

# Health Risk Behaviors of Kansans



## 2013 Kansas Behavioral Risk Factor Surveillance System

March 2015



# Health Risk Behaviors of Kansans 2013

Kansas Department of Health and Environment  
Dr. Susan Mosier, Acting Secretary and State Health Officer

Paula F. Clayton, MS, RD, LD  
Director, Bureau of Health Promotion, KDHE

## **REPORT PREPARATION:**

Jeanie Santaularia, MPH  
Health Survey Coordinator/Epidemiologist  
Bureau of Health Promotion, KDHE

## **REPORT SUPERVISION:**

Ghazala Perveen, MBBS, PhD, MPH  
Director of Science and Surveillance/Health Officer II  
Bureau of Health Promotion, KDHE

## **FOR ADDITIONAL INFORMATION, PLEASE CONTACT:**

Bureau of Health Promotion  
1000 SW Jackson, Suite 230  
Topeka, KS 66612  
(785) 291-3742  
[healthpromotion@kdheks.gov](mailto:healthpromotion@kdheks.gov)  
[www.kdheks.gov/bhp](http://www.kdheks.gov/bhp)

## **Project Funding:**

Partial funding for the 2013 Behavioral Risk Factor Survey was provided by cooperative agreement 5U58SO0000008-03 from the Centers for Disease Control and Prevention, Atlanta GA.

**Kansas Department of Health and Environment**  
**Bureau of Health Promotion**  
March 2015

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Table of Contents

Behavioral Risk Factor Surveillance System (BRFSS) Overview .....	4
Executive Summary .....	7
Access to Health Care: Health Insurance .....	13
Access to Health Care: No Personal Health Care Provider .....	19
Injury and Violence: Seat Belt .....	22
Clinical Preventative Services: Adult Flu Vaccine .....	25
Clinical Preventative Services: Child Flu Vaccine .....	28
Clinical Preventative Services: Pneumonia Vaccine .....	30
Clinical Preventative Services: Genetic Counseling .....	33
Clinical Preventative Services: Child HPV Vaccine .....	36
Nutrition, Physical Activity, and Obesity: Obesity .....	38
Nutrition, Physical Activity, and Obesity: Leisure-time Physical Activity .....	41
Nutrition, Physical Activity, and Obesity: Physical Activity (Aerobic & Strengthening) .....	44
Nutrition, Physical Activity, and Obesity: Physical Activity (Aerobic &/Or Strengthening) ...	47
Nutrition, Physical Activity, and Obesity: Fruit Consumption .....	50
Nutrition, Physical Activity, and Obesity: Vegetable Consumption .....	53
Nutrition, Physical Activity, and Obesity: Adults Sugar Drink Consumption .....	56
Nutrition, Physical Activity, and Obesity: Youth Sugar Drink Consumption .....	59
Tobacco Use: Current Cigarette Smoking .....	61
Tobacco Use: Smokeless Tobacco .....	64
Tobacco Use: Electronic Cigarettes .....	67
Oral Health: Oral Health Care System .....	70
Oral Health: Dental Insurance .....	73
Oral Health: Lost of All Permanent Teeth .....	76
Substance Abuse: Binge Drinking .....	79
Mental Health: Serious Psychological Distress .....	82
Mental Health: Depression .....	85
Reproductive and Sexual Health: HIV Testing .....	88
Chronic Health Conditions: Diabetes .....	91
Chronic Health Conditions: Pre-Diabetes .....	94
Chronic Health Conditions: Hypertension .....	97
Chronic Health Conditions: Asthma .....	100
Chronic Health Conditions: Arthritis .....	103
Chronic Health Conditions: Heart Disease .....	106
Chronic Health Conditions: Cancer .....	109
Chronic Health Conditions: Skin Cancer .....	112
Chronic Health Conditions: Cholesterol Test .....	115
Chronic Health Conditions: High Cholesterol .....	118

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

Chronic Health Conditions: Multiple Chronic Conditions .....	121
Technical Notes .....	123
References.....	125

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# BRFSS Overview

The Behavioral Risk Factor Surveillance System (BRFSS) is a random digit dial telephone survey of non-institutionalized adults 18 years old and older living in private residences with landline and/or cell phone service. If applicable, adult respondents also provide limited data on a randomly selected child in the household via surrogate interview. BRFSS is coordinated and partially funded by the Centers for Disease Control and Prevention and is the largest continuously conducted telephone survey of population health risk in the world. It is conducted in every state, the District of Columbia and several U.S. territories. The first BRFSS survey in Kansas was conducted as a point-in-time survey in 1990. Kansas has conducted BRFSS survey annually since 1992.

The overall goal of BRFSS is to maintain the capacity for conducting population-based health risk surveys via telephone in Kansas. BRFSS data are used for the following:

- Monitoring the leading contributors to morbidity and premature death
- Tracking health status and assessing trends
- Measuring public knowledge, attitudes and opinions
- Program planning
  - Needs assessment
  - Development of goals and objectives
  - Identification of target groups
- Policy development
- Evaluation of public health programs

Data from BRFSS are weighted to account for the complex sample design and non-response bias to ensure the resulting estimates will be representative of the underlying population as a whole as well as for target subpopulations.

## **Changes in BRFSS survey methodology**

In recent years, the proportion of U.S. households with only cellular telephone (cell phone) service has risen steadily. In the first half of 2003 cell phone only service was only 3 percent, but this increased to more than 3 out of every 10 American households (31.6%) during the first half of 2011. In the second half of 2012, nearly 2 out of 5 American households (38.2%) had cellular telephone only service. The demographic characteristics of adults living in cell phone only service households are different. These adults are more likely to be young, males, Hispanics, non-Hispanic African-Americans, living alone or with unrelated adults, living in poverty or near poverty, and renting a home. These changes in phone use impacted traditional random digit dialing landline phone surveys such as BRFSS.

To maintain representativeness, coverage and validity of data, changes in BRFSS survey methodology were made beginning in 2011 by the CDC. These changes include:

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

1. Use of the dual frame sampling method (landline and cell phone samples) instead of the single frame method (landline phone sample). The sample includes:
  - Adults 18 years old and older living in a private residence with landline phone service
  - Adults 18 years old and older living in a private residence with cell phone service
  - Adults 18 years old and older living in a private residence with landline and cell phone service (dual users)
2. Use of the Iterative Proportional Fitting weighting method (raking method) in place of the post stratification weighting method to improve the weighting, adjustment and estimation methods. This methodology has adjusted to take into account the dual frame sampling. The raking method adjusted the survey sample for age, sex, race and ethnicity, education level, marital status, home ownership, region, county and telephone type (landline/cell) to increase the representativeness of survey estimates for the general population.

### **Impact of New Survey Methodology on 2011, 2012 and 2013 BRFSS**

Changes in the 2011 BRFSS methodology influence the state and national-level prevalence estimates for 2011 and subsequent years. Size and direction of the effect of new methodology on the prevalence estimates varies by health indicators. Changes in the 2011 data are likely to show indications of somewhat higher occurrences of risk behaviors common to younger adults and to certain racial or ethnic minority groups. The absolute increases or decreases in the prevalence estimates of health indicators from 2010 to 2011 BRFSS do not show any real changes in the actual prevalence of diseases, risk factors/behaviors and other health indicators in the general population. These variations in the estimates are caused by the addition of cell phone households to the survey sampling frame and adoption of a new advanced statistical method for weighting of the survey data. The 2013, 2012 and 2011 data cannot be compared with data from 2010 and preceding years to examine trends as prevalence estimates cannot be compared and interpreted using data generated from two different methodologies. The 2011 estimates constitute a new baseline for monitoring trends of health indicators.

### **Analysis, Interpretation and Use of 2013 Kansas BRFSS Data**

For analysis, the 2011, 2012 and 2013 Kansas BRFSS dataset cannot be combined with those from previous years as sampling and weighting methods are different. The weighted data analysis techniques were used for 2011 and 2012 surveys was applied for 2013 survey. Interpretation of prevalence estimates has not changed. 2013 BRFSS provides prevalence estimates of diseases, risk factors/behaviors and other health indicators for adult Kansans 18 years old and older. 2013 BRFSS also provides prevalence estimates of health indicators for various socio-demographic subgroups in Kansas. The prevalence estimates from 2013 Kansas BRFSS are representative of non-institutionalized adults' 18 years old and older living in private residences with landline and/or cell phone service.

2013 BRFSS data can be reliably used for: examining and monitoring the burden of public health issues in Kansas, planning and evaluation of public health programs to address these issues, public health decision making, leveraging funding opportunities and public education.

