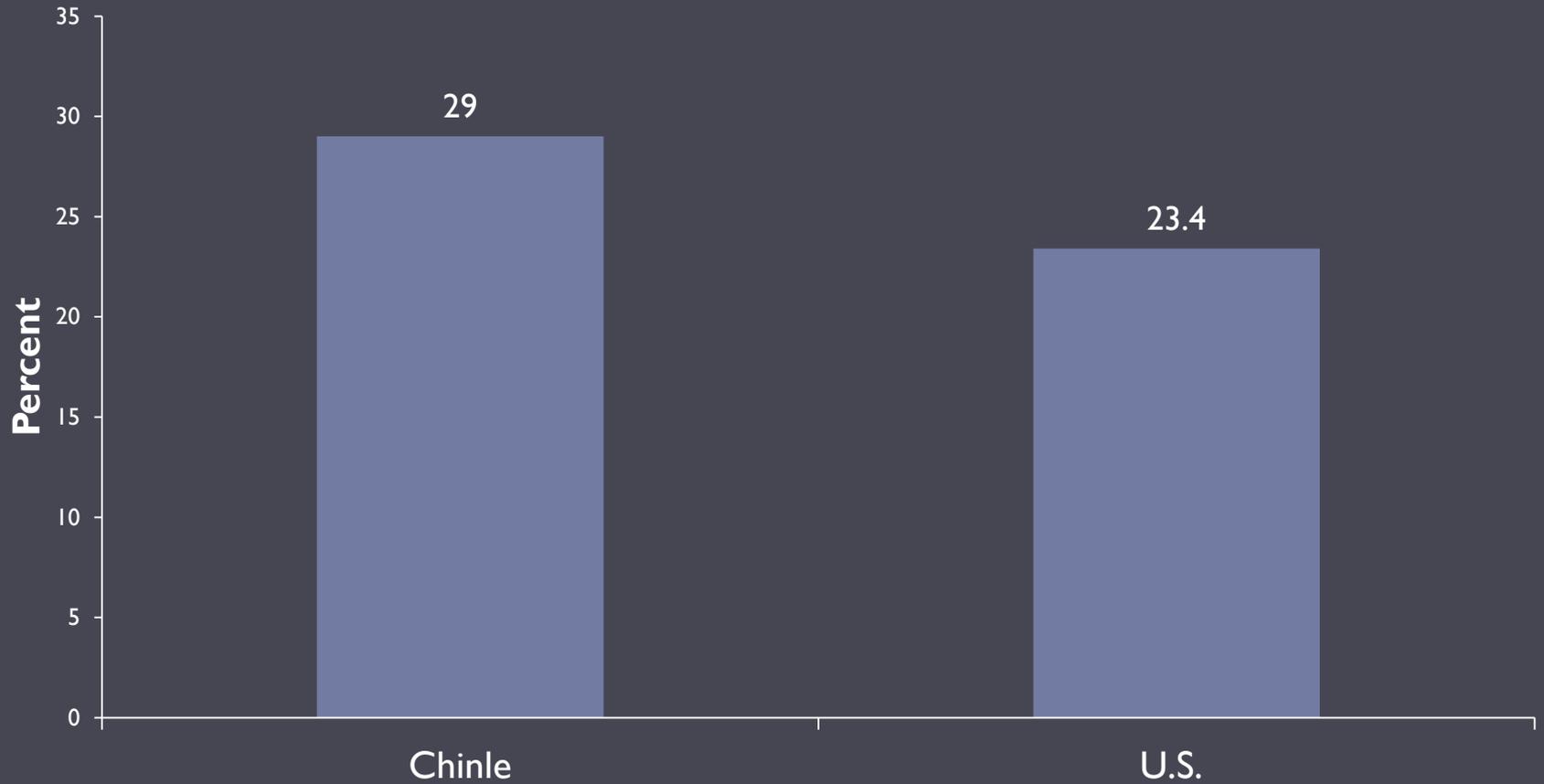


## Fruit and Vegetables: Daily Consumption



# FRUITS and VEGETABLES

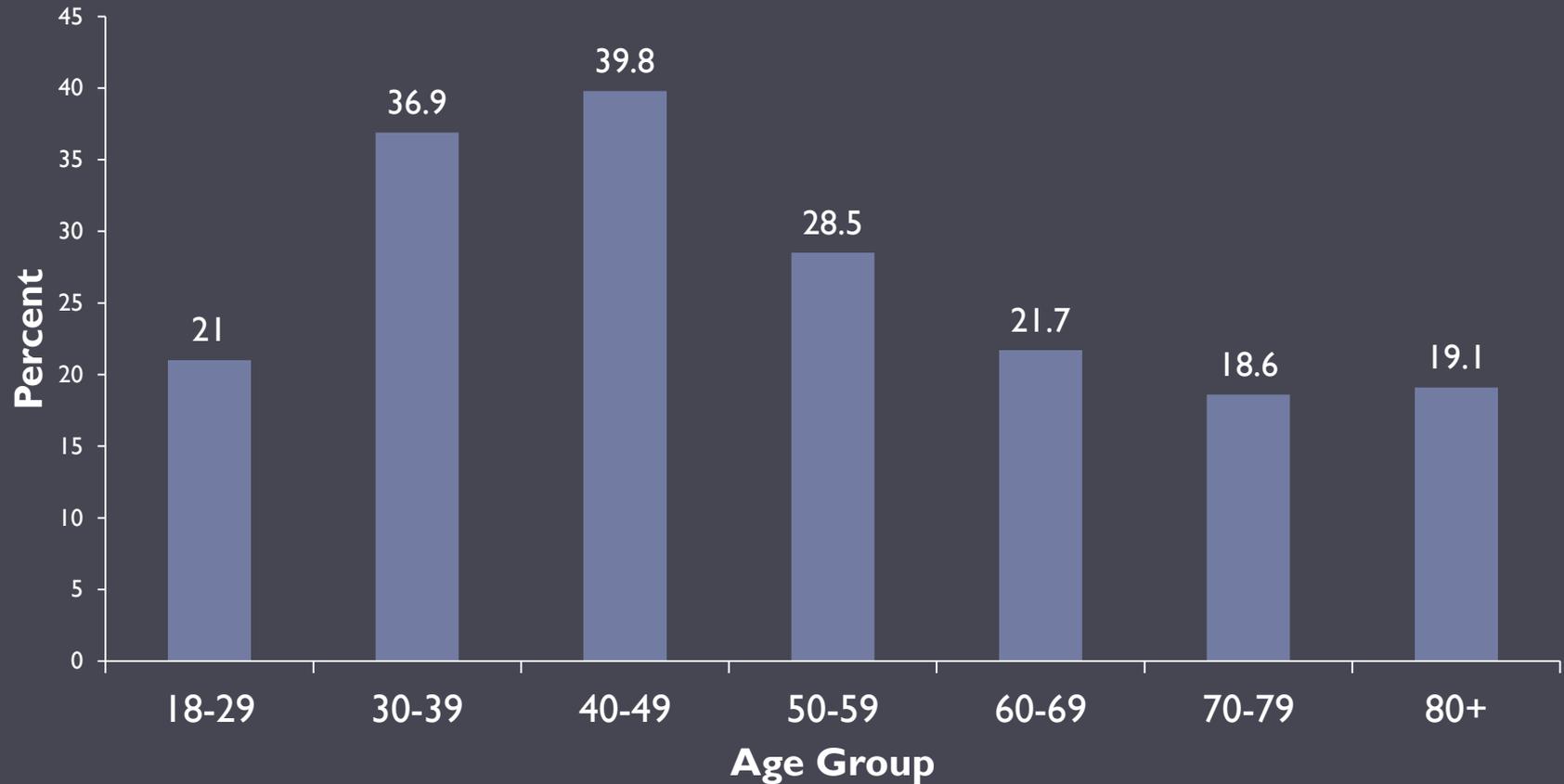
At least 5 Fruits and Vegetables per Day, Age Adjusted



