

# CALIFORNIA HEALTH CARE ALMANAC



## Californians with the Top Chronic Conditions: 11 Million and Counting

APRIL 2015

# Introduction

Chronic conditions are the leading cause of death and disability in the US, as well as the biggest contributor to health care costs. But there is wide variation in their incidence, with major differences depending on age, income, race and ethnicity, and insurance status. In addition, many Californians with chronic conditions are delaying needed care because of cost.

*Californians with the Top Chronic Conditions: 11 Million and Counting* looks at five major chronic conditions — asthma, diabetes, heart disease, high blood pressure, and serious psychological distress — and how each of these affects Californians.

**KEY FINDINGS INCLUDE:**

- About 40% of California adults reported having at least one of the five chronic conditions studied.
- High blood pressure is the most common chronic condition among Californians, affecting about one in four, or 7.6 million, adults in California.
- As household income rises, the prevalence of chronic conditions falls. Adults living under 138% of the federal poverty level were more likely to have two or more chronic conditions (14%) than those in the highest income group, 400%+ of the federal poverty level (8%).
- Many people with chronic conditions delay getting needed care. Of Californians with serious psychological distress, 34% delayed needed medical care, and 27% delayed filling prescriptions. Cost or lack of insurance was frequently cited as the reason for these delays.
- The prevalence of chronic conditions increases with age. Of Californians age 65 or older, 70% have at least one chronic condition, compared to 26% of those age 18 to 39.
- The proportion of California adults with chronic conditions varied by region. About 45% of adults in the Inland Empire, San Joaquin Valley, and Northern and Sierra Counties had at least one chronic condition, compared to 36% of adults in Orange County.

## Chronic Conditions for Adults

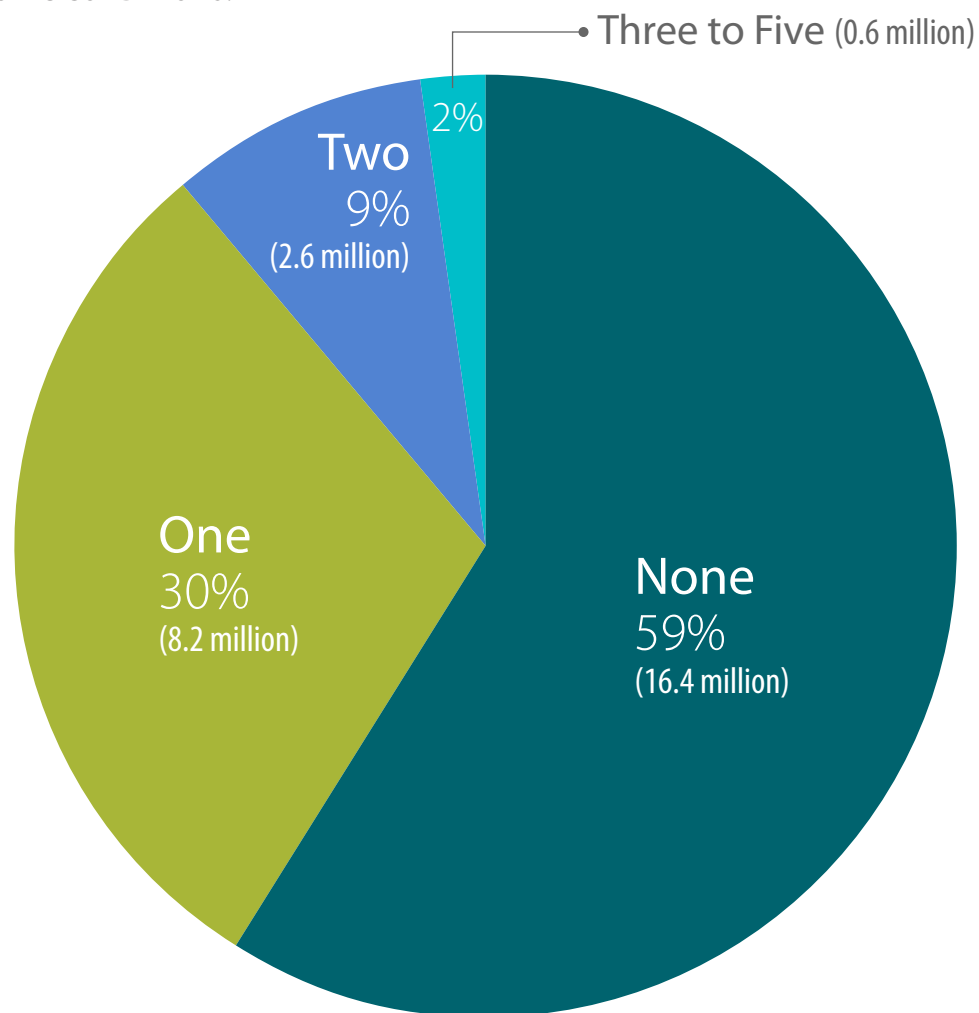
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# Number of Chronic Conditions Among Adults

## California, 2011 to 2012

ADULTS WITH CHRONIC CONDITIONS:  
11.4 MILLION



### Chronic Conditions for Adults

#### Overview

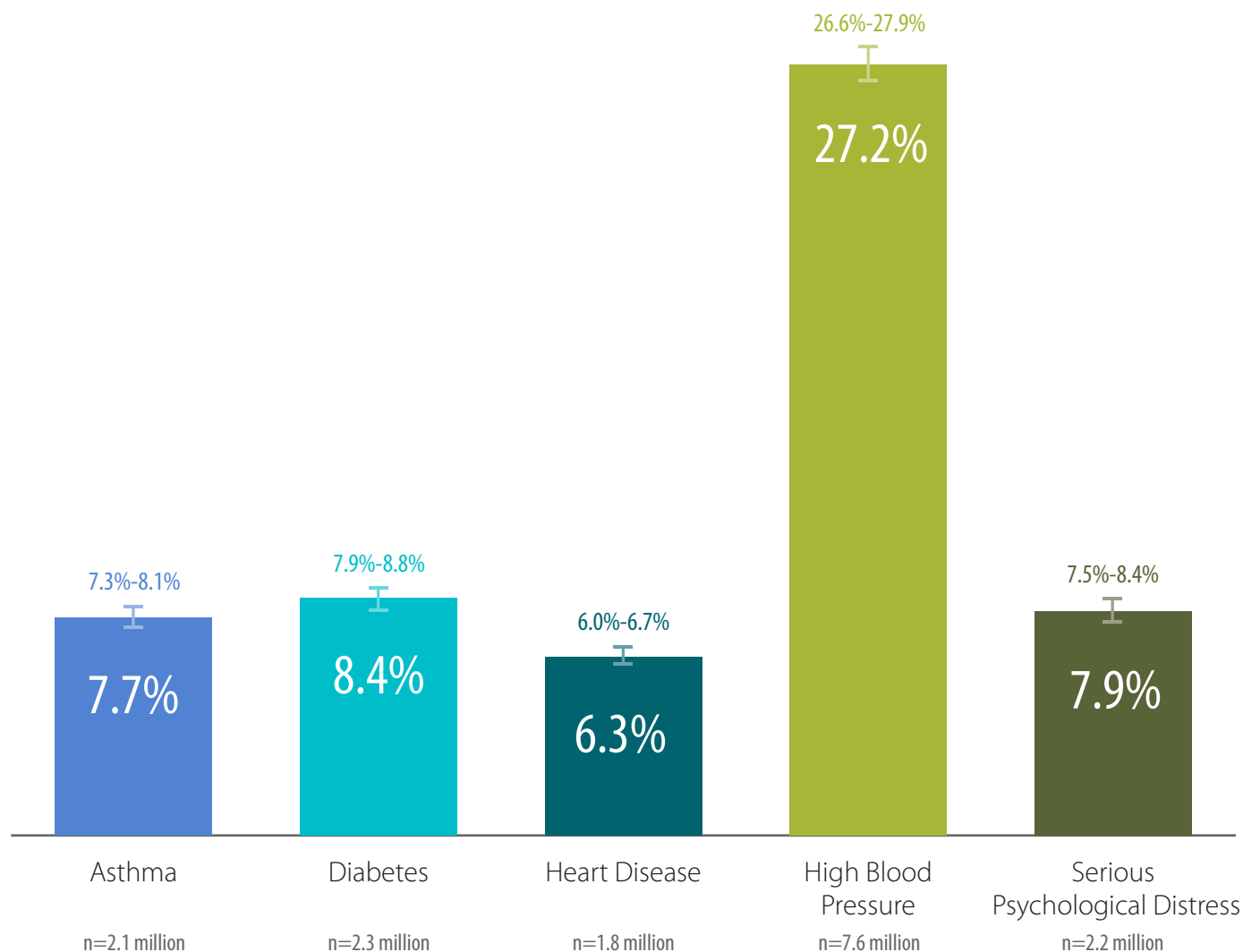
About 40% of California adults — over 11 million people — reported having one or more chronic condition, and about 3 million adults reported having two or more.

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Prevalence of Chronic Conditions Among Adults

California, 2011 to 2012



Notes: Adults are age 18 and older. Confidence intervals are shown as vertical lines. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Chronic Conditions for Adults

### Overview

About one in four, or 7.6 million, California adults had high blood pressure. Though fewer than 1 in 10 adults reported having either current asthma (8%), diabetes (8%), heart disease (6%), or serious psychological distress (8%), these percentages represent millions of Californians.

# Chronic Conditions Among Adults, by Region

## California, 2011 to 2012

### NUMBER OF CHRONIC CONDITIONS

|                     | Total Adult Population | NONE<br>Number / Percentage |              | ONE<br>Number / Percentage |              | TWO<br>Number / Percentage |             | THREE TO FIVE<br>Number / Percentage |             |
|---------------------|------------------------|-----------------------------|--------------|----------------------------|--------------|----------------------------|-------------|--------------------------------------|-------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>16,447,000</b>           | <b>59.2%</b> | <b>8,187,000</b>           | <b>29.5%</b> | <b>2,560,000</b>           | <b>9.2%</b> | <b>603,000</b>                       | <b>2.2%</b> |
| Northern and Sierra | 1,064,000              | 584,300                     | 54.9%        | 323,500                    | 30.4%        | 121,000                    | 11.3%       | 35,000                               | 3.3%        |
| Greater Bay Area    | 5,543,000              | 3,322,900                   | 60.0%        | 1,644,200                  | 29.7%        | 466,000                    | 8.4%        | 110,000                              | 2.0%        |
| Sacramento Area     | 1,620,000              | 951,000                     | 58.7%        | 469,400                    | 29.0%        | 168,000                    | 10.4%       | 31,000                               | 1.9%        |
| San Joaquin Valley  | 2,740,000              | 1,481,400                   | 54.1%        | 56,400                     | 31.3%        | 320,000                    | 11.7%       | 83,000                               | 3.0%        |
| Central Coast       | 1,658,000              | 1,018,400                   | 61.4%        | 477,000                    | 28.7%        | 138,000                    | 8.4%        | 25,000                               | 1.5%        |
| Los Angeles County  | 7,402,000              | 4,469,400                   | 60.4%        | 2,106,000                  | 28.5%        | 666,000                    | 9.0%        | 160,000                              | 2.2%        |
| Orange County       | 2,305,000              | 1,473,700                   | 64.0%        | 615,000                    | 26.7%        | 182,000                    | 7.9%        | 33,000                               | 1.5%        |
| Inland Empire       | 3,030,000              | 1,663,000                   | 54.9%        | 970,000                    | 32.0%        | 315,000                    | 10.4%       | 83,000                               | 2.7%        |
| San Diego Area      | 2,435,000              | 1,482,700                   | 60.9%        | 725,000                    | 29.8%        | 184,000                    | 7.6%        | 43,000                               | 1.8%        |

### Chronic Conditions for Adults

#### Multiple Chronic Conditions

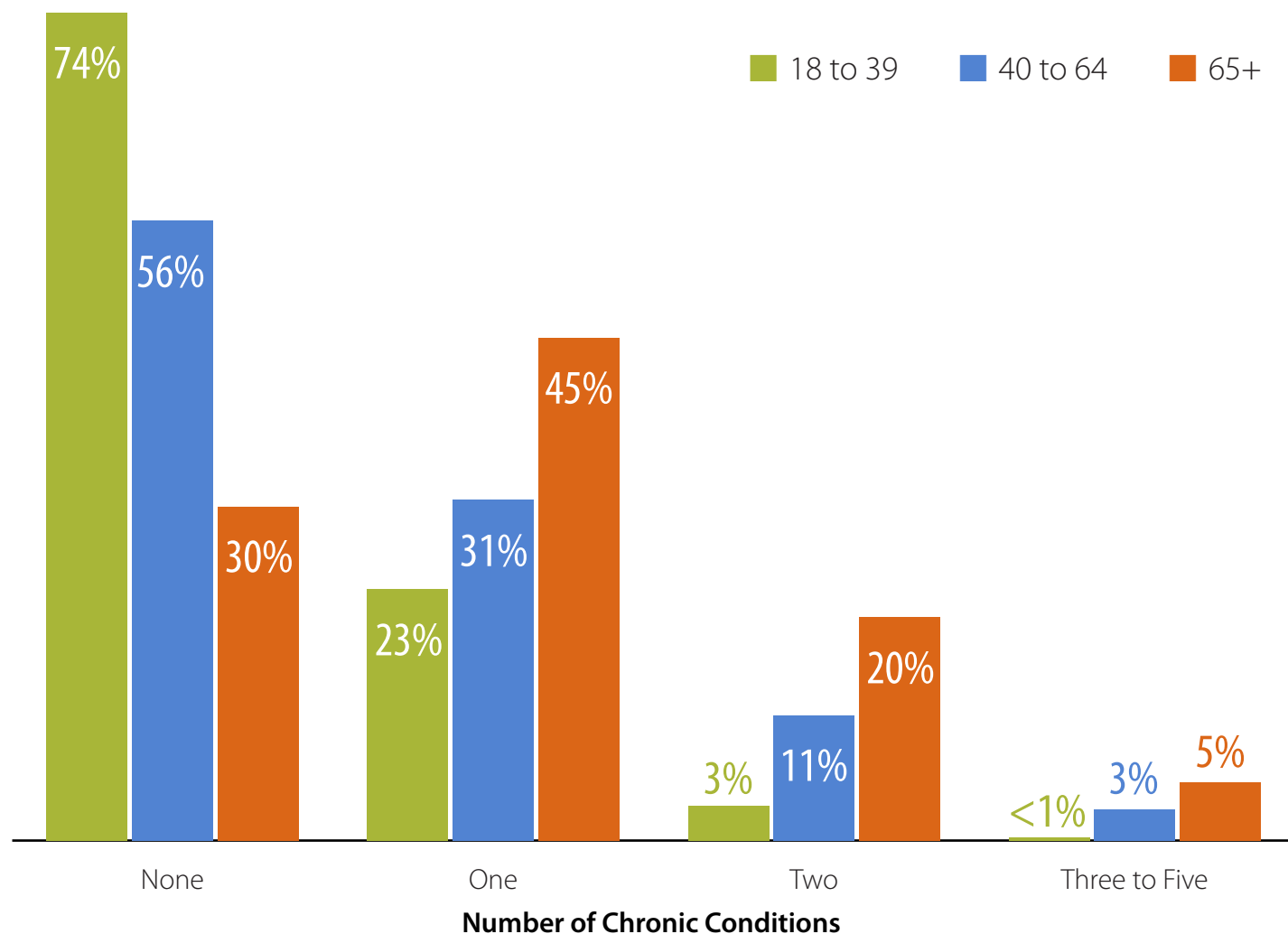
The proportion of California adults with chronic conditions varied by region. About 45% of adults in the Inland Empire, San Joaquin Valley, and Northern and Sierra Counties had at least one chronic condition, compared to 36% of adults in Orange County.

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44. See [Appendix A](#) for a list of counties included in each region. See [Appendix B](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Chronic Conditions Among Adults, by Age

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Multiple Chronic Conditions

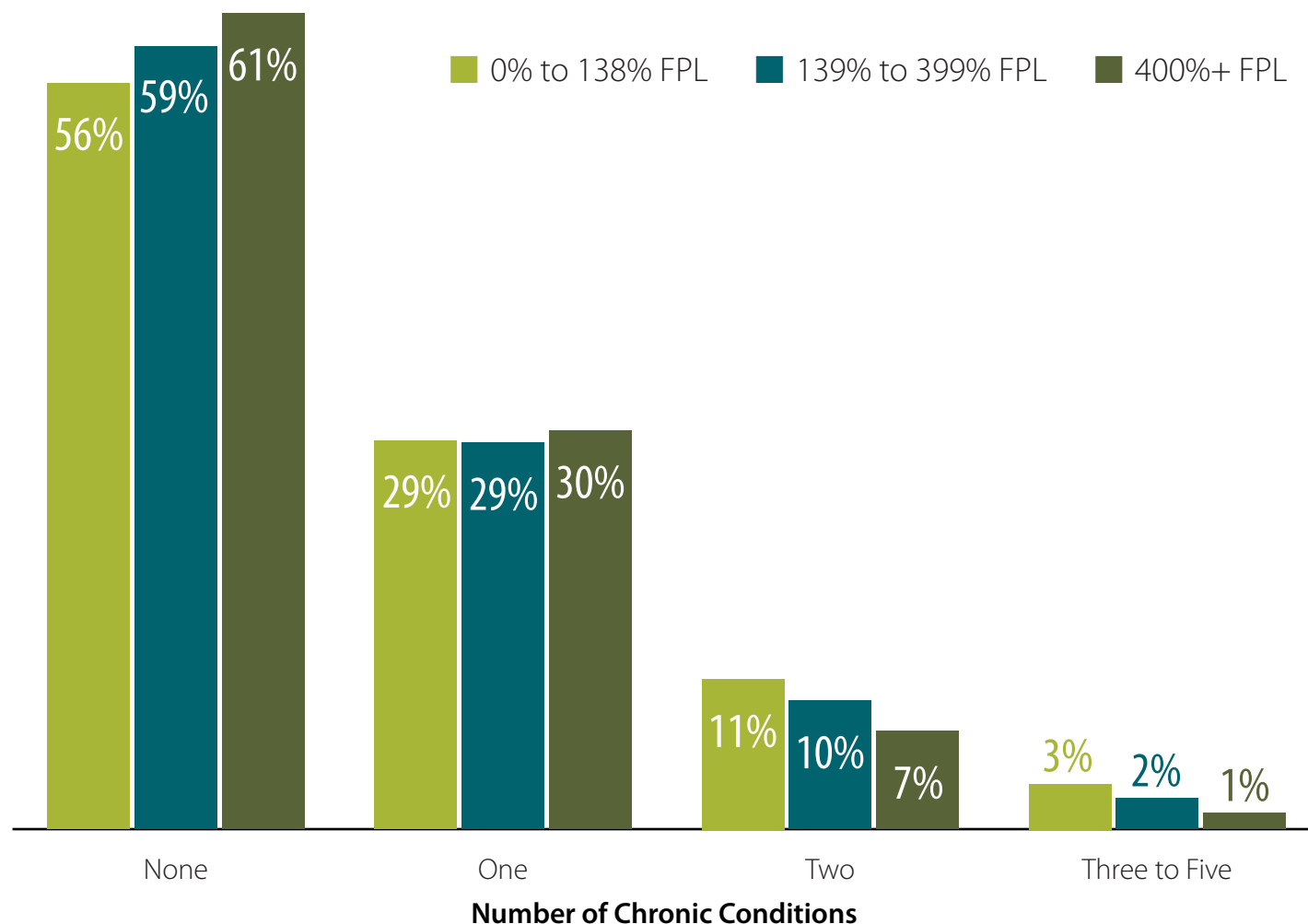
Among California adults, the prevalence of chronic conditions increased with age. Seventy percent of adults age 65 or older reported having at least one chronic condition, compared to 26% of those age 18 to 39 and 45% of those age 40 to 64. In addition, 25% of Californians age 65 and older had multiple chronic conditions.

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Chronic Conditions Among Adults, by Federal Poverty Level

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Multiple Chronic Conditions

Household income is one social determinant of health. Adults living under 138% of the federal poverty level (FPL) were more likely to have two or more chronic conditions compared to those in the highest income group (400%+ FPL).

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44. Federal Poverty Level (FPL) categories are based on eligibility for Medicaid and subsidies under the Affordable Care Act in California. Individuals and families earning at or less than 138% FPL are eligible for Medicaid, and those earning between 139% and 399% FPL are eligible for subsidies. The FPL was \$10,890 for individuals and \$22,350 for a family of four.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.



# Chronic Conditions Among Adults, by Race/Ethnicity

## California, 2011 to 2012

### Number of Chronic Conditions

None One Two Three to Five

African American



American Indian / Alaska Native



Asian



Latino



White



Other



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. *Other* includes those who reported being Native Hawaiian / Pacific Islander and those who reported being of two or more races. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44. Segments may not add to 100% due to rounding.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

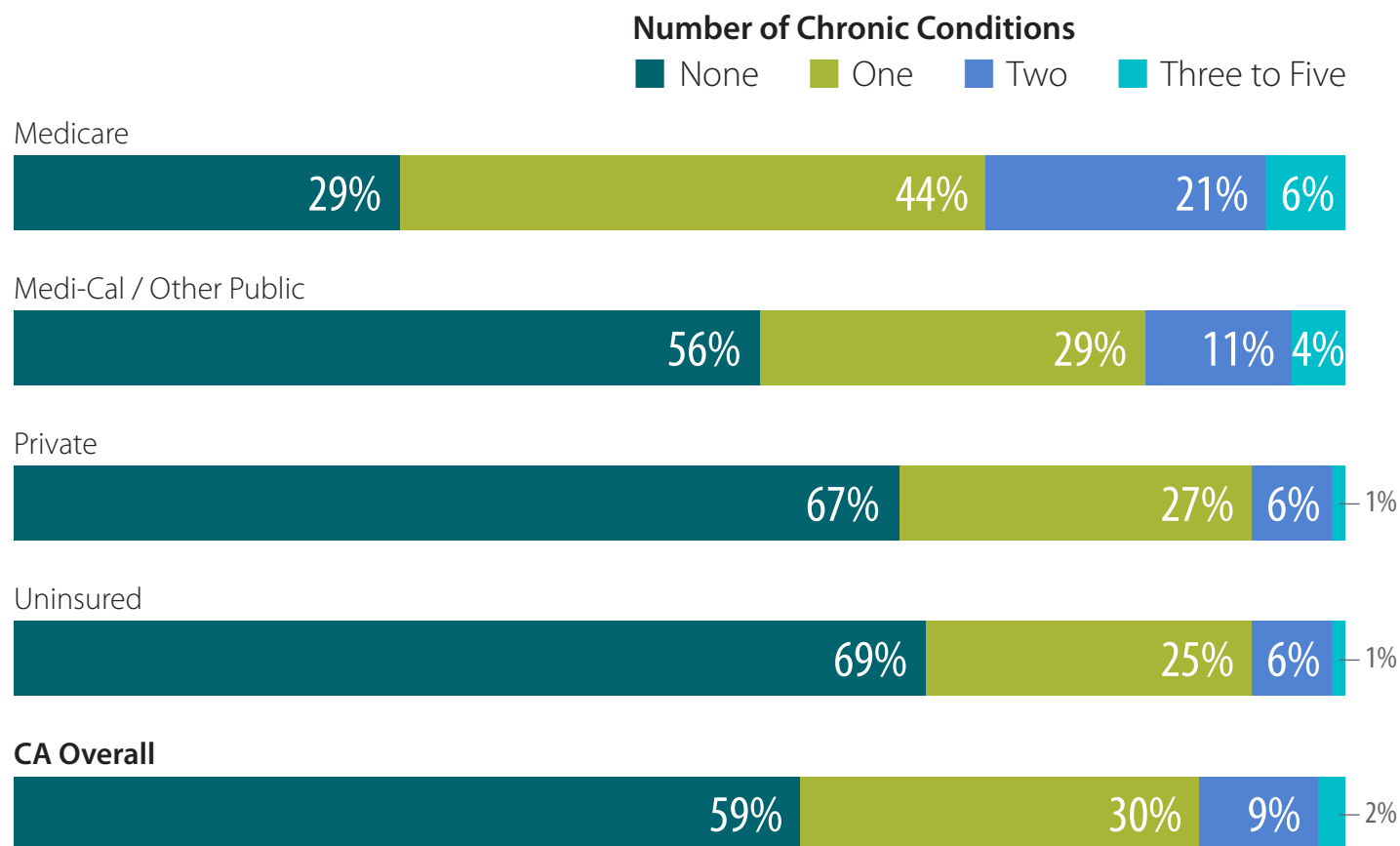
#### Multiple Chronic Conditions

The prevalence of chronic conditions varied among racial and ethnic groups. Two-thirds of Asians had no chronic conditions compared to nearly one-third of American Indian / Alaskan Natives.