For more information about the Kansas BRFSS, including questionnaires and data results for 2013 and previous years, please visit: <http://www.kdheks.gov/brfss/index.html>.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Executive Summary

Healthy People 2020 (HP 2020) is a comprehensive nationwide set of goals and objectives related to health promotion and disease prevention. In Healthy People 2020, a set of Leading Health Indicators was selected based on their relevance to broad public health topics and availability of data to measure their progress. The indicators serve as a snapshot of the nation's progress toward improving the overall health of the population.

The 12 Leading Health Indicators are:

- Access to Health Services
- Clinical Preventive Services
- Environmental Quality
- Injury and Violence
- Maternal, Infant and Child Health
- Mental Health
- Nutrition, Physical Activity and Obesity
- Oral Health
- Reproductive and Sexual Health
- Social Determinants
- Substance Abuse
- Tobacco

2013 Kansas BRFSS collected data on several Healthy People 2020 topics. This report examines the Kansas data in context with the targets set for several Healthy People 2020 objectives.

## Report Highlights

### Access to Health Services

- The percentage of Kansas adults 18 to 64 years old with no health care coverage was significantly **higher** among adults in lower education groups compared with adults in higher education groups.
- The percentage of Kansas adults 18 years old and older with no personal health care provider was significantly **higher** among males compared with females.

*Healthy People 2020 Objectives:*

- *Increase the proportion of persons with medical insurance to 100%; Kansas 2013: 82.9%. Kansas has **not yet met** the HP 2020 target.*
- *Increase the proportion of persons with a usual primary care provider 83.9% Kansas 2013: 78.5%. Kansas has **not yet met** the HP 2020 target.*

### Injury and Violence

- The percentage of Kansas adults 18 years old and older who did not always wear a seat belt when they drove or rode in a car was significantly **higher** among younger adults compared with adults in older age groups.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

*Healthy People 2020 Objectives:*

- *Increase use of safety belts to 92.0%; Kansas 2013: 83.0%. Kansas has not yet met the HP 2020 target.*

### **Clinical Preventive Services**

- The percentage of Kansas adults 18 years old and older who did not get immunized against influenza during the past 12 months was significantly **higher** among adults with no insurance compared with adults with insurance.
- The percentage of Kansas children 6 months old and older who did not get immunized against influenza during the past 12 months was significantly **higher** among children 15 to 17 years old compared with children 6 months old to 14 years old.
- The percentage of Kansas adults 65 years old and older who never received a pneumonia vaccination was significantly **higher** among males compared with females.
- The percentage of Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling was significantly **higher** among Hispanics compared with non-Hispanic whites (age-adjusted prevalence).
- The percentage of adolescents 9 years old and older that did not receive all three doses of the HPV vaccine was significantly **higher** among adolescents 9 to 12 years old compared with adolescents 13 to 17 years old.

*Healthy People 2020 Objectives:*

- *Increase the percentage of adults 18 years old and older who are vaccinated annually against season influenza to 70.0%; Kansas 2013: 42.2%. Kansas has not yet met the HP 2020 targets.*
- *Increase the percentage of children 6 months old to 17 years old who are vaccinated annually against seasonal influenza to 70.0%; Kansas 2013: 50.0%. Kansas has not yet met the HP 2020 targets.*
- *Increase the percentage of noninstitutionalized adults 65 years old and older who are vaccinated against pneumococcal disease to 90.0%; Kansas 2013: 70.0%. Kansas has not yet met the HP 2020 targets.*
- *Increase the proportion of women with a family history of breast and/or ovarian cancer who receive genetic counseling to 38.1%; Kansas 2013: 16.8%. Kansas has not yet met the HP 2020 targets.*

### **Nutrition, Physical Activity and Obesity**

- The percentage of Kansas adults 18 years old and older who were obese was significantly **higher** among non-Hispanic African-Americans and Hispanics compared with non-Hispanic whites and other/multi-race (age-adjusted prevalence).
- The percentage of Kansas adults 18 years old and older who did not participate in leisure-time physical activity in the past 30 days was significantly **higher** among older adults compared with adults in younger age groups.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

- The percentage of Kansas adults 18 years old and older that did not participate in any recommended physical activity (aerobic and strengthening) was significantly **higher** among females compared with males.
- The percentage of Kansas adults 18 years old and older that did not participate in recommended physical activity (aerobic and/or strengthening) was significantly **higher** among Adults living with a disability compared with adults living without a disability.
- The percentage of Kansas adults 18 years old and older who did not consume fruit at least once per day was significantly **higher** among adults with no insurance compared with adults with insurance.
- The percentage of Kansas adults 18 years old and older who did not consume vegetables at least once per day was significantly **higher** among adults 18 to 24 years old compared with adults in older age groups.
- The percentage of Kansas adults 18 years old and older who drank a sugar-sweetened drink at least once in the past 30 days was significantly **higher** among males compared with females.
- The percentage of Kansas youth 17 years old and younger that drank a sugar-sweetened drink at least once in the past 30 days was significantly **higher** among youth 5 to 17 years old compared with youth 0 to 4 years old.

*Healthy People 2020 Objectives:*

- *Reduce the proportion of adults who are obese to 30.5%; Kansas 2013: 30.0%. Kansas has met the HP 2020 targets, but still approximately 1 in 3 Kansas adults were obese. In addition there are disparities in population subgroups that have not met the HP 2020 target.*
- *Reduce the proportion of adults who engage in no leisure-time physical activity to 32.6%; Kansas 2013: 26.5%. Kansas has met the HP 2020 targets, but still approximately 1 in 4 Kansas adults did not participate in leisure-time physical activity. In addition there are disparities in population subgroups that have not met the HP 2020 target.*
- *Increase the proportion of adults who meet the objectives for aerobic physical activity and for muscle strengthening activity to 20.1%; Kansas 2013:17.9%. Kansas has not yet met the HP 2020 targets.*

## **Tobacco**

- The percentage of Kansas adults 18 years old and older who currently smoke cigarettes was significantly **higher** among non-Hispanic African-Americans compared with non-Hispanic whites; and **higher** among Non-Hispanic Whites, non-Hispanic-African-Americans, and non-Hispanic-Other/Multi-Race adults compared with Hispanics (age-adjusted prevalence).
- The percentage of Kansas adults 18 years old and older who currently use any smokeless tobacco products was significantly **higher** among males compared with females.
- The percentage of Kansas adults 18 years old and older that have ever used or tried e-cigarettes was significantly **higher** among adults who did not graduate high school or receive a GED, high school graduates /GED and adults with some college compared with college graduates.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

*Healthy People 2020 Objectives:*

- *Reduce cigarette smoking by adults to 12.0%; Kansas 2013: 20.0%. Kansas has not yet met the HP 2020 targets.*
- *Reduce use of smokeless tobacco products to 0.3%; Kansas 2013: 5.5%. Kansas has not yet met the HP 2020 targets.*

## Oral Health

- The percentage of Kansas adults 18 years old and older who did not use the oral health care system in the past 12 months was significantly **higher** among adults with lower annual household income compared with adults in higher annual household income groups.
- The percentage of Kansas adults 18 years old and older with no dental insurance was significantly **higher** among Hispanics compared with non-Hispanic whites and non-Hispanic other/multi race adults (age-adjusted prevalence).
- The percentage of Kansas adults 65 to 74 years old who have lost all their permanent teeth was significantly **higher** among adults with lower education compared with adults in higher education groups.

*Healthy People 2020 Objectives:*

- *Reduce the proportion of adults 65 to 74 years old who have lost all of their natural teeth 21.6%; Kansas 2013: 13.3%. Kansas has met the HP 2020 targets, but still approximately 1 in 6 Kansas adults have lost all their permanent teeth. In addition there are disparities in population subgroups that have not met the HP 2020 target.*

## Substance Abuse

- The percentage of Kansas adults 18 years old and older who were binge drinkers in the past 30 days was significantly **higher** among males compared with females.

*Healthy People 2020 Objectives:*

- *Reduce the proportion of adults 18 years and older engaging in binge drinking during the past 30 days to 24.4%; Kansas 2013: 15.4%. Kansas has met the HP 2020 target, but still approximately 1 in 6 Kansas adults were binge drinkers. In addition there are disparities in population subgroups that have not met the HP 2020 target.*

## Mental Health

- Mental health issues are seen in the Kansas population and its subgroups.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with Serious Psychological Distress (SPD) was significantly **higher** among adults living with a disability compared with adults living without a disability.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with depression was significantly **higher** among females compared with males.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Reproductive and Sexual Health

- The percentage of Kansas adults 18 to 64 years old who have been tested for HIV in the past year was significantly **higher** among adults with annual household income of \$25,000 or more compared with adults in with an annual household income of less than \$15,000.