\* U.S. Fruits & Vegetables, 2009

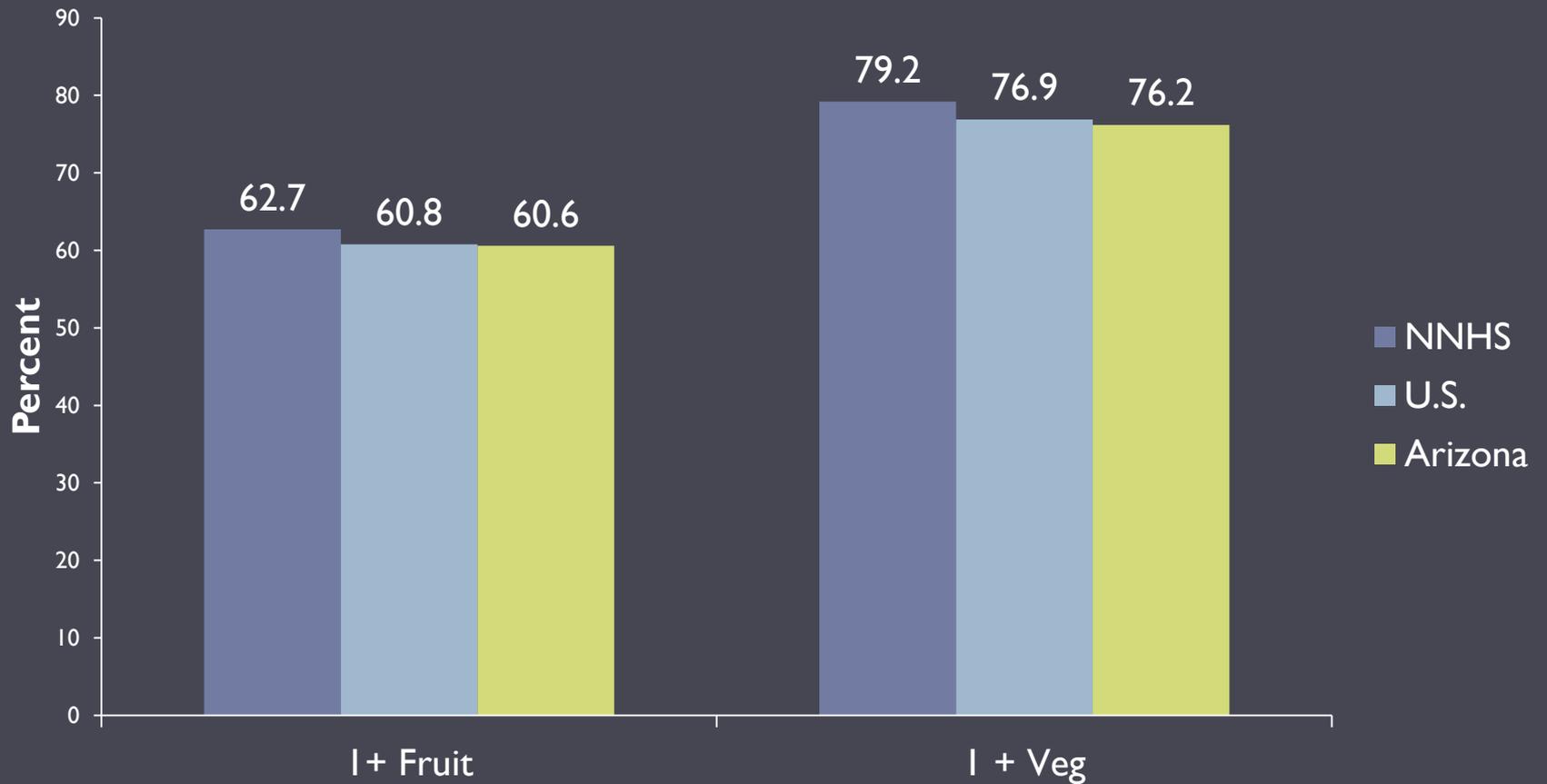
# FRUITS and VEGETABLES

At least 5 Fruits and Vegetables per Day



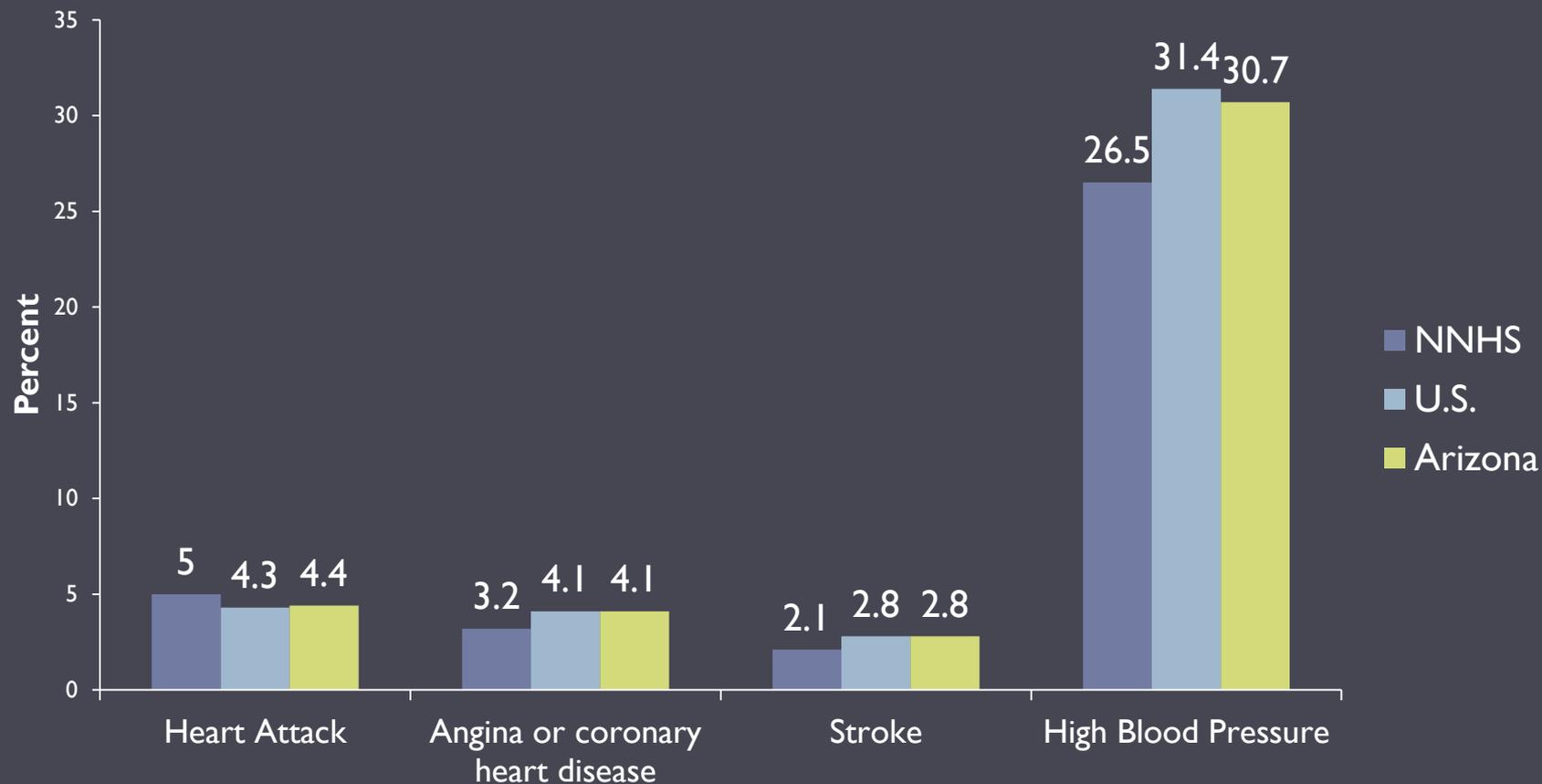
# Fruits & Vegetables

Age Adjusted



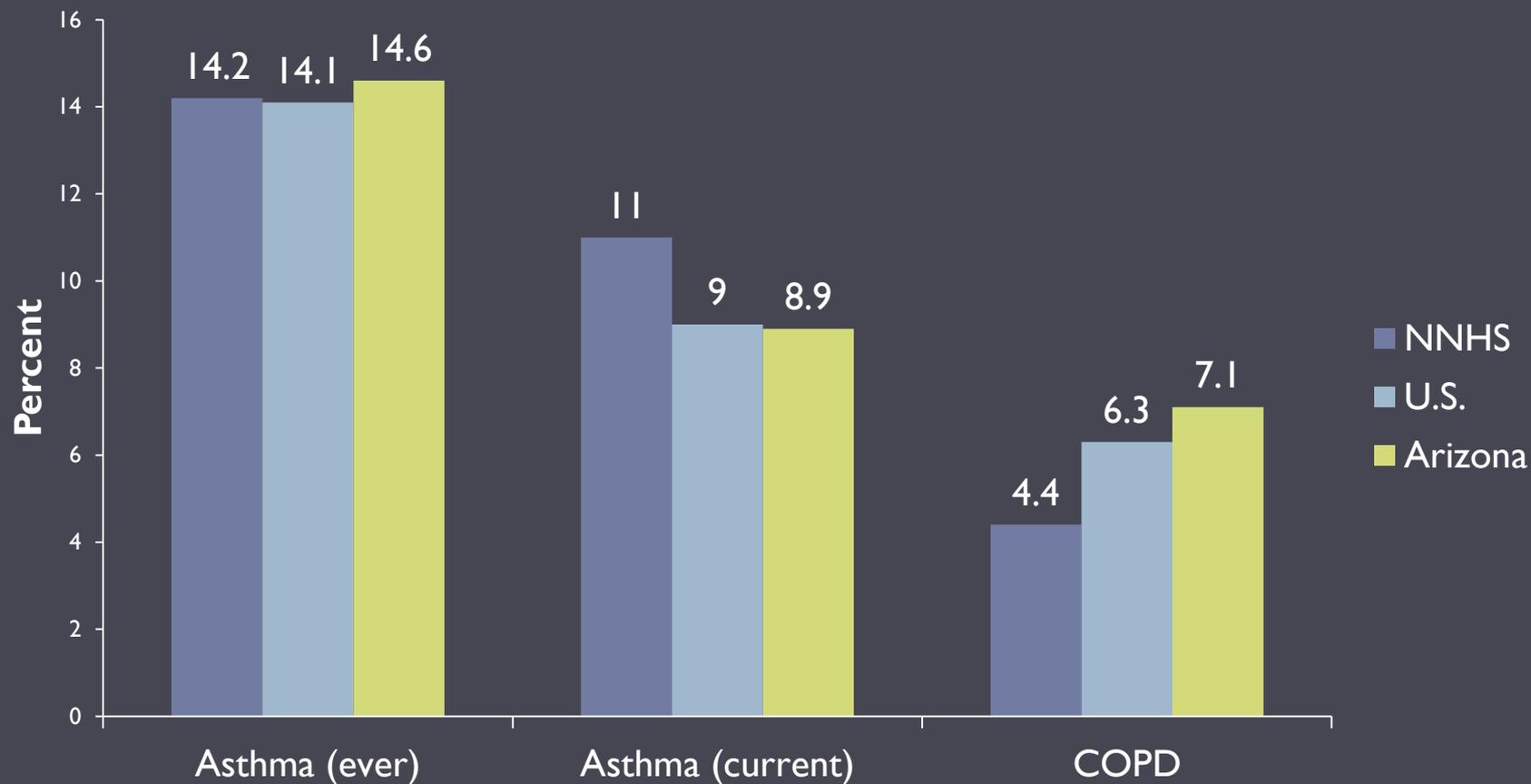
# CHRONIC DISEASES: *Has a doctor, nurse, or other health professional ever told you that you have...?*

Age Adjusted



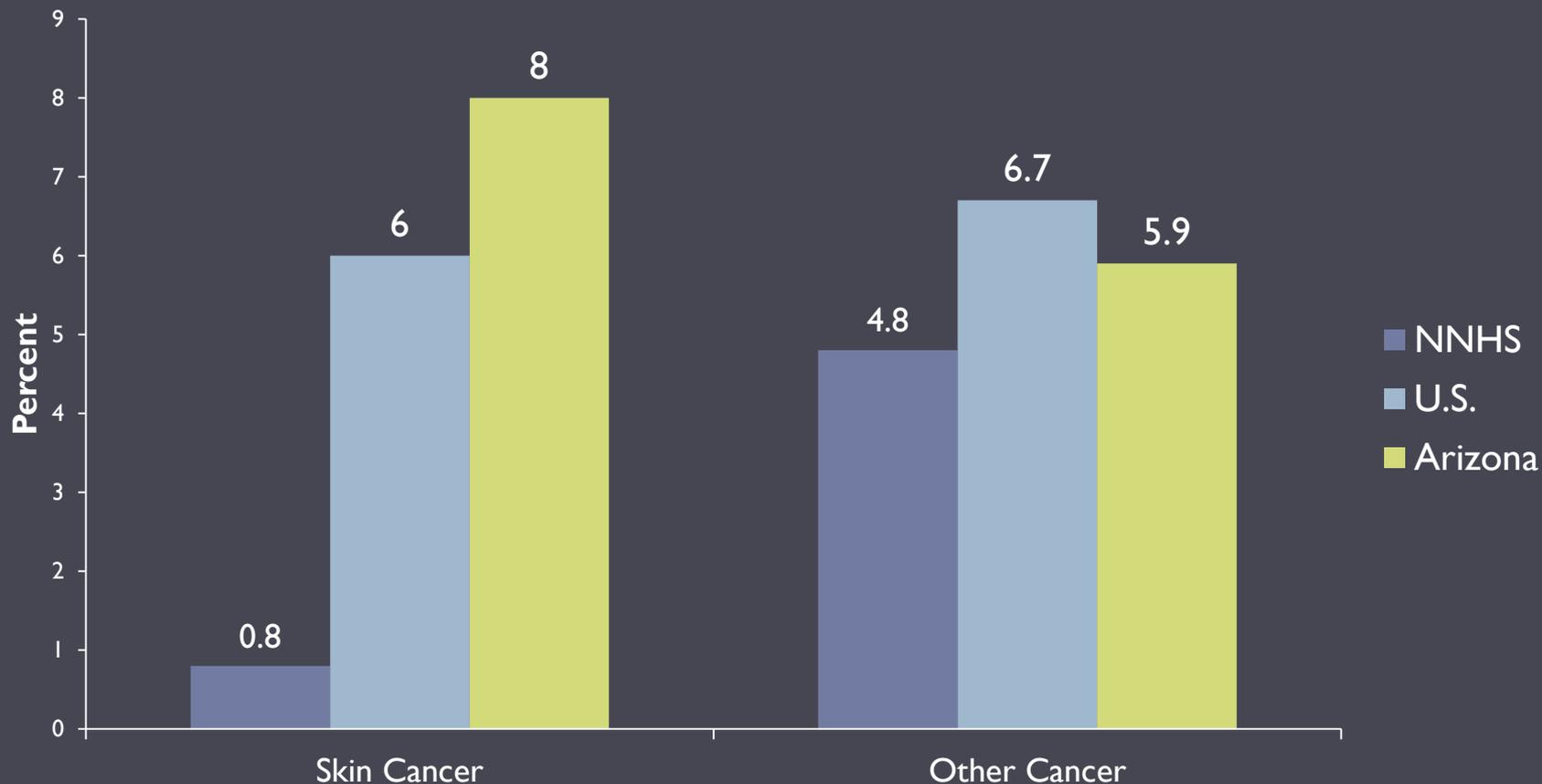
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Age Adjusted



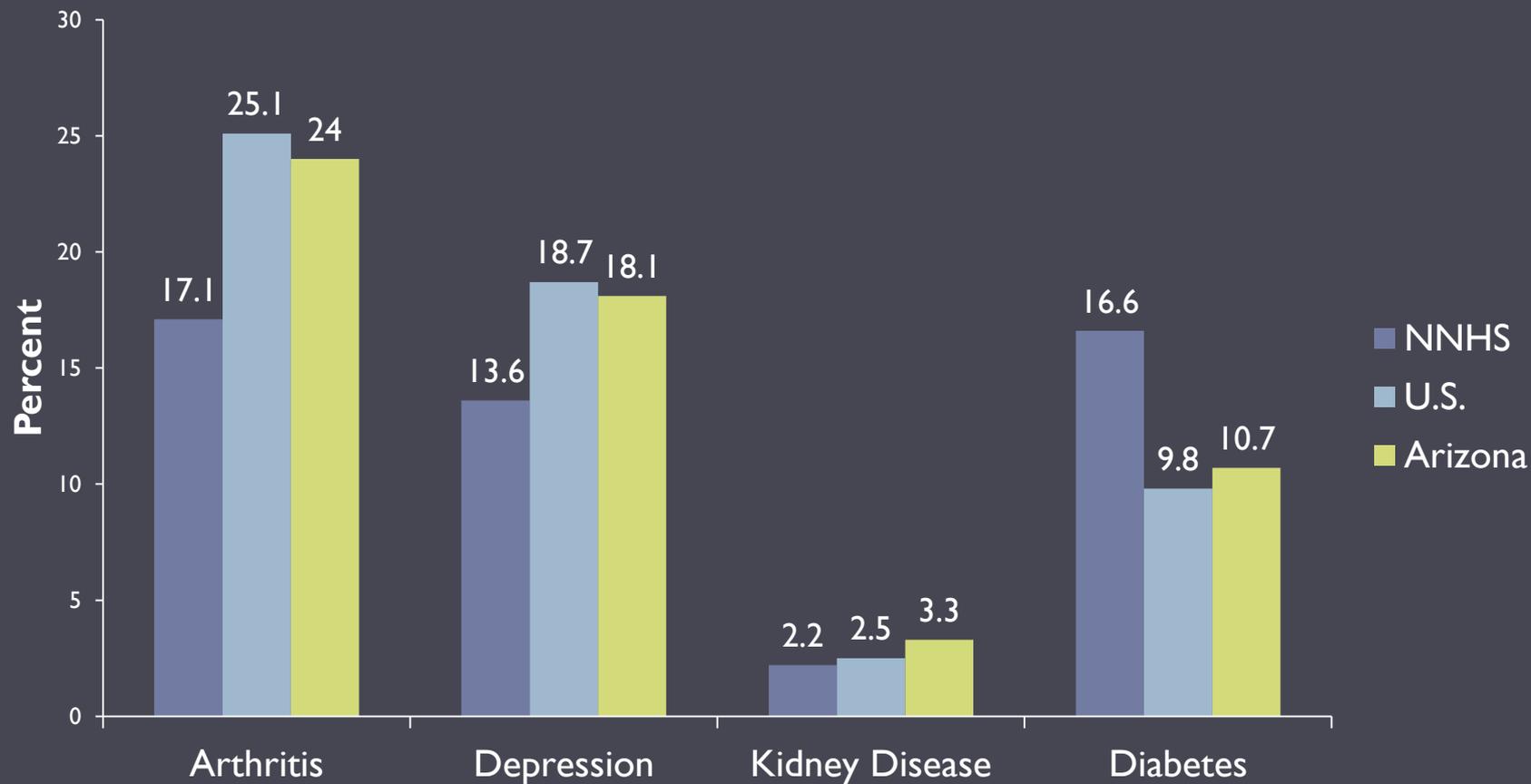
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Age Adjusted



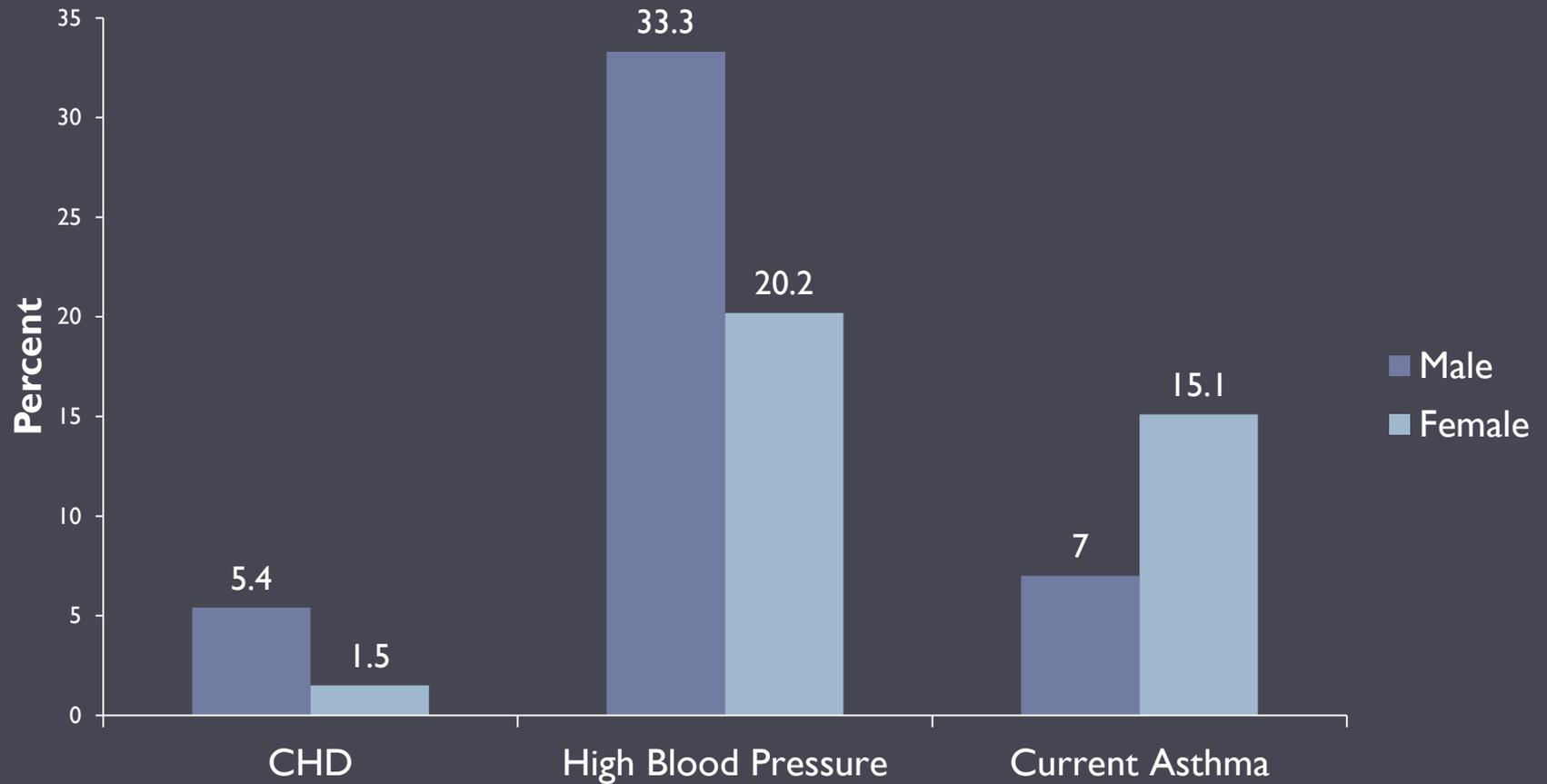
# CHRONIC DISEASES: *Has a doctor, nurse, or other health professional ever told you that you have...?*