# Chronic Conditions Among Adults, by Insurance Type

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and the Children's Health Insurance Program (CHIP). Chronic conditions include asthma, diabetes, heart disease, hypertension, and serious psychological distress. See definitions on page 44. Segments may not add to 100% due to rounding.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

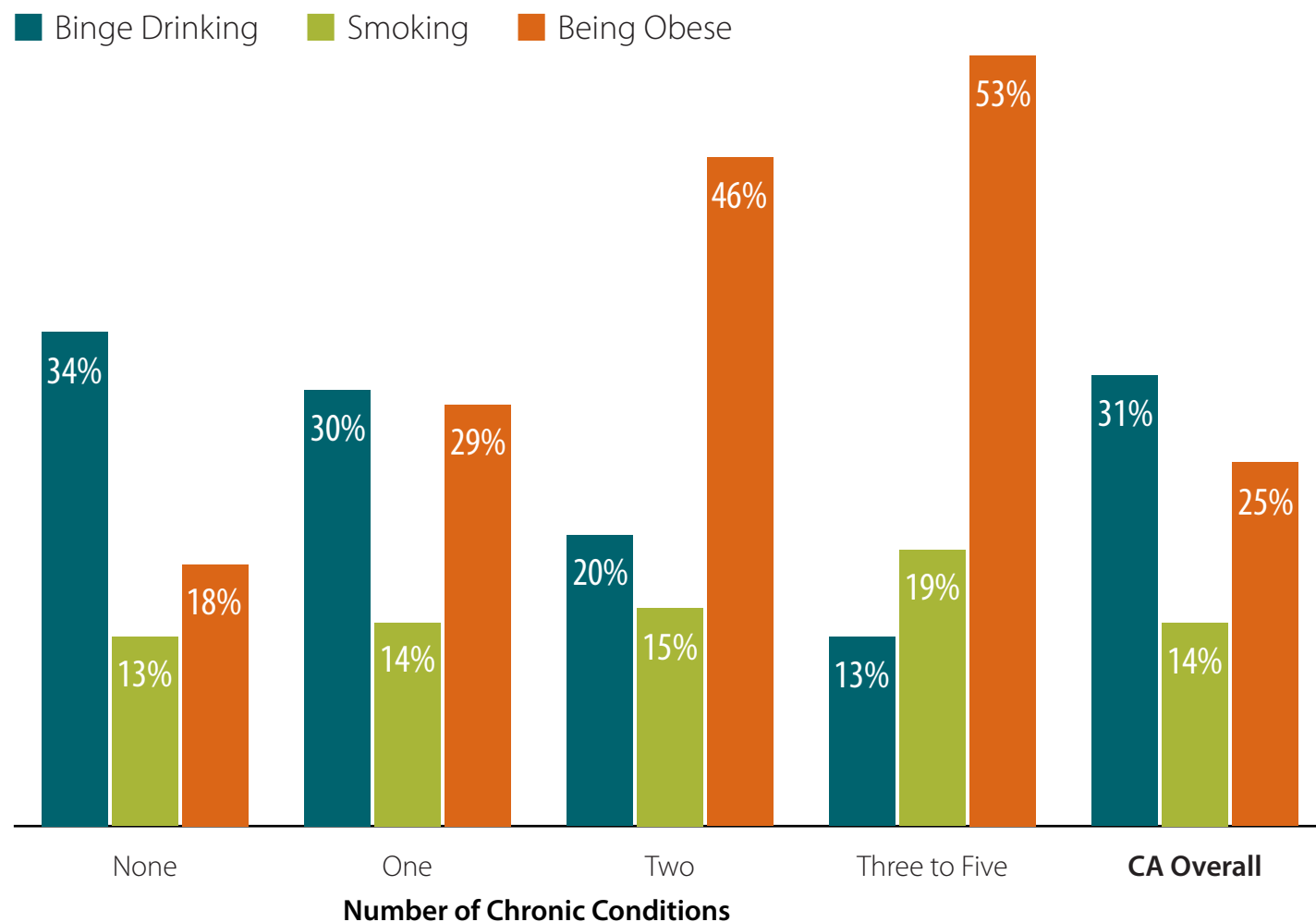
### Chronic Conditions for Adults

#### Multiple Chronic Conditions

Adults on public insurance plans were more likely to have one or more chronic condition compared to those on private plans or the uninsured. Seventy-one percent of adults on Medicare, the primary insurance of the elderly, and 44% of adults on Medi-Cal / other public insurance had at least one chronic condition.

# Risk Factors Among Adults with Chronic Conditions

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Multiple Chronic Conditions

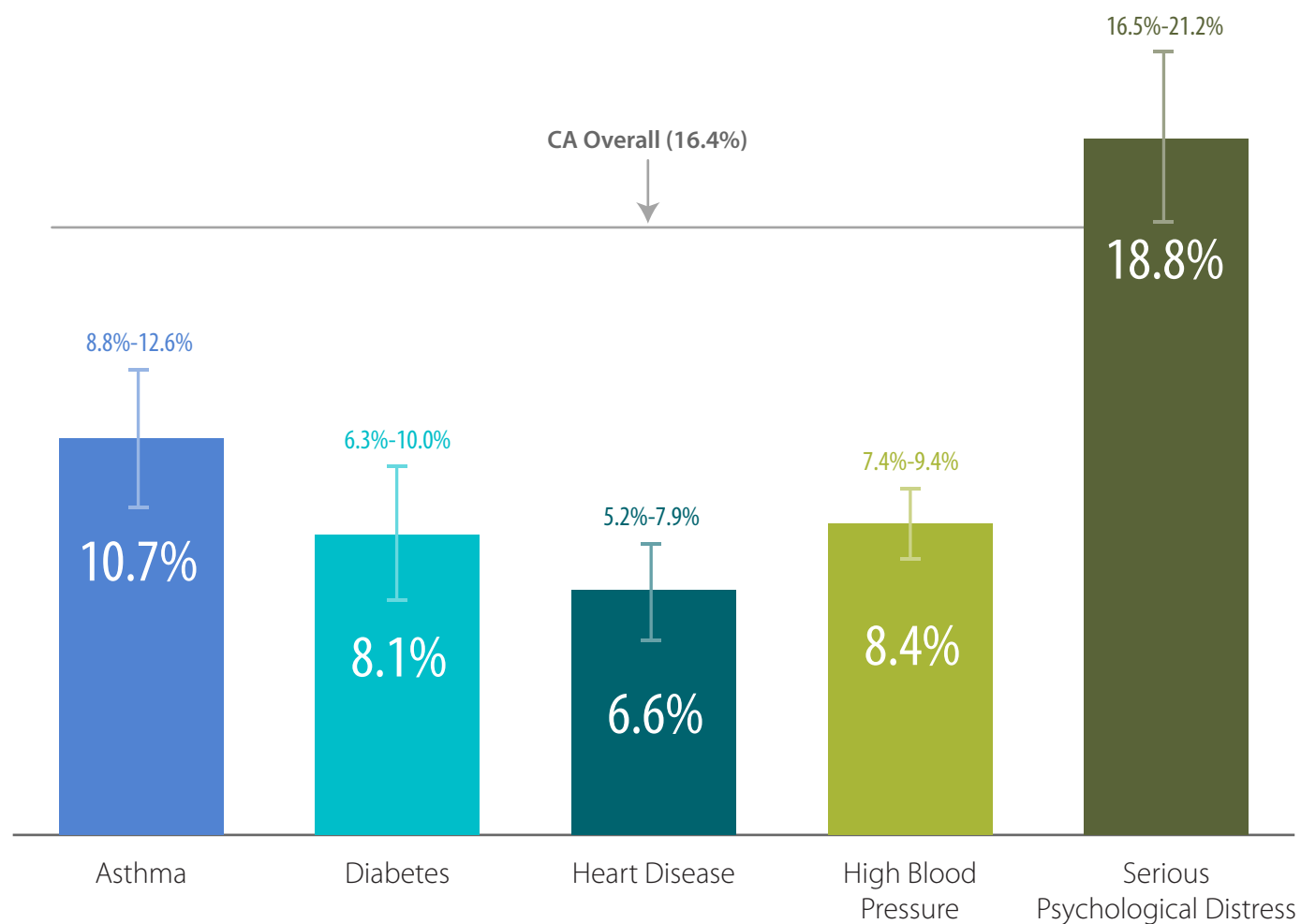
Smoking, being obese, and binge drinking can cause or exacerbate certain chronic conditions. The prevalence of smoking and obesity increased with the number of chronic conditions. Binge drinking, in contrast, was more common in those without chronic conditions.

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# No Usual Source of Care, by Chronic Condition

## Adults, California, 2011 to 2012



### Chronic Conditions for Adults

#### Access to Care

People who have chronic conditions usually require regular medical services; however, many of them do not have a usual source of medical care. Nearly 1 in 5 adults who had serious psychological distress (19%) and 1 in 10 adults with asthma (11%) had no usual source of care.

Notes: Adults are age 18 and older. Multiple yes/no questions about usual source of care were combined to create this variable. Confidence intervals are shown as vertical lines. See definitions on page 44.

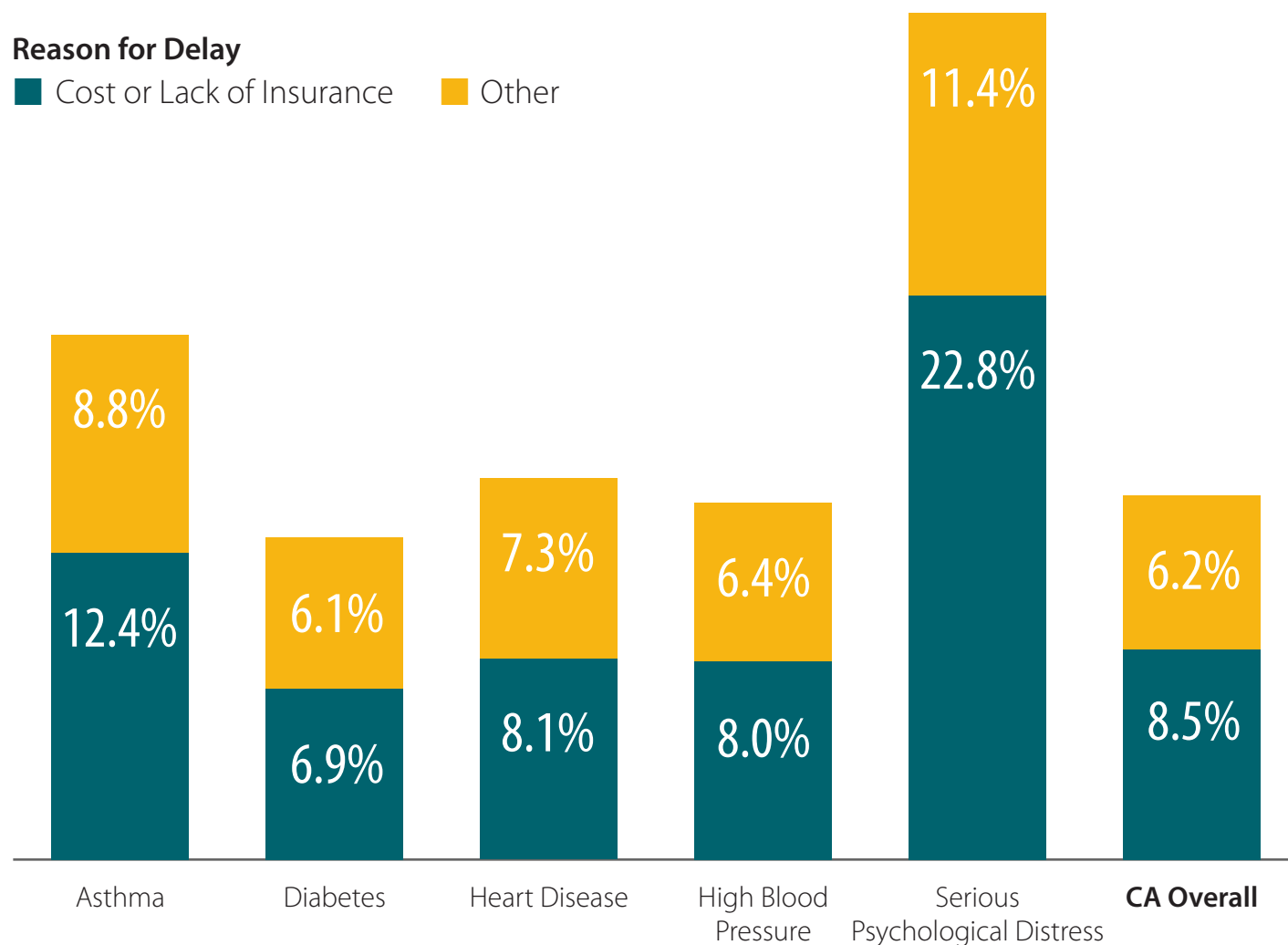
Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Delayed Medical Care, by Chronic Condition

Adults, California, 2011 to 2012

## Reason for Delay

■ Cost or Lack of Insurance ■ Other



Notes: Adults are age 18 and older. *Delayed Medical Care* is defined as reporting delaying or not getting needed medical care during the past 12 months. For those who experienced the delay, CHIS asked whether cost or lack of insurance was a reason for delaying or not getting needed medical care. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Chronic Conditions for Adults

### Access to Care

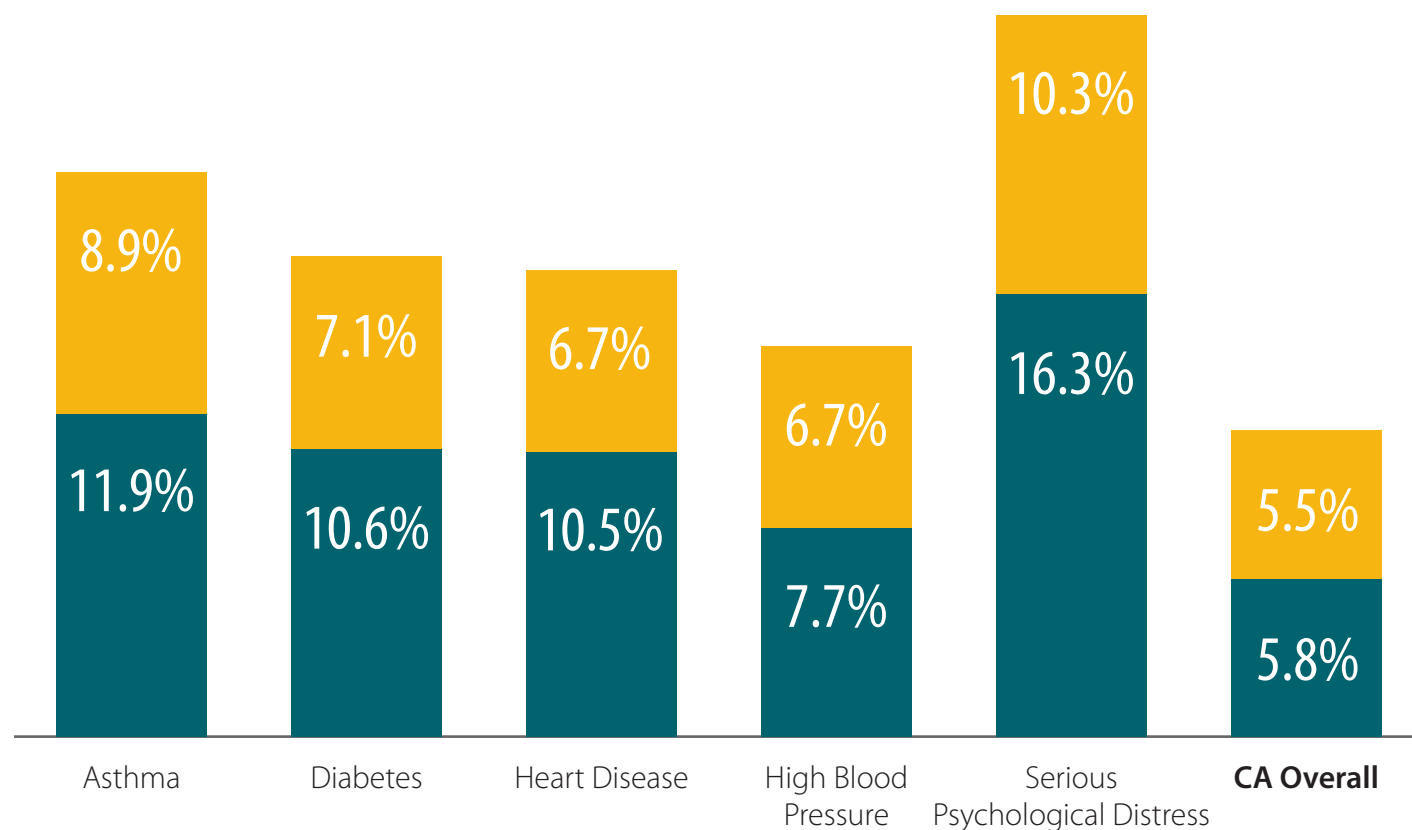
Delaying needed medical care can pose serious health consequences, especially for those with chronic medical conditions. California adults with serious psychological distress were more likely to report that they delayed getting needed medical care in the previous year than those with other chronic conditions. Cost or lack of insurance was frequently cited as the reason for the delay.

# Delayed Filling Prescription, by Chronic Condition

## Adults, California, 2011 to 2012

### Reason for Delay

■ Cost or Lack of Insurance ■ Other



Notes: Adults are age 18 and older. *Delayed Filling Prescription* is defined as reporting delaying or not getting a medicine prescribed by a doctor during the past 12 months. For those who experienced the delay, CHIS asked whether cost or lack of insurance was a reason for delaying or not filling prescription. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

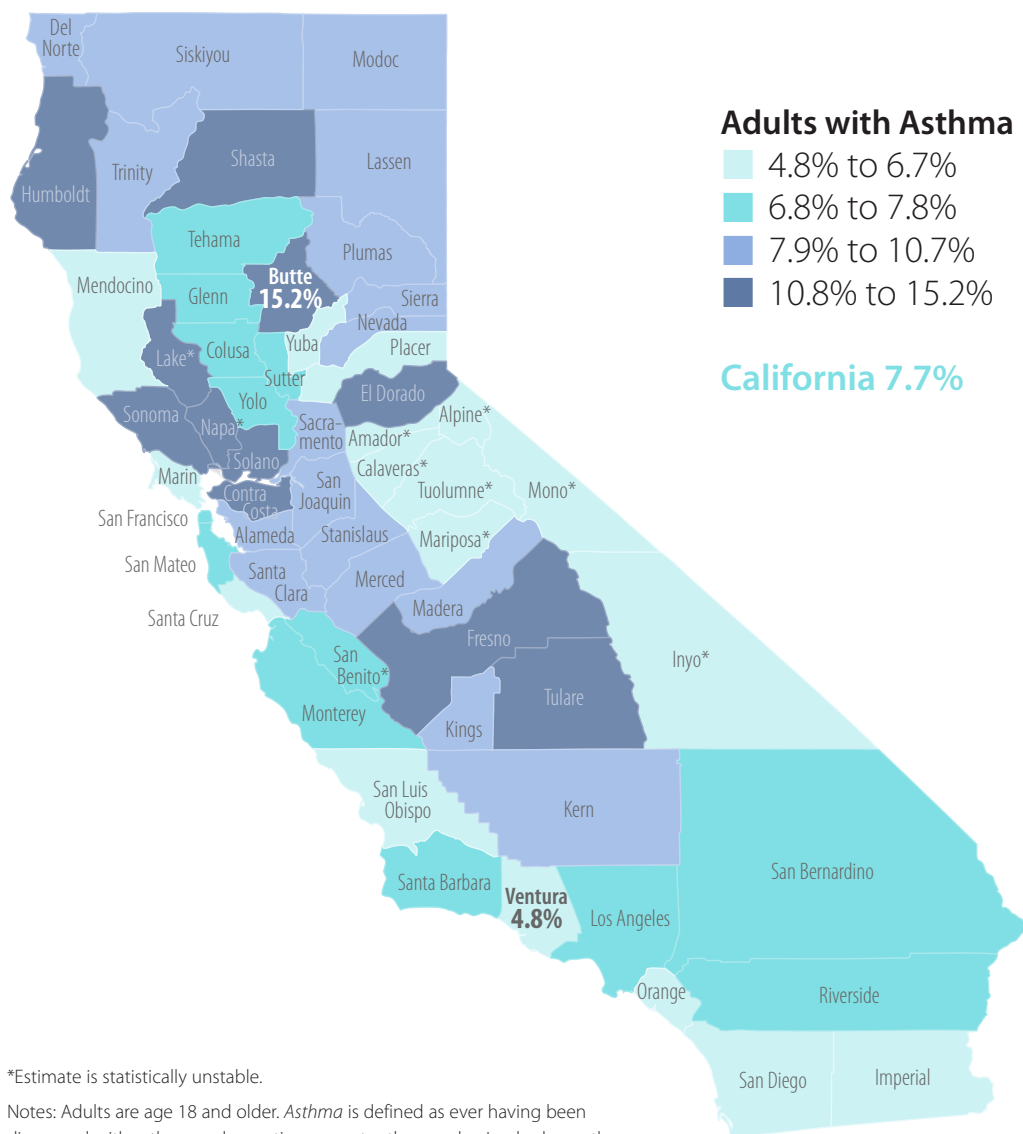
### Chronic Conditions for Adults

#### Access to Care

Taking prescription drugs on time is crucial for people with chronic conditions. About one in four California adults with serious psychological distress and nearly one in five adults with asthma, diabetes, or heart disease reported delays in getting prescribed medications in the previous year. More than half of those who delayed filling prescriptions said they did so due to cost or lack of insurance.

# Asthma Among Adults, by County

## California, 2011 to 2012



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. *Asthma* is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months. See [Appendix C](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

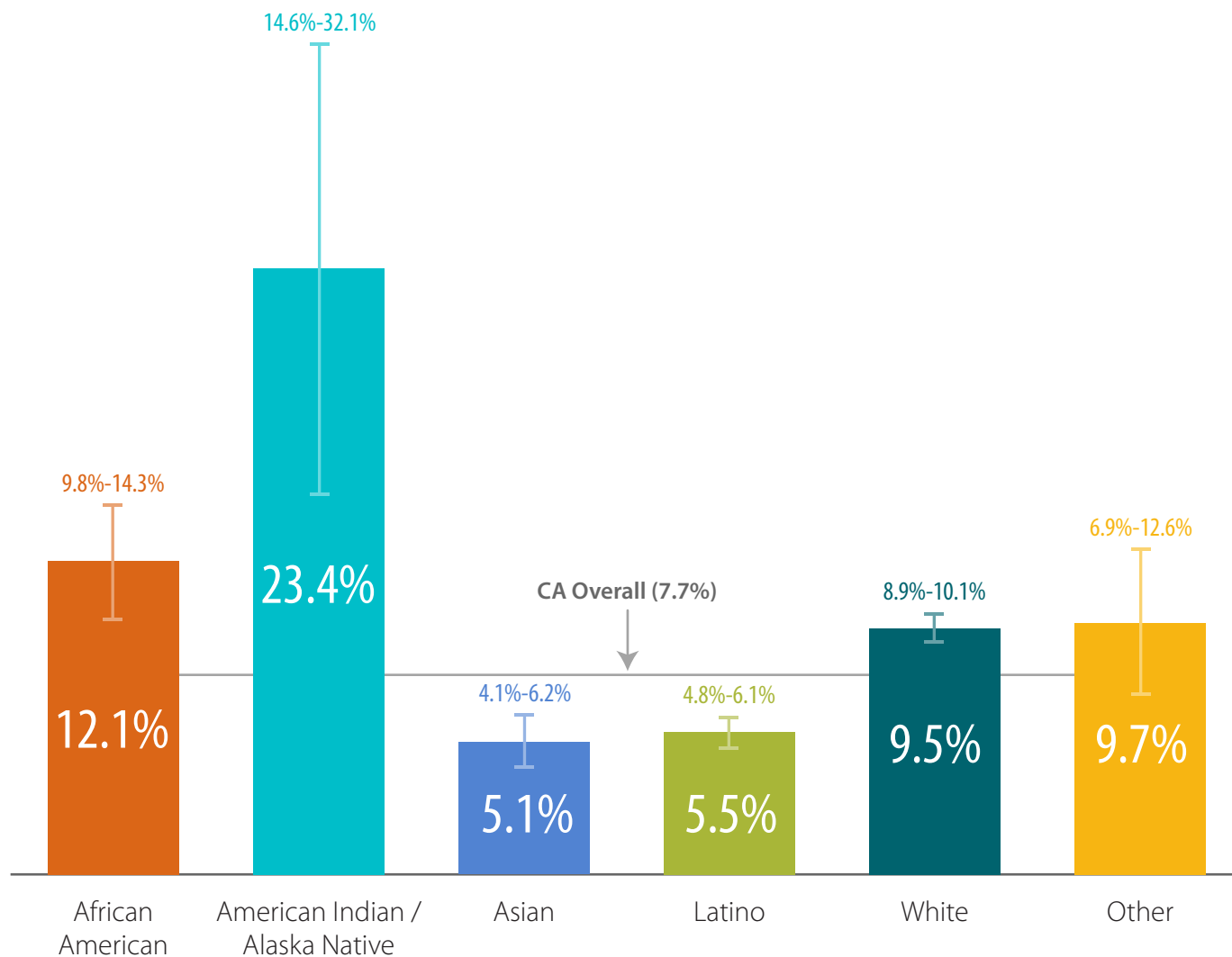
### Chronic Conditions for Adults

#### Asthma

An estimated 2.1 million (8%) Californians age 18 and older reported having asthma during the past year. Asthma prevalence varied among counties, ranging from a low of 5% in Ventura County to a high of 15% in Butte County.