## Chronic Health Conditions

- The percentage of Kansas adults 18 years old and older who were ever diagnosed with diabetes was significantly **higher** among adults living with a disability compared with adults living without a disability.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with pre-diabetes was significantly **higher** among adults with some college compared with college graduates.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with hypertension was significantly **higher** among non-Hispanic African-Americans compared with all other race/ethnicity groups (age-adjusted prevalence).
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with current asthma was significantly **higher** among females compared with males.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with arthritis was significantly **higher** among adults with lower annual household income compared with adults in higher annual household income groups.
- The percentage of Kansas adults 18 years old and older that had ever been diagnosed with heart disease was significantly **higher** among adults with lower education compared with adults in higher education groups.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with cancer (excluding skin cancer) was significantly **higher** among females compared with males.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with skin cancer was significantly **higher** among Non-Hispanics whites compared with Hispanics and non-Hispanic other/multi-race adults (age-adjusted prevalence).
- The percentage of Kansas adults 18 years old and older who did not have their cholesterol checked within the past 5 years was significantly **higher** among Hispanics compared with all other race/ethnicity groups (age-adjusted prevalence).
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with high cholesterol was significantly **higher** among adults with lower education compared with adults in higher education groups.
- The percentage of Kansas adults 18 years old and older who were ever diagnosed with multiple chronic conditions (MCC) was significantly **higher** among adults in lower annual household income groups compared with adults in higher annual household income groups.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

*Healthy People 2020 Objectives:*

- *Reduce the proportion of adults with hypertension to 26.9%; Kansas 2013: 31.3%. Kansas has **not yet met** the HP 2020 targets.*
- *Reduce the proportion of adults with high total blood cholesterol levels to 13.5%; Kansas 2013: 38.1%. Kansas has **not yet met** the HP 2020 targets.*
- *Increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years to 82.1%; Kansas 2013: 73.3%. Kansas has **not yet met** the HP 2020 targets.*

# Access to Health Care: Health Insurance

Access to health services is one of the leading health indicators of Healthy People 2020. The United States Institute of Medicine defined health access as the timely use of personal health services to achieve the best possible health outcomes. Lack of access to health services is a persistent barrier to good health.<sup>1</sup> Adults with no or limited insurance coverage are less likely to get needed medical attention.<sup>2</sup>

## Access to health care among Kansans 18 to 64 years old:

In 2013, approximately 1 in 5 Kansas adults 18 to 64 years old lacked health care coverage. The percentage of Kansas adults 18 to 64 years old with no health care coverage was significantly **higher** among:

- Adults 25 to 34 years old compared with those in older age groups
- Non-Hispanic African-Americans and Hispanics compared with non-Hispanic whites (age-adjusted prevalence)
- Adults in lower education groups compared with adults in higher education groups
- Adults with an annual household income of less than \$25,000 compared with those with an annual household income of \$25,000 or higher

The percentage of Kansas adults with no health care coverage did not differ significantly between males and females or between adults living with a disability compared with those living without a disability.

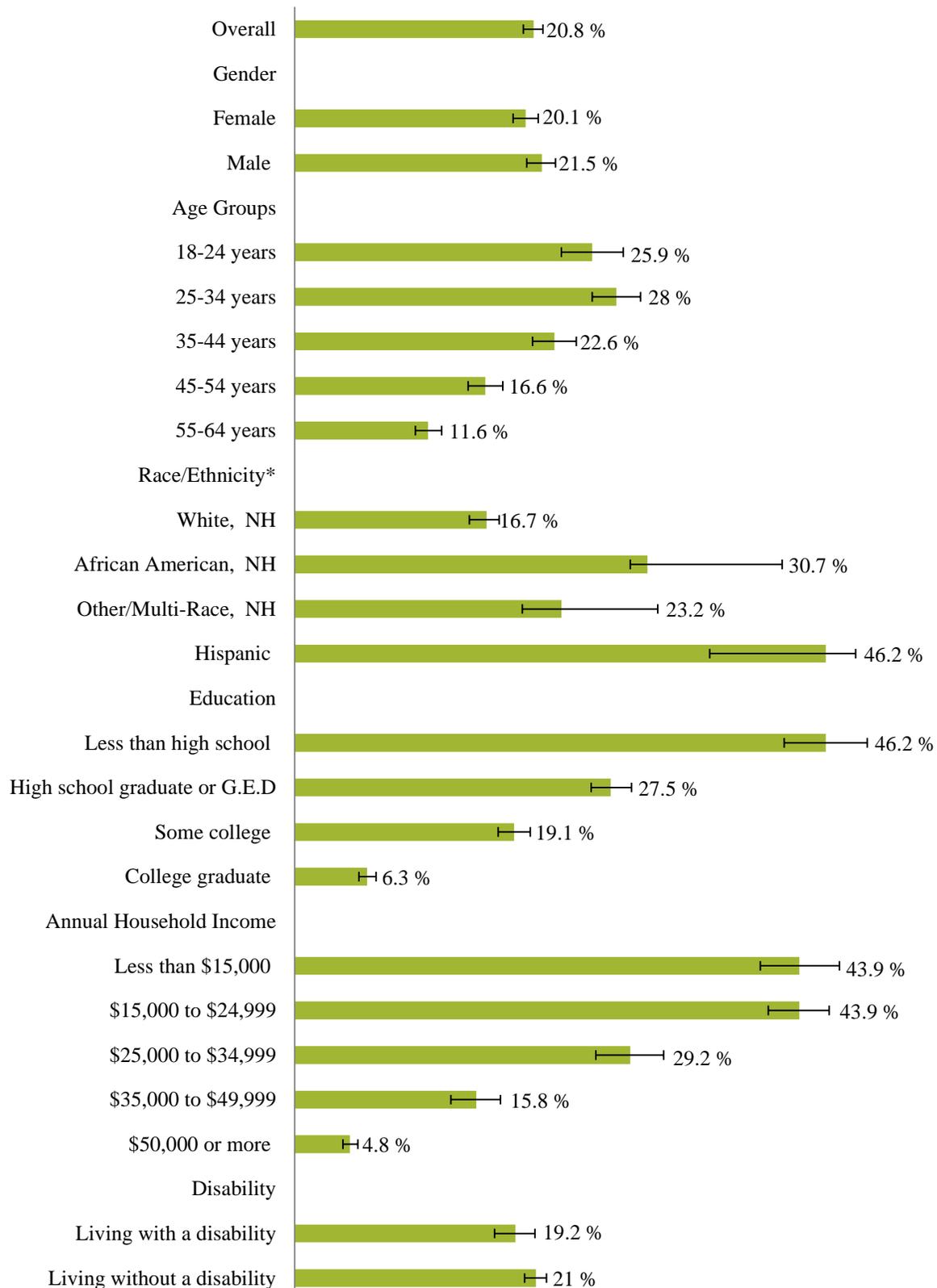
## Percentage of Adults 18 to 64 Years Old Who Lack Health Care Coverage, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	20.8	19.9-21.3
<b>Gender</b>		
Female	20.1	19.0-21.2
Male	21.5	20.2-22.7
<b>Age Groups</b>		
18-24 years	25.9	23.2-28.6
25-34 years	28	25.9-30.1
35-44 years	22.6	20.7-24.5
45-54 years	16.6	15.1-18.1
55-64 years	11.6	10.5-12.8
<b>Race/Ethnicity*</b>		
White, NH	16.7	15.9-17.6
African-American, NH	30.7	26.2-35.3
Other/Multi-Race, NH	23.2	18.9-27.5
Hispanic	46.2	42.8-49.6
<b>Education</b>		
Less than high school	46.2	42.6-49.8
High school graduate or G.E.D	27.5	25.8-29.3
Some college	19.1	17.7-20.5
College graduate	6.3	5.6-7.1
<b>Annual Household Income</b>		
Less than \$15,000	43.9	40.5-47.4
\$15,000 to \$24,999	43.9	41.2-46.5
\$25,000 to \$34,999	29.2	26.2-32.1
\$35,000 to \$49,999	15.8	13.6-17.9
\$50,000 or more	4.8	4.2-5.5
<b>Disability</b>		
Living with a disability	19.2	17.4-20.9
Living without a disability	21	20.0-21.9

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 to 64 Years Old Who Lack Health Care Coverage, KS BRFSS 2013