Age Adjusted



# Chronic Diseases

Those with significant differences by Gender, Age Adjusted



## Diabetes

Question	Point Estimate	Lower Bound	Upper Bound
Have you ever been told by a doctor or other health professional that you have pre-diabetes or borderline diabetes?	6.7%	4.1%	10.8%
Have you had a test for high blood sugar or diabetes within the past 3 years?	62.6%	56.9%	68.0%
How old were you when you were told you have diabetes?	34.93	32.12	37.74
Are you now taking insulin?	33.6%	24.5%	44.1%
How many times per day do you check your blood for glucose or sugar?	1.07	0.88	1.26

## Diabetes

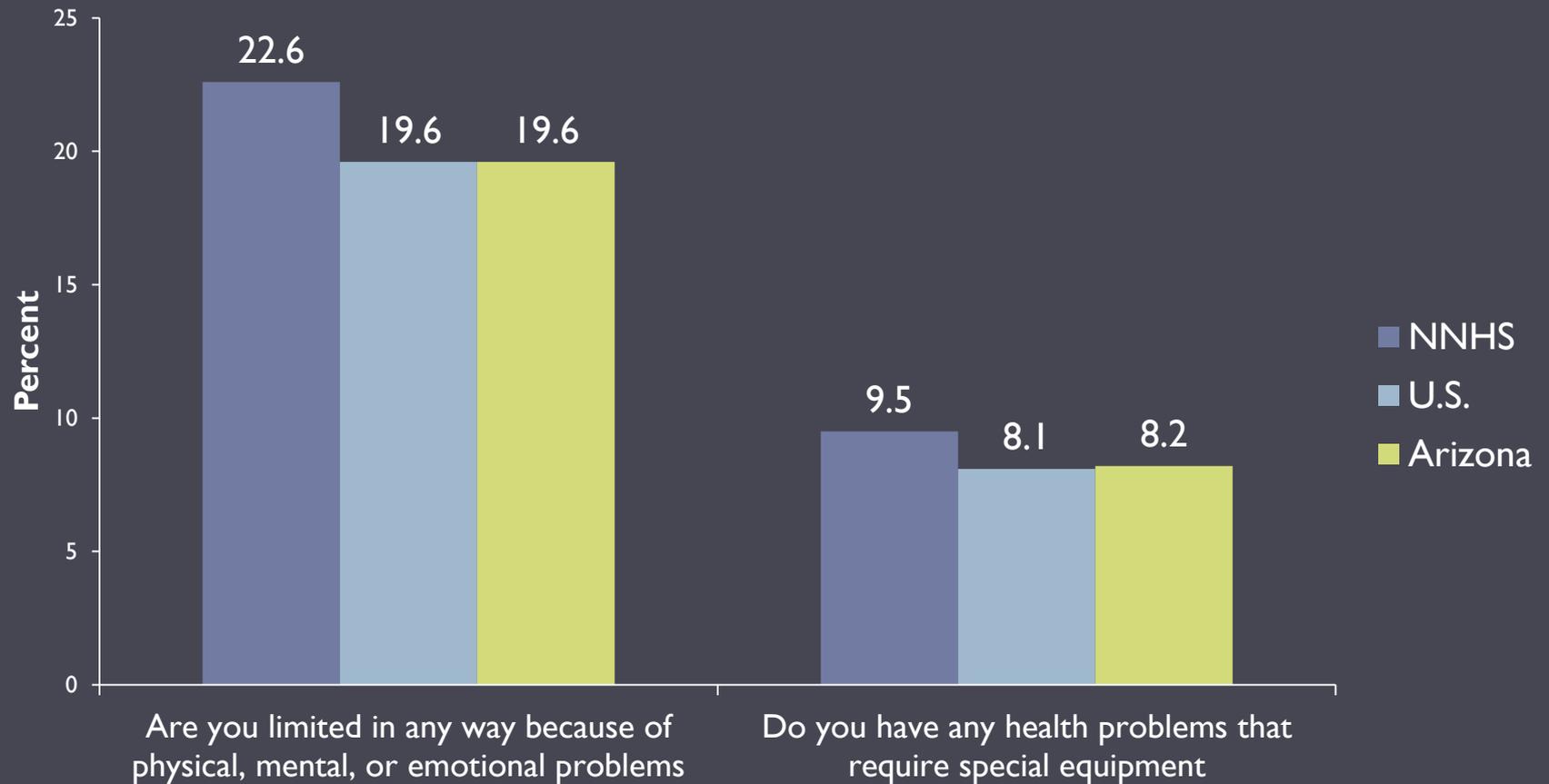
Question	Point Estimate	Lower Bound	Upper Bound
How many times per day do you check your feet for sores or irritations	0.98	0.67	1.30
How many times in the past 12 months have you seen a doctor for diabetes?	3.85	3.03	4.67
How many times has a health care professional checked your A1C in the past year?	2.95	2.14	3.75
How many times in the past 12 months has a doctor checked your feet for sores or irritations	2.99	2.50	3.49
Has a doctor ever told you that diabetes has affected your eyes?	35.8%	19.8%	55.9%
Have you ever taken a course or class in how to manage your diabetes?	42.1%	24.0%	2.5%

Question	Point Estimate	Lower Bound	Upper Bound
How long has it been since you last visited a dentist?			
Within past year	61.5%	56.3%	66.3%
Within past 2 years	83.4%	79.9%	86.3%
How many of your permanent teeth have been removed because of tooth decay or gum disease?			
None	47.4%	39.5%	55.3%
1 to 5	40.9%	34.6%	47.5%
6 or more	8.5%	6.2%	11.4%
All	3.3%	2.0%	5.4%

## Weight Control

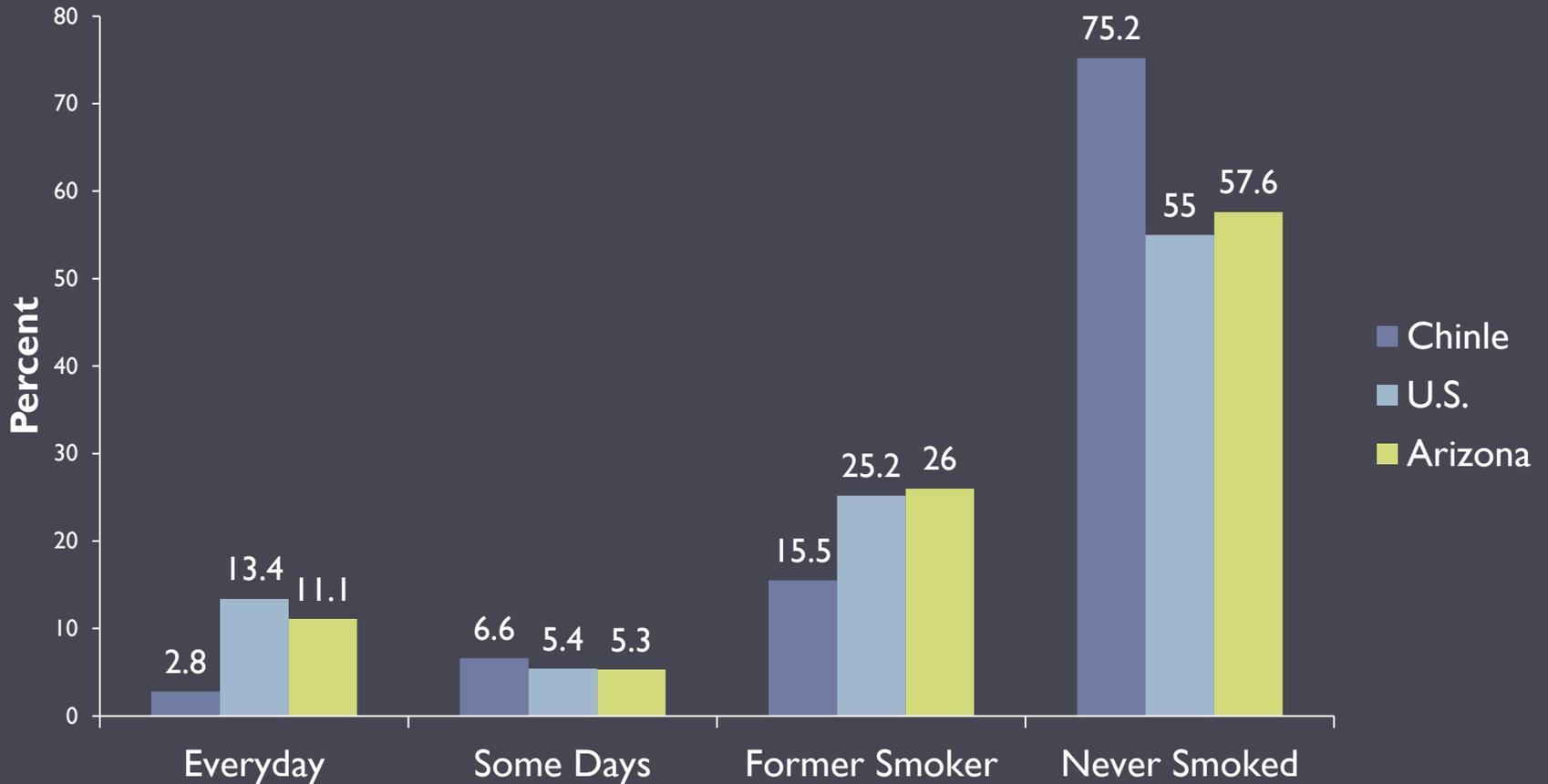
Question	Point Estimate	Lower Bound	Upper Bound
Are you trying to lose weight?	43.1%	38.6%	47.6%
Are you now trying to maintain your current weight?	58.9%	50.1%	67.1%
Are you eating fewer calories or less fat to lose weight or keep from gaining weight?			
Fewer Calories	13.4%	9.6%	18.4%
Less Fat	24.8%	17.6%	33.9%
Fewer Calories and less fat	51.7%	41.0%	62.2%
No	10.1%	7.7%	13.2%
Are you using physical activity or exercise to lose weight or keep from gaining weight	85.7%	80.0%	89.9%