# Asthma Among Adults, by Race/Ethnicity

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Asthma* is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months. *Other* includes those who reported being Native Hawaiian / Pacific Islander and those who reported being of two or more races. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

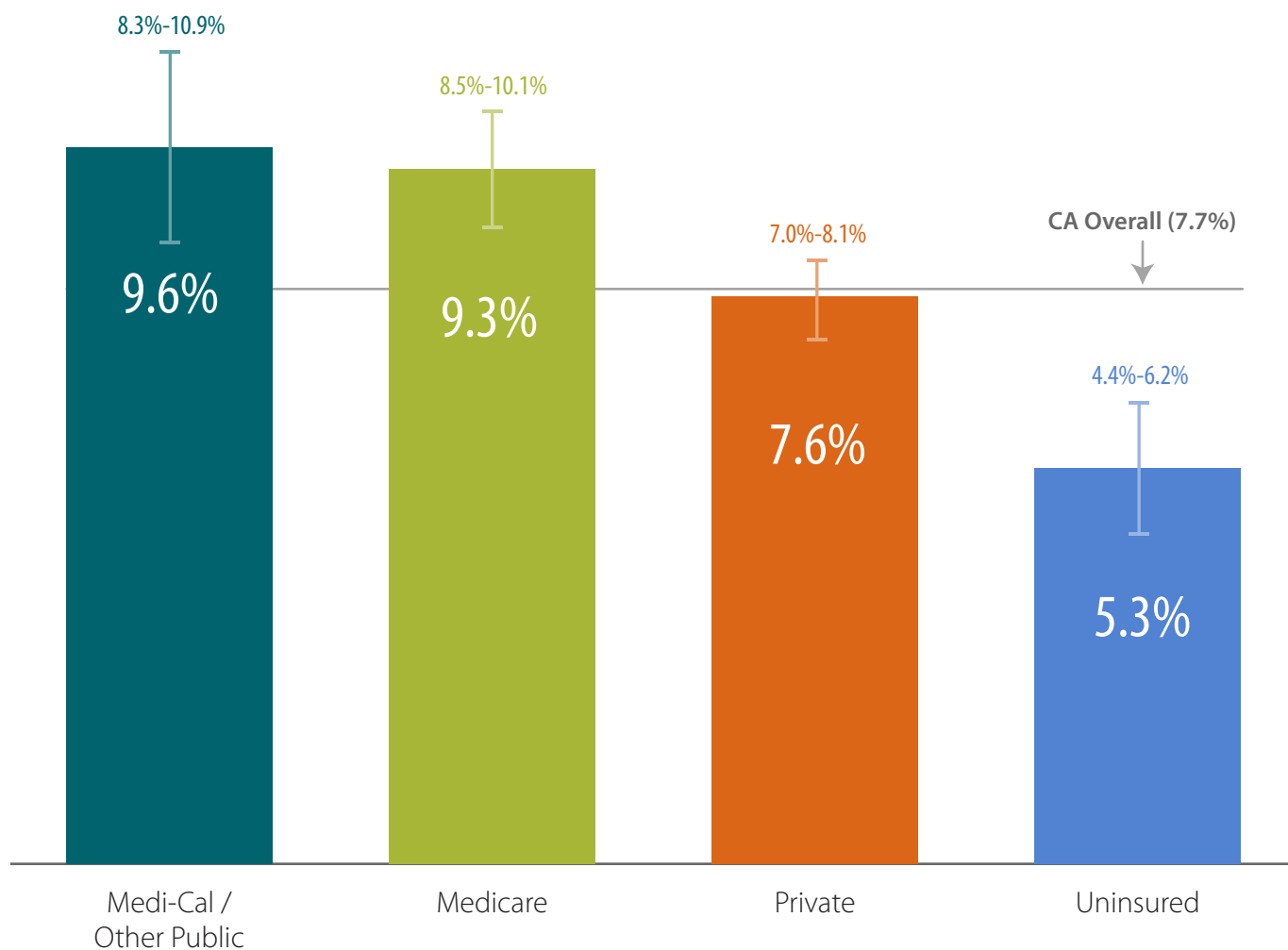
#### Asthma

Among Californians age 18 and older, approximately 8% reported having asthma during the past year. The burden of asthma varied significantly by race/ethnicity. The prevalence of current asthma among American Indians / Alaska Natives was three times greater than the state average, while the prevalence among African Americans was 1.5 times greater than the state average.



# Asthma Among Adults, by Insurance Type

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Asthma* is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and Children's Health Insurance Program (CHIP). *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

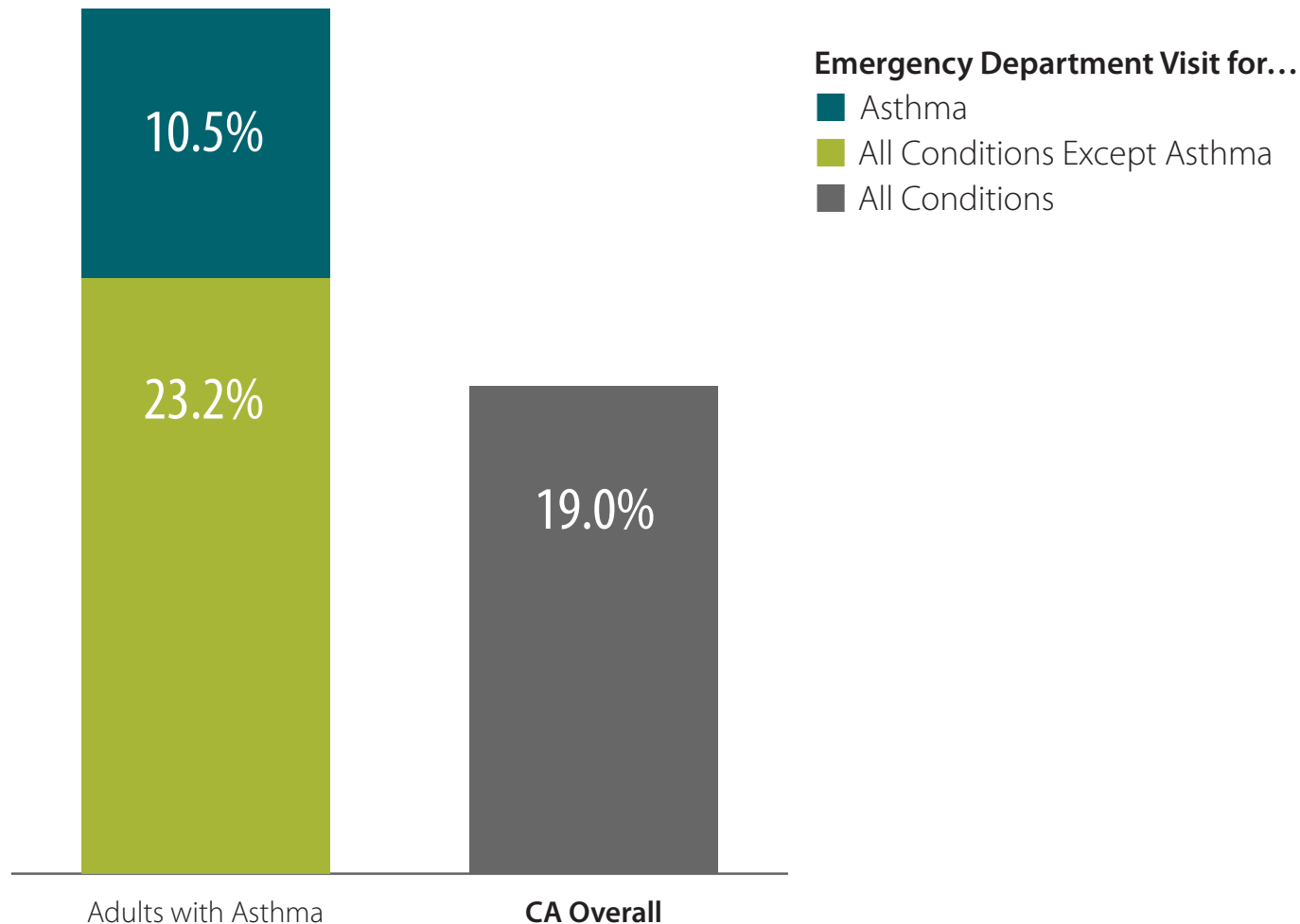
### Chronic Conditions for Adults

#### Asthma

The prevalence of current asthma was highest among those insured through Medi-Cal / other public insurance (10%) and those insured by Medicare (9%), and lowest among the uninsured (5%).

# Emergency Department Visits Among Adults with Asthma

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Asthma* is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months. Adults with asthma were asked if, during the past 12 months, they had to visit a hospital emergency room because of their asthma; those who answered no were asked if they had visited the emergency room for their own health. *CA Overall* is based on the general question, which asked whether respondents visited the emergency room within the past year for their own health.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

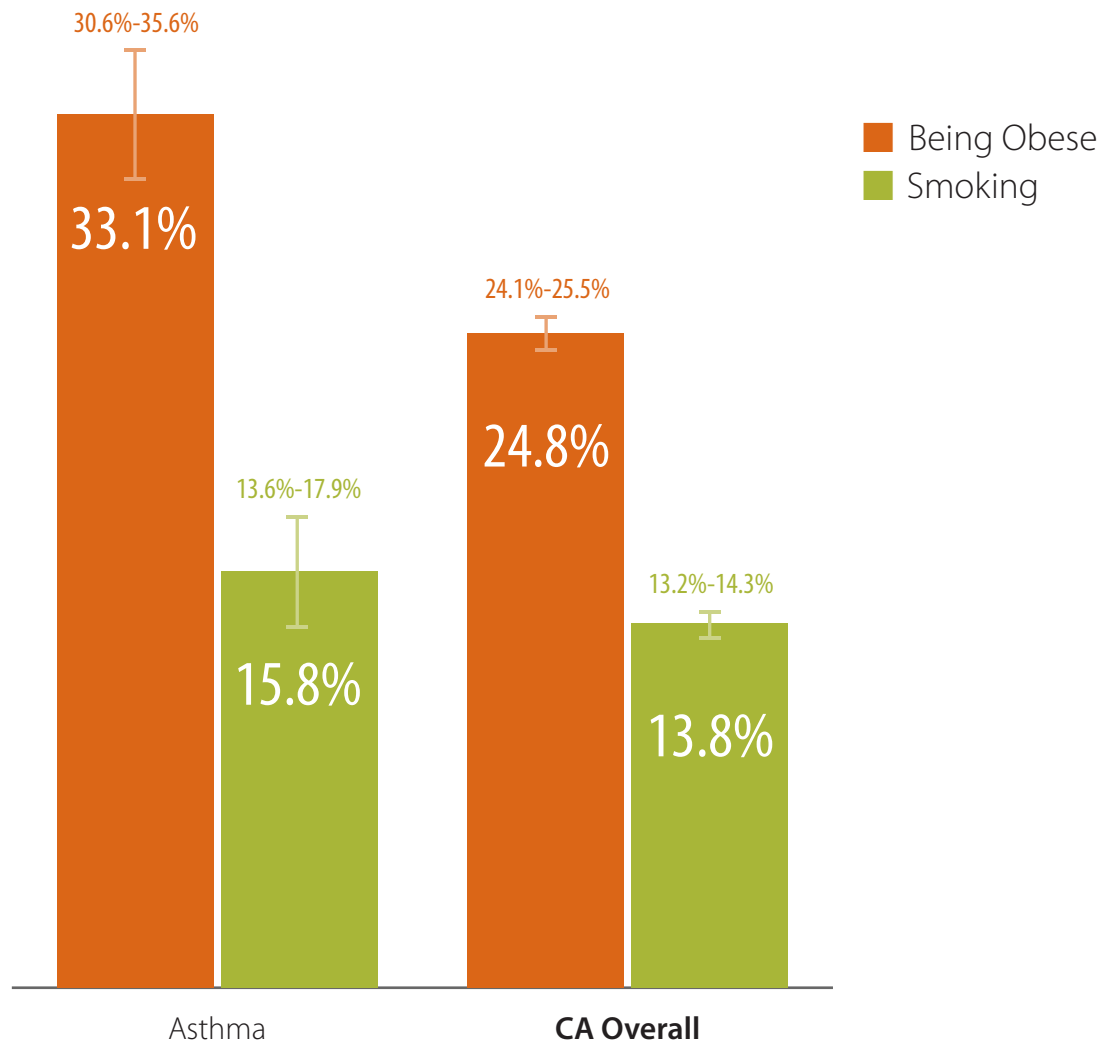
### Chronic Conditions for Adults

#### Asthma

Adults with asthma had higher emergency department visit rates than the overall California adult population (34% vs. 19%). Among adults with asthma, one-third of emergency department visits in the past year were asthma-related. Some of these visits might have been prevented through appropriate and accessible primary care, regular medications, and good asthma management.

# Risk Factors Among Adults with Asthma

California, 2011 to 2012



Notes: Adults are age 18 and older. *Asthma* is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months. *Obese* is a body mass index (BMI) of 30 or greater. *Smoking* is defined as having smoked at least 100 cigarettes in entire lifetime and currently smoking every day or some days. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

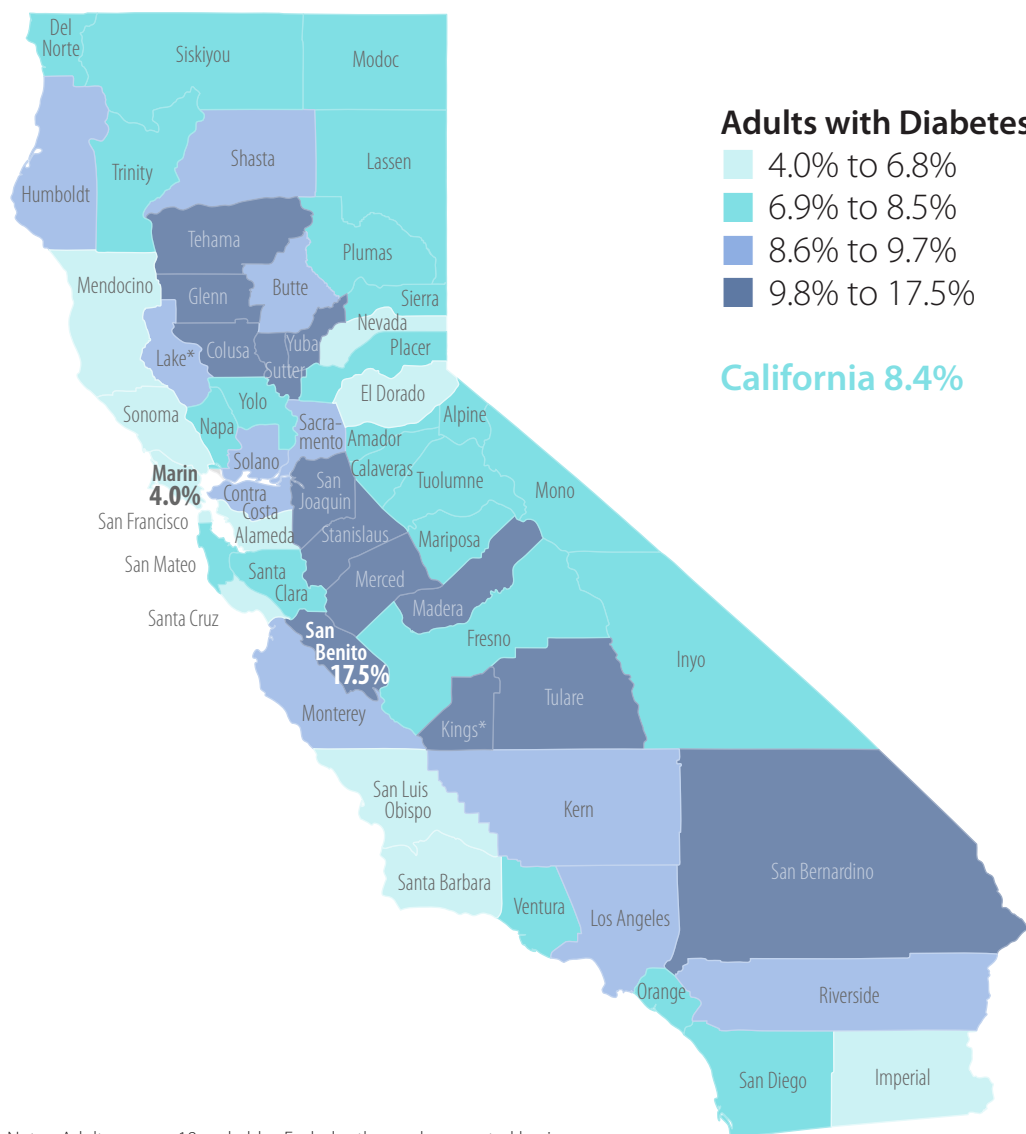
## Chronic Conditions for Adults

### Asthma

Being obese and smoking are major risk factors for asthma. Among California adults with asthma, 16%, or an estimated 340,000 people, reported being current smokers. A larger percentage of adults with asthma were obese (33%) compared to the general adult population (25%).

# Diabetes Among Adults, by County

## California, 2011 to 2012



Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. See [Appendix D](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

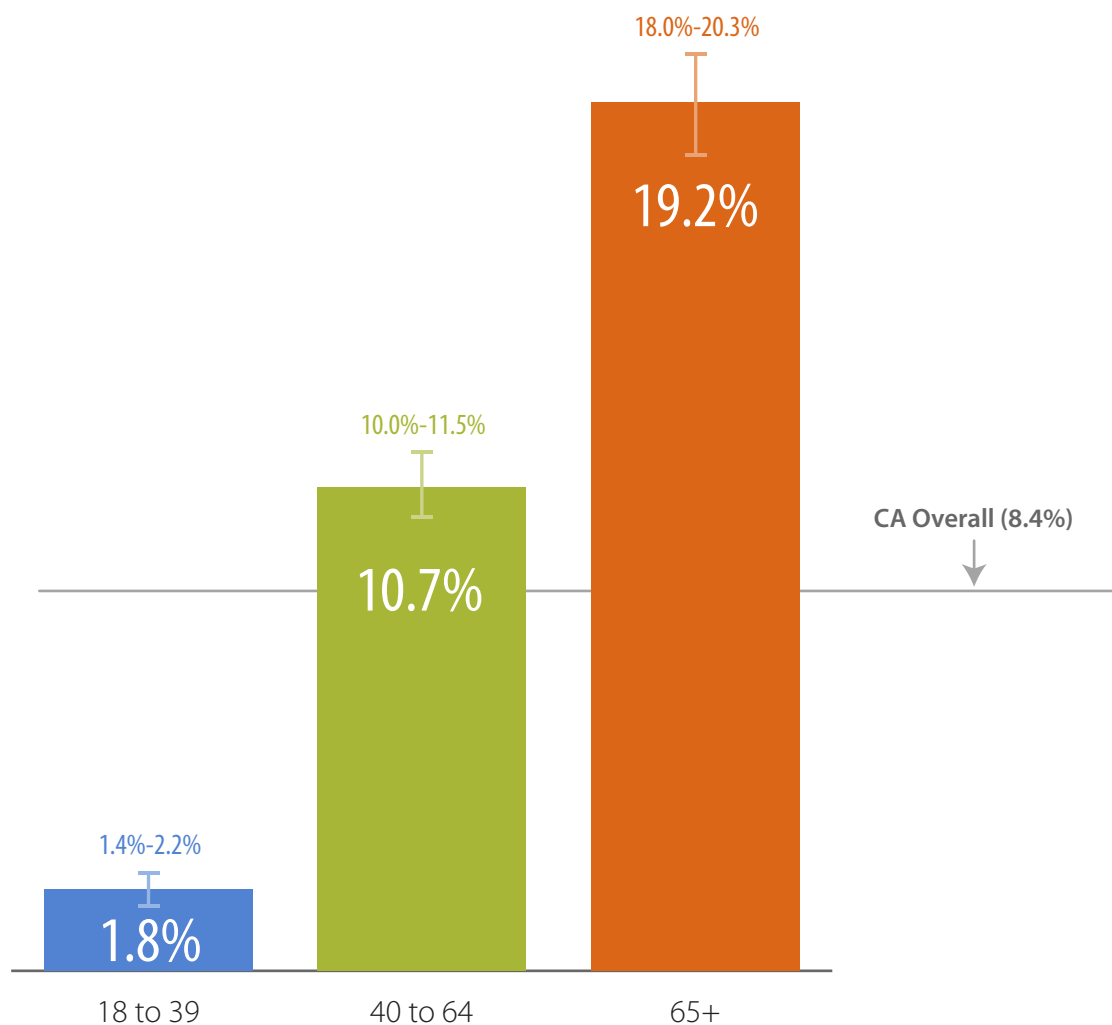
### Chronic Conditions for Adults

#### Diabetes

Statewide, 8% of adult Californians reported being diagnosed with diabetes. The prevalence of diabetes varied widely from county to county; San Benito (18%), Tulare (15%), and Yuba (13%) Counties had the highest prevalence of diabetes. Marin County had the lowest (4%).

# Diabetes Among Adults, by Age

## California, 2011 to 2012



Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

#### Diabetes

Prevalence of diabetes increased with age. One in five adults age 65 and older had diabetes compared to one in 50 adults age 18 to 39.

# Diabetes Among Adults, by Federal Poverty Level

## California, 2011 to 2012



Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. Federal Poverty Level (FPL) categories are based on eligibility for Medicaid and subsidies under the Affordable Care Act in California. Individuals and families earning at or less than 138% FPL are eligible for Medicaid, and those earning between 139% and 399% FPL are eligible for subsidies. The FPL was \$10,890 for individuals and \$22,350 for a family of four. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

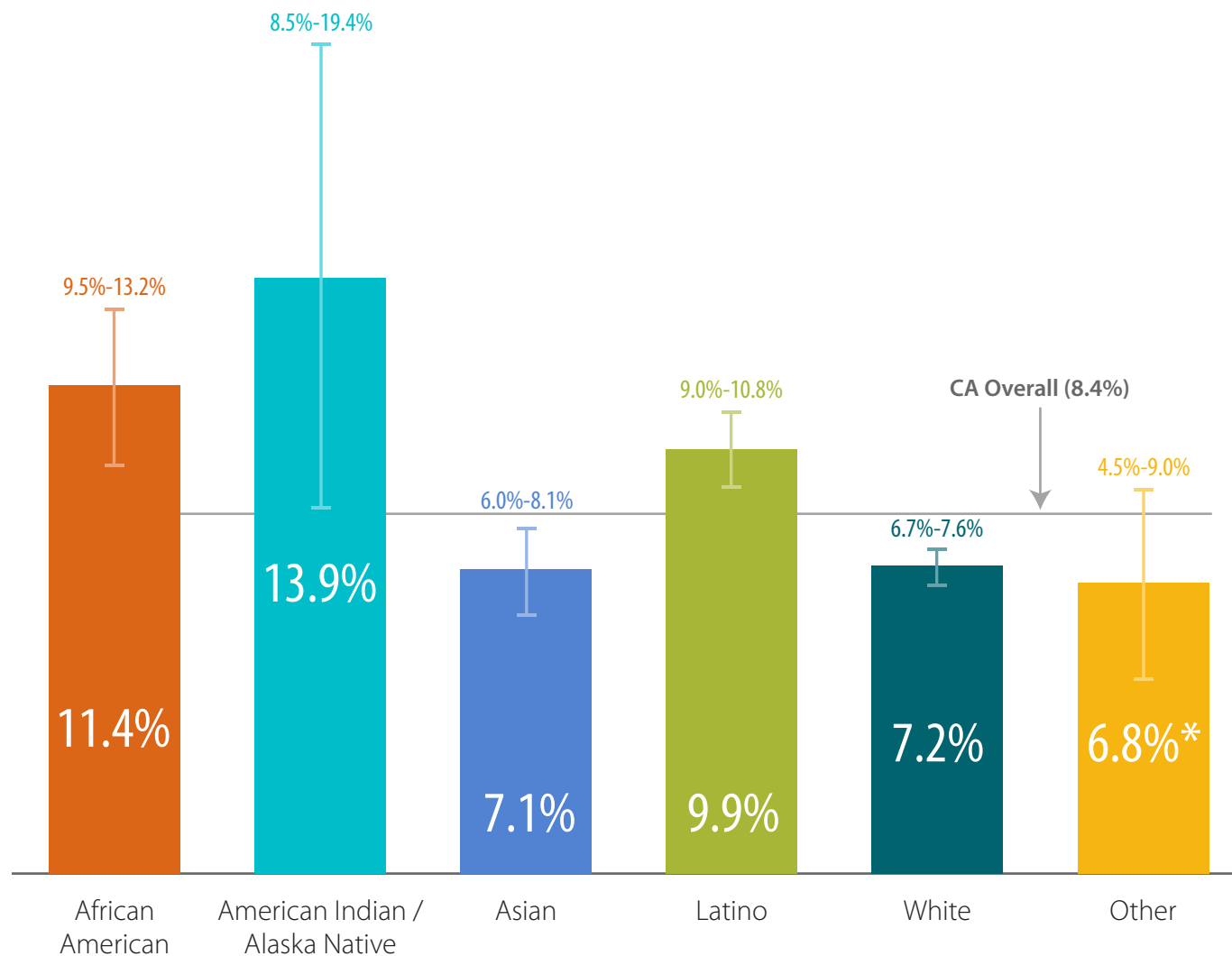
### Chronic Conditions for Adults

#### Diabetes

Diabetes prevalence among California low-income adults (under 138% FPL) was greater than that of adults with higher incomes (above 400% FPL).