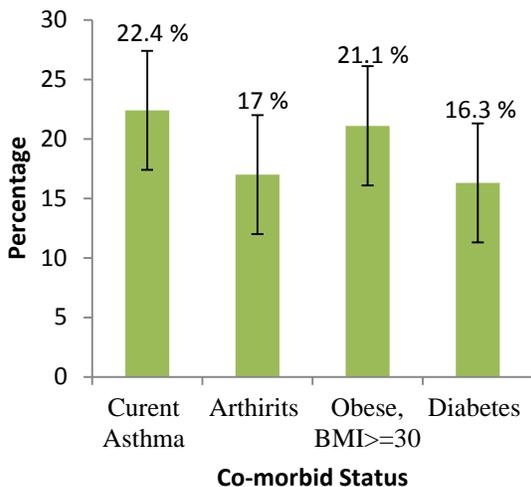
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 to 64 Years Old Who Lack Health Care Coverage by Co-Morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	22.4	19.5-25.3
No	20.5	19.6-21.4
<b>Arthritis Status</b>		
Yes	17	15.4-18.6
No	21.6	20.6-22.5
<b>Weight Category</b>		
Normal or Underweight, BMI<25	20	18.5-21.5
Overweight, 25<= BMI<30	18.4	17.0-19.9
Obese, BMI>=30	21.1	19.6-22.6
<b>Diabetes Status</b>		
Yes	16.3	13.8-18.8
No	21.1	20.2-22.0

**Percentage of Adults 18 to 64 Years Old Who Lack Health Care Coverage, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 to 64 years old with no health care coverage was significantly **higher** among:

- Adults with no arthritis compared with those with arthritis
- Adults with no diabetes compared with those with diabetes

The percentage of Kansas adults 18 to 64 years old with no health care coverage did not differ significantly by current asthma status or weight categories.

**SUMMARY**

Approximately 21 percent of Kansas adults 18 to 64 years old lacked health care coverage. In addition, higher percentages of adults who lacked health insurance were seen among: younger adults, non-Hispanic African-Americans, Hispanics, adults with lower income and education.

The Healthy People 2020 target is for 100 percent of people to have health insurance. Further public health efforts are needed to reach the target in Kansas and to address observed disparities among population subgroups.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Access to health care among Kansans 18 years old and older:

In 2013, approximately 1 in 6 Kansas adults 18 years old and older lacked health care coverage. The percentage of Kansas adults 18 years old and older with no health care coverage was significantly **higher** among:

- Adults 34 years and younger compared with those in older age groups
- Non-Hispanic African-Americans and Hispanics compared with non-Hispanic whites (age-adjusted prevalence)
- Adults in lower education groups compared with adults in higher education groups
- Adults with an annual household income of less than \$25,000 compared with those with an annual household income of \$25,000 or higher
- Adults living without a disability compared with those living with a disability

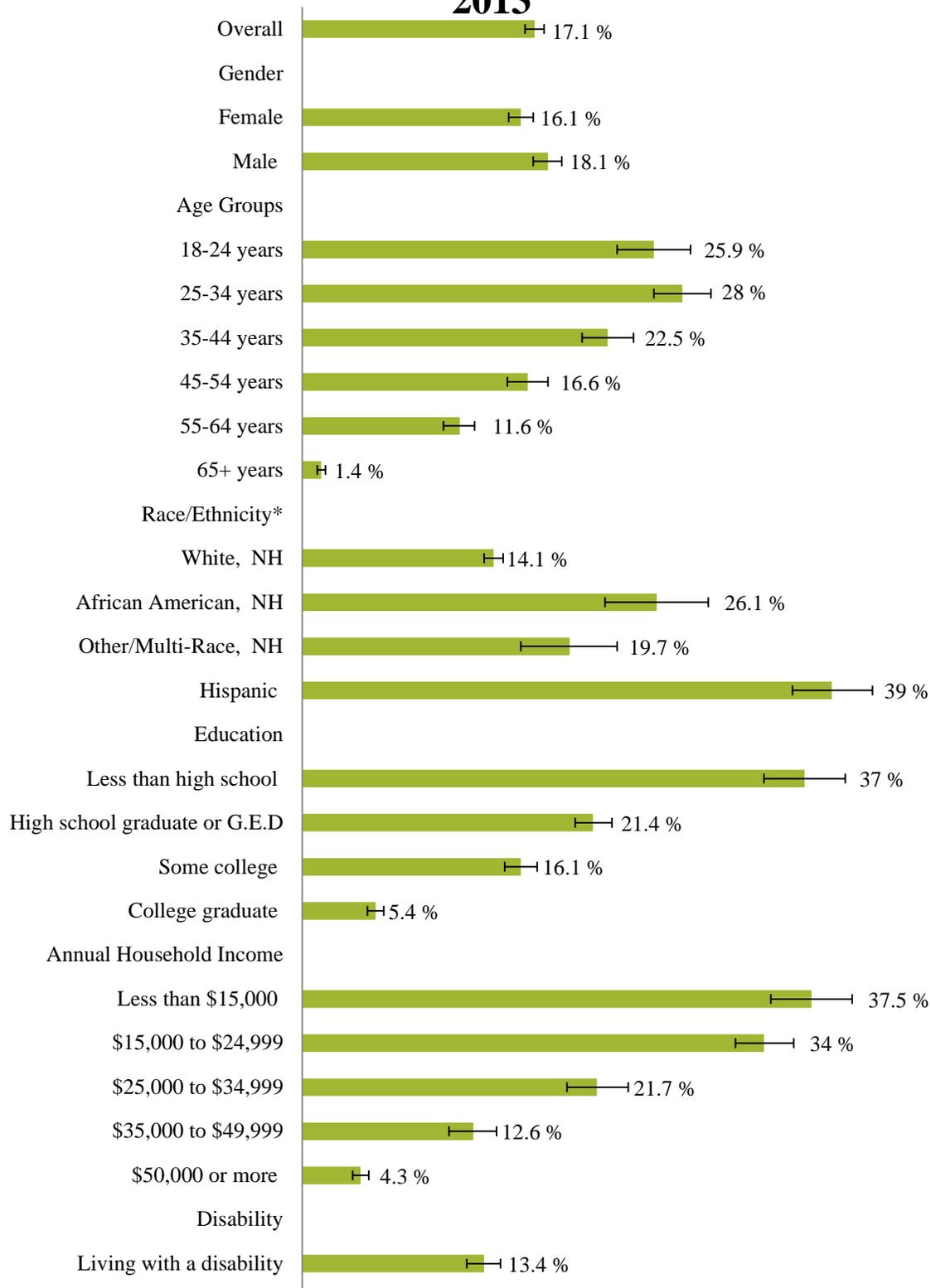
The percentage of Kansas adults with no health care coverage did not differ significantly between males and females.

## Percentage of Adults 18 Years Old and Older Who Lack Health Care Coverage, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	17.1	16.4-17.8
<b>Gender</b>		
Female	16.1	15.2-17.0
Male	18.1	17.0-19.1
<b>Age Groups</b>		
18-24 years	25.9	23.2-28.6
25-34 years	28	25.9-28.6
35-44 years	22.5	20.6-24.4
45-54 years	16.6	15.1-18.1
55-64 years	11.6	10.4-12.7
65+ years	1.4	1.1-1.7
<b>Race/Ethnicity*</b>		
White, NH	14.1	13.4-14.8
African-American, NH	26.1	22.3-29.9
Other/Multi-Race, NH	19.7	16.1-23.2
Hispanic	39	36.1-42.0
<b>Education</b>		
Less than high school	37	34.0-40.0
High school graduate or G.E.D	21.4	20.1-22.8
Some college	16.1	14.9-17.3
College graduate	5.4	4.8-6.0
<b>Annual Household Income</b>		
Less than \$15,000	37.5	34.5-40.5
\$15,000 to \$24,999	34	31.9-36.2
\$25,000 to \$34,999	21.7	19.5-24.0
\$35,000 to \$49,999	12.6	10.8-14.3
\$50,000 or more	4.3	3.7-4.9
<b>Disability</b>		
Living with a disability	13.4	12.1-14.6
Living without a disability	17.9	17.1-18.7

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

# Percentage of Adults 18 Years Old and Older Who Lack Health Care Coverage, KS BRFSS 2013



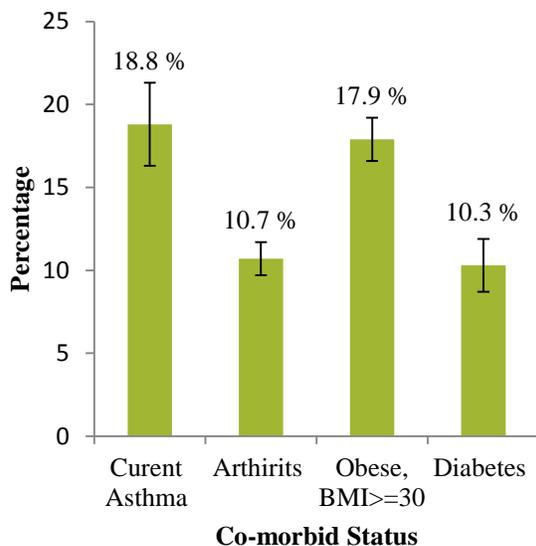
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Lack Health Care Coverage, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	18.8	16.3-21.3
No	16.8	16.1-17.5
<b>Arthritis Status</b>		
Yes	10.7	16.3-21.3
No	19	16.1-17.5
<b>Weight Category</b>		
Normal or Underweight, BMI<25	16.4	15.2-17.6
Overweight, 25<= BMI<30	14.5	13.4-15.7
Obese, BMI>=30	17.9	16.6-19.2
<b>Diabetes Status</b>		
Yes	10.3	8.7-11.9
No	17.7	17.0-18.5

**Percentage of Adults 18 Years Old and Older Who Lack Health Care Coverage, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older with no health care coverage was significantly **higher** among:

- Adults who were obese compared with those who were overweight
- Adults with no diabetes compared with those with diabetes

The percentage of Kansas adults 18 years old and older with no health care coverage did not differ significantly by current asthma status and arthritis status.