Age Adjusted

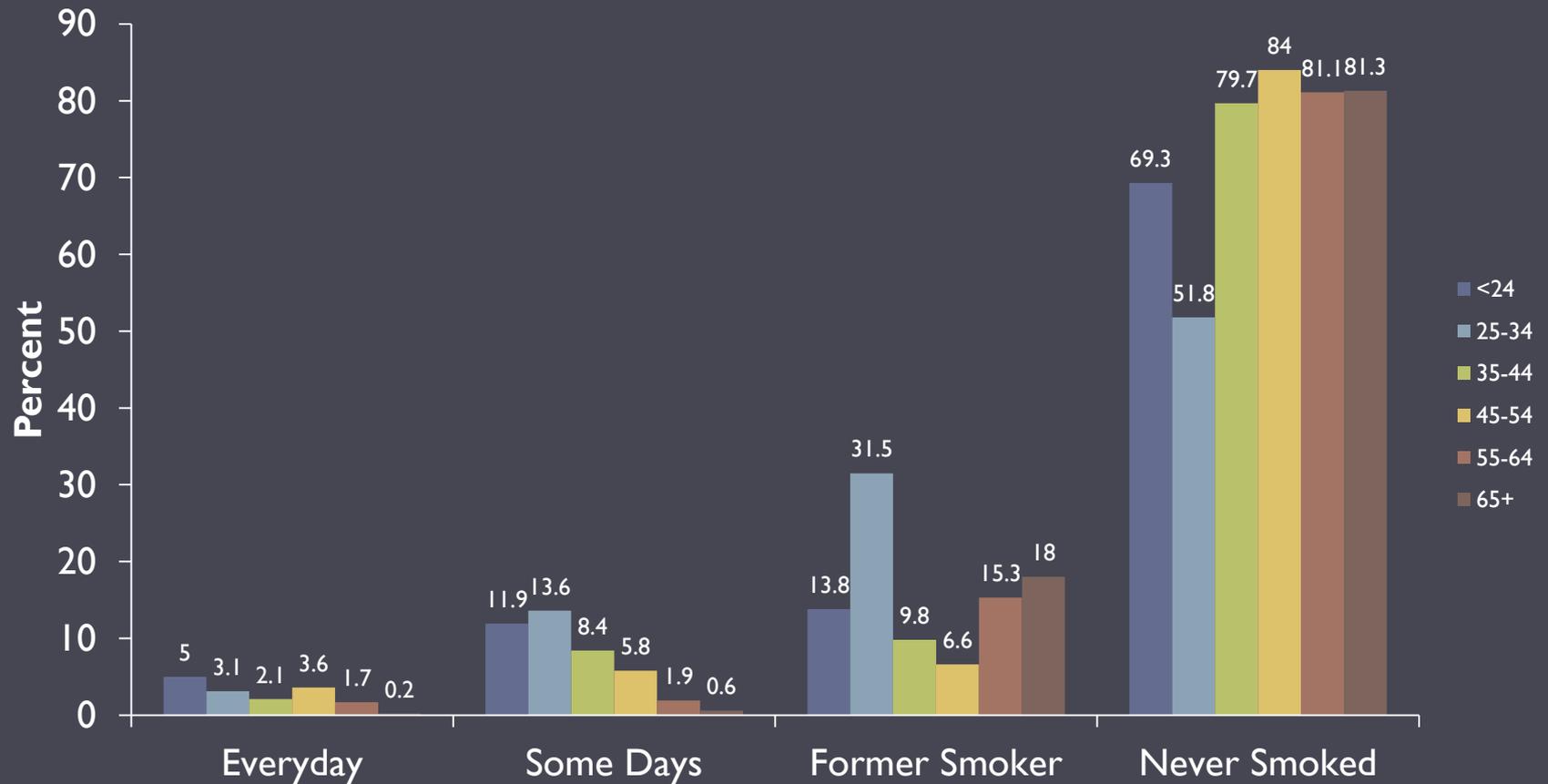


TOBACCO USE: *Do you now smoke cigarettes every day, some days, or not at all?*

Cigarette Smoking, Age Adjusted

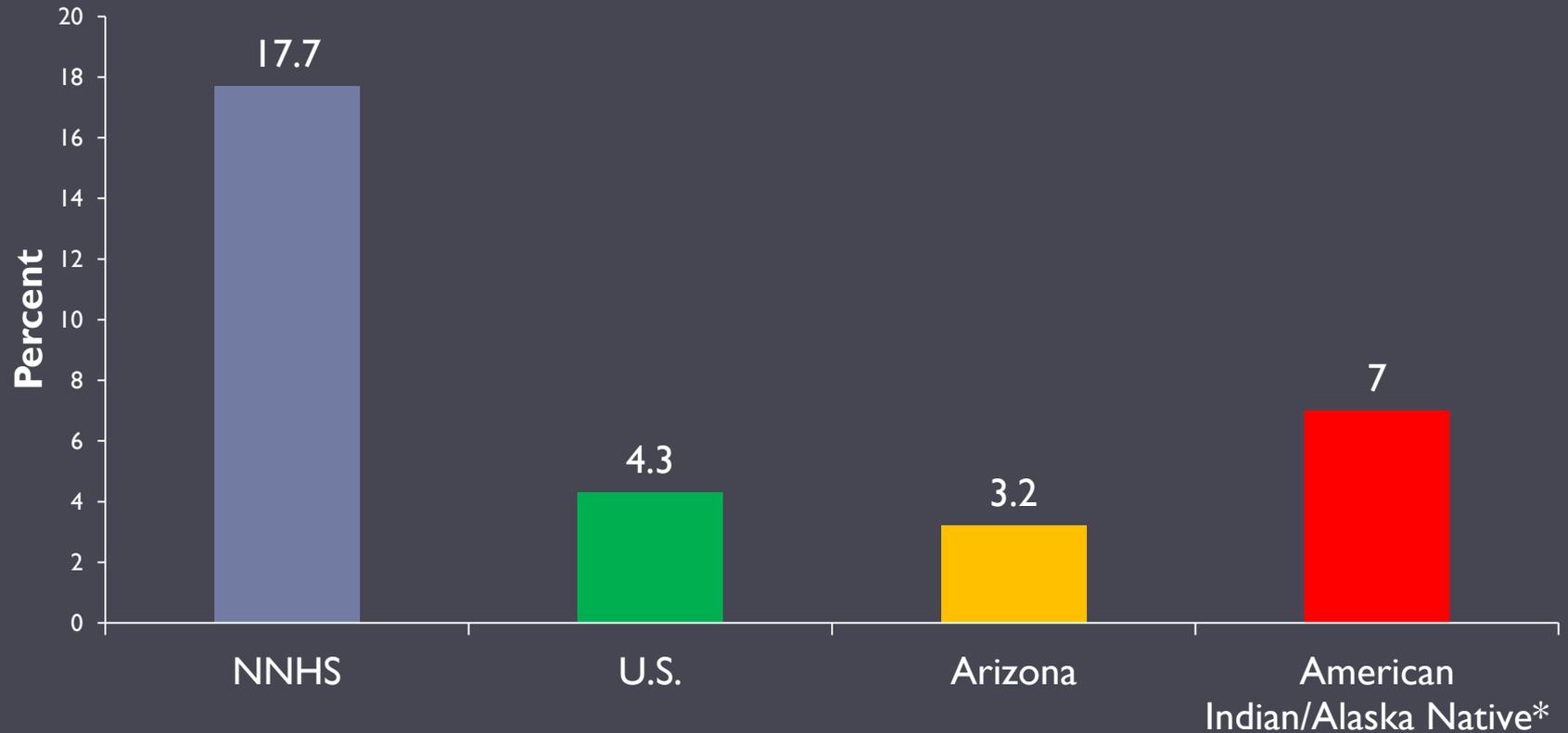


TOBACCO USE: *Do you now smoke cigarettes every day, some days, or not at all?*



## TOBACCO USE: *Do you currently use chewing tobacco?*

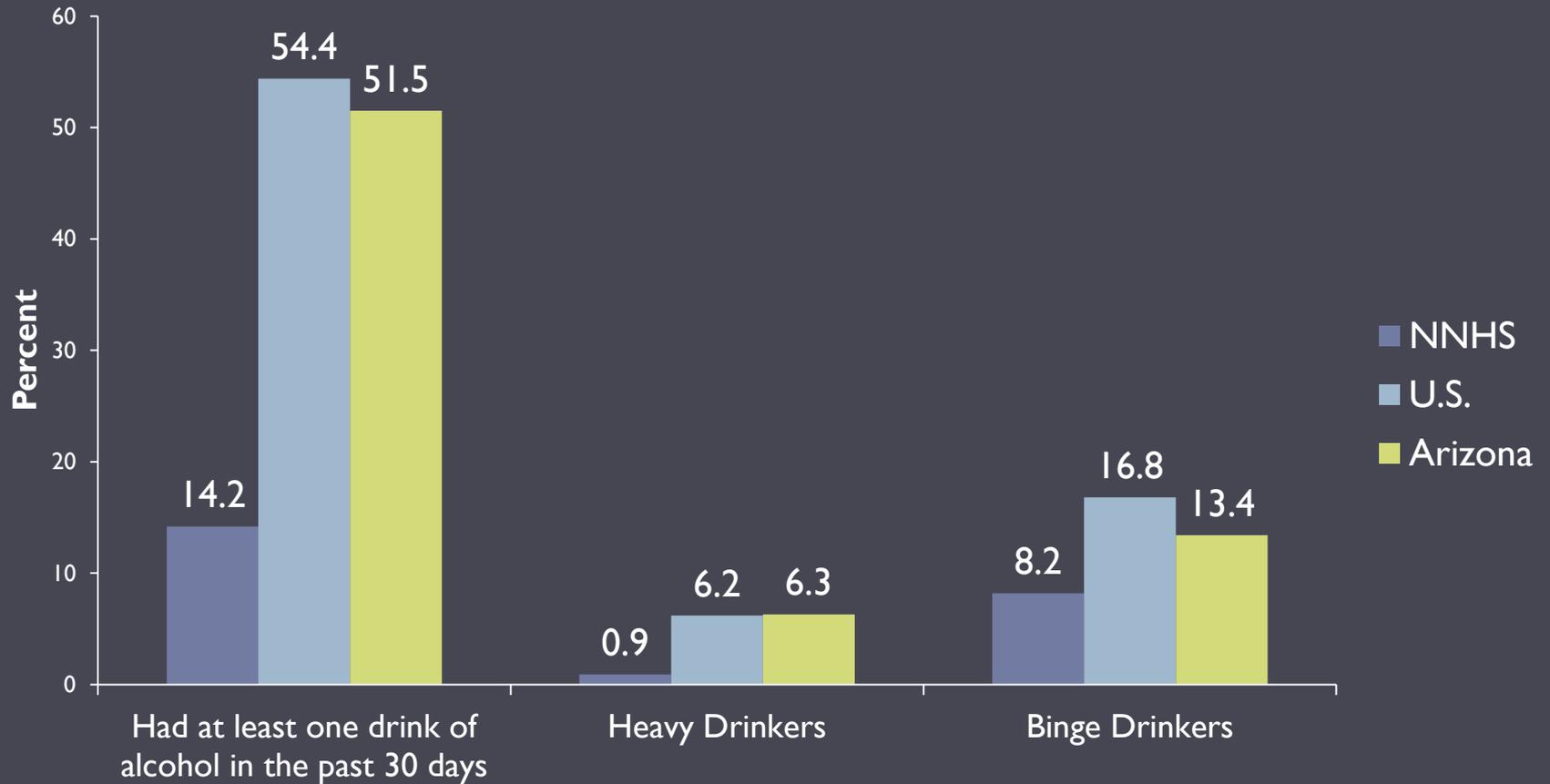
Every Day or Some Days, Age Adjusted



\* Source is 2007 SAMHSA National Survey on Drug Use and Health

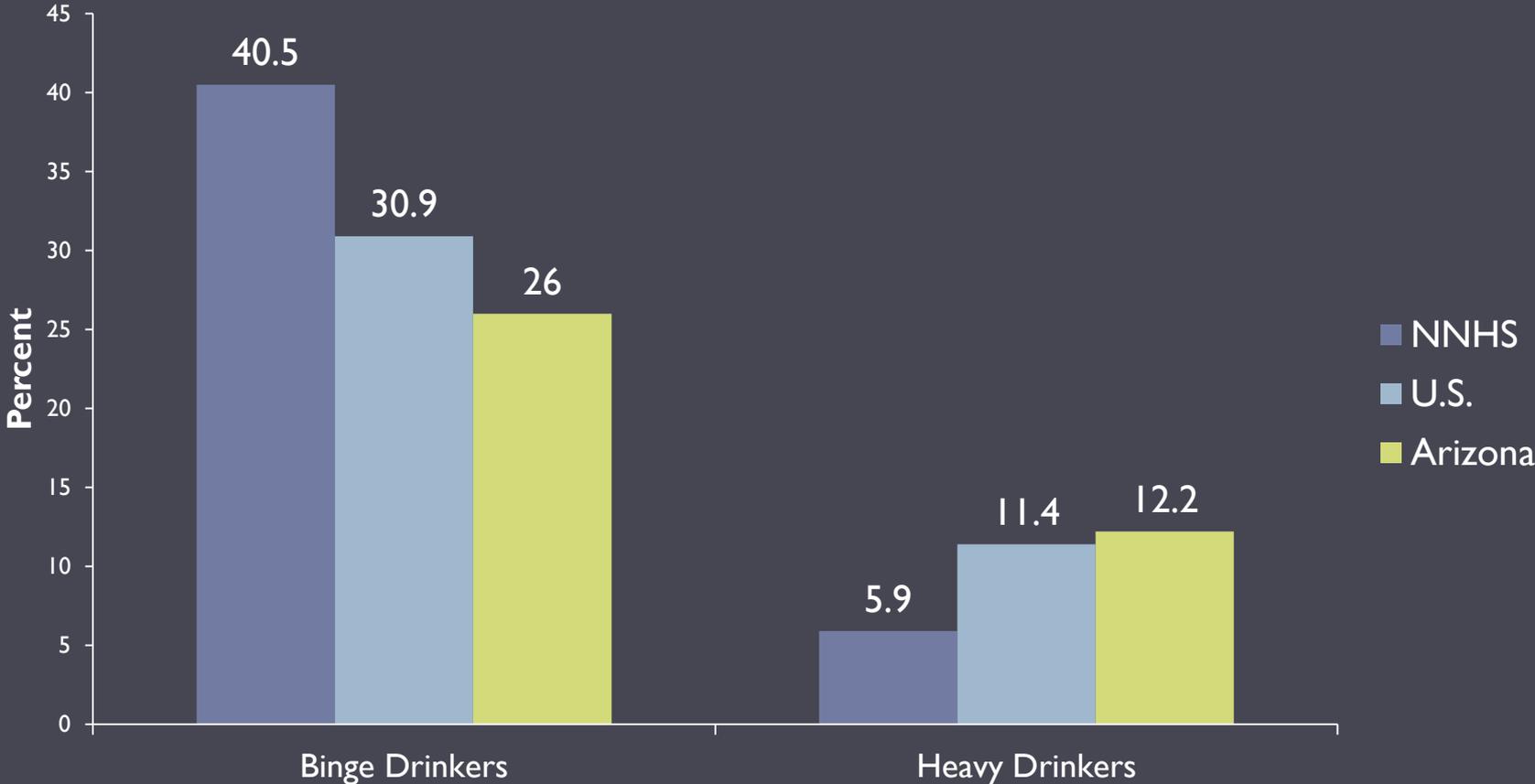
# ALCOHOL CONSUMPTION: *During the past 30 days, how many...?*

Age Adjusted



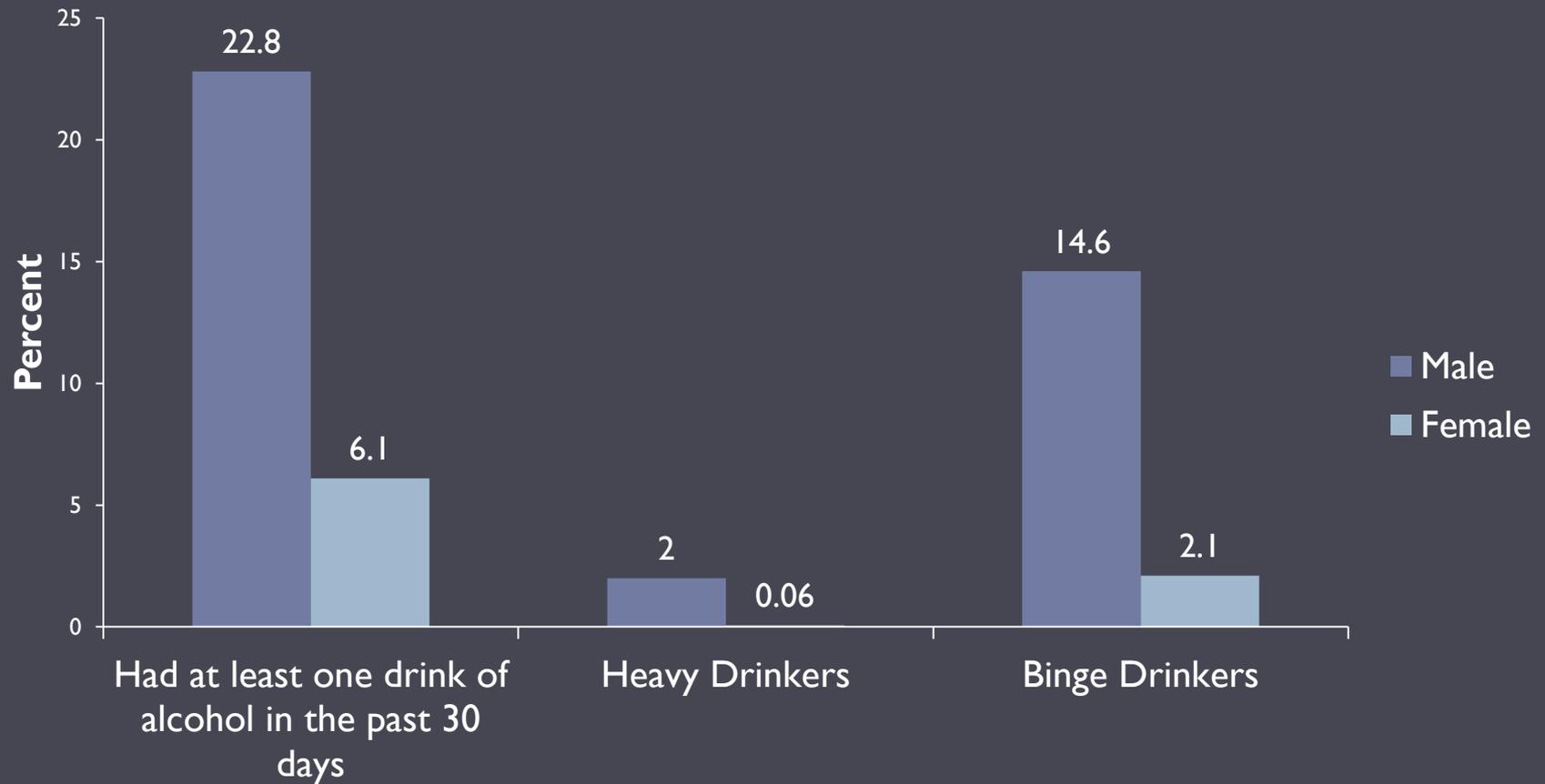
# ALCOHOL CONSUMPTION

Binge drinking and heavy drinking among those who drank in the past 30 days, Age Adjusted