# Diabetes Among Adults, by Race/Ethnicity

## California, 2011 to 2012



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. *Other* includes Native Hawaiian / Pacific Islander and those who reported being of two or more races. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

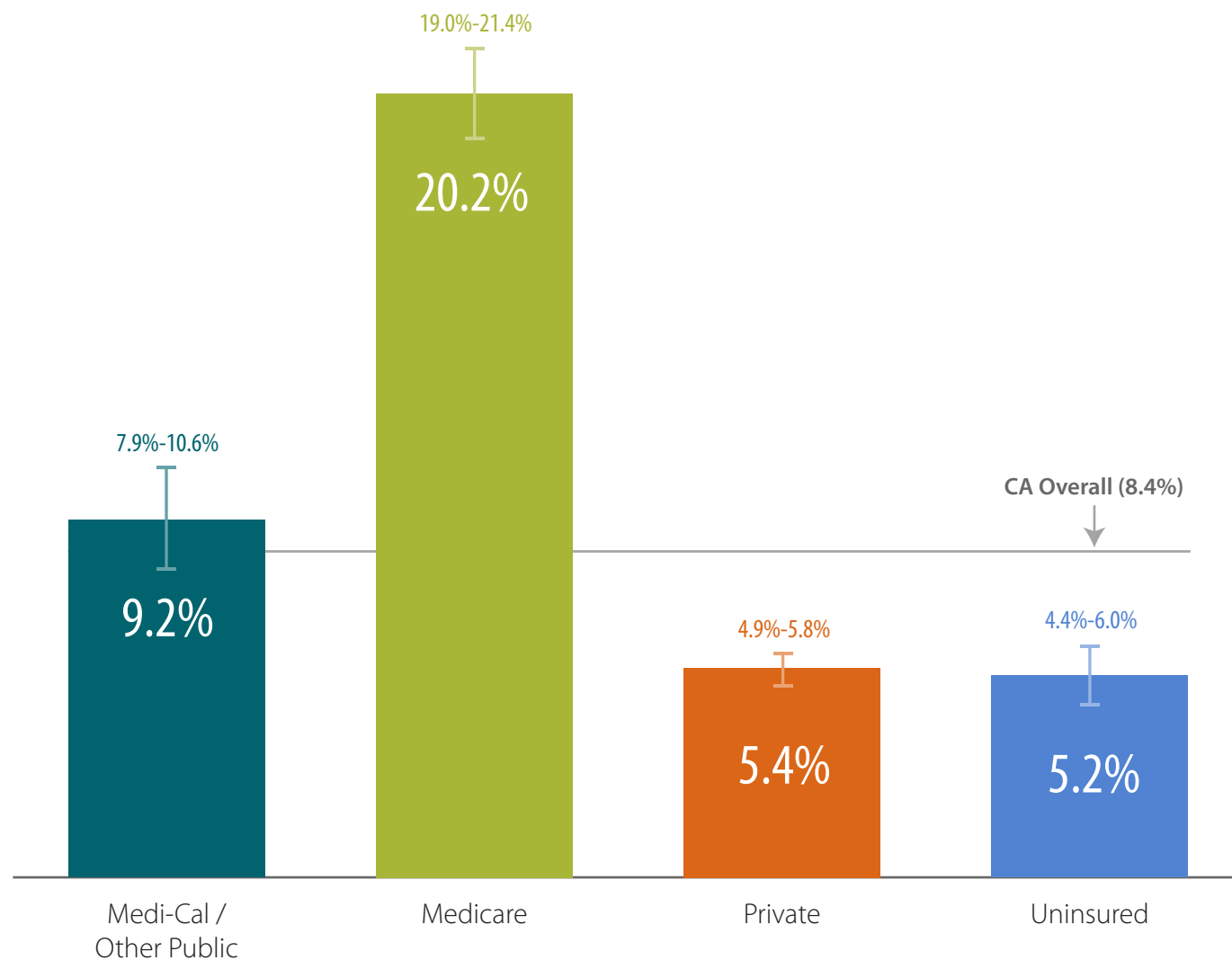
#### Diabetes

Prevalence of diabetes varied by race/ethnicity. American Indian / Alaska Natives, African Americans, and Latinos had higher rates of diabetes than Whites and Asians.



# Diabetes Among Adults, by Insurance Type

## California, 2011 to 2012



Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and Children's Health Insurance Program (CHIP). *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

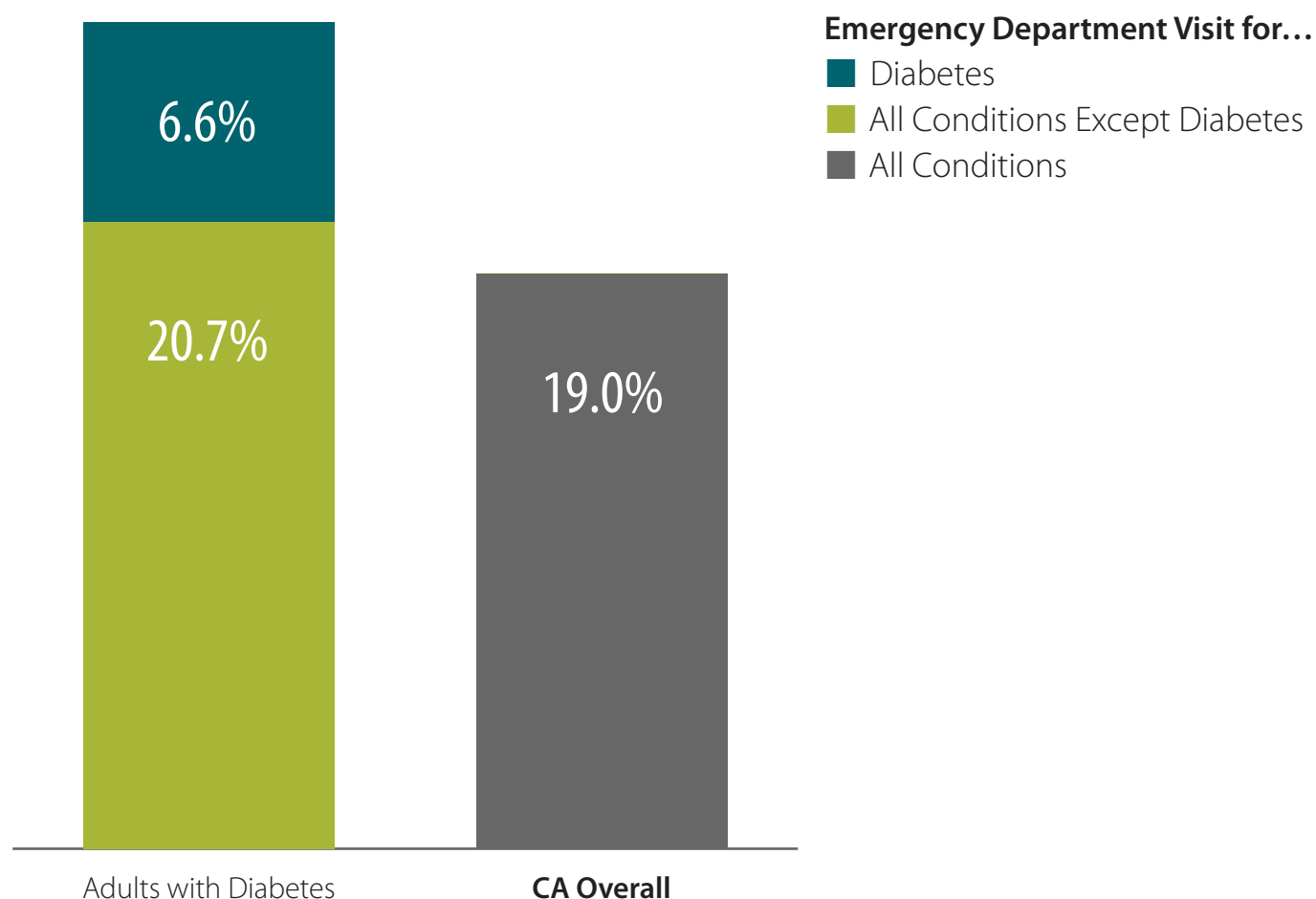
### Chronic Conditions for Adults

#### Diabetes

One in five California adults covered by Medicare had diabetes, likely due to this population's age. This rate was significantly higher than adults with other types of insurance and those with no insurance.

# Emergency Department Visits Among Adults with Diabetes

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Diabetes

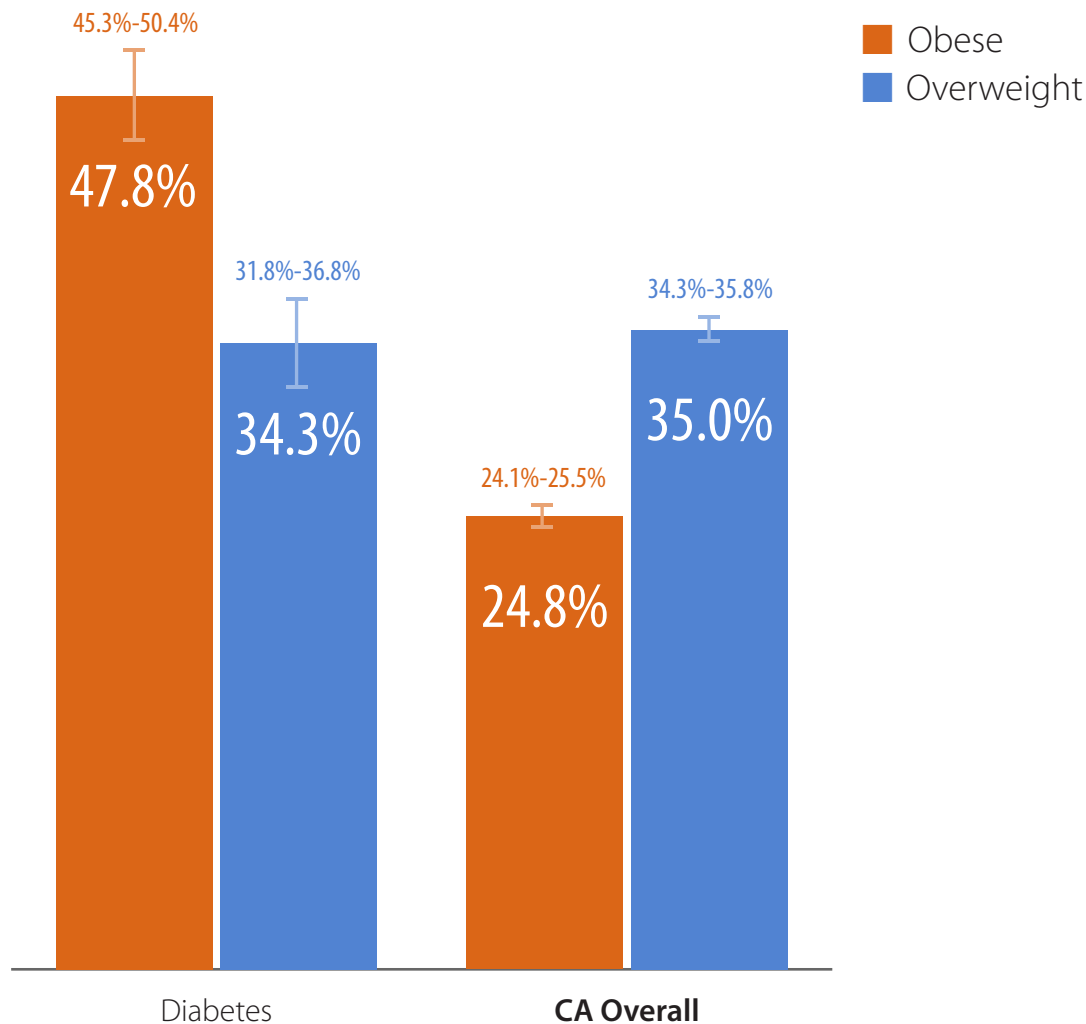
Among adults with diabetes, more than one in four (27%) reported visiting the emergency department in the past year, and nearly one-fourth of those visits were diabetes-related.

Notes: Adults are age 18 and older. Adults with diabetes were asked if, during the past 12 months, they had to visit a hospital emergency room because of their diabetes; those who answered no were asked if they had visited the emergency room for their own health. *CA Overall* is based on the general question which asked whether they had to visit a hospital emergency room for their own health during the past 12 months.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Risk Factors Among Adults with Diabetes

California, 2011 to 2012



Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. *Obese* is a BMI of 30 or greater. *Overweight* is a body mass index (BMI) of 25.0 to 29.9. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

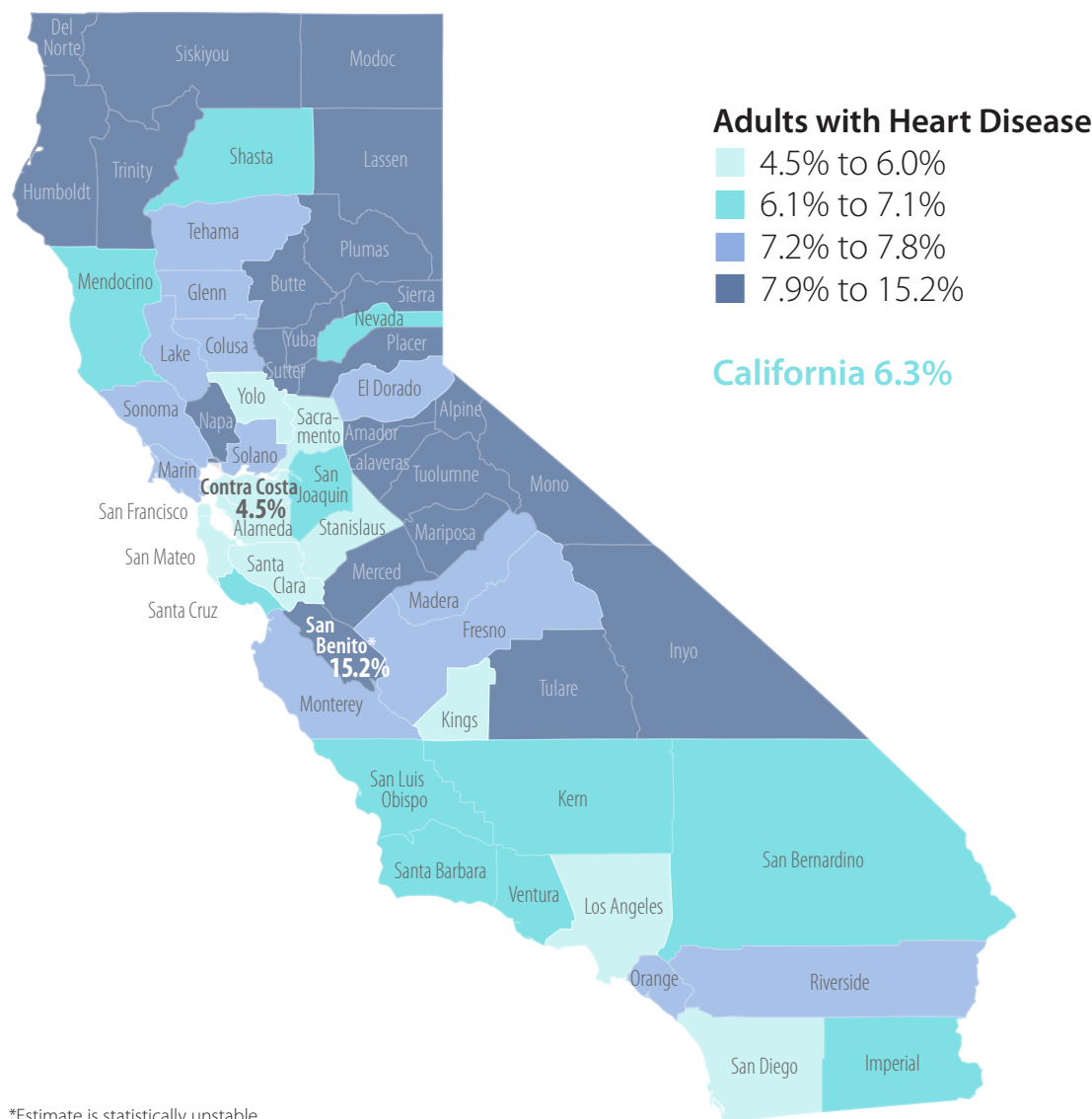
## Chronic Conditions for Adults

### Diabetes

Being overweight or obese is one risk factor linked to the development of type 2 diabetes, and having diabetes and being overweight increases the likelihood of having other major health complications. In California, among adults diagnosed with diabetes, about half were obese and an additional one-third were overweight.

# Heart Disease Among Adults, by County

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Heart Disease

Statewide, 6% of adult Californians have been diagnosed with heart disease. Prevalence of heart disease ranged from a low of 4% in Contra Costa County to a high of 15% in San Benito County.

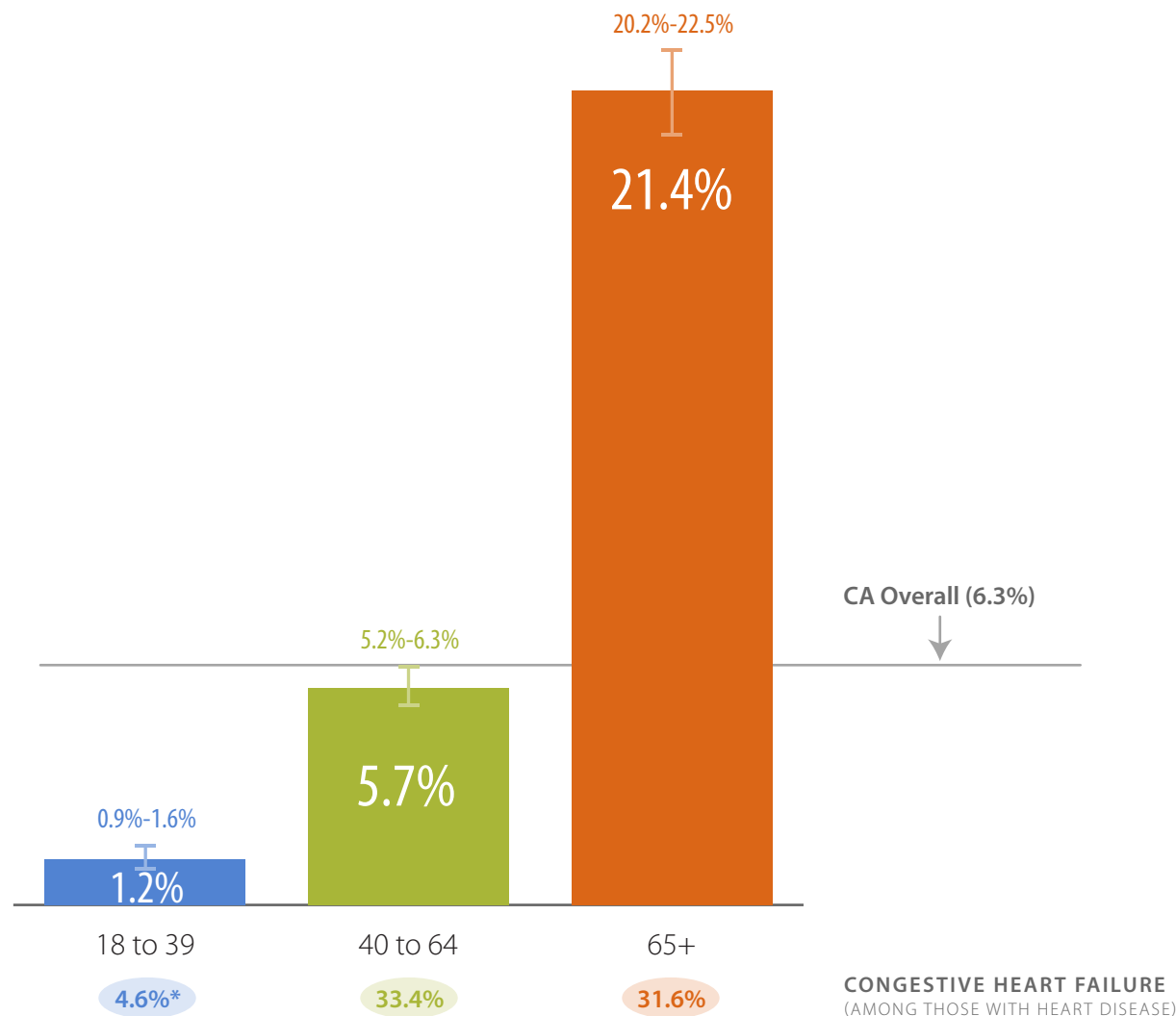
\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. See [Appendix E](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Heart Disease Among Adults, by Age

## California, 2011 to 2012



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. Includes adults who have been told they have heart disease. For those with heart disease, CHIS asked if a doctor ever told them they have heart failure or congestive heart failure. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

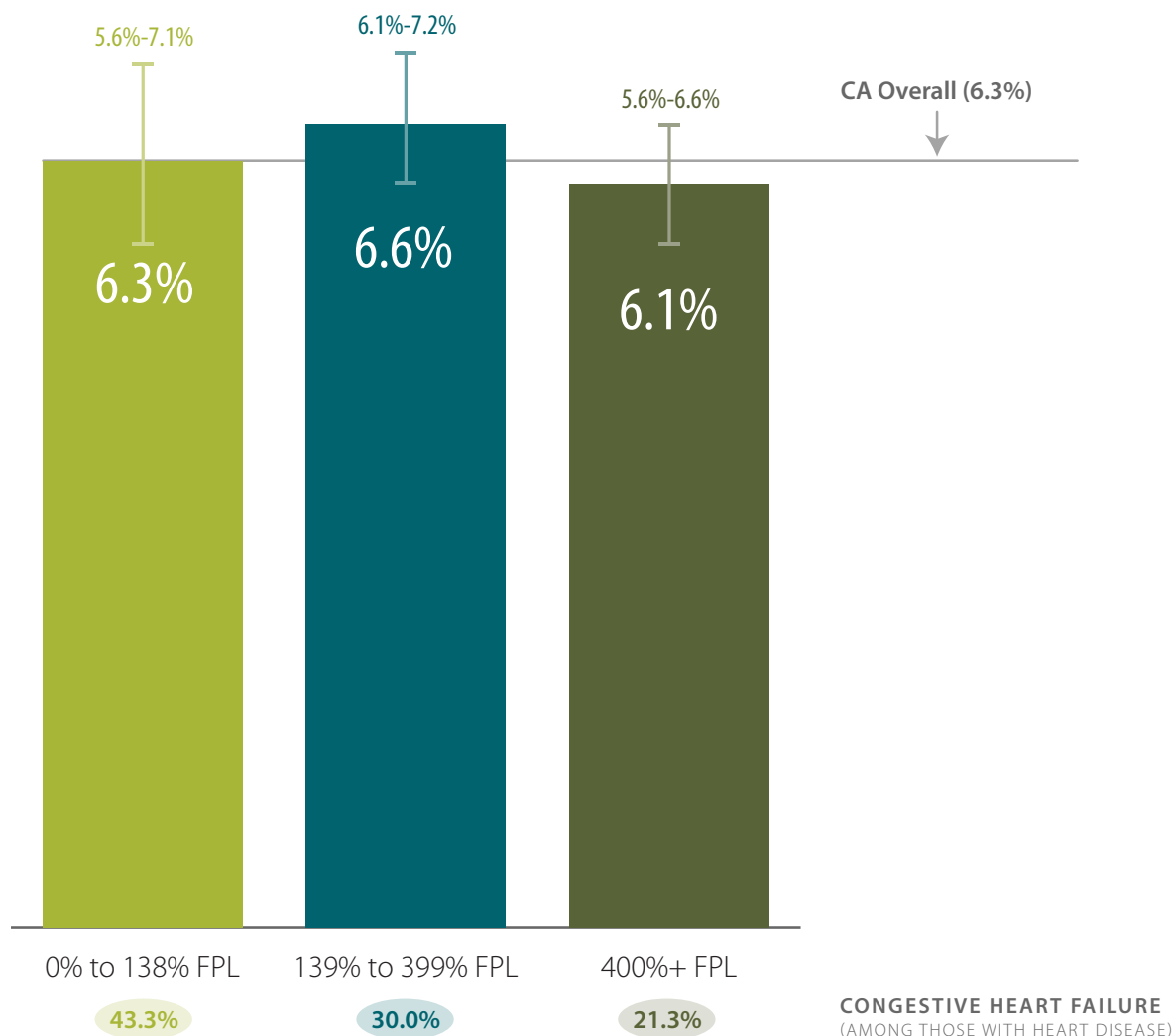
### Chronic Conditions for Adults

#### Heart Disease

The prevalence of heart disease among those 65 and older was significantly higher than those in other age groups. One in five Californians age 65 and older reported being diagnosed with heart disease. About a third of adults over 40 with heart disease had congestive heart failure, which is often the end result of severe heart disease.