SUMMARY

Approximately 17 percent of Kansas adults 18 years old and older lacked health care coverage. Also, significant disparities were seen among age groups, race/ethnicity groups, education groups, annual household income groups and disability status.

The Healthy People 2020 target is for 100 percent of persons to have health insurance. Further public health efforts are needed to reach the target and to address disparities seen in various population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Access to Health Care: No Personal Health Care Provider

Health-related outcomes have been shown to be substantially improved when people have access to primary health care and a personal doctor. People who have a personal health care provider also indicate that they receive appropriate preventive care, have their problems identified and pay lower costs related to hospitalization due to timely diagnostic tests, fewer prescriptions and fewer emergency room visits.<sup>3</sup>

### No personal doctor among Kansans 18 years old and older:

In 2013, approximately 1 in 5 Kansas adults 18 years old and older did not have a personal health care provider. The percentage of Kansas adults with no personal health care provider was significantly **higher** among:

- Males compared with females
- Younger adults compared with adults in older age groups
- Non-Hispanic African-Americans as compared with non-Hispanic whites; Hispanics as compared with all other race/ethnicity groups (age-adjusted prevalence)
- Adults who did not graduate high school or receive a GED compared with those with higher levels of education
- Adults with lower annual household income compared with adults in higher annual household income groups.
- Adults living without a disability as compared with those living with a disability.

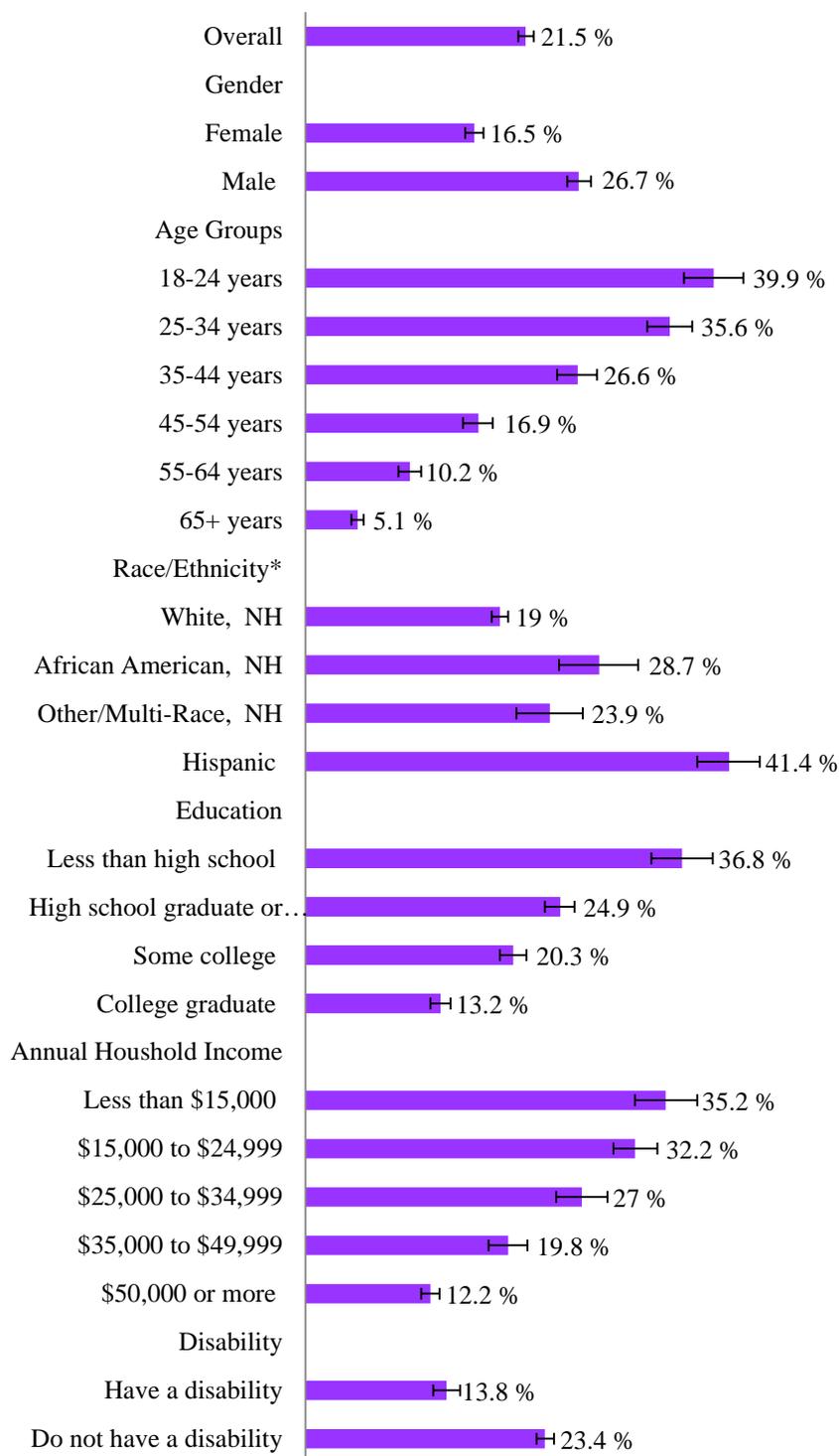
### Percentage of Adults 18 Years Old and Older With No Personal Doctor, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	21.5	20.8-22.3
<b>Gender</b>		
Female	16.5	15.6-17.4
Male	26.7	25.6-27.9
<b>Age Groups</b>		
18-24 years	39.9	37.0-42.8
25-34 years	35.6	33.4-37.8
35-44 years	26.6	24.6-28.5
45-54 years	16.9	15.4-18.3
55-64 years	10.2	9.1-11.3
65+ years	5.1	4.5-5.7
<b>Race/Ethnicity*</b>		
White, NH	19.0	18.2-19.8
African-American, NH	28.7	24.8-32.5
Other/Multi-Race, NH	23.9	20.6-27.1
Hispanic	41.4	38.3-44.4
<b>Education</b>		
Less than high school	36.8	33.8-39.8
High school graduate or G.E.D	24.9	23.4-26.3
Some college	20.3	19.0-21.6
College graduate	13.2	12.2-14.2
<b>Annual Household Income</b>		
Less than \$15,000	35.2	32.2-38.3
\$15,000 to \$24,999	32.2	30.1-34.4
\$25,000 to \$34,999	27.0	24.5-29.5
\$35,000 to \$49,999	19.8	17.9-21.7
\$50,000 or more	12.2	11.3-13.1
<b>Disability</b>		
Living with a disability	13.8	12.5-15.1
Living without a disability	23.4	22.6-24.3

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older With No Personal Doctor, KS BRFSS 2013



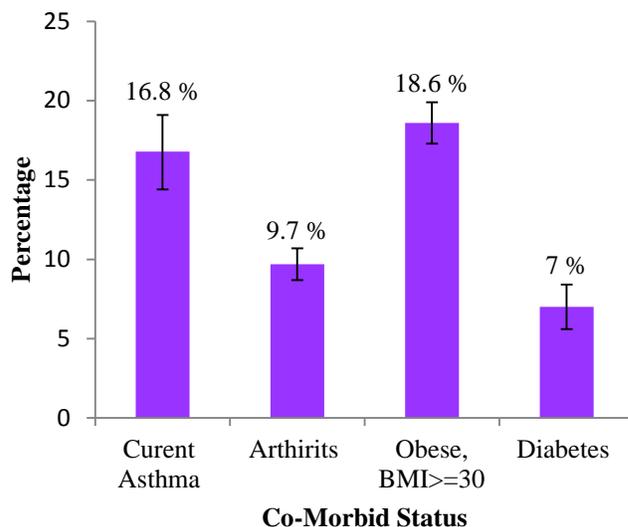
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With No Personal Doctor by Co-Morbid Conditions, KS BRFSS 2013**

o-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	16.8	14.5-19.2
No	21.9	21.1-22.7
<b>Arthritis Status</b>		
Yes	9.7	8.7-10.7
No	25.3	24.4-26.2
<b>Weight Category</b>		
Normal or Underweight, BMI<25	23.3	22.0-24.7
Overweight, 25<= BMI<30	20.6	19.3-21.8
Obese, BMI>=30	18.6	17.3-19.9
<b>Diabetes Status</b>		
Yes	7	5.6-8.4
No	23	22.2-23.8