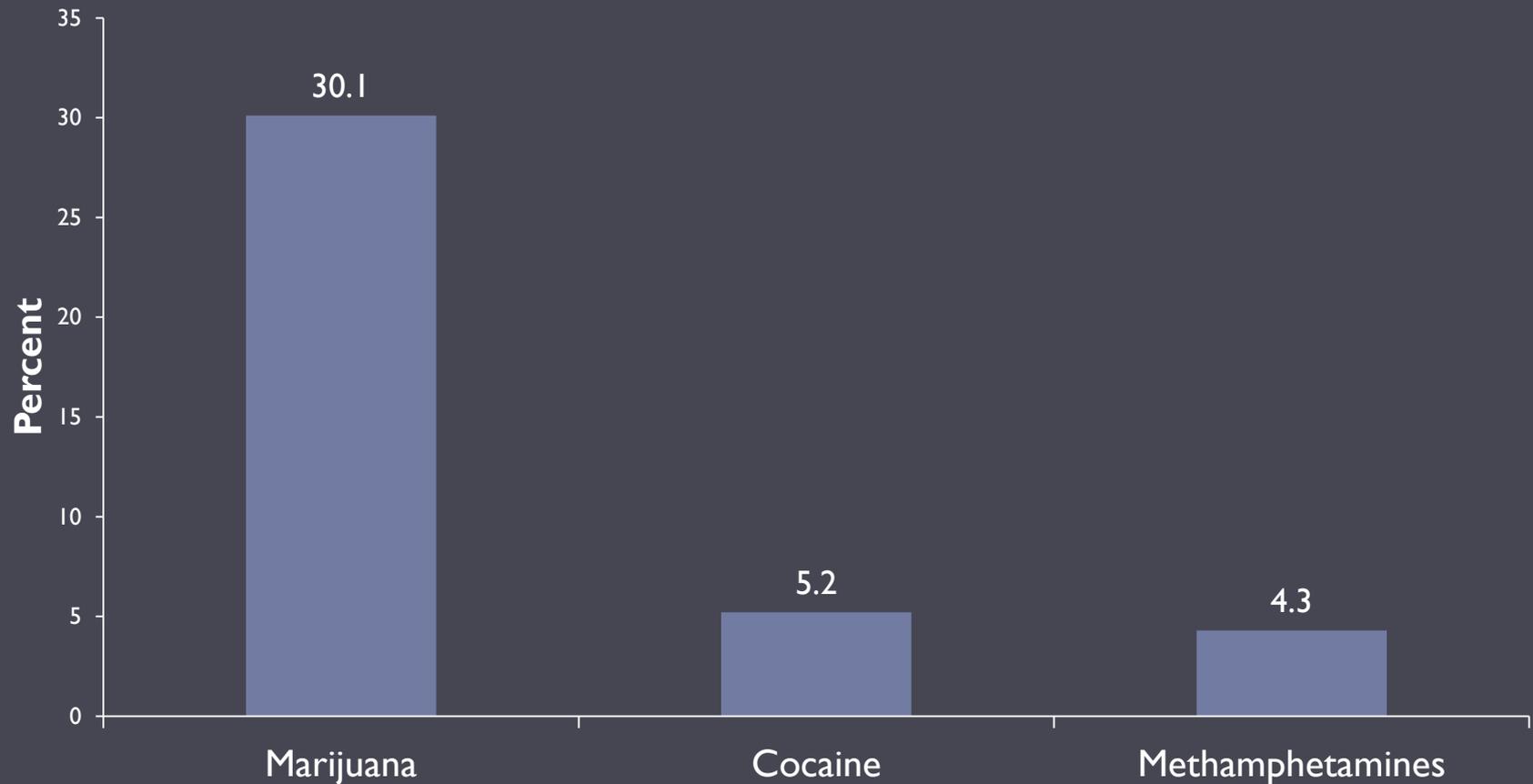


# ALCOHOL CONSUMPTION: *During the past 30 days, how many...?*

Chinle Only, Age Adjusted

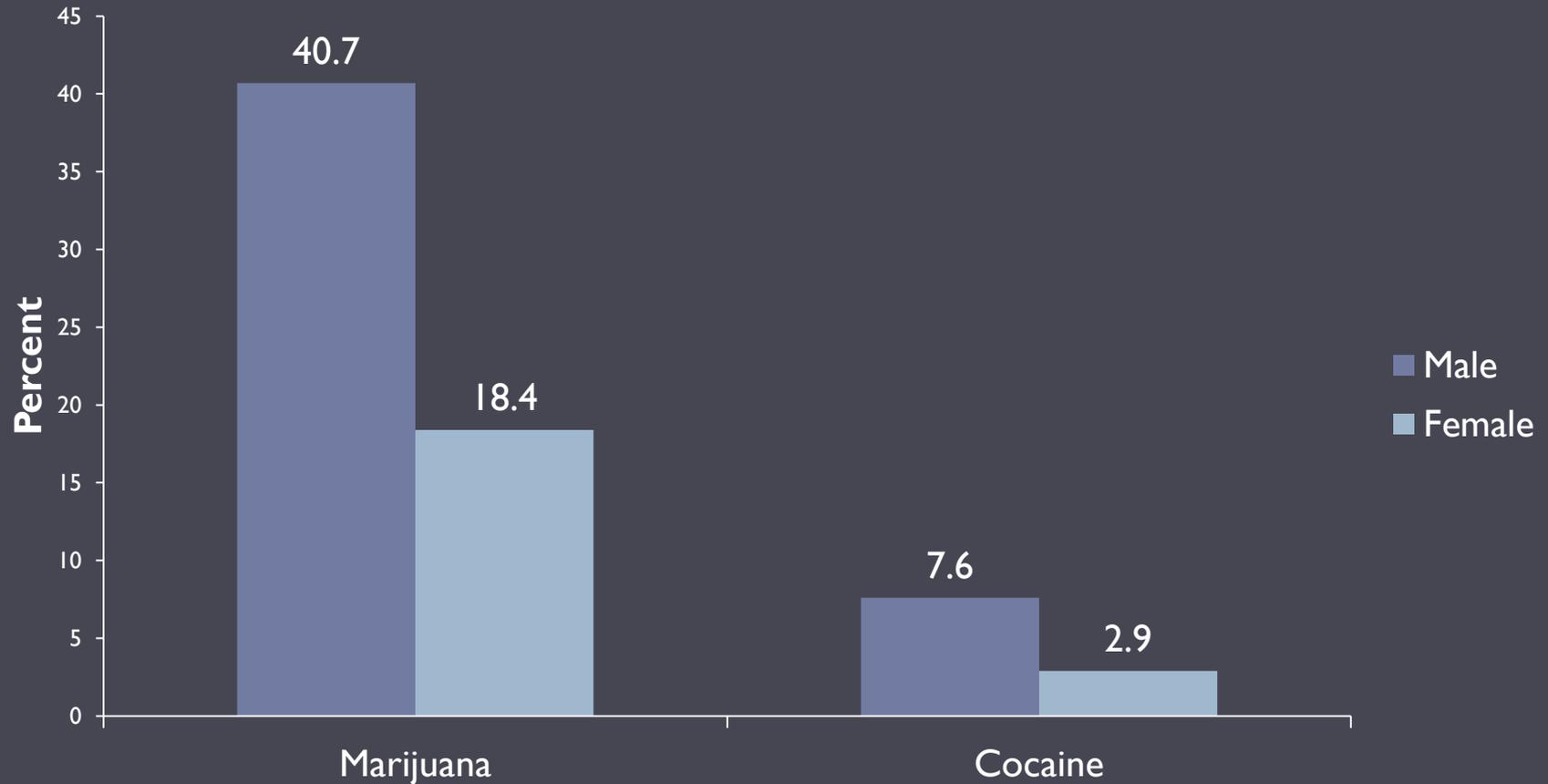


## Substance Abuse: During your life have you ever used...?



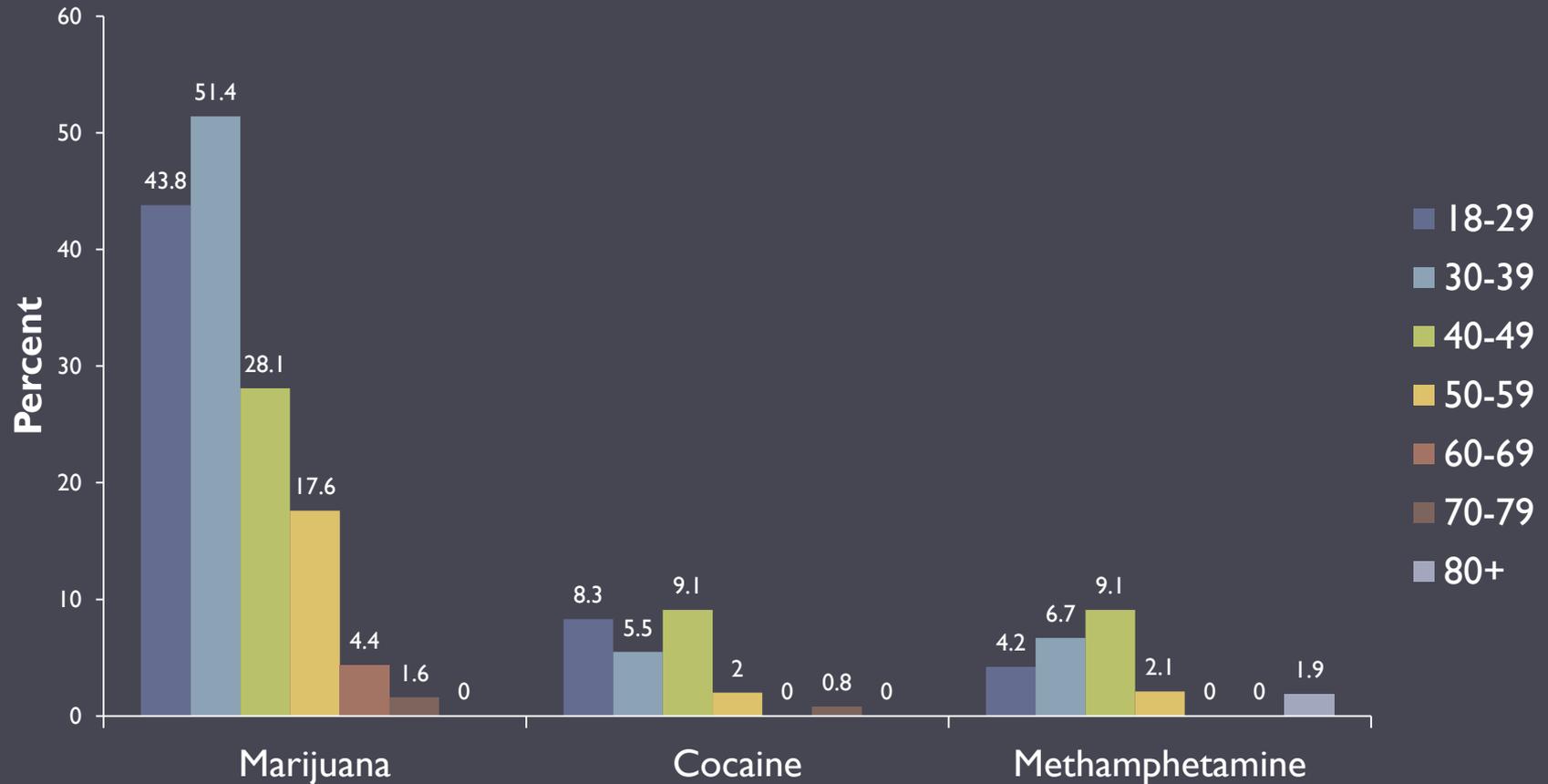
# Substance Abuse: During your life have you ever used...?

By Gender, Age Adjusted



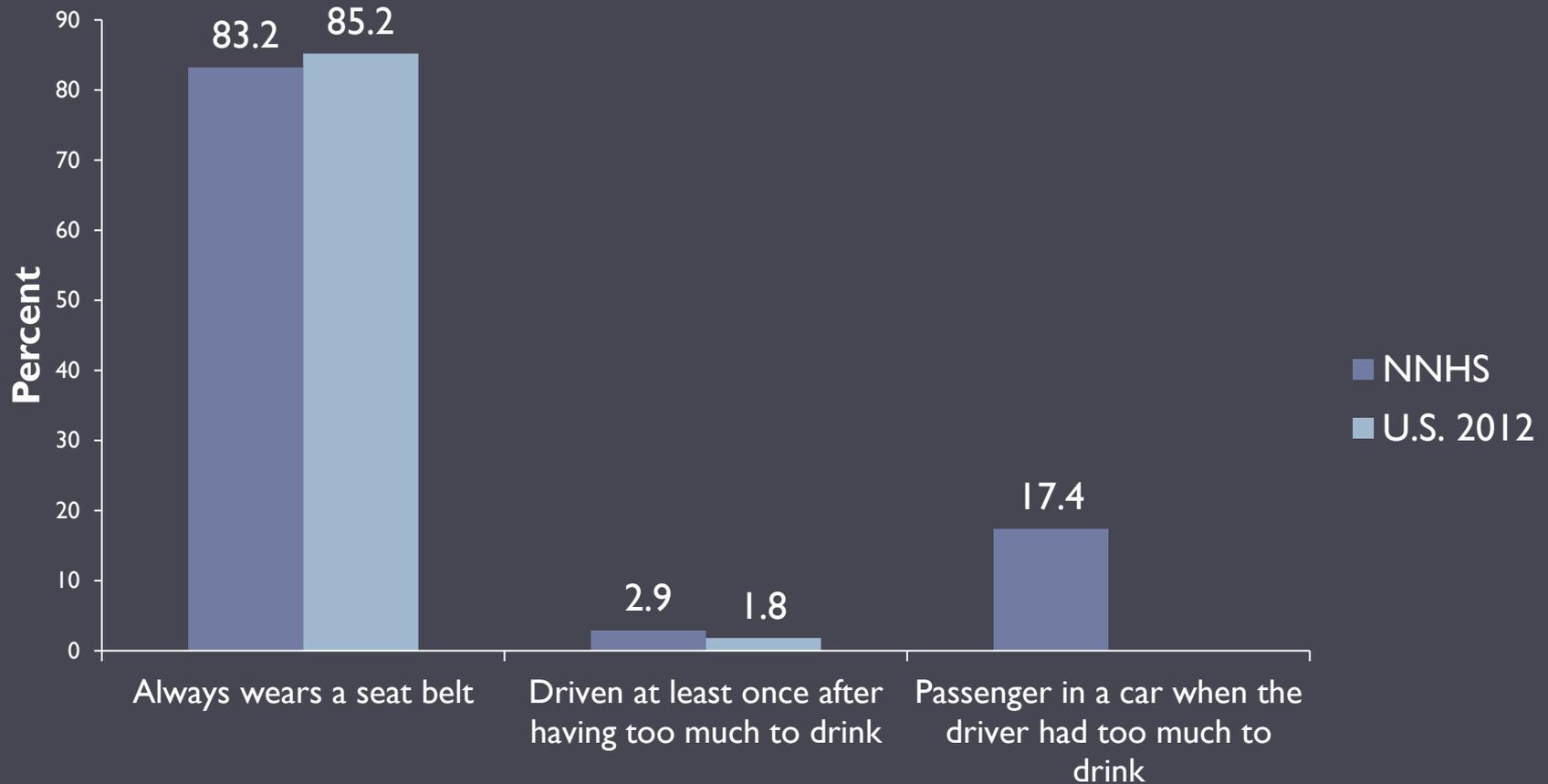
# Substance Abuse: During your life have you ever used...?