# Heart Disease Among Adults, by Federal Poverty Level

## California, 2011 to 2012



Notes: Adults are age 18 and older. Includes those who have been told they have heart disease. For those with heart disease, CHIS asked if a doctor ever told them if they have heart failure or congestive heart failure. Federal Poverty Level (FPL) categories are based on eligibility for Medicaid and subsidies under the Affordable Care Act in California. Individuals and families earning 138% FPL or less are eligible for Medicaid, and those earning between 139% and 399% FPL are eligible for subsidies. The FPL was \$10,890 for individuals and \$22,350 for a family of four. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

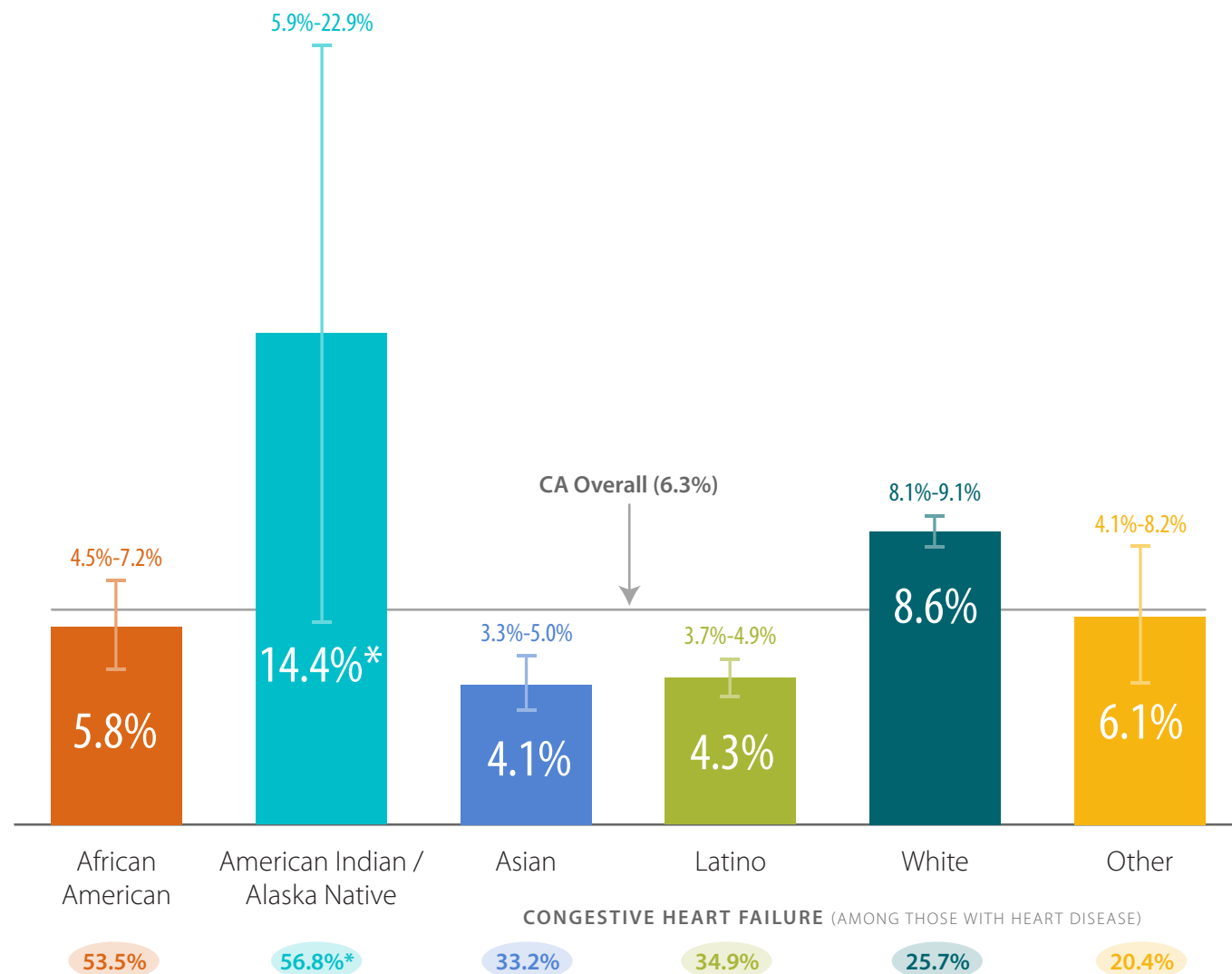
### Chronic Conditions for Adults

#### Heart Disease

The prevalence of heart disease was similar across income groups. Among those with heart disease, however, the prevalence of congestive heart failure for the lowest income Californians (up to 138% FPL) was twice as high as those in the highest income group (above 400% FPL).

# Heart Disease Among Adults, by Race/Ethnicity

## California, 2011 to 2012



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. Includes adults who have been told they have heart disease. For those with heart disease, CHIS asked if a doctor ever told them they have heart failure or congestive heart failure. *Other* includes Native Hawaiian / Pacific Islander and those who reported being of two or more races. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

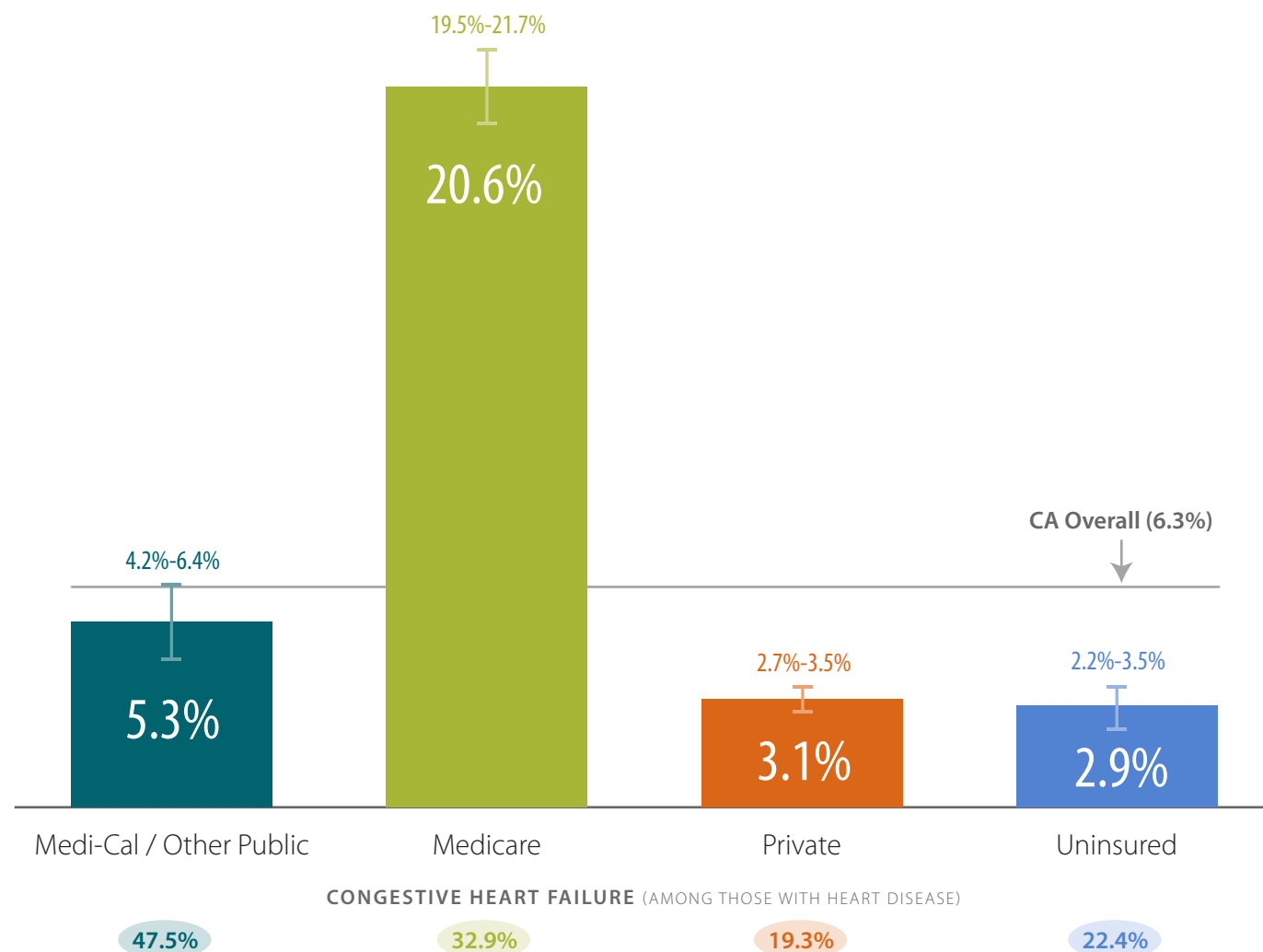
#### Heart Disease

The prevalence of heart disease was highest for White adults, compared to other racial/ethnic groups. (The data for American Indian / Alaska Native were not reliable for this analysis.) While the prevalence of heart disease among African Americans was near the state average, more than half of African Americans with heart disease had been diagnosed with congestive heart failure.



# Heart Disease Among Adults, by Insurance Type

## California, 2011 to 2012



Notes: Adults are age 18 and older. Includes adults who have been told they have heart disease. For those with heart disease, CHIS asked if a doctor ever told them they have heart failure or congestive heart failure. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and Children's Health Insurance Program (CHIP). *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

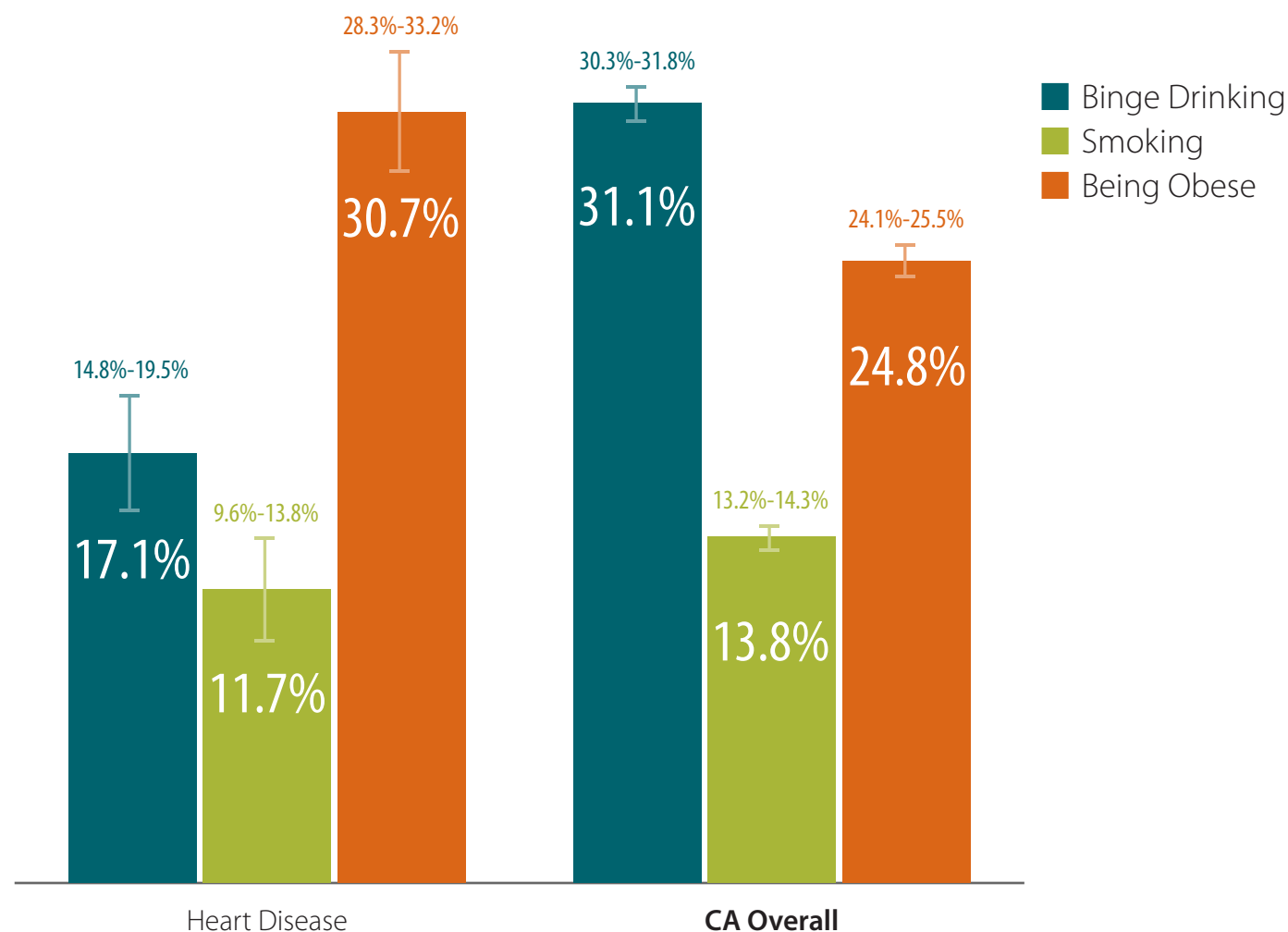
### Chronic Conditions for Adults

#### Heart Disease

More than one-fifth (21%) of those covered by Medicare had heart disease, and of those with heart disease, one-third (33%) had been diagnosed with congestive heart failure. While only 5% of California adults covered by Medi-Cal and other public insurance had heart disease, of those, nearly half (48%) had been diagnosed with congestive heart failure.

# Risk Factors Among Adults with Heart Disease

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Obese* is a body mass index (BMI) of 30 or greater. *Binge Drinking* is defined as consuming four or more alcoholic drinks on one or more occasion for women and five or more alcoholic drinks on one or more occasion for men at any point in the past year. *Smoking* is defined as having smoked at least 100 cigarettes in entire lifetime and currently smoking every day or some days. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

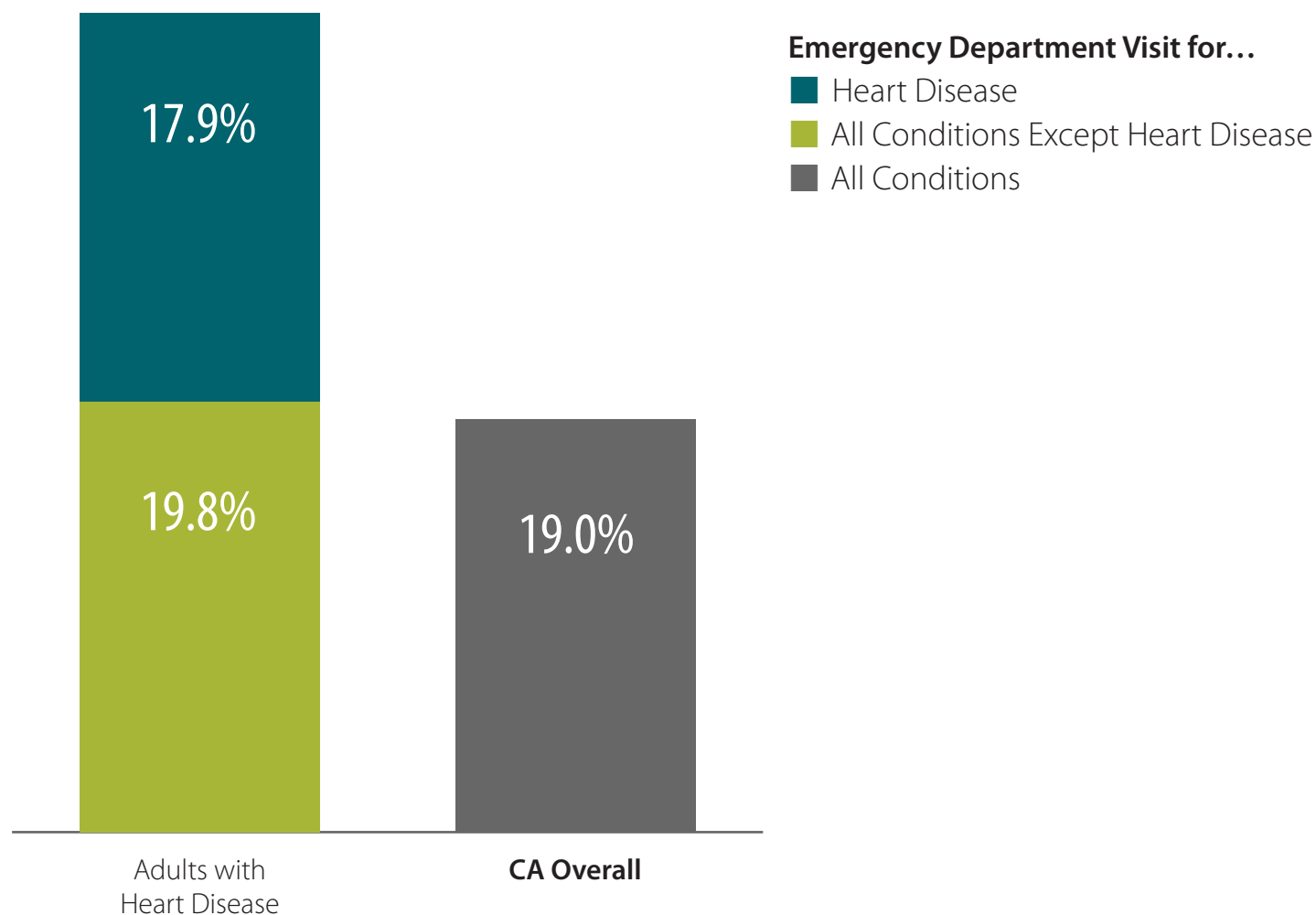
### Chronic Conditions for Adults

#### Heart Disease

Excessive alcohol consumption and tobacco use are two lifestyle factors that put people at risk for developing or further exacerbating heart disease. Nearly 1 in 5 of those with heart disease reported binge drinking in the past year and 1 in 10 were current smokers. Being obese is another risk factor for worsening heart disease; 31% of adults with heart disease were obese.

# Emergency Department Visits, Adults with Heart Disease

## California, 2011 to 2012



### Chronic Conditions for Adults

#### Heart Disease

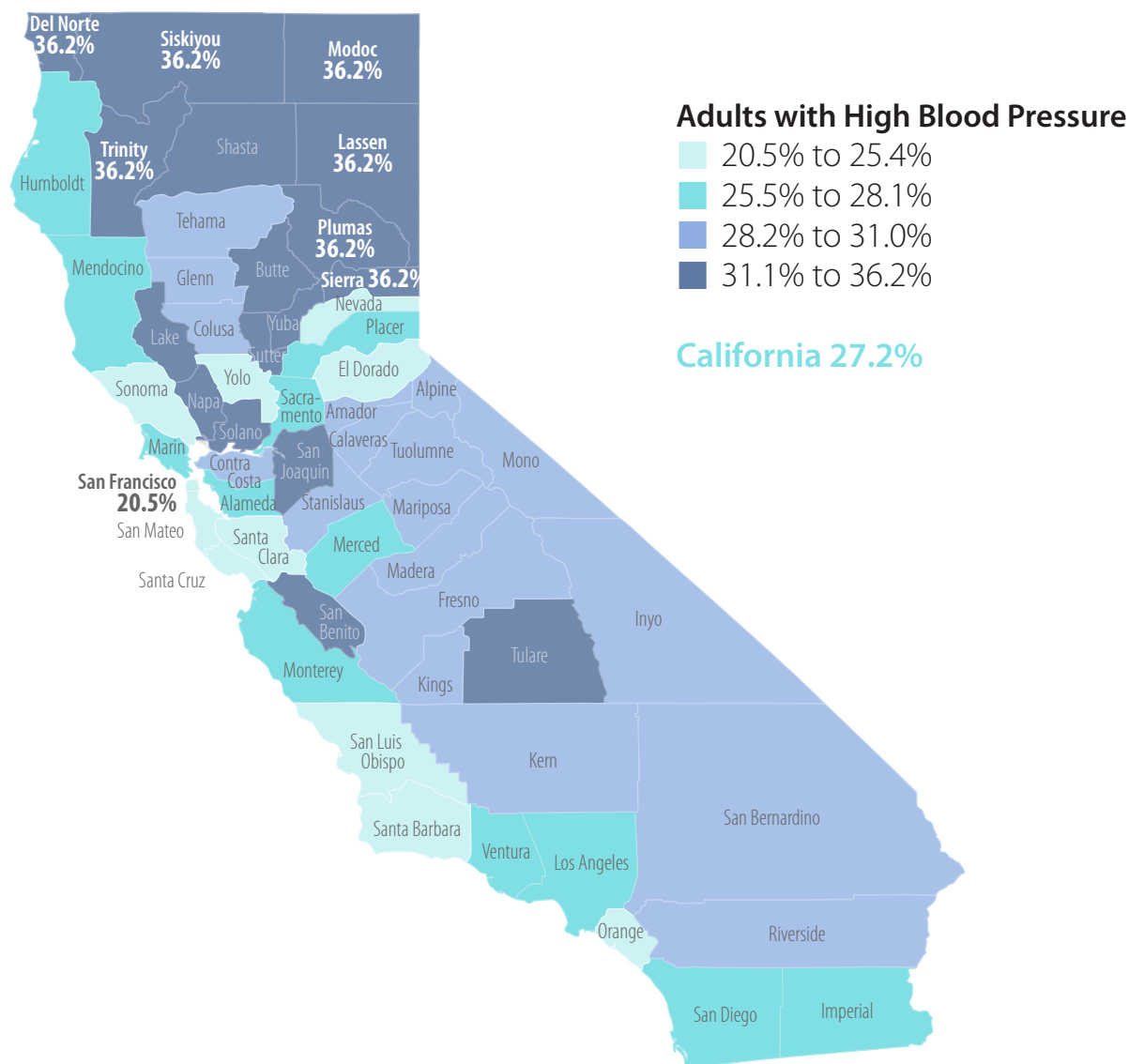
Overall, adults with heart disease had nearly twice the rate of emergency department visits as the overall California adult population (38%).