**Percentage of Adults 18 Years Old and Older With No Personal Doctor by Co-Morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older with no personal health care provider was significantly **higher** among:

- Adults with no current asthma compared with those with current asthma
- Adults with no arthritis compared with those with arthritis
- Adults who were normal or underweight compared with those who were overweight or obese
- Adults with no diabetes compared with those with diabetes

**SUMMARY**

Approximately 22 percent of Kansas adults 18 years old and older did not have a personal health care provider. In addition, higher percentages of adults who did not have a personal doctor were seen among: males, young adults, African-Americans, Hispanics, adults with lower income and education, and those without chronic diseases or disabilities.

The Healthy People 2020 target is for 96 percent of people to have ongoing primary care. Further public health efforts are needed to reach the target and to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Injury and Violence: Seat Belt Use

Motor vehicle crashes are the leading cause of death for people 5 to 34 years old. It can lead to premature death, disability, poor mental health, high medical costs and lost productivity.<sup>4</sup> The most effective way to reduce injuries and mortality due to motor vehicle crashes is the use of seat belts.<sup>5</sup> Increasing use of seat belts is one of the objectives for the prevention of unintentional injury. The Healthy People 2020 goal for injury prevention is to prevent unintentional injuries and reduce their consequences.

In 2013, approximately 1 in 6 Kansas adults 18 years old and older did not always wear a seat belt when they drove or rode in a car. The percentage of Kansas adults who did not always wear a seat belt when they drove or rode in a car was significantly **higher** among:

- Males compared with females
- Younger adults compared with adults in older age groups
- Non-Hispanic whites as compared with Non-Hispanic Other/Multi-Race and Hispanics (age-adjusted prevalence)
- Adults who did not graduate high school or receive a GED compared with those who were college graduates
- Adults with annual household income of less than \$50,000 compared with adults whose annual household income was \$50,000 or higher
- Adults who were uninsured compared with adults who were insured

The percentage of Kansas adults who did not always wear a seat belt when they drove or rode in a car did not differ significantly by disability status.

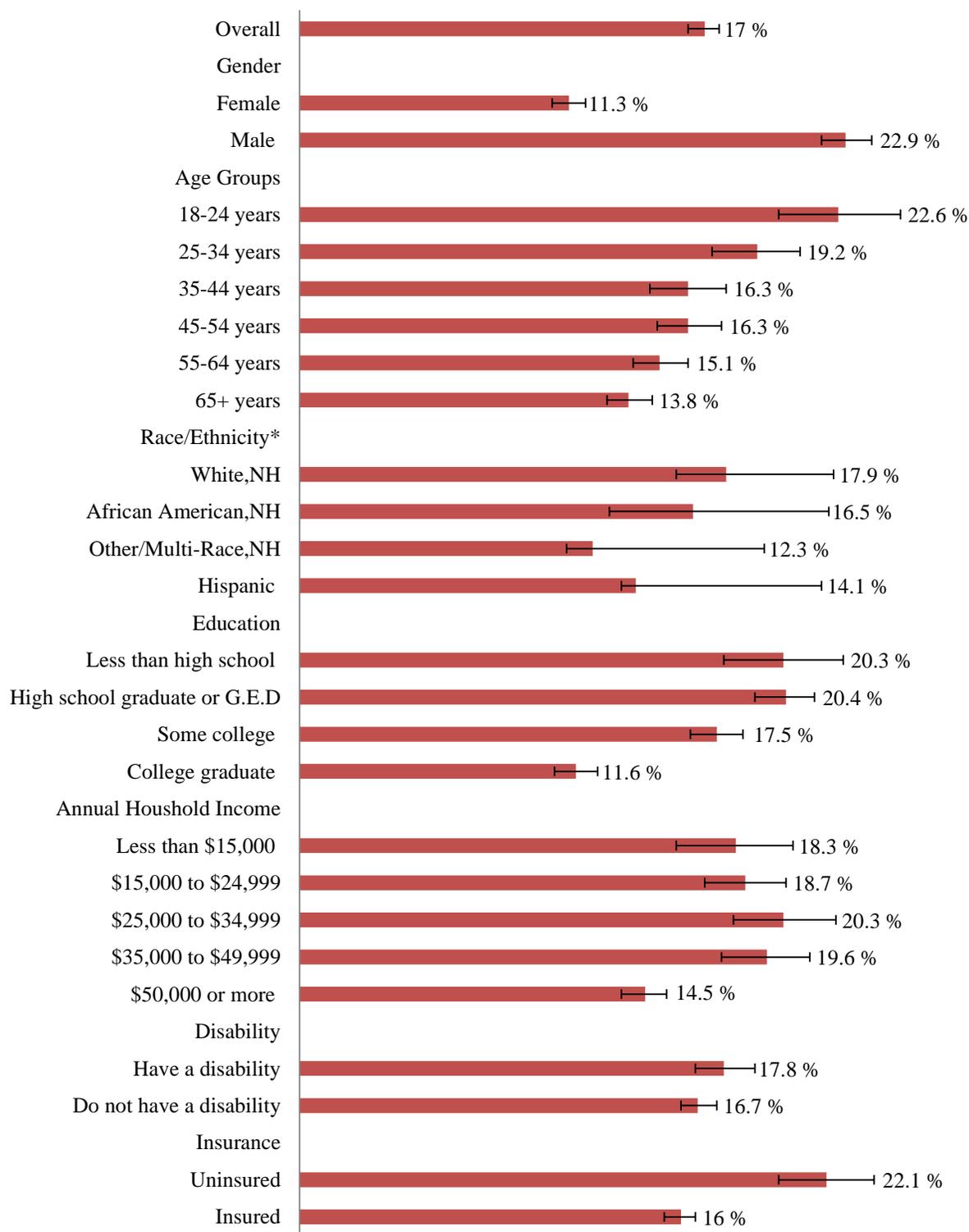
### Percentage of Adults 18 Years Old and Older Who Do Not Always Wear a Seat Belt When They Drive or Ride in a Car, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	17	16.3-17.6
<b>Gender</b>		
Female	11.3	10.6-12.0
Male	22.9	21.9-24.0
<b>Age Groups</b>		
18-24 years	22.6	20.1-25.2
25-34 years	19.2	17.3-21.0
35-44 years	16.3	14.7-17.9
45-54 years	16.3	15.0-17.7
55-64 years	15.1	14.0-16.3
65+ years	13.8	12.9-14.8
<b>Race/Ethnicity*</b>		
White, NH	17.9	17.2-18.7
African-American, NH	16.5	13.0-19.9
Other/Multi-Race, NH	12.3	9.6-15.0
Hispanic	14.1	11.8-16.4
<b>Education</b>		
Less than high school	20.3	17.8-22.8
High school graduate or G.E.D	20.4	19.1-21.6
Some college	17.5	16.4-18.6
College graduate	11.6	10.7-12.5
<b>Annual Household Income</b>		
Less than \$15,000	18.3	15.8-20.7
\$15,000 to \$24,999	18.7	17.0-20.4
\$25,000 to \$34,999	20.3	18.2-22.5
\$35,000 to \$49,999	19.6	17.7-21.4
\$50,000 or more	14.5	13.5-15.4
<b>Disability</b>		
Living with a disability	17.8	16.6-19.1
Living without a disability	16.7	16.0-17.5
<b>Insurance</b>		
Uninsured	22.1	20.1-24.1
Insured	16	15.3-16.6

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults Who Reported That They Do Not Always Wear a Seat Belt When They Drive or Ride in a Car, KS BRFSS 2013



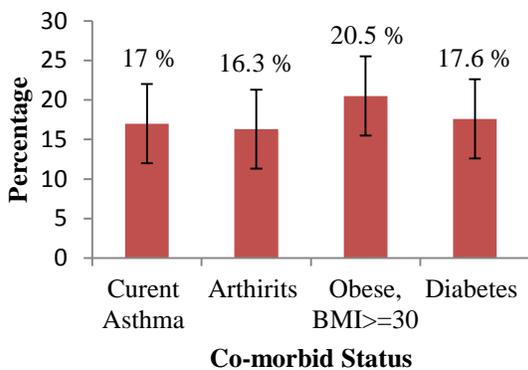
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Who Do Not Always Wear a Seat Belt When They Drive or Ride in a Car, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	17	14.9-19.2
No	16.9	16.3-17.6
<b>Arthritis Status</b>		
Yes	16.3	15.3-17.4
No	17.2	16.4-18.0
<b>Weight Category</b>		
Normal or Underweight, BMI<25	14.7	13.6-15.8
Overweight, 25<= BMI<30	16.6	15.5-17.7
Obese, BMI>=30	20.5	19.3-21.8
<b>Diabetes Status</b>		
Yes	17.6	15.8-19.3
No	16.9	16.2-17.6

**Percentage of Adults Who Reported That They Do Not Always Wear a Seat Belt When They Drive or Ride in a Car, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults who did not always wear a seat belt when they drove or rode in a car was significantly **higher** among:

- Adults who were obese compared with those who were overweight or normal weight

The percentage of Kansas adults who did not always wear a seat belt when they drove or rode in a car did not differ significantly by current asthma status, arthritis status, or diabetes status.