By Age



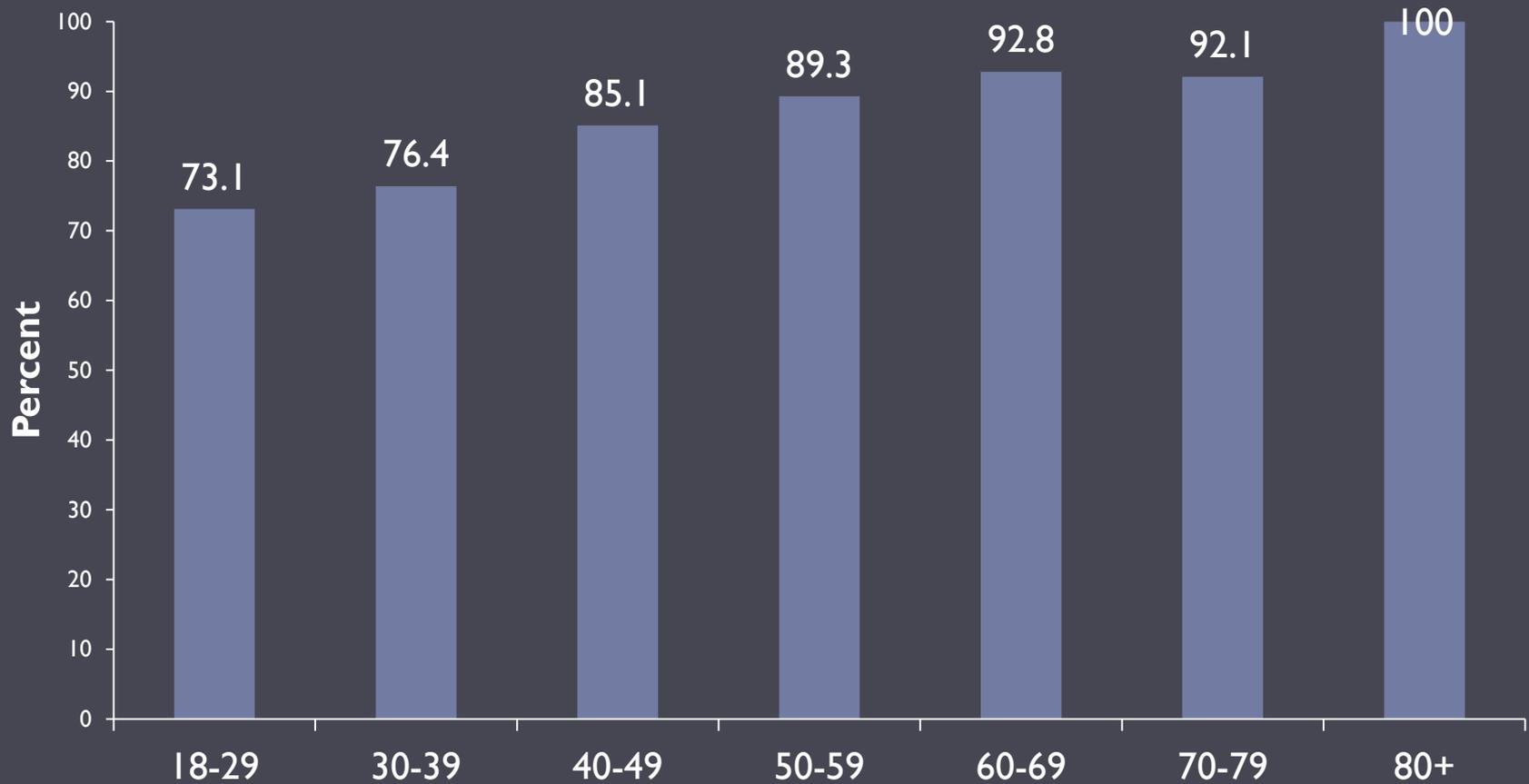
# SEAT BELT USE and DRINKING AND DRIVING

Age Adjusted



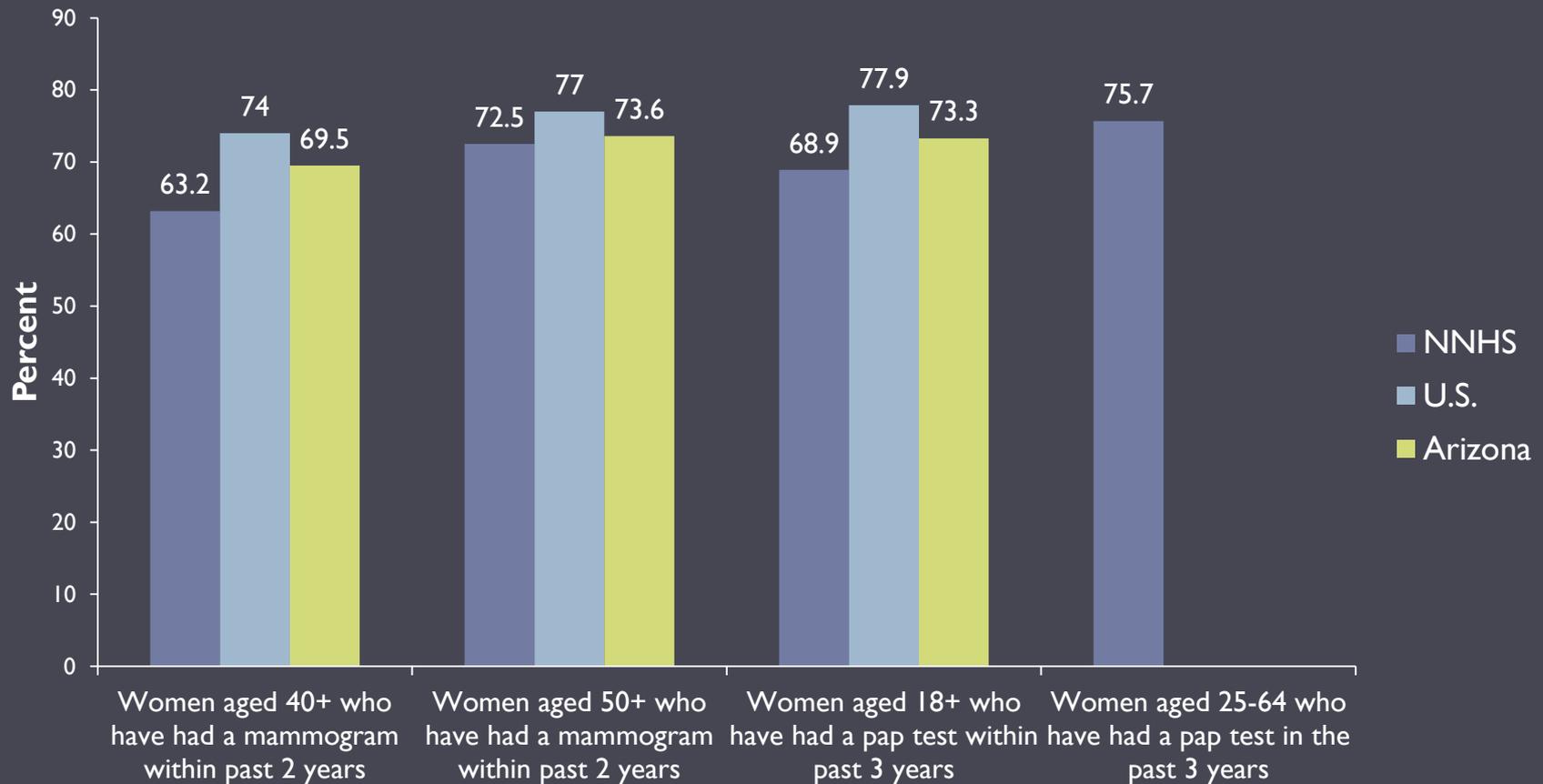
# Seat Belt Use

Always Wears Their Seat Belt, By Age Group



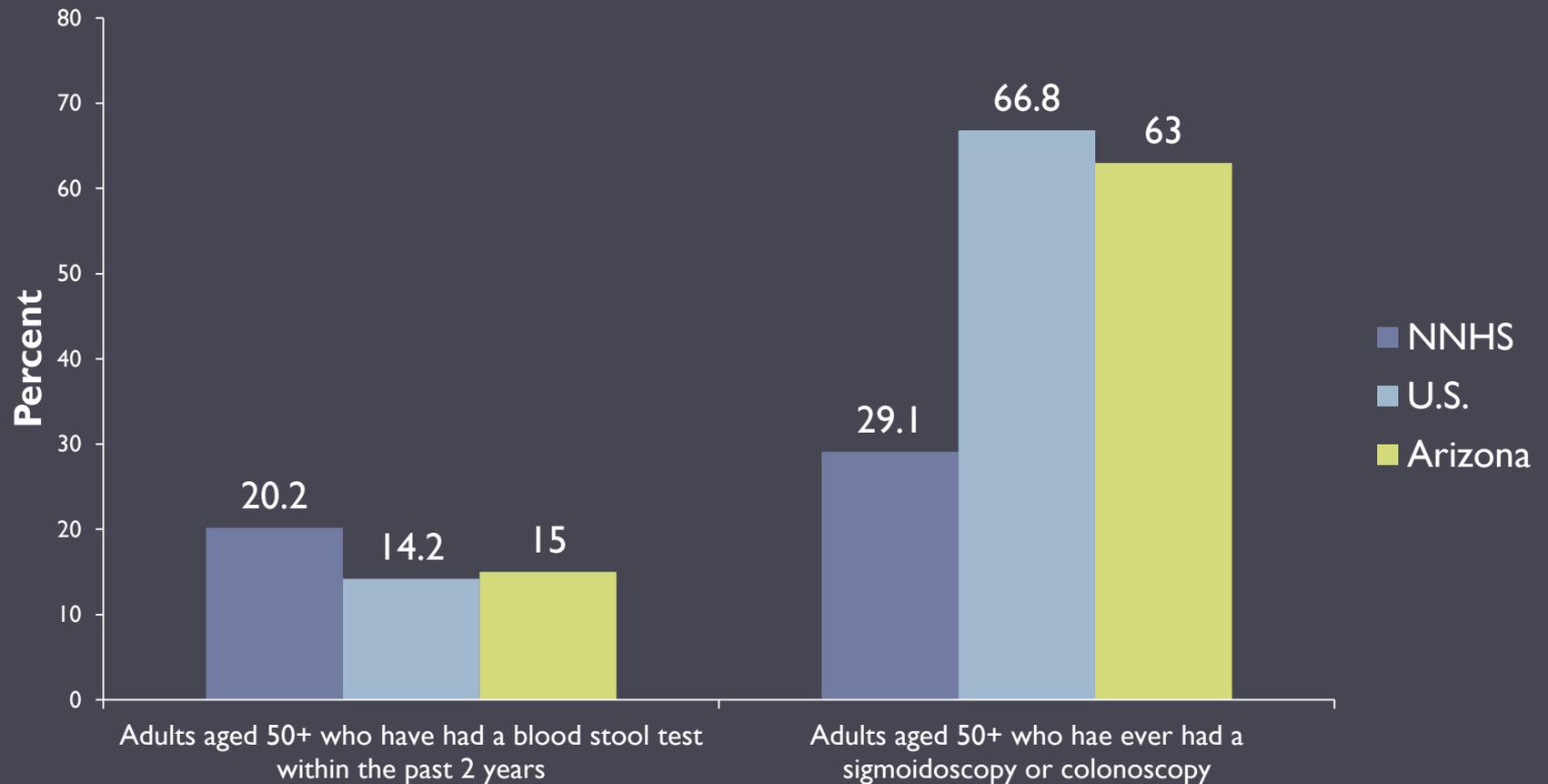
# CANCER SCEENING: Breast & Cervical Cancer Screening