Notes: Adults are age 18 and older. Adults with heart disease were asked if, during the past 12 months, they had to visit a hospital emergency room because of their heart disease; those who answered no were asked if they had visited the emergency room for their own health. *CA Overall* is based on the general question, which asked whether they had to visit a hospital emergency room for their own health during the past 12 months.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# High Blood Pressure Among Adults, by County

## California, 2011 to 2012



Notes: Adults are age 18 and older. See [Appendix G](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

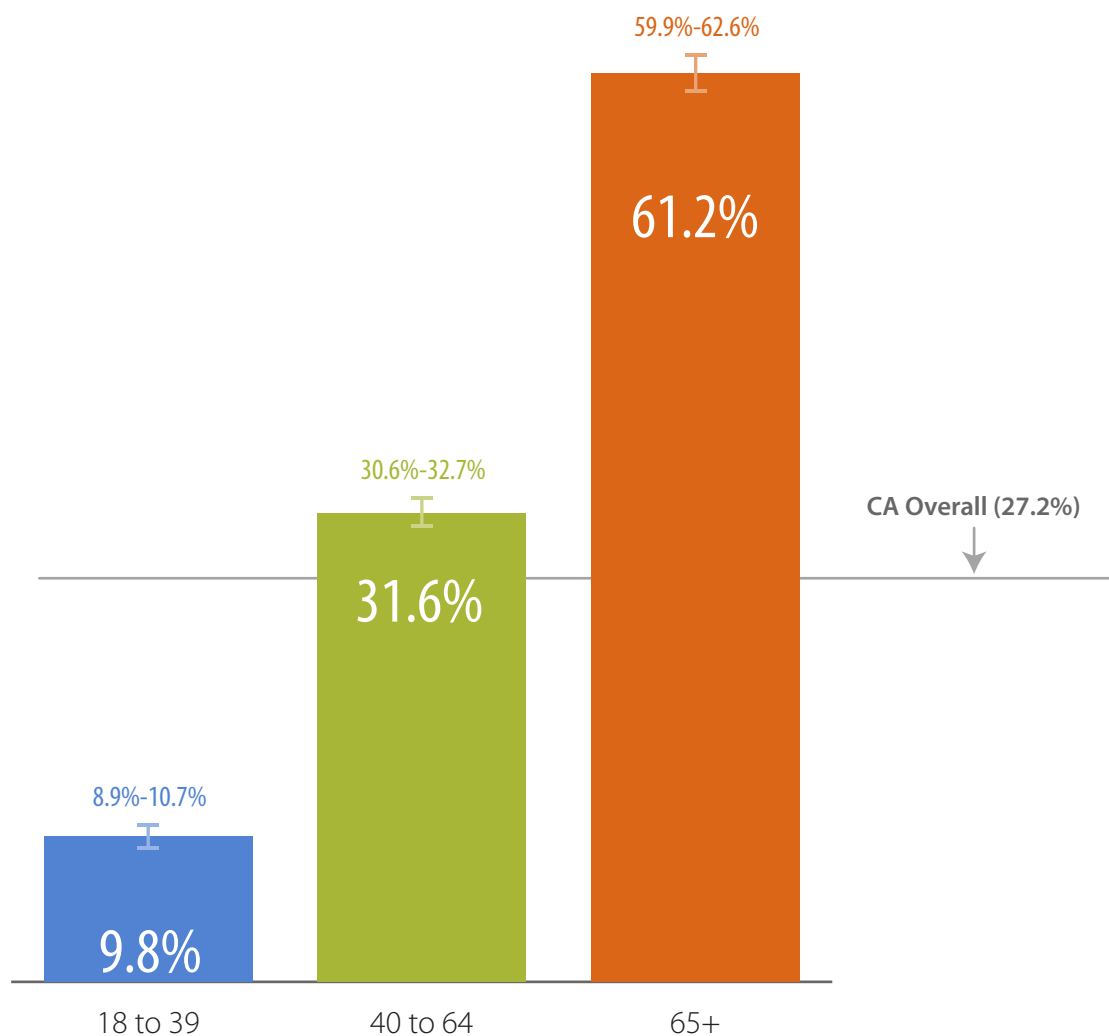
### Chronic Conditions for Adults

#### High Blood Pressure

Approximately one in four California adults — over 7.5 million people — reported ever being diagnosed with high blood pressure. Many of the counties with the highest rates of high blood pressure were in the rural northern part of the state. San Francisco had the lowest rate (21%).

# High Blood Pressure Among Adults, by Age

## California, 2011 to 2012



Notes: Adults are age 18 and older. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

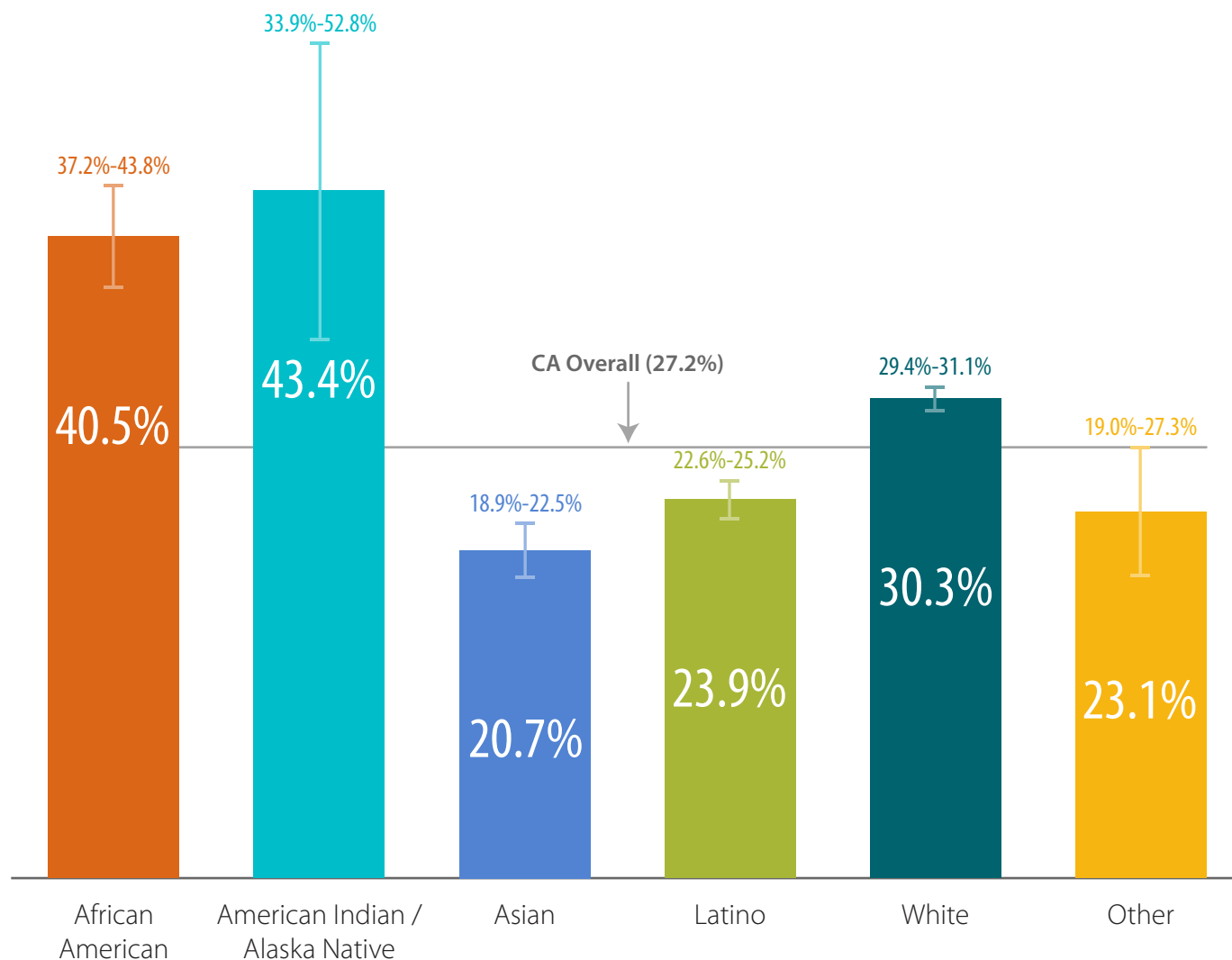
### Chronic Conditions for Adults

#### High Blood Pressure

The risk of having high blood pressure greatly increases with age. While less than 1 in 10 adults age 18 to 39 reported having high blood pressure, 3 in 10 adults age 40 to 64, and 6 in 10 adults age 65 and older reported having high blood pressure.

# High Blood Pressure Among Adults, by Race/Ethnicity

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Other* includes those who reported being Native Hawaiian / Pacific Islander and those who reported being of two or more races. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

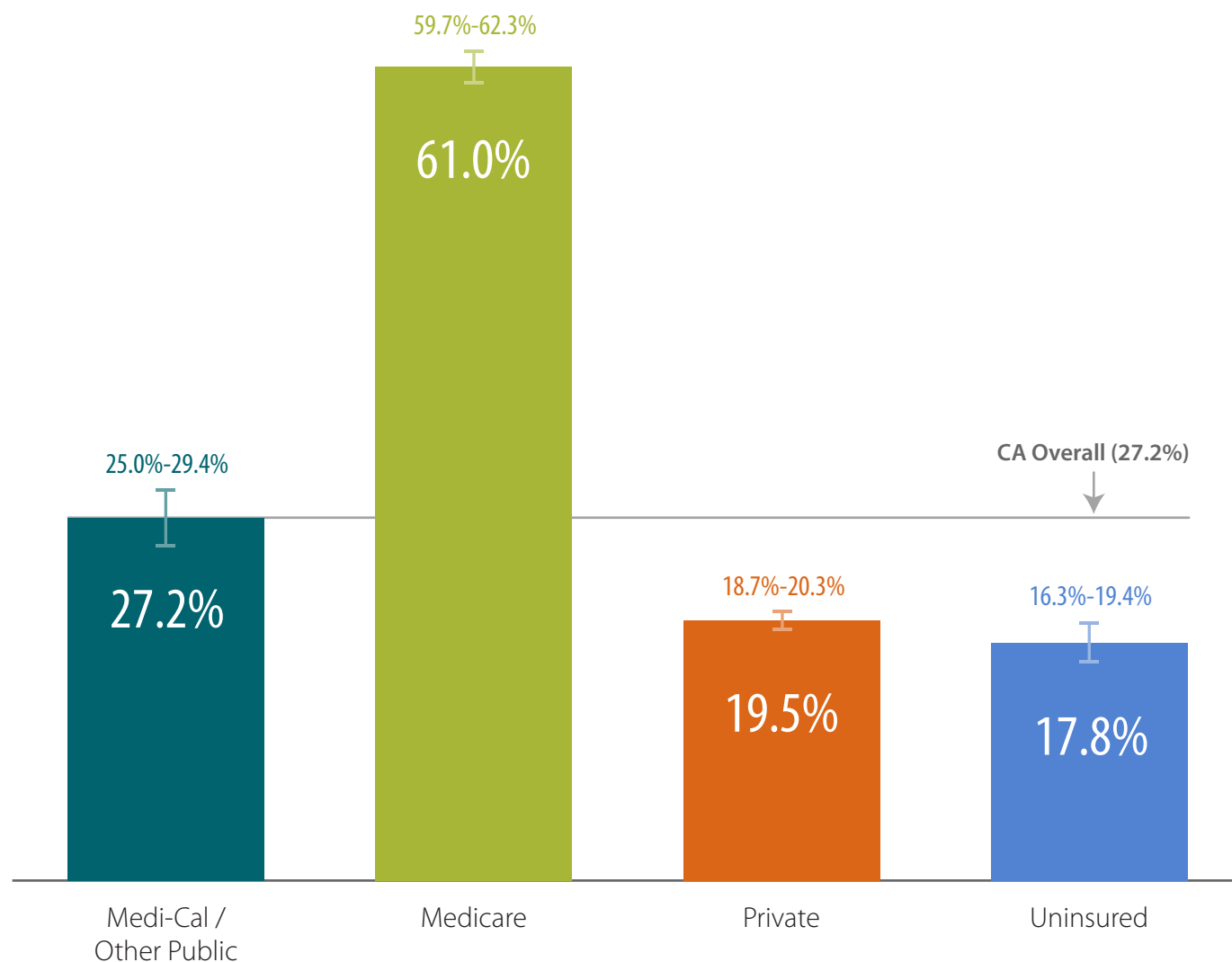
### Chronic Conditions for Adults

#### High Blood Pressure

American Indian / Alaska Natives (43%) and African Americans (41%) were more likely to report having high blood pressure than Asians (21%), Latinos (24%), Whites (30%), and other races (23%).

# High Blood Pressure Among Adults, by Insurance Type

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and Children's Health Insurance Program (CHIP). *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

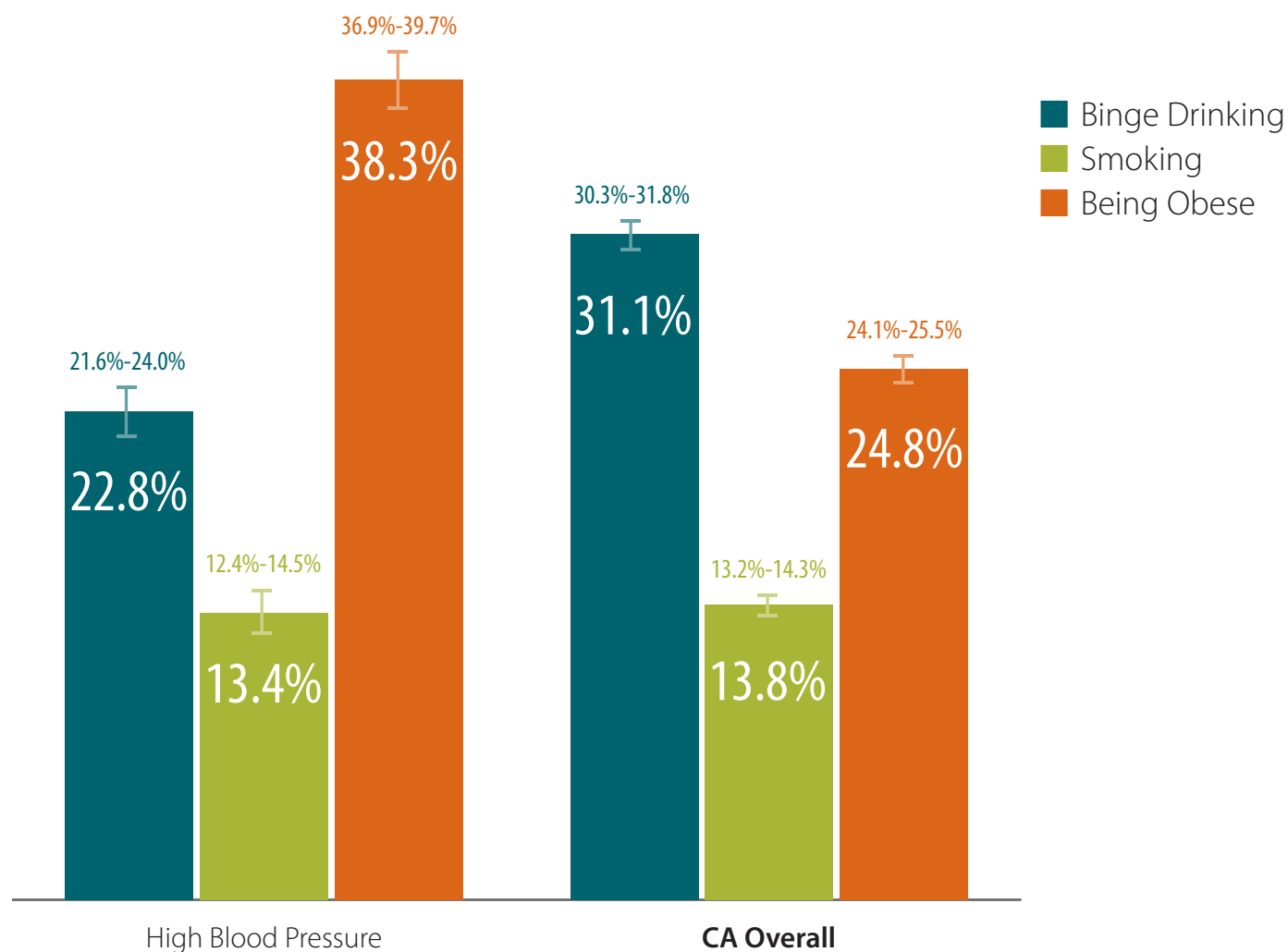
### Chronic Conditions for Adults

#### High Blood Pressure

The prevalence of high blood pressure was the highest among Medicare beneficiaries (61%), likely due to this population's age. Among adults covered by Medi-Cal / other public insurance, the prevalence of high blood pressure (27%) was higher than among those with private insurance (20%) and the uninsured (18%).

# Risk Factors Among Adults with High Blood Pressure

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Obese* is a body mass index (BMI) of 30 or greater. *Binge Drinking* is defined as consuming four or more alcoholic drinks on one or more occasion for women and five or more alcoholic drinks on one or more occasion for men at any point in the past year. *Smoking* is defined as having smoked at least 100 cigarettes in entire lifetime and currently smoking every day or some days. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

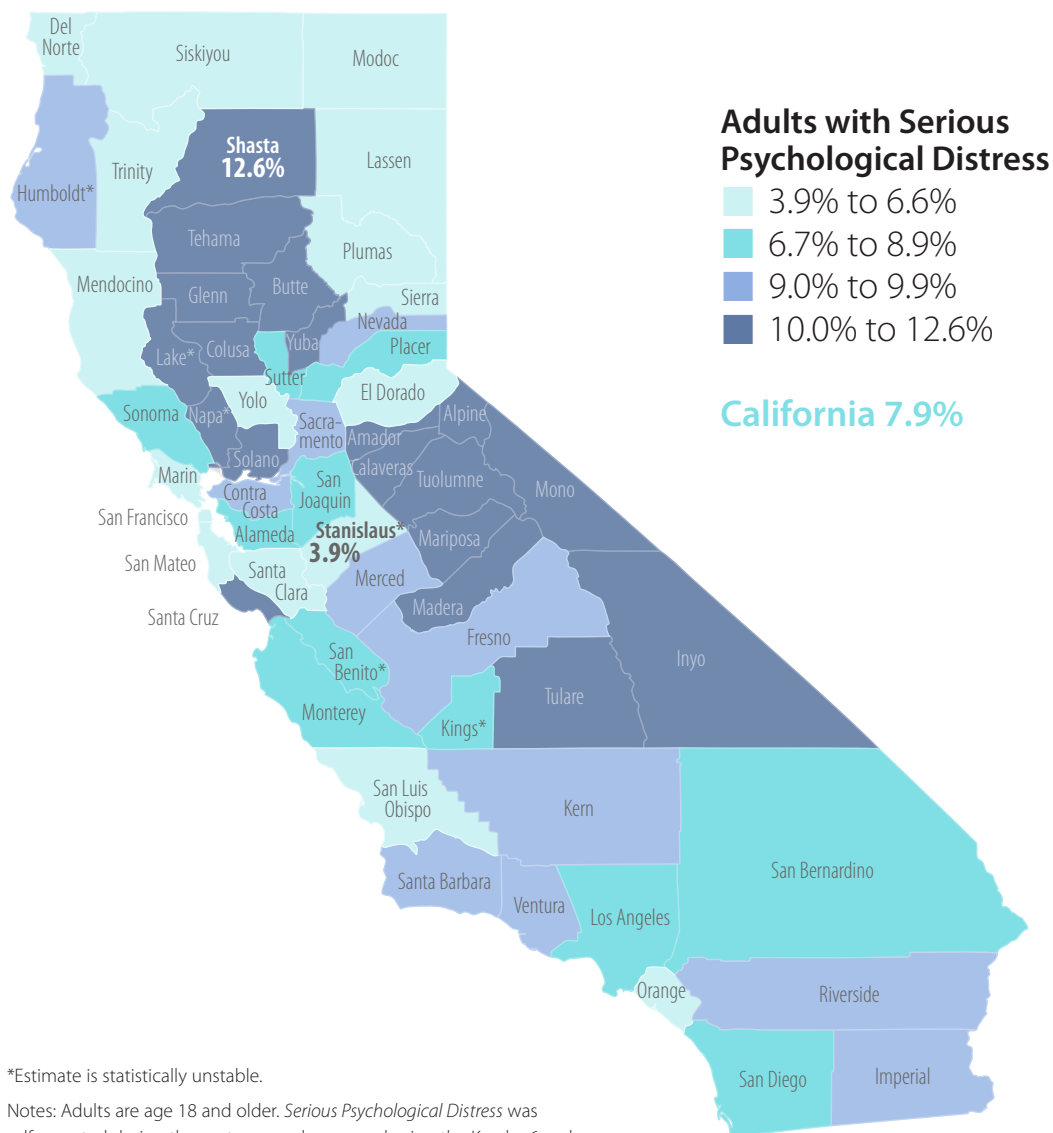
#### High Blood Pressure

Among California adults with high blood pressure, 38% were obese, 23% reported binge drinking, and 13% said they currently smoke.



# Serious Psychological Distress Among Adults, by County

## California, 2011 to 2012



\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. See [Appendix H](#) for detail by county.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

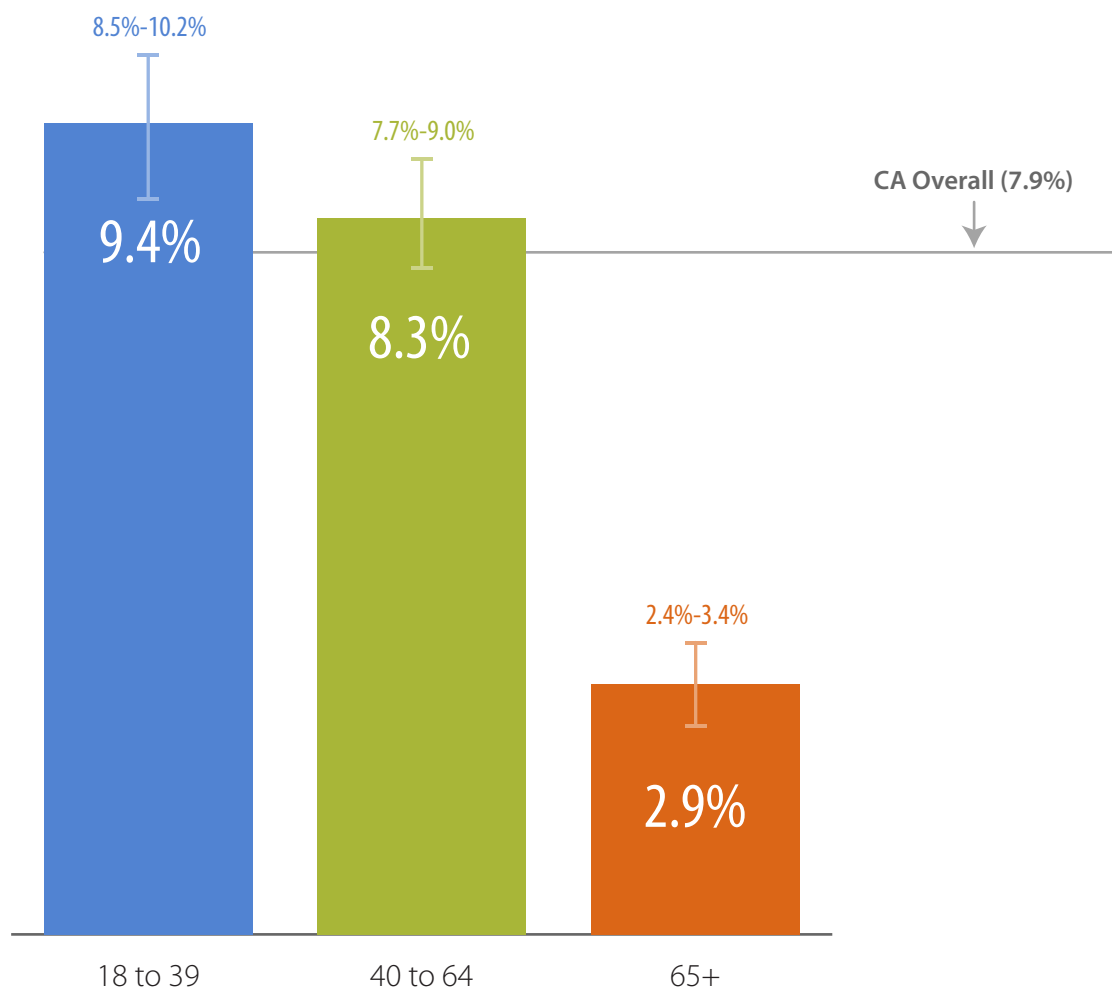
### Chronic Conditions for Adults

#### Serious Psychological Distress

Among California adults, 8% reported experiencing serious psychological distress in the past year. The highest rates of serious psychological distress were found in counties in the San Joaquin Valley and in the Northern and Sierra regions.

# Serious Psychological Distress Among Adults, by Age

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

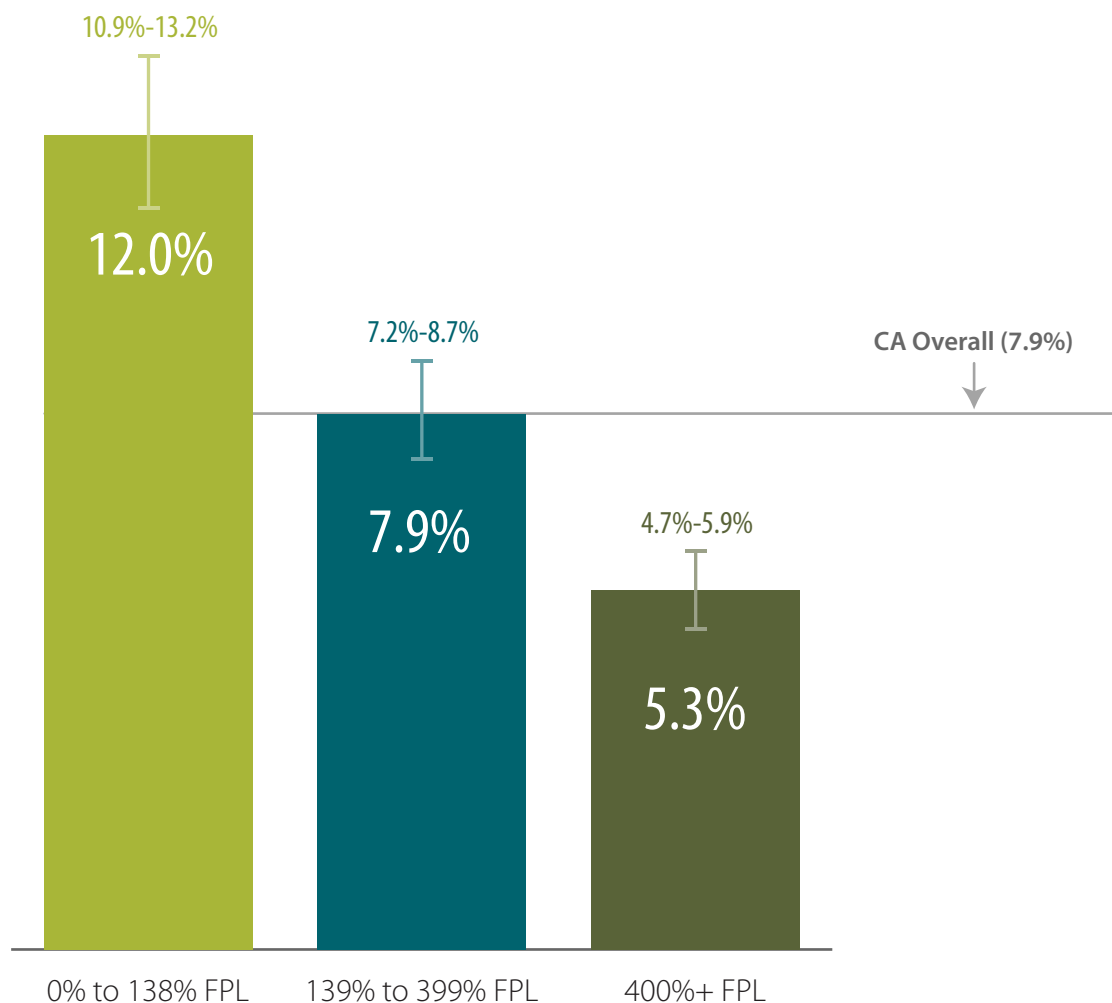
### Chronic Conditions for Adults

#### Serious Psychological Distress

The prevalence of serious psychological distress decreases with age. Self-reported serious psychological distress was approximately three times higher among adults age 18 to 39 (9%) compared to adults age 65 and older (3%).