**SUMMARY**

Seventeen percent of Kansas adults 18 years old and older did not always wear a seat belt when they drive or ride in a car. In addition, higher percentages of adults who did not always wear a seat belt when they drove or rode in a car were seen among: males, young adults, Non-Hispanic whites, adults with less than a high school education, adults with annual household income of less than \$50,000, uninsured adults and adults who were obese.

The Healthy People 2020 target is for 92 percent of persons to use a seat belt when they drive or ride in a car. Further public health efforts are needed to reach the target and to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Clinical Preventative Services: Adult Flu Vaccine

Life expectancy has increased since the 20<sup>th</sup> century largely due to several immunizations. Vaccines are a core component of any preventative service and are a very cost effective preventive service.<sup>7</sup> Influenza can have a costly impact resulting in doctor visits, hospitalization, loss of productivity and death.<sup>8</sup> The Healthy People 2020 goal is to increase the percentage of adults who get vaccinated annually against seasonal influenza.

In 2013, approximately 3 in 5 Kansas adults 18 years old and older did not get immunized against influenza during the past 12 months. The percentage of Kansas adults who did not get immunized against influenza during the past 12 months was significantly **higher** among:

- Males compared with females
- Younger adults compared with adults in older age groups
- Adults with less than high school education and high school degree or GED compared with those with some college and college graduates
- Adults with an annual household income less than \$15,000 compared with adults in all other income groups
- Adults with an annual household income of \$15,000 to \$24,999 compared with adults whose annual household income was \$35,000 or greater
- Adults who do not have a disability compared with adults with a disability
- Adults with no insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older who did not get immunized against influenza during the past 12 months did not differ significantly by race/ethnicity groups (age-adjusted prevalence).

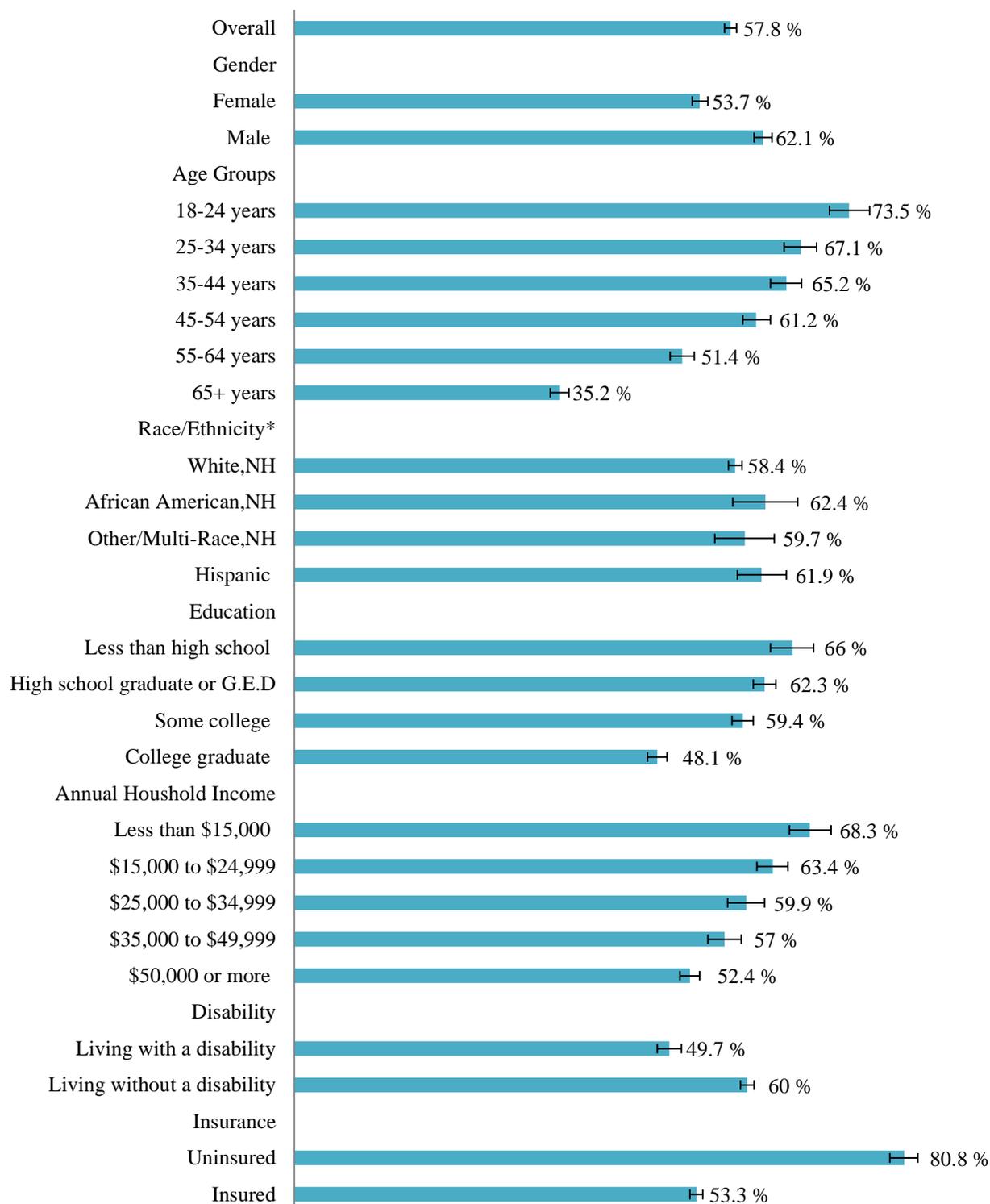
## Percentage of Adults 18 Years Old and Older Who Did Not Get Immunized Against Influenza During the Past 12 Months, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	57.8	57.0-58.6
<b>Gender</b>		
Female	53.7	52.7-54.8
Male	62.1	60.9-63.3
<b>Age Groups</b>		
18-24 years	73.5	70.9-76.2
25-34 years	67.1	64.9-69.2
35-44 years	65.2	63.1-67.2
45-54 years	61.2	59.4-63.1
55-64 years	51.4	49.8-53.0
65+ years	35.2	33.9-36.4
<b>Race/Ethnicity*</b>		
White, NH	58.4	57.5-59.3
African-American, NH	62.4	58.1-66.7
Other/Multi-Race, NH	59.7	55.7-63.6
Hispanic	61.9	58.7-65.2
<b>Education</b>		
Less than high school	66	63.1-68.8
High school graduate or G.E.D	62.3	60.8-63.8
Some college	59.4	58.0-60.8
College graduate	48.1	46.8-49.4
<b>Annual Household Income</b>		
Less than \$15,000	68.3	65.6-71.1
\$15,000 to \$24,999	63.4	61.3-65.4
\$25,000 to \$34,999	59.9	57.4-62.3
\$35,000 to \$49,999	57	54.8-59.2
\$50,000 or more	52.4	51.1-53.7
<b>Disability</b>		
Living with a disability	49.7	48.1-51.3
Living without a disability	60	59.1-60.9
<b>Insurance</b>		
Uninsured	80.8	78.9-82.6
Insured	53.3	52.4-54.1

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage Of Adults 18 Years Old and Older Who Did Not Get Immunized Against Influenza During the Past 12 Months, KS BRFSS 2013