Age Adjusted



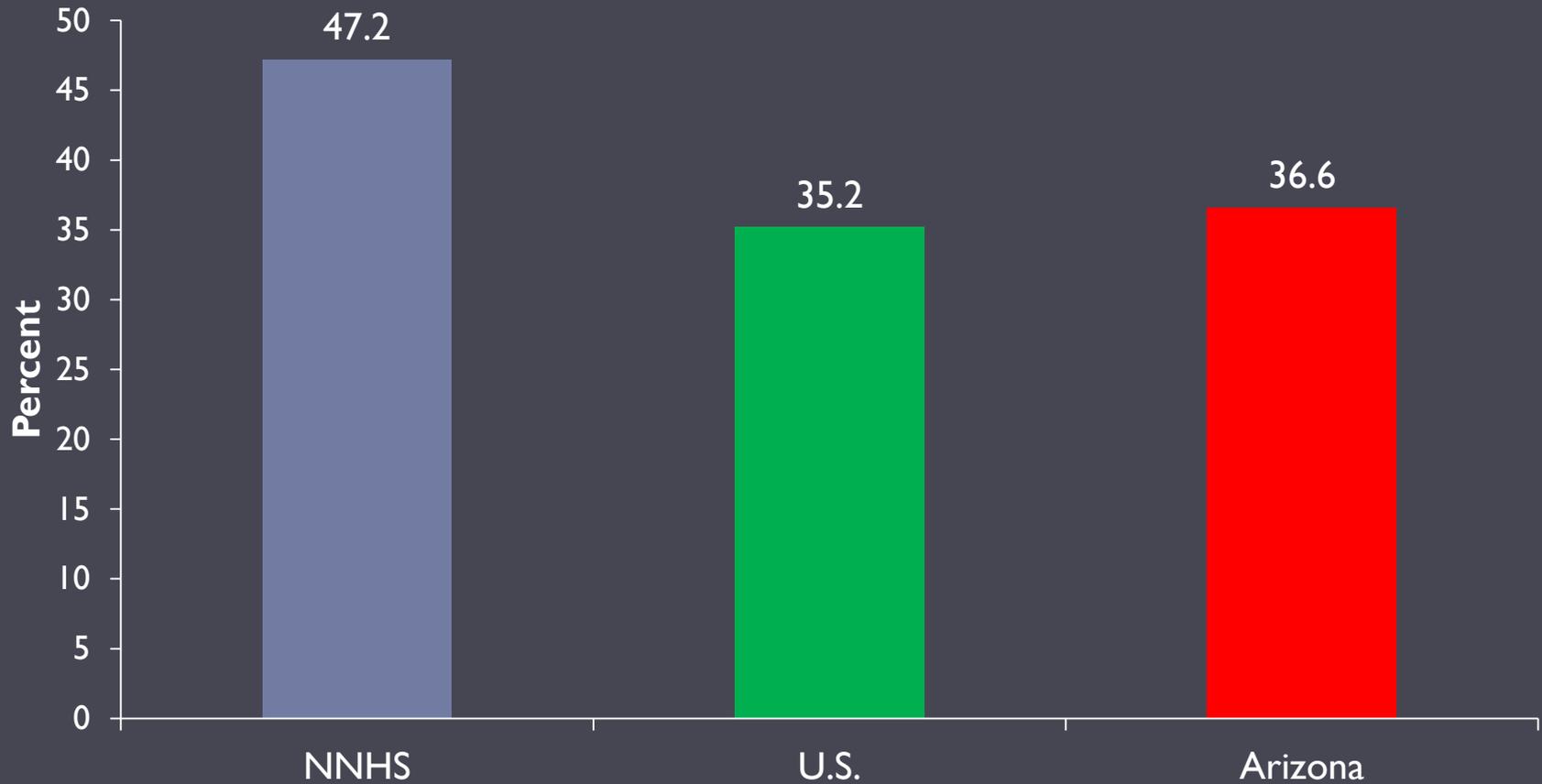
# Cancer Screening: Colorectal Cancer

Age Adjusted



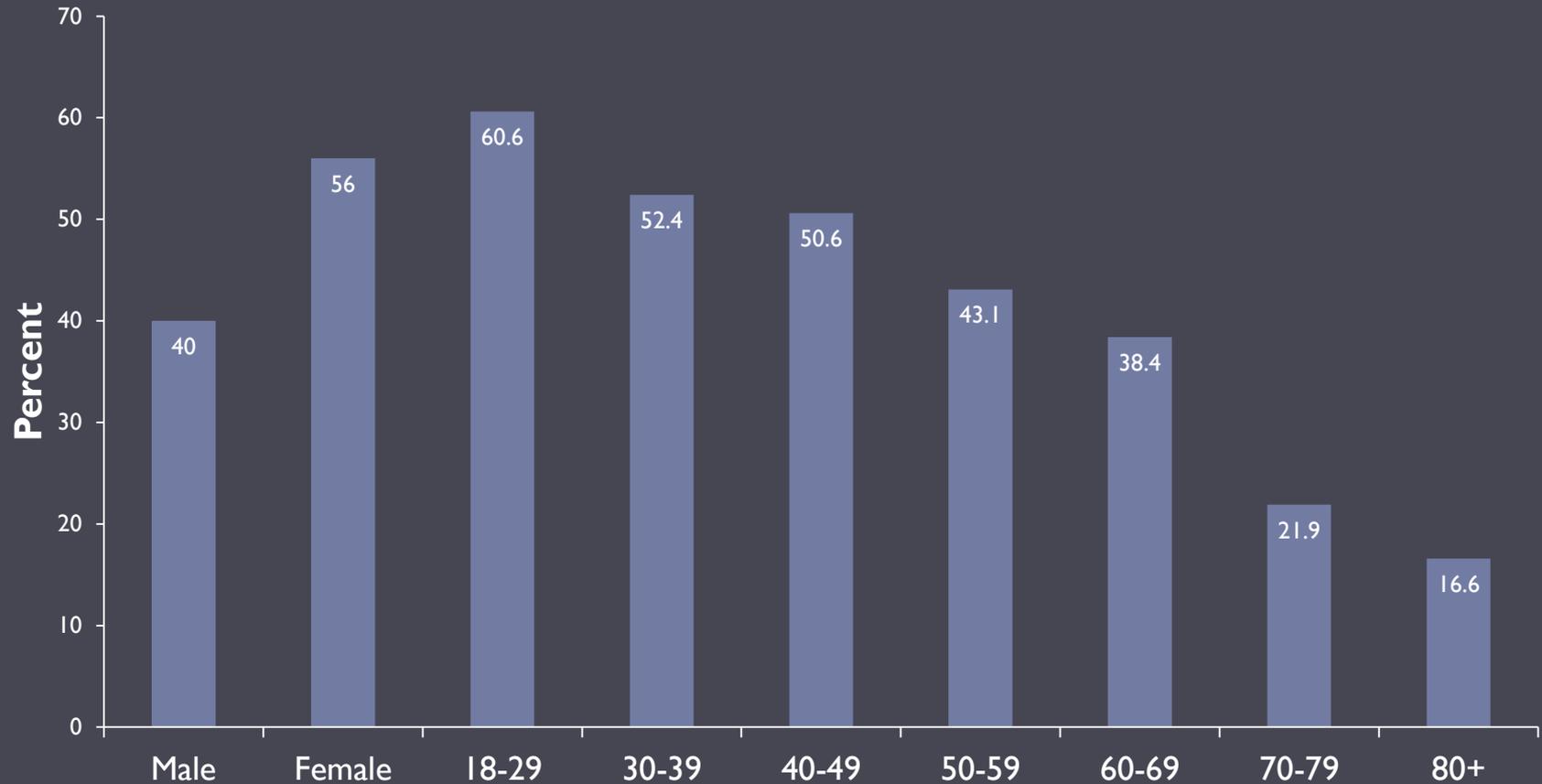
# HIV/AIDS: Have you ever been tested for HIV?

Age Adjusted



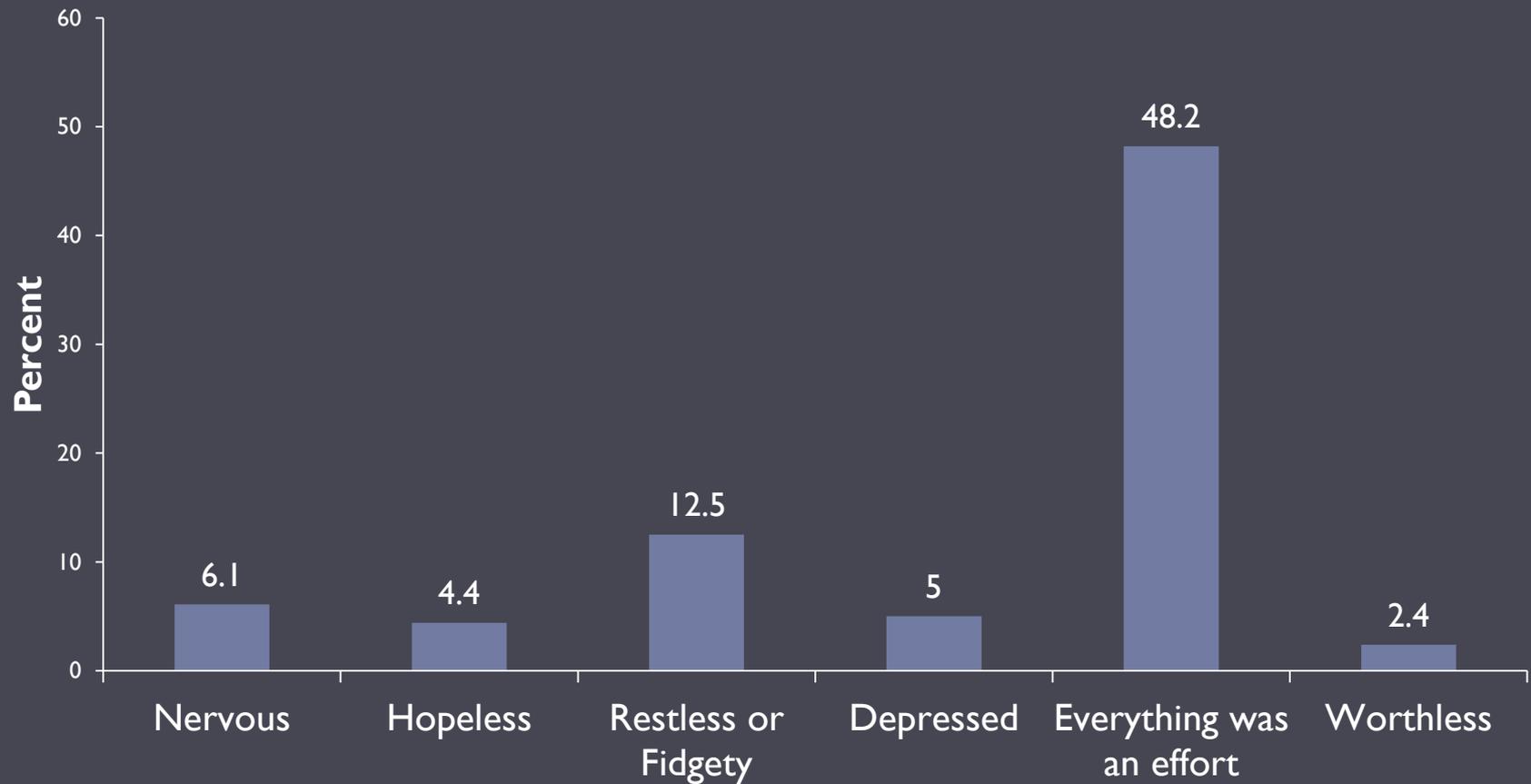
# HIV/AIDS: Have you ever been tested for HIV?