# Serious Psychological Distress Among Adults, by FPL

## California, 2011 to 2012



Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. Federal Poverty Level (FPL) categories are based on eligibility for Medicaid and subsidies under the Affordable Care Act in California. Individuals and families earning 138% FPL or less are eligible for Medicaid, and those earning between 139% and 399% FPL are eligible for subsidies. The FPL was \$10,890 for individuals and \$22,350 for a family of four. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

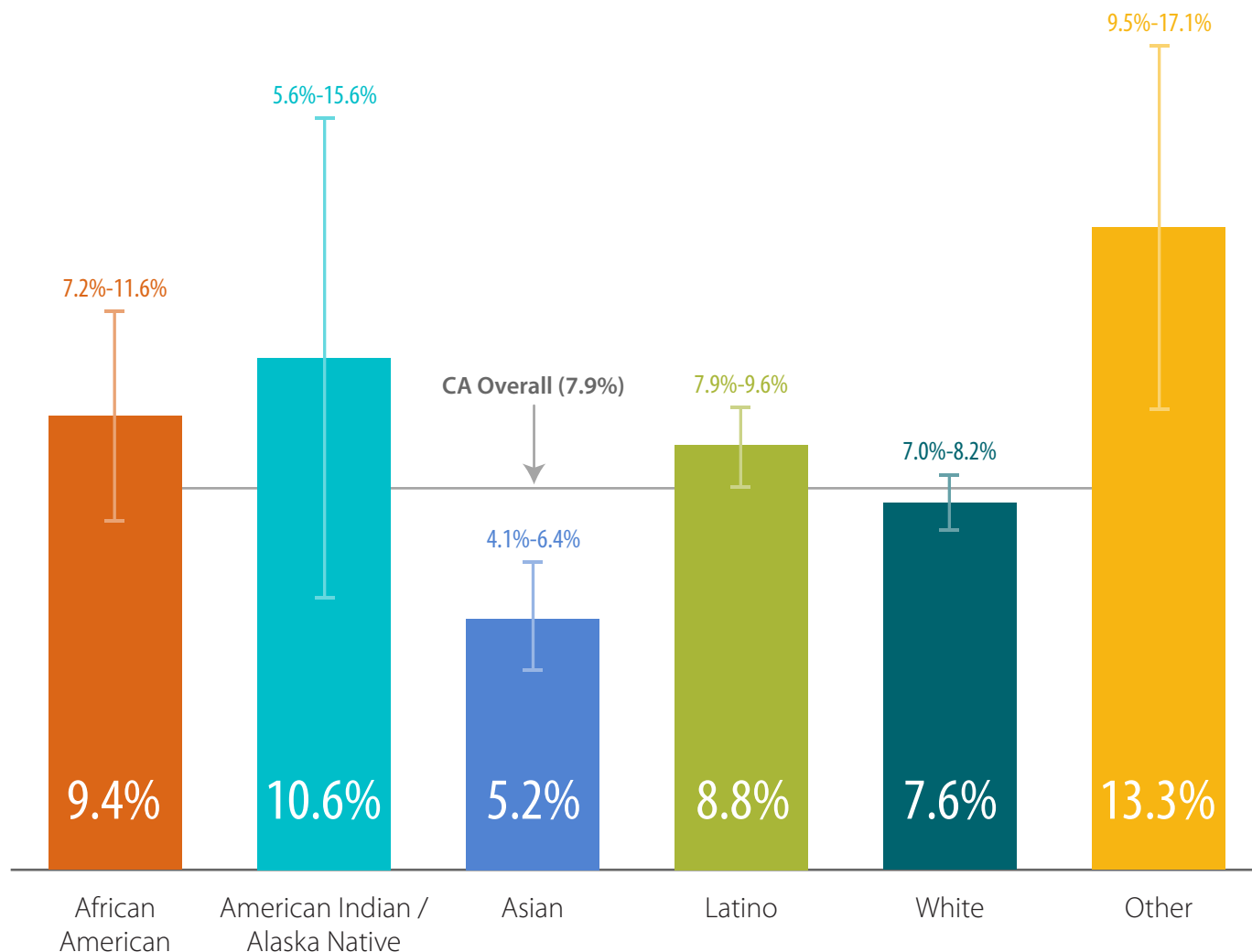
### Chronic Conditions for Adults

#### Serious Psychological Distress

In California, serious psychological distress was more likely to be experienced by lower-income respondents than those with higher incomes. The prevalence of serious psychological distress was more than two times greater among lowest income adults overall (138% FPL and lower) than those in the highest income group (400+% FPL).

# Serious Psychological Distress Among Adults

## by Race/Ethnicity, California, 2011 to 2012



### Chronic Conditions for Adults

#### Serious Psychological Distress

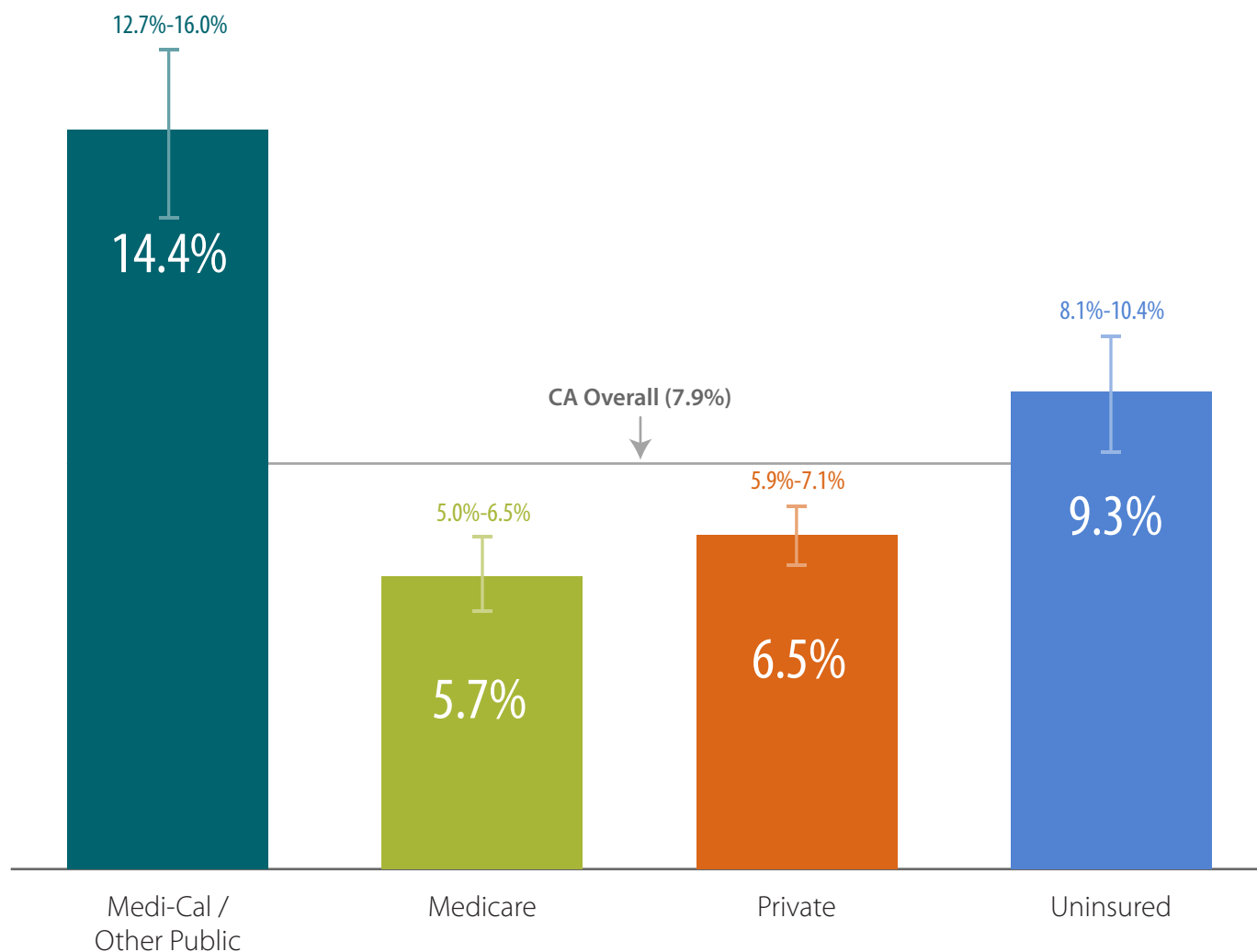
Approximately 1 in 10 American Indians / Alaskan Natives, African Americans, and Latinos experienced serious psychological distress in the past year.

Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. *Other* includes those who reported being Native Hawaiian / Pacific Islander and those who reported being of two or more races. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

# Serious Psychological Distress Among Adults

## by Insurance Type, California, 2011 to 2012



Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. *Medi-Cal / Other Public* includes those who are covered primarily through Medi-Cal or other government-funded programs, such as Healthy Families and Children's Health Insurance Program (CHIP). *Medicare* includes those covered by Medicare only, Medicare and Medi-Cal (Medi-Medi), and Medicare plus other secondary insurance. Confidence intervals are shown as vertical lines.

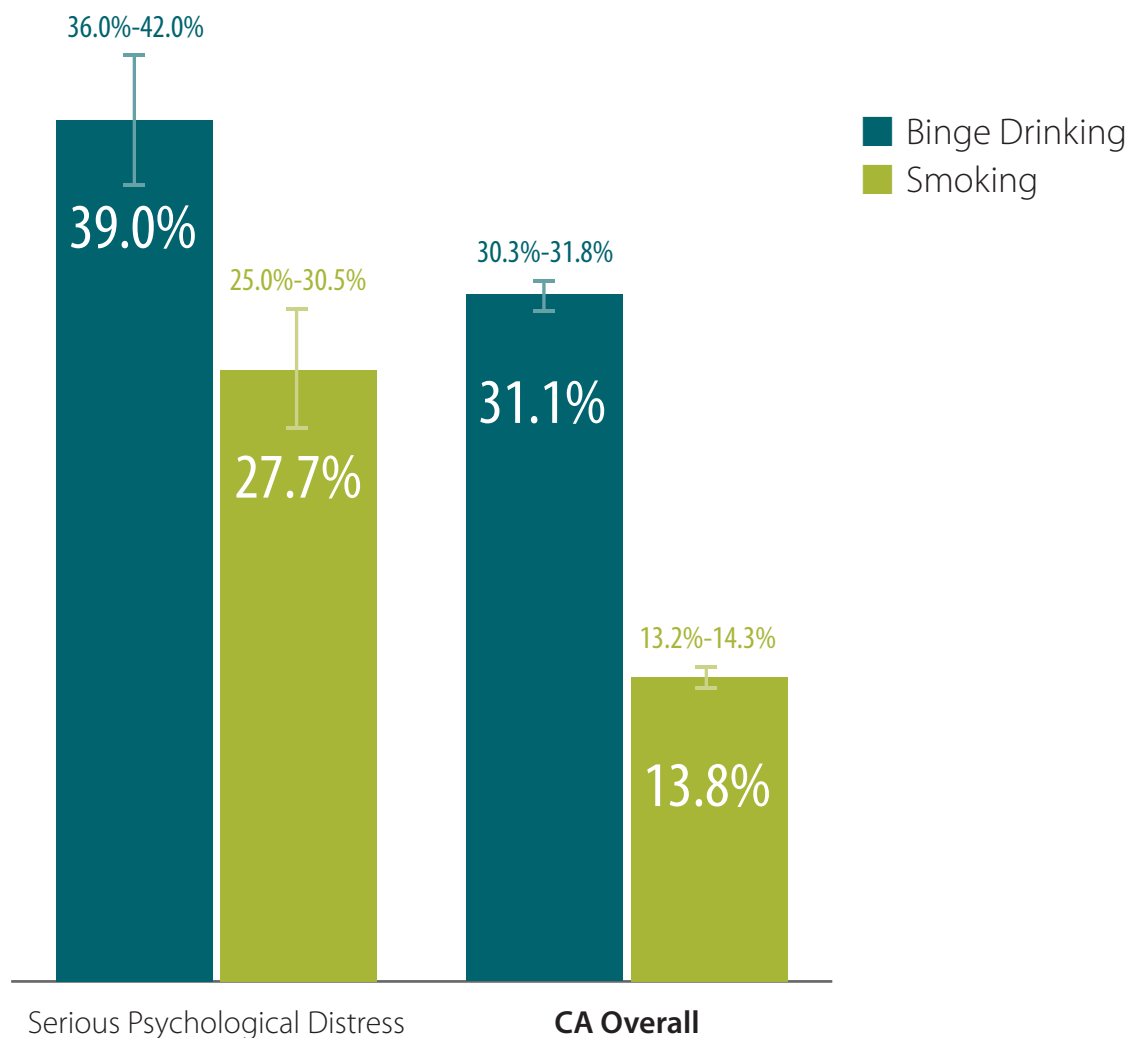
Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

### Chronic Conditions for Adults

#### Serious Psychological Distress

The prevalence of serious psychological distress was more than twice as high among those with Medi-Cal / other public insurance (14%) and nearly 1.5 times greater among the uninsured (9%) than among those with private insurance.

# Risk Factors Among Adults with Serious Psychological Distress, California, 2011 to 2012



Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44. *Binge Drinking* is defined as consuming four or more alcoholic drinks on one or more occasion for women and five or more alcoholic drinks on one or more occasion for men at any point in the past year. *Smoking* is defined as having smoked at least 100 cigarettes in entire lifetime and currently smoking every day or some days. Confidence intervals are shown as vertical lines.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Chronic Conditions for Adults

### Serious Psychological Distress

Excessive alcohol consumption and smoking have been identified as risk factors associated with serious psychological distress among adults. Among Californians who reported serious psychological distress in the past year, the prevalence of binge drinking and current smoking was higher than the state average.

# Definitions

All conditions were self-reported.

**Asthma** is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack or episode in the past 12 months.

**Binge Drinking** is defined as consuming four or more alcoholic drinks on one or more occasion for women, and five or more alcoholic drinks on one or more occasion for men, at any point in the past year.

**Congestive Heart Failure** is defined as being diagnosed with heart failure or congestive heart failure by a doctor. This only includes those who have been diagnosed with heart disease.

**Delayed Filling Prescription** is defined as reporting delaying or not getting a medicine prescribed by a doctor during the past 12 months. For those who experienced the delay, CHIS asked whether cost or lack of insurance was a reason for delaying or not getting a needed prescription.

**Delayed Medical Care** is defined as reporting delaying or not getting needed medical care during the past 12 months. For those who experienced the delay, CHIS asked whether cost or lack of insurance was a reason for delaying or not getting needed medical care.

**Diabetes** is defined as those who have been diagnosed with diabetes by a doctor and does not include pregnancy or borderline diabetes.

**Heart Disease** is defined as being diagnosed by a doctor with any kind of heart disease.

**High Blood Pressure** is defined as being diagnosed with high blood pressure by a doctor.

**Obese** is defined as a body mass index (BMI) of 30 or greater.

**Overweight** is defined as a body mass index (BMI) of 25.0 to 29.9.

**Serious Psychological Distress** was self-reported during the past year and measured using the Kessler 6 scale. The scale covers six symptoms areas, where respondents were asked how often they feel (1) nervous, (2) hopeless, (3) restless or fidgety, (4) so depressed that nothing could cheer them up, (5) that everything was an effort, or (6) worthless.

**Smoking** is defined as having smoked at least 100 cigarettes in entire lifetime and currently smoking every day or some days.

## Chronic Conditions for Adults

### ABOUT THIS SERIES

The California Health Care Almanac is an online clearinghouse for data and analysis examining the state's health care system. It focuses on issues of quality, affordability, insurance coverage and the uninsured, and the financial health of the system with the goal of supporting thoughtful planning and effective decisionmaking. Learn more at [www.chcf.org/almanac](http://www.chcf.org/almanac).

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Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix A: California Counties Included in Regions



| REGION              | COUNTIES  |
|---------------------|---|
| Central Coast       | Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura   |
| Greater Bay Area    | Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma   |
| Inland Empire       | Riverside, San Bernardino   |
| Los Angeles County  | Los Angeles   |
| Northern and Sierra | Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba |
| Orange County       | Orange  |
| Sacramento Area     | El Dorado, Placer, Sacramento, Yolo   |
| San Diego Area      | Imperial, San Diego   |
| San Joaquin Valley  | Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare  |



## Appendix B: Chronic Conditions Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | NUMBER OF CHRONIC CONDITIONS |              |                            |              |                            |              |                                      |             |
|---|------------------------|------------------------------|--------------|----------------------------|--------------|----------------------------|--------------|--------------------------------------|-------------|
|   |                        | NONE<br>Number / Percentage  |              | ONE<br>Number / Percentage |              | TWO<br>Number / Percentage |              | THREE TO FIVE<br>Number / Percentage |             |
| <b>California</b>   | <b>27,796,000</b>      | <b>16,447,000</b>            | <b>59.2%</b> | <b>8,187,000</b>           | <b>29.5%</b> | <b>2,560,000</b>           | <b>9.2%</b>  | <b>603,000</b>                       | <b>2.2%</b> |
| <b>Northern and Sierra Counties</b>                         | <b>1,064,000</b>       | <b>584,300</b>               | <b>54.9%</b> | <b>323,500</b>             | <b>30.4%</b> | <b>121,000</b>             | <b>11.3%</b> | <b>35,000</b>                        | <b>3.3%</b> |
| Butte   | 170,000                | 88,000                       | 51.9%        | 51,000                     | 30.2%        | 21,000                     | 12.2%        | 10,000                               | 5.7%        |
| Shasta  | 137,000                | 68,000                       | 49.3%        | 46,000                     | 33.4%        | 18,000                     | 13.3%        | 6,000                                | 4.1%        |
| Humboldt  | 104,000                | 60,000                       | 57.6%        | 27,000                     | 25.6%        | 13,000                     | 12.5%        | 4,000                                | 4.3%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 58,000                       | 52.8%        | 36,000                     | 33.3%        | 10,000                     | 9.5%         | 2,000                                | 1.4%*       |
| Mendocino   | 67,000                 | 41,000                       | 61.5%        | 20,000                     | 30.2%        | 5,000                      | 6.8%         | 1,000                                | 1.6%        |
| Lake  | 50,000                 | 25,000                       | 49.4%        | 17,000                     | 33.7%        | 7,000                      | 14.9%        | 1,000                                | 2.0%        |
| Colusa, Glenn, Tehama                                       | 83,000                 | 45,000                       | 55.1%        | 26,000                     | 31.1%        | 10,000                     | 12.4%        | 1,000                                | 0.9%        |
| Sutter  | 69,000                 | 38,000                       | 55.4%        | 20,000                     | 29.2%        | 7,000                      | 10.0%        | 4,000                                | 5.5%        |
| Yuba  | 51,000                 | 25,000                       | 48.2%        | 19,000                     | 36.3%        | 6,000                      | 12.5%        | 2,000                                | 3.1%        |
| Nevada  | 79,000                 | 48,000                       | 60.6%        | 25,000                     | 31.3%        | 6,000                      | 7.2%         | 1,000                                | 0.9%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 89,000                       | 61.2%        | 37,000                     | 25.7%        | 15,000                     | 10.0%        | 1,000                                | 0.9%*       |
| <b>Greater Bay Area</b>                                     | <b>5,543,000</b>       | <b>3,322,900</b>             | <b>60.0%</b> | <b>1,644,200</b>           | <b>29.7%</b> | <b>466,000</b>             | <b>8.4%</b>  | <b>110,000</b>                       | <b>2.0%</b> |
| Santa Clara   | 1,362,000              | 871,000                      | 63.9%        | 358,000                    | 26.3%        | 109,000                    | 8.0%         | 24,000                               | 1.8%        |
| Alameda   | 1,158,000              | 652,000                      | 56.3%        | 391,000                    | 33.8%        | 97,000                     | 8.4%         | 18,000                               | 1.5%*       |
| Contra Costa  | 804,000                | 446,000                      | 55.5%        | 248,000                    | 30.9%        | 80,000                     | 10.0%        | 30,000                               | 3.7%        |
| San Francisco   | 679,000                | 455,000                      | 67.0%        | 179,000                    | 26.3%        | 40,000                     | 5.9%         | 6,000                                | 0.9%        |
| San Mateo   | 565,000                | 360,000                      | 63.8%        | 145,000                    | 25.6%        | 51,000                     | 9.1%         | 9,000                                | 1.5%        |
| Sonoma  | 374,000                | 224,000                      | 59.8%        | 113,000                    | 30.1%        | 30,000                     | 8.0%         | 8,000                                | 2.0%        |
| Solano  | 304,000                | 141,000                      | 46.4%        | 115,000                    | 37.9%        | 36,000                     | 11.7%        | 12,000                               | 3.9%        |
| Marin   | 194,000                | 122,000                      | 62.7%        | 61,000                     | 31.4%        | 10,000                     | 5.3%         | 1,000                                | 0.6%        |
| Napa  | 102,000                | 52,000                       | 51.1%        | 34,000                     | 33.5%        | 13,000                     | 12.7%        | 3,000                                | 2.7%        |
| <b>Sacramento Area</b>                                      | <b>1,620,000</b>       | <b>951,000</b>               | <b>58.7%</b> | <b>469,400</b>             | <b>29.0%</b> | <b>168,000</b>             | <b>10.4%</b> | <b>31,000</b>                        | <b>1.9%</b> |
| Sacramento  | 1,055,000              | 610,000                      | 57.8%        | 306,000                    | 29.0%        | 117,000                    | 11.1%        | 22,000                               | 2.1%        |
| Placer  | 272,000                | 165,000                      | 60.6%        | 76,000                     | 27.9%        | 27,000                     | 10.1%        | 4,000                                | 1.4%        |
| Yolo  | 153,000                | 94,000                       | 61.4%        | 45,000                     | 29.5%        | 11,000                     | 7.4%         | 3,000                                | 1.7%        |
| El Dorado   | 140,000                | 82,000                       | 58.7%        | 42,000                     | 30.3%        | 13,000                     | 9.1%         | 3,000                                | 2.0%        |