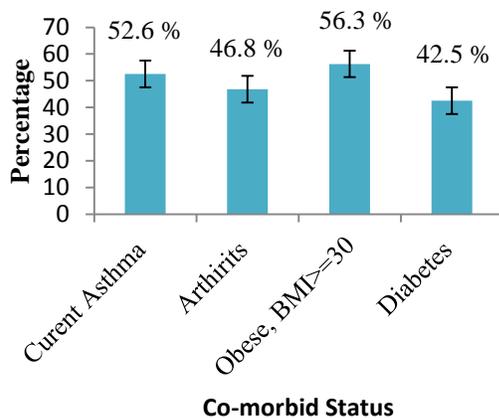
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Did Not Get Immunized Against Influenza During the Past 12 Months by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	52.6	49.5-55.4
No	58.3	57.5-59.1
<b>Arthritis Status</b>		
Yes	46.8	45.4-48.3
No	61.4	60.4-62.3
<b>Weight Category</b>		
Normal or Underweight, BMI<25	59.9	58.5-61.4
Overweight, 25<= BMI<30	56.4	55.0-57.7
Obese, BMI>=30	56.3	54.9-57.8
<b>Diabetes Status</b>		
Yes	42.5	40.1-44.8
No	59.5	58.6-60.3

**Percentage of Adults 18 Years Old and Older Who Did Not Get Immunized Against Influenza During the Past 12 Months, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not get immunized against influenza during the past 12 months was significantly **higher** among:

- Adults without current asthma compared with those with current asthma
- Adults without arthritis compared with those with arthritis.
- Adults without diabetes compared with those with diabetes.

The percentage of Kansas adults 18 years old and older who did not get immunized against influenza during the past 12 months did not differ significantly by weight category.

Per guidelines people at risk of developing flu-related complications include those with asthma and adults 65 years old and older.<sup>9</sup> Approximately 53 percent of Kansas adults with current asthma and 35 percent of adults 65 years old and older did not get immunized against influenza during the past 12 months.

**SUMMARY**

Approximately 60 percent of Kansas adults 18 years old and older did not get immunized against influenza during the past 12 months. In addition, higher percentages of adults who did not get immunized against influenza during the past 12 months were seen among: males, young adults, adults with no insurance, adults with lower income and education, and those without chronic diseases (diabetes; arthritis or current asthma) or disabilities. In addition, prevalence of people who are at risk of developing flu-related complications that did not get immunized against influenza during the past 12 months was as high as more than half of Kansas adults with current asthma and 1 in 3 adults 65 years old and older.

The Healthy People 2020 goal is to increase the percentage of adults who get vaccinated annually against seasonal influenza. To increase the percentage of adults who get immunized against influenza and to address associated disparities; further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Clinical Preventative Services: Child Flu Vaccine

The flu can have serious consequences and commonly results in medical care for children under 5 years old.<sup>9</sup> Flu seasons vary in severity but every year children die from flu and an average of 20,000 children under 5 years old are hospitalized because of influenza complications.<sup>9</sup> The best way to protect children from the flu is to get them vaccinated. Vaccines are a core component of any preventative service and are a very cost effective preventive service.<sup>7</sup> The Healthy People 2020 goal is to increase the percentage of children who get vaccinated annually against seasonal influenza.

In 2013, approximately 1 in 2 Kansas children 6 months old and older did not get immunized against influenza during the past 12 months. The percentage of Kansas children 6 months old and older who did not get immunized against influenza during the past 12 months was significantly **higher** among:

- Children 15 to 17 years old compared with children 6 months old to 14 years old

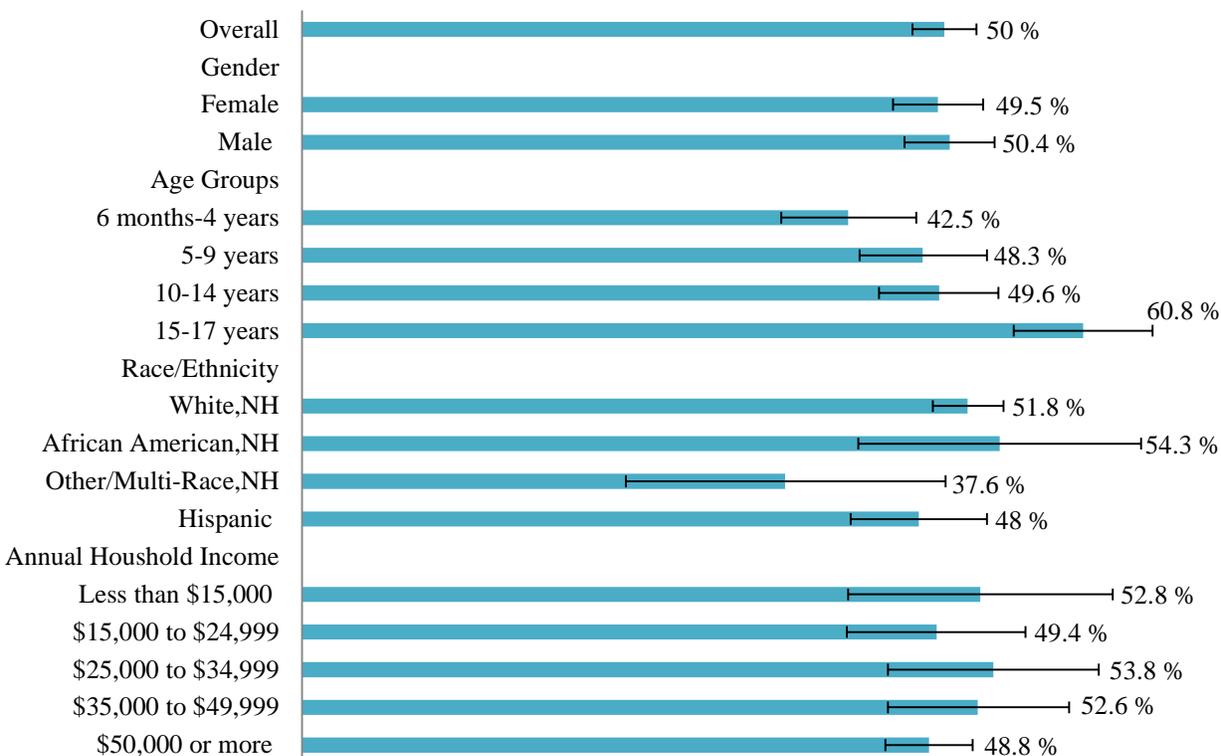
The percentage of Kansas children 6 months old and older who did not get immunized against influenza during the past 12 months did not differ significantly by gender, race/ethnicity and annual household income groups.

### Percentage of Children 6 Months Old and Older Who Did Not Get Immunized Against Influenza During the Past 12 Months, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	50	47.5-52.5
<b>Gender</b>		
Female	49.5	46.2-53.0
Male	50.4	46.9-53.9
<b>Age Groups</b>		
6 months-4 years	42.5	37.3-47.8
5-9 years	48.3	43.4-53.3
10-14 years	49.6	44.9-54.2
15-17 years	60.8	55.4-66.2
<b>Race/Ethnicity</b>		
White, NH	51.8	49.1-54.6
African-American, NH	54.3	43.3-65.3
Other/Multi-Race, NH	37.6	25.2-50.1
Hispanic	48	42.7-53.3
<b>Annual Household Income</b>		
Less than \$15,000	52.8	42.5-63.1
\$15,000 to \$24,999	49.4	42.4-56.3
\$25,000 to \$34,999	53.8	45.6-62.0
\$35,000 to \$49,999	52.6	45.6-59.7
\$50,000 or more	48.8	45.4-52.2

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Children Who Did Not Get Immunized Against Influenza During the Past 12 Months, KS BRFSS 2013



### SUMMARY

Approximately 50 percent of Kansas children 6 months old and older did not get immunized against influenza during the past 12 months. In addition, higher percentages of children who did not get immunized against influenza during the past 12 months were seen among children 15 to 17 years old.

The Healthy People 2020 goal is to increase the percentage of children who get vaccinated annually against seasonal influenza. Therefore further public health efforts are needed to address disparities in population subgroups in Kansas.

# Clinical Preventative Services: Pneumonia Vaccine

In the U.S., about 1 million adults get pneumococcal pneumonia and 5 to 7 percent will die from it every year.<sup>10</sup> The best way to protect adults from pneumonia is to get vaccinated. Vaccines are a core component of any preventative service and are a very cost effective preventive service.<sup>7</sup> The Healthy People 2020 goal is to increase the percentage of adults 65 years old and older who are vaccinated against the pneumococcal disease to 90 percent.

In 2013, approximately 1 in 3 Kansas adults 65 years old and older have never received a pneumonia vaccination. The percentage of Kansas adults 65 years old and older who never received a pneumonia vaccination was significantly **higher** among:

- Males compared with females
- Adults living without a disability compared with those living with a disability