By Gender & Age Group



# Mental Illness and Stigma: How often during the past 30 days did you feel...?

All or Most of the Time

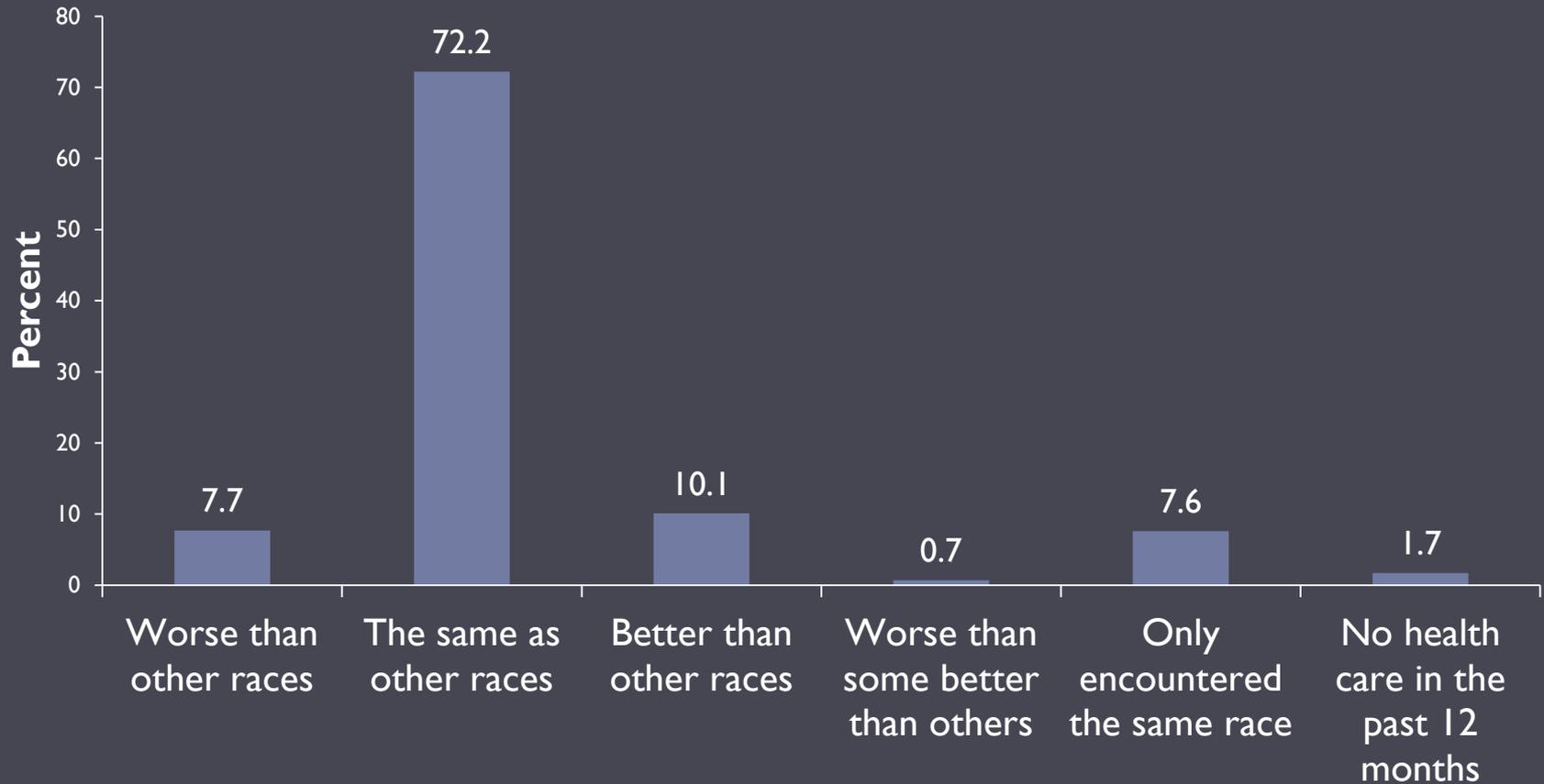


# Mental Illness and Stigma: How often during the past 30 days did you feel...?

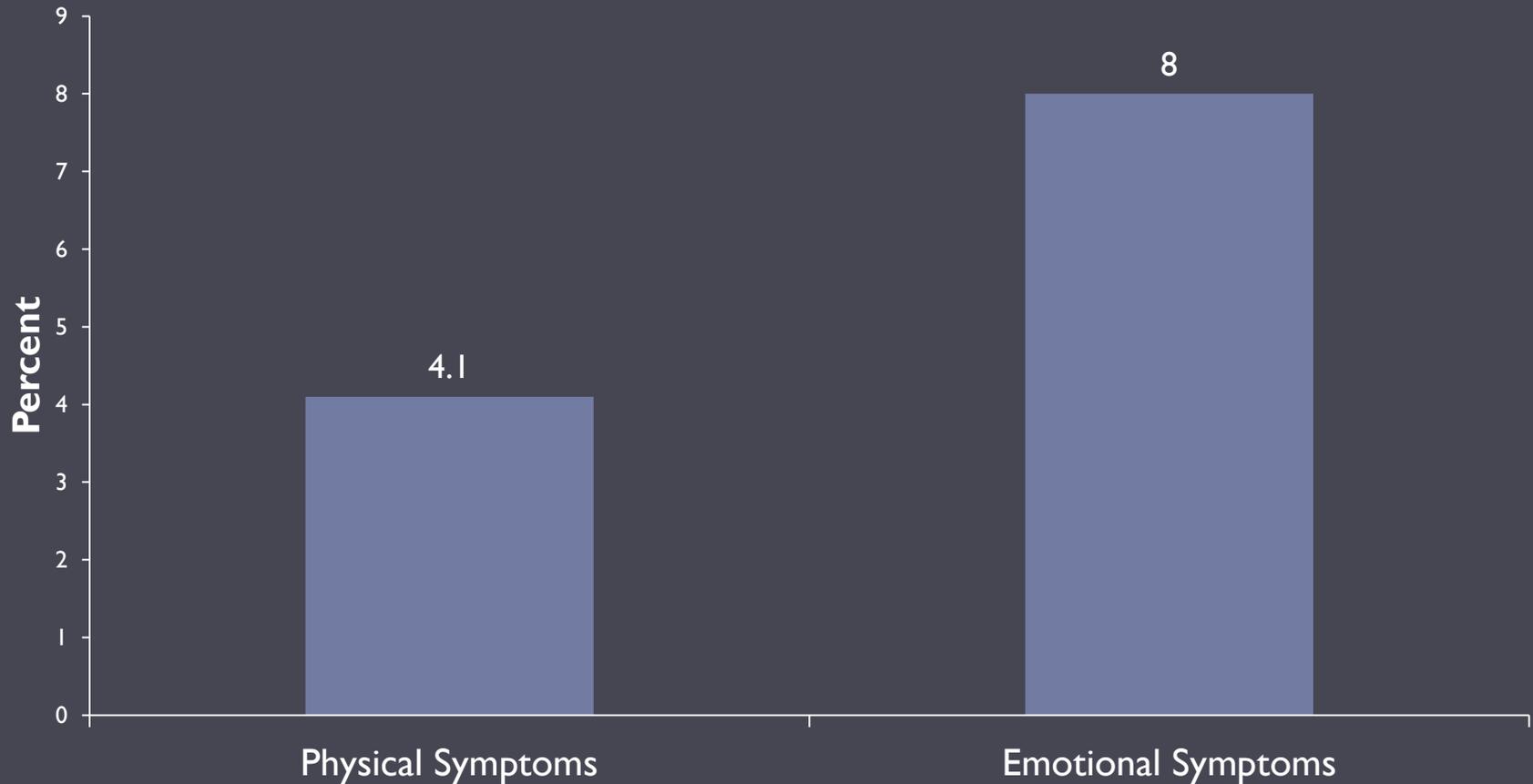
All or Most of the Time

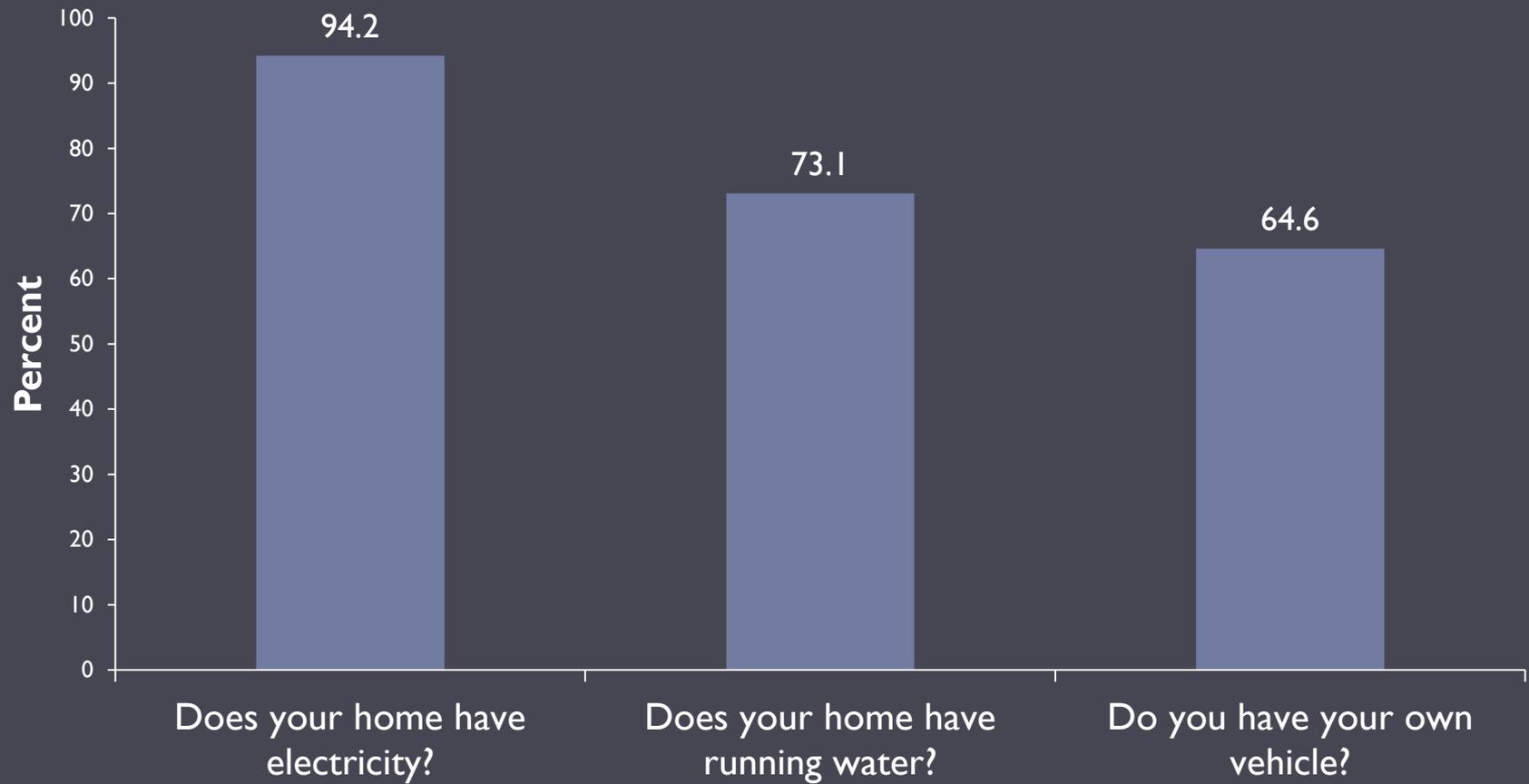
Question	OR
Nervous	6.37
Hopeless	4.88
Restless or Fidgety	4.24
Depression	5.13
Everything was an Effort*	1.42
Worthless	8.29
Multiple Variable Model	
Question	OR
Nervous	3.52
Restless or Fidgety	2.38
Worthless	3.65
Age	1.02

Reactions to Race: Within the past 12 months, when seeking health care, do you feel your experiences were worse than, the same as, or better than people of other races?

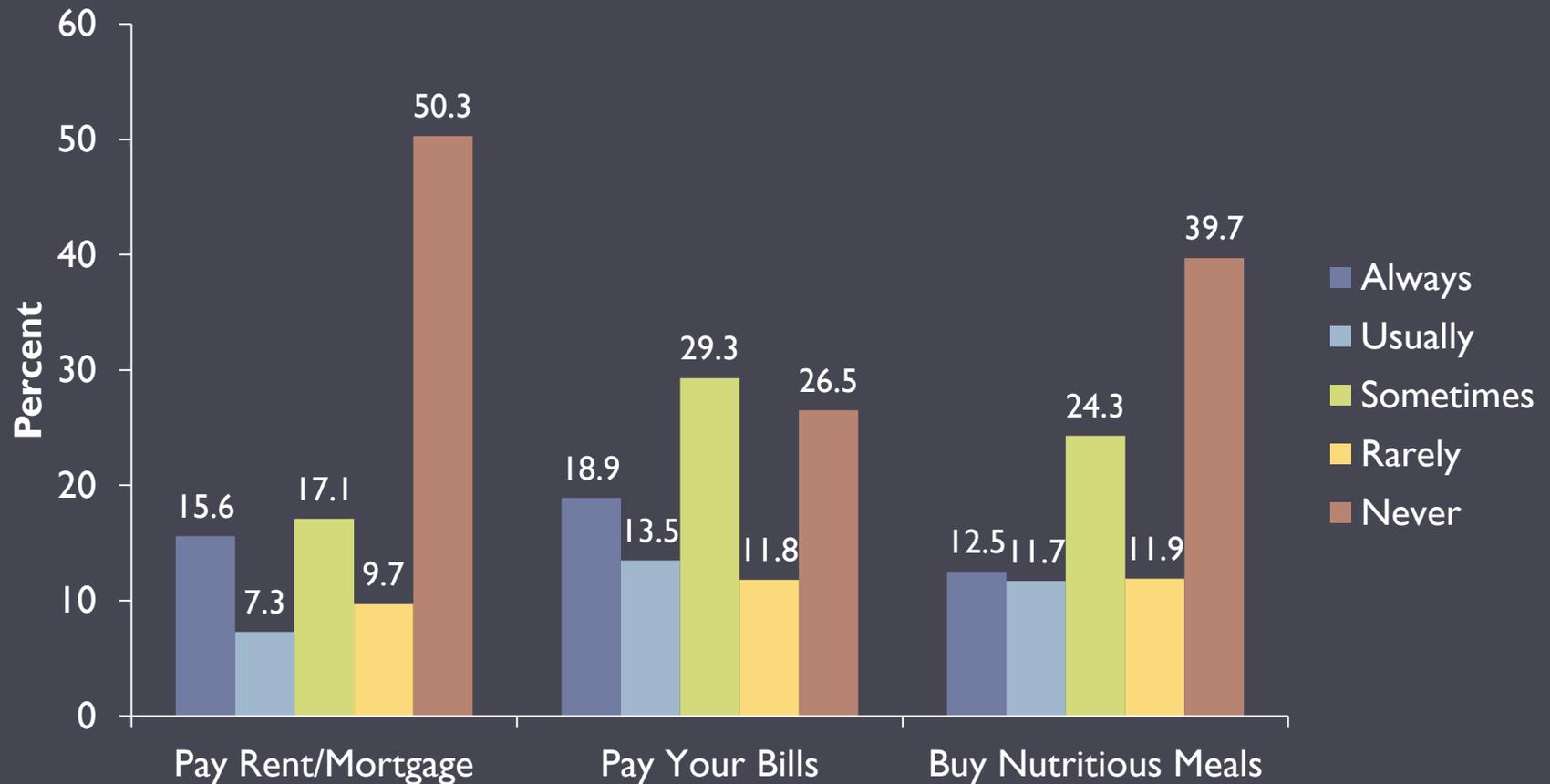


Reactions to Race: Within the past 30 days have you experienced any...as a result of how you were treated based on your race

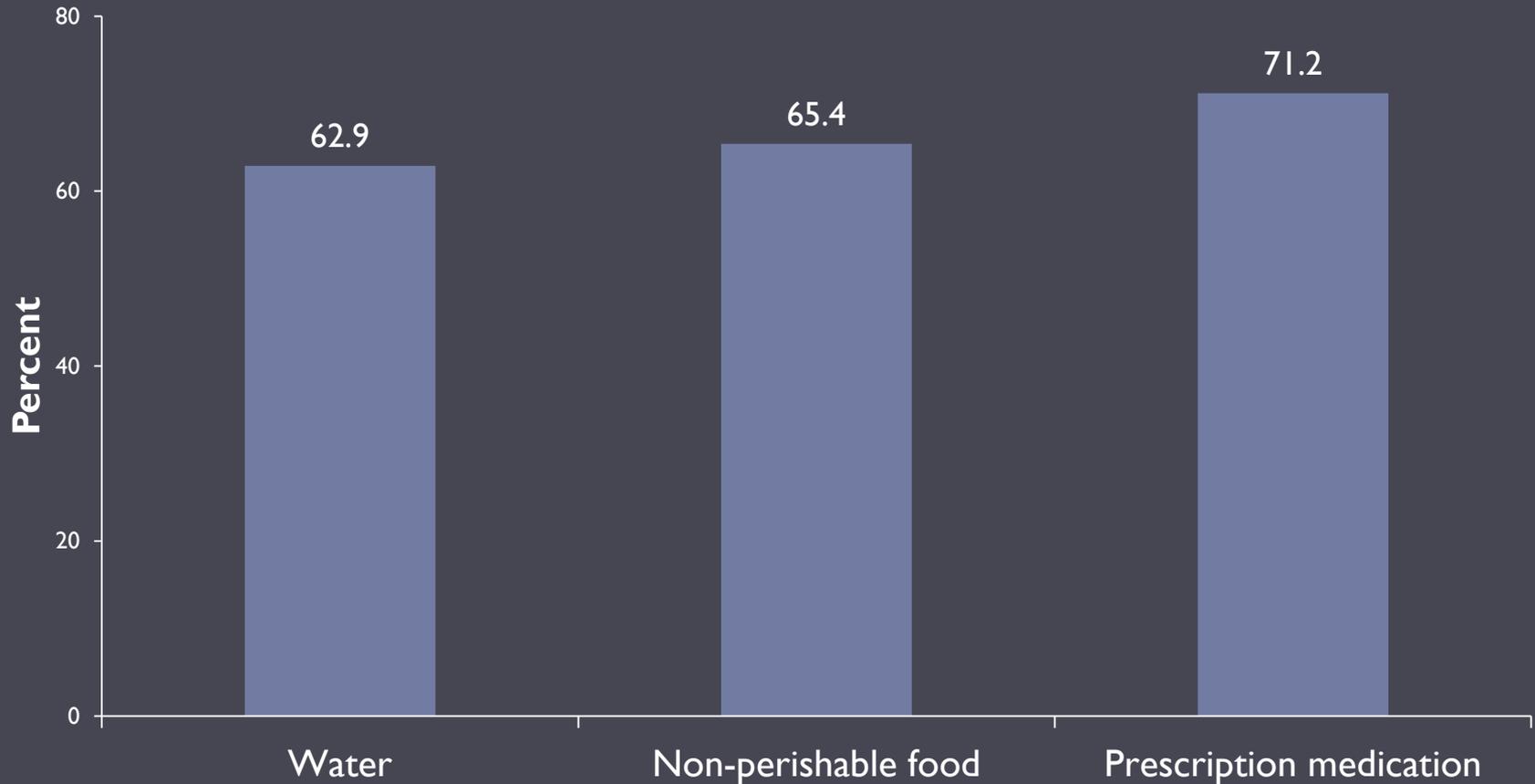




Social Context: How often in the past 12 months would you say you were worried or stressed about having enough money to...?



# General Preparedness: Does your household have a 3-day supply of...for everyone who lives there?



## SEXUAL and INTIMATE PARTNER VIOLENCE

Question	Percent
In the past 12 months, Has anyone touched sexual parts of your body after you said or showed that you didn't want them to, or without your consent?	1.5
In the past 12 months, Has anyone exposed you to unwanted sexual situations that did not involve physical touching?	0.6
Has anyone ever had sex with you after you said or showed that you didn't want them to or without your consent?	2.1
Has this happened in the past 12 months (among those who answered yes previously)?	34.2
Has an intimate partner ever threatened you with physical violence?	9.0
Has an intimate partner ever attempted physical violence against you?	8.8
Has an intimate partner ever hit, slapped, pushed, kicked, or hurt you in any way?	10.6
Have you ever experienced any unwanted sex by a current or former intimate partner?	3.3
In the past 12 months, have you experienced any physical violence or had unwanted sex with an intimate partner?	10.8