## Appendix B: Chronic Conditions Among Adults, by County, California, 2011 to 2012, *continued*

|                    |                 | NUMBER OF CHRONIC CONDITIONS |                             |       |                            |       |                            |       |                                      |      |
|--------------------|-----------------|------------------------------|-----------------------------|-------|----------------------------|-------|----------------------------|-------|--------------------------------------|------|
|                    |                 | Total Adult Population       | NONE<br>Number / Percentage |       | ONE<br>Number / Percentage |       | TWO<br>Number / Percentage |       | THREE TO FIVE<br>Number / Percentage |      |
| San Joaquin Valley |                 | 2,740,000                    | 1,481,400                   | 54.1% | 56,400                     | 31.3% | 320,000                    | 11.7% | 83,000                               | 3.0% |
|                    | Fresno          | 650,000                      | 356,000                     | 54.8% | 204,000                    | 31.4% | 70,000                     | 10.7% | 20,000                               | 3.1% |
|                    | Kern            | 557,000                      | 320,000                     | 57.4% | 158,000                    | 28.3% | 67,000                     | 12.0% | 13,000                               | 2.3% |
|                    | San Joaquin     | 486,000                      | 240,000                     | 49.5% | 169,000                    | 34.8% | 66,000                     | 13.6% | 11,000                               | 2.2% |
|                    | Stanislaus      | 372,000                      | 209,000                     | 56.3% | 120,000                    | 32.2% | 31,000                     | 8.4%  | 12,000                               | 3.1% |
|                    | Tulare          | 304,000                      | 151,000                     | 49.7% | 100,000                    | 33.0% | 38,000                     | 12.6% | 15,000                               | 4.8% |
|                    | Merced          | 177,000                      | 97,000                      | 54.8% | 49,000                     | 27.4% | 26,000                     | 14.9% | 5,000                                | 2.9% |
|                    | Kings           | 95,000                       | 54,000                      | 57.0% | 29,000                     | 30.1% | 10,000                     | 10.2% | 3,000                                | 2.7% |
|                    | Madera          | 100,000                      | 54,000                      | 53.9% | 29,000                     | 28.7% | 12,000                     | 11.7% | 6,000                                | 5.7% |
| Central Coast      |                 | 1,658,000                    | 1,018,400                   | 61.4% | 477,000                    | 28.7% | 138,000                    | 8.4%  | 25,000                               | 1.5% |
|                    | Ventura         | 616,000                      | 379,000                     | 61.5% | 166,000                    | 27.0% | 58,000                     | 9.5%  | 12,000                               | 2.0% |
|                    | Santa Barbara   | 311,000                      | 197,000                     | 63.1% | 91,000                     | 29.4% | 20,000                     | 6.5%  | 3,000                                | 1.0% |
|                    | Santa Cruz      | 200,000                      | 128,000                     | 63.7% | 53,000                     | 26.5% | 18,000                     | 8.8%  | 2,000                                | 1.0% |
|                    | San Luis Obispo | 202,000                      | 128,000                     | 63.1% | 59,000                     | 29.3% | 13,000                     | 6.4%  | 3,000                                | 1.3% |
|                    | Monterey        | 288,000                      | 169,000                     | 58.7% | 88,000                     | 30.6% | 27,000                     | 9.2%  | 4,000                                | 1.4% |
|                    | San Benito      | 41,000                       | 19,000                      | 46.0% | 18,000                     | 45.1% | 3,000                      | 7.0%  | 1,000                                | 1.9% |
| Los Angeles County |                 | 7,402,000                    | 4,469,400                   | 60.4% | 2,106,000                  | 28.5% | 666,000                    | 9.0%  | 160,000                              | 2.2% |
| Orange County      |                 | 2,305,000                    | 1,473,700                   | 64.0% | 615,000                    | 26.7% | 182,000                    | 7.9%  | 33,000                               | 1.5% |
| Inland Empire      |                 | 3,030,000                    | 1,663,000                   | 54.9% | 970,000                    | 32.0% | 315,000                    | 10.4% | 83,000                               | 2.7% |
|                    | San Bernardino  | 1,441,000                    | 776,000                     | 53.8% | 477,000                    | 33.1% | 148,000                    | 10.2% | 41,000                               | 2.8% |
|                    | Riverside       | 1,589,000                    | 887,000                     | 55.8% | 493,000                    | 31.0% | 167,000                    | 10.5% | 42,000                               | 2.7% |
| San Diego Area     |                 | 2,435,000                    | 1,482,700                   | 60.9% | 725,000                    | 29.8% | 184,000                    | 7.6%  | 43,000                               | 1.8% |
|                    | San Diego       | 2,321,000                    | 1,418,000                   | 61.1% | 686,000                    | 29.6% | 176,000                    | 7.6%  | 41,000                               | 1.8% |
|                    | Imperial        | 114,000                      | 65,000                      | 57.1% | 39,000                     | 34.1% | 8,000                      | 7.0%  | 2,000                                | 1.7% |

\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. Chronic conditions include asthma, diabetes, heart disease, high blood pressure, and serious psychological distress. See definitions on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix C: Asthma Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | ASTHMA<br>Number / Percentage |             |
|---|------------------------|-------------------------------|-------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>2,144,000</b>              | <b>7.7%</b> |
| Alameda   | 1,158,000              | 106,000                       | 9.2%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 8,000                         | 5.5%*       |
| Butte   | 170,000                | 26,000                        | 15.2%       |
| Colusa, Glenn, Tehama                                       | 83,000                 | 6,000                         | 7.3%        |
| Contra Costa  | 804,000                | 90,000                        | 11.2%       |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 10,000                        | 9.3%        |
| El Dorado   | 140,000                | 19,000                        | 13.3%       |
| Fresno  | 650,000                | 84,000                        | 13.0%       |
| Humboldt  | 104,000                | 15,000                        | 14.4%       |
| Imperial  | 114,000                | 7,000                         | 6.6%        |
| Kern  | 557,000                | 60,000                        | 10.7%       |
| Kings   | 95,000                 | 8,000                         | 8.8%        |
| Lake  | 50,000                 | 7,000                         | 14.6%*      |
| Los Angeles   | 7,402,000              | 506,000                       | 6.8%        |
| Madera  | 100,000                | 10,000                        | 9.9%        |
| Marin   | 194,000                | 10,000                        | 5.4%        |
| Mendocino   | 67,000                 | 4,000                         | 6.6%        |
| Merced  | 177,000                | 16,000                        | 8.8%        |
| Monterey  | 288,000                | 20,000                        | 7.0%        |
| Napa  | 102,000                | 12,000                        | 11.4%*      |
| Nevada  | 79,000                 | 6,000                         | 8.2%        |

|                 | Total Adult Population | ASTHMA<br>Number / Percentage |       |
|-----------------|------------------------|-------------------------------|-------|
| Orange          | 2,305,000              | 130,000                       | 5.6%  |
| Placer          | 272,000                | 17,000                        | 6.4%  |
| Riverside       | 1,589,000              | 109,000                       | 6.9%  |
| Sacramento      | 1,055,000              | 92,000                        | 8.7%  |
| San Benito      | 41,000                 | 3,000                         | 7.1%* |
| San Bernardino  | 1,441,000              | 107,000                       | 7.4%  |
| San Diego       | 2,321,000              | 151,000                       | 6.2%  |
| San Francisco   | 679,000                | 51,000                        | 7.5%  |
| San Joaquin     | 486,000                | 46,000                        | 9.4%  |
| San Luis Obispo | 202,000                | 10,000                        | 5.1%  |
| San Mateo       | 565,000                | 40,000                        | 7.1%  |
| Santa Barbara   | 311,000                | 24,000                        | 7.8%  |
| Santa Clara     | 1,362,000              | 108,000                       | 7.9%  |
| Santa Cruz      | 200,000                | 13,000                        | 6.7%  |
| Shasta          | 137,000                | 15,000                        | 10.8% |
| Solano          | 304,000                | 45,000                        | 14.9% |
| Sonoma          | 374,000                | 41,000                        | 11.0% |
| Stanislaus      | 372,000                | 34,000                        | 9.1%  |
| Sutter          | 69,000                 | 5,000                         | 6.9%  |
| Tulare          | 304,000                | 34,000                        | 11.1% |
| Ventura         | 616,000                | 29,000                        | 4.8%  |
| Yolo            | 153,000                | 12,000                        | 7.8%  |
| Yuba            | 51,000                 | 3,000                         | 6.5%  |

\*Estimate is statistically unstable.

Notes: Adults are age 18 and older. Asthma is defined as ever having been diagnosed with asthma and reporting current asthma, or having had an asthma attack/episode in the past 12 months.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix D: Diabetes Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | DIABETES<br>Number / Percentage |             |
|---|------------------------|---------------------------------|-------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>2,322,000</b>                | <b>8.4%</b> |
| Alameda   | 1,158,000              | 78,000                          | 6.7%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 11,000                          | 7.8%        |
| Butte   | 170,000                | 15,000                          | 8.6%        |
| Colusa, Glenn, Tehama                                       | 83,000                 | 8,000                           | 9.9%        |
| Contra Costa  | 804,000                | 69,000                          | 8.6%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 9,000                           | 8.2%        |
| El Dorado   | 140,000                | 9,000                           | 6.1%        |
| Fresno  | 650,000                | 55,000                          | 8.5%        |
| Humboldt  | 104,000                | 10,000                          | 9.4%        |
| Imperial  | 114,000                | 7,000                           | 5.8%        |
| Kern  | 557,000                | 51,000                          | 9.2%        |
| Kings   | 95,000                 | 10,000                          | 10.3%*      |
| Lake  | 50,000                 | 4,000                           | 8.7%*       |
| Los Angeles   | 7,402,000              | 639,000                         | 8.6%        |
| Madera  | 100,000                | 14,000                          | 14.0%       |
| Marin   | 194,000                | 8,000                           | 4.0%        |
| Mendocino   | 67,000                 | 4,000                           | 5.6%        |
| Merced  | 177,000                | 21,000                          | 11.6%       |
| Monterey  | 288,000                | 28,000                          | 9.7%        |
| Napa  | 102,000                | 8,000                           | 7.7%        |
| Nevada  | 79,000                 | 3,000                           | 4.4%        |

|                 | Total Adult Population | DIABETES<br>Number / Percentage |       |
|-----------------|------------------------|---------------------------------|-------|
| Orange          | 2,305,000              | 170,000                         | 7.4%  |
| Placer          | 272,000                | 23,000                          | 8.3%  |
| Riverside       | 1,589,000              | 140,000                         | 8.8%  |
| Sacramento      | 1,055,000              | 97,000                          | 9.2%  |
| San Benito      | 41,000                 | 7,000                           | 17.5% |
| San Bernardino  | 1,441,000              | 153,000                         | 10.6% |
| San Diego       | 2,321,000              | 182,000                         | 7.8%  |
| San Francisco   | 679,000                | 32,000                          | 4.7%  |
| San Joaquin     | 486,000                | 53,000                          | 10.9% |
| San Luis Obispo | 202,000                | 14,000                          | 6.8%  |
| San Mateo       | 565,000                | 43,000                          | 7.6%  |
| Santa Barbara   | 311,000                | 18,000                          | 5.8%  |
| Santa Clara     | 1,362,000              | 100,000                         | 7.4%  |
| Santa Cruz      | 200,000                | 11,000                          | 5.7%  |
| Shasta          | 137,000                | 12,000                          | 9.0%  |
| Solano          | 304,000                | 29,000                          | 9.5%  |
| Sonoma          | 374,000                | 19,000                          | 5.2%  |
| Stanislaus      | 372,000                | 43,000                          | 11.6% |
| Sutter          | 69,000                 | 8,000                           | 11.0% |
| Tulare          | 304,000                | 46,000                          | 15.2% |
| Ventura         | 616,000                | 44,000                          | 7.2%  |
| Yolo            | 153,000                | 11,000                          | 7.0%  |
| Yuba            | 51,000                 | 7,000                           | 13.4% |

\*Estimate is statistically unstable.

Notes: Adults age 18 and older. Excludes those who reported having borderline diabetes.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix E: Heart Disease Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | HEART DISEASE<br>Number / Percentage |             |
|---|------------------------|--------------------------------------|-------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>1,759,000</b>                     | <b>6.3%</b> |
| Alameda   | 1,158,000              | 69,000                               | 6.0%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 14,000                               | 9.6%        |
| Butte   | 170,000                | 13,000                               | 7.9%        |
| Colusa, Glenn, Tehama                                       | 83,000                 | 6,000                                | 7.7%        |
| Contra Costa  | 804,000                | 36,000                               | 4.5%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 11,000                               | 10.2%       |
| El Dorado   | 140,000                | 10,000                               | 7.3%        |
| Fresno  | 650,000                | 47,000                               | 7.2%        |
| Humboldt  | 104,000                | 11,000                               | 10.9%       |
| Imperial  | 114,000                | 8,000                                | 6.9%        |
| Kern  | 557,000                | 34,000                               | 6.2%        |
| Kings   | 95,000                 | 5,000                                | 5.0%        |
| Lake  | 50,000                 | 4,000                                | 7.4%        |
| Los Angeles   | 7,402,000              | 415,000                              | 5.6%        |
| Madera  | 100,000                | 8,000                                | 7.7%        |
| Marin   | 194,000                | 14,000                               | 7.3%        |
| Mendocino   | 67,000                 | 5,000                                | 7.0%        |
| Merced  | 177,000                | 14,000                               | 7.9%        |
| Monterey  | 288,000                | 22,000                               | 7.5%        |
| Napa  | 102,000                | 10,000                               | 9.9%        |
| Nevada  | 79,000                 | 6,000                                | 7.1%        |

|                 | Total Adult Population | HEART DISEASE<br>Number / Percentage |        |
|-----------------|------------------------|--------------------------------------|--------|
| Orange          | 2,305,000              | 174,000                              | 7.6%   |
| Placer          | 272,000                | 22,000                               | 8.3%   |
| Riverside       | 1,589,000              | 122,000                              | 7.7%   |
| Sacramento      | 1,055,000              | 55,000                               | 5.2%   |
| San Benito      | 41,000                 | 6,000                                | 15.2%* |
| San Bernardino  | 1,441,000              | 91,000                               | 6.3%   |
| San Diego       | 2,321,000              | 135,000                              | 5.8%   |
| San Francisco   | 679,000                | 39,000                               | 5.8%   |
| San Joaquin     | 486,000                | 30,000                               | 6.2%   |
| San Luis Obispo | 202,000                | 13,000                               | 6.5%   |
| San Mateo       | 565,000                | 27,000                               | 4.7%   |
| Santa Barbara   | 311,000                | 19,000                               | 6.2%   |
| Santa Clara     | 1,362,000              | 72,000                               | 5.3%   |
| Santa Cruz      | 200,000                | 13,000                               | 6.6%   |
| Shasta          | 137,000                | 8,000                                | 6.1%   |
| Solano          | 304,000                | 24,000                               | 7.8%   |
| Sonoma          | 374,000                | 29,000                               | 7.6%   |
| Stanislaus      | 372,000                | 20,000                               | 5.3%   |
| Sutter          | 69,000                 | 7,000                                | 10.4%  |
| Tulare          | 304,000                | 35,000                               | 11.5%  |
| Ventura         | 616,000                | 43,000                               | 7.0%   |
| Yolo            | 153,000                | 8,000                                | 5.0%   |
| Yuba            | 51,000                 | 6,000                                | 11.8%  |

\*Estimate is statistically unstable.

Note: Adults are age 18 and older.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix F: Congestive Heart Failure Among Adults with Heart Disease, by County, California, 2011 to 2012

|   | Total Adult Population | CONGESTIVE HEART FAILURE<br>Number / Percentage |              |
|---|------------------------|---|--------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>530,000</b>                                  | <b>30.1%</b> |
| Alameda   | 1,158,000              | 24,000  | 34.9%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 6,000   | 43.9%        |
| Butte   | 170,000                | 4,000   | 26.8%        |
| Colusa, Glenn, Tehama                                       | 83,000                 | 1,000   | 17.6%        |
| Contra Costa  | 804,000                | 14,000  | 38.3%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 3,000   | 23.0%        |
| El Dorado   | 140,000                | 4,000   | 34.5%        |
| Fresno  | 650,000                | 8,000   | 17.5%        |
| Humboldt  | 104,000                | 5,000   | 46.2%        |
| Imperial  | 114,000                | 1,000   | 18.5%        |
| Kern  | 557,000                | 13,000  | 37.4%        |
| Kings   | 95,000                 | 2,000   | 38.8%        |
| Lake  | 50,000                 | 1,000   | 25.0%        |
| Los Angeles   | 7,402,000              | 145,000   | 35.0%        |
| Madera  | 100,000                | 4,000   | 48.7%        |
| Marin   | 194,000                | 1,000   | 9.3%         |
| Mendocino   | 67,000                 | 1,000   | 27.7%        |
| Merced  | 177,000                | 5,000   | 35.3%        |
| Monterey  | 288,000                | 3,000   | 14.3%        |
| Napa  | 102,000                | 2,000   | 15.8%        |
| Nevada  | 79,000                 | 1,000   | 19.6%        |

|                 | Total Adult Population | CONGESTIVE HEART FAILURE<br>Number / Percentage |       |
|-----------------|------------------------|---|-------|
| Orange          | 2,305,000              | 36,000  | 20.8% |
| Placer          | 272,000                | 5,000   | 22.7% |
| Riverside       | 1,589,000              | 45,000  | 36.6% |
| Sacramento      | 1,055,000              | 17,000  | 30.4% |
| San Benito      | 41,000                 | 1,000   | 17.0% |
| San Bernardino  | 1,441,000              | 33,000  | 36.0% |
| San Diego       | 2,321,000              | 30,000  | 22.6% |
| San Francisco   | 679,000                | 7,000   | 17.8% |
| San Joaquin     | 486,000                | 10,000  | 32.3% |
| San Luis Obispo | 202,000                | 3,000   | 25.6% |
| San Mateo       | 565,000                | 9,000   | 33.6% |
| Santa Barbara   | 311,000                | 4,000   | 21.9% |
| Santa Clara     | 1,362,000              | 18,000  | 24.4% |
| Santa Cruz      | 200,000                | 1,000   | 10.7% |
| Shasta          | 137,000                | 3,000   | 32.7% |
| Solano          | 304,000                | 9,000   | 38.0% |
| Sonoma          | 374,000                | 8,000   | 29.1% |
| Stanislaus      | 372,000                | 7,000   | 33.4% |
| Sutter          | 69,000                 | 3,000   | 40.6% |
| Tulare          | 304,000                | 14,000  | 41.5% |
| Ventura         | 616,000                | 15,000  | 35.9% |
| Yolo            | 153,000                | 2,000   | 25.4% |
| Yuba            | 51,000                 | 2,000   | 30.1% |

Notes: Adults are age 18 and older. These are the congestive heart failure rates among adults who have been told they have heart disease.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix G: High Blood Pressure Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | HIGH BLOOD PRESSURE<br>Number / Percentage |              |
|---|------------------------|--|--------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>7,574,000</b>                           | <b>27.2%</b> |
| Alameda   | 1,158,000              | 324,000                                    | 28.0%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 145,000                | 45,000                                     | 31.0%        |
| Butte   | 170,000                | 57,000                                     | 33.7%        |
| Colusa, Glenn, Tehama                                       | 83,000                 | 25,000                                     | 29.9%        |
| Contra Costa  | 804,000                | 227,000                                    | 28.2%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 39,000                                     | 36.2%        |
| El Dorado   | 140,000                | 35,000                                     | 25.2%        |
| Fresno  | 650,000                | 193,000                                    | 29.7%        |
| Humboldt  | 104,000                | 28,000                                     | 27.5%        |
| Imperial  | 114,000                | 31,000                                     | 27.2%        |
| Kern  | 557,000                | 159,000                                    | 28.6%        |
| Kings   | 95,000                 | 29,000                                     | 30.8%        |
| Lake  | 50,000                 | 18,000                                     | 35.8%        |
| Los Angeles   | 7,402,000              | 1,973,000                                  | 26.7%        |
| Madera  | 100,000                | 30,000                                     | 30.0%        |
| Marin   | 194,000                | 50,000                                     | 25.8%        |
| Mendocino   | 67,000                 | 19,000                                     | 27.9%        |
| Merced  | 177,000                | 50,000                                     | 28.4%        |
| Monterey  | 288,000                | 81,000                                     | 28.1%        |
| Napa  | 102,000                | 35,000                                     | 34.1%        |
| Nevada  | 79,000                 | 20,000                                     | 25.2%        |

|                 | Total Adult Population | HIGH BLOOD PRESSURE<br>Number / Percentage |       |
|-----------------|------------------------|--|-------|
| Orange          | 2,305,000              | 585,000                                    | 25.4% |
| Placer          | 272,000                | 74,000                                     | 27.4% |
| Riverside       | 1,589,000              | 482,000                                    | 30.3% |
| Sacramento      | 1,055,000              | 290,000                                    | 27.5% |
| San Benito      | 41,000                 | 13,000                                     | 32.3% |
| San Bernardino  | 1,441,000              | 465,000                                    | 30.3% |
| San Diego       | 2,321,000              | 598,000                                    | 25.8% |
| San Francisco   | 679,000                | 139,000                                    | 20.5% |
| San Joaquin     | 486,000                | 165,000                                    | 34.0% |
| San Luis Obispo | 202,000                | 50,000                                     | 24.9% |
| San Mateo       | 565,000                | 134,000                                    | 23.7% |
| Santa Barbara   | 311,000                | 71,000                                     | 22.8% |
| Santa Clara     | 1,362,000              | 306,000                                    | 22.4% |
| Santa Cruz      | 200,000                | 47,000                                     | 23.7% |
| Shasta          | 137,000                | 48,000                                     | 34.9% |
| Solano          | 304,000                | 103,000                                    | 34.0% |
| Sonoma          | 374,000                | 93,000                                     | 24.8% |
| Stanislaus      | 372,000                | 113,000                                    | 30.4% |
| Sutter          | 69,000                 | 23,000                                     | 34.0% |
| Tulare          | 304,000                | 96,000                                     | 31.6% |
| Ventura         | 616,000                | 157,000                                    | 25.5% |
| Yolo            | 153,000                | 36,000                                     | 23.3% |
| Yuba            | 51,000                 | 17,000                                     | 33.1% |

Note: Adults are age 18 and older.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

## Appendix H: Serious Psychological Distress Among Adults, by County, California, 2011 to 2012

|   | Total Adult Population | SERIOUS PSYCHOLOGICAL DISTRESS<br>Number / Percentage |             |
|---|------------------------|---|-------------|
| <b>California</b>   | <b>27,796,000</b>      | <b>2,192,000</b>                                      | <b>7.9%</b> |
| Alameda   | 1,157,000              | 89,000  | 7.7%        |
| Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne   | 144,000                | 17,000  | 11.5%       |
| Butte†  | 169,000                | 20,000  | 11.7%       |
| Colusa, Glenn, Tehama                                       | 82,000                 | 8,000   | 10.1%       |
| Contra Costa  | 801,000                | 79,000  | 9.9%        |
| Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, Trinity | 109,000                | 7,000   | 6.6%        |
| El Dorado   | 140,000                | 8,000   | 5.5%        |
| Fresno  | 648,000                | 61,000  | 9.4%        |
| Humboldt  | 103,000                | 10,000  | 9.3%*       |
| Imperial  | 114,000                | 10,000  | 9.0%        |
| Kern  | 555,000                | 55,000  | 9.8%        |
| Kings   | 95,000                 | 7,000   | 7.0%*       |
| Lake  | 50,000                 | 6,000   | 11.1%*      |
| Los Angeles   | 7,380,000              | 592,000   | 8.0%        |
| Madera  | 100,000                | 12,000  | 12.5%       |
| Marin   | 194,000                | 11,000  | 5.5%        |
| Mendocino   | 67,000                 | 4,000   | 5.5%        |
| Merced  | 176,000                | 16,000  | 9.2%        |
| Monterey  | 287,000                | 22,000  | 7.7%        |
| Napa  | 102,000                | 11,000  | 11.0%*      |
| Nevada  | 78,000                 | 7,000   | 9.0%        |

|                 | Total Adult Population | SERIOUS PSYCHOLOGICAL DISTRESS<br>Number / Percentage |       |
|-----------------|------------------------|---|-------|
| Orange          | 2,294,000              | 139,000   | 6.1%  |
| Placer          | 271,000                | 19,000  | 6.9%  |
| Riverside       | 1,581,000              | 143,000   | 9.1%  |
| Sacramento      | 1,054,000              | 95,000  | 9.0%  |
| San Benito      | 41,000                 | 3,000   | 8.1%* |
| San Bernardino  | 1,437,000              | 108,000   | 7.5%  |
| San Diego       | 2,315,000              | 178,000   | 7.7%  |
| San Francisco   | 676,000                | 42,000  | 6.2%  |
| San Joaquin     | 484,000                | 43,000  | 8.9%  |
| San Luis Obispo | 201,000                | 9,000   | 4.5%  |
| San Mateo       | 564,000                | 36,000  | 6.3%  |
| Santa Barbara   | 311,000                | 31,000  | 9.9%  |
| Santa Clara     | 1,358,000              | 75,000  | 5.5%  |
| Santa Cruz      | 200,000                | 22,000  | 11.0% |
| Shasta          | 136,000                | 17,000  | 12.6% |
| Solano          | 304,000                | 32,000  | 10.5% |
| Sonoma          | 369,000                | 26,000  | 7.0%  |
| Stanislaus      | 370,000                | 14,000  | 3.9%* |
| Sutter          | 69,000                 | 5,000   | 7.7%  |
| Tulare          | 303,000                | 34,000  | 11.4% |
| Ventura         | 614,000                | 55,000  | 9.0%  |
| Yolo            | 153,000                | 8,000   | 5.1%  |
| Yuba            | 51,000                 | 6,000   | 11.9% |

\*Estimate is statistically unstable.

†Total population is 91,000 less than other total population figures because serious psychological distress was not asked of those individuals unable to personally respond due to their illness. Proxy respondents (i.e. knowledgeable adult household member) do not respond to information about mental health even though more objective questions (e.g. whether or not they have asthma, diabetes, high blood pressure, etc.) were asked of proxy.

Notes: Adults are age 18 and older. *Serious Psychological Distress* was self-reported during the past year and measured using the Kessler 6 scale. See complete definition on page 44.

Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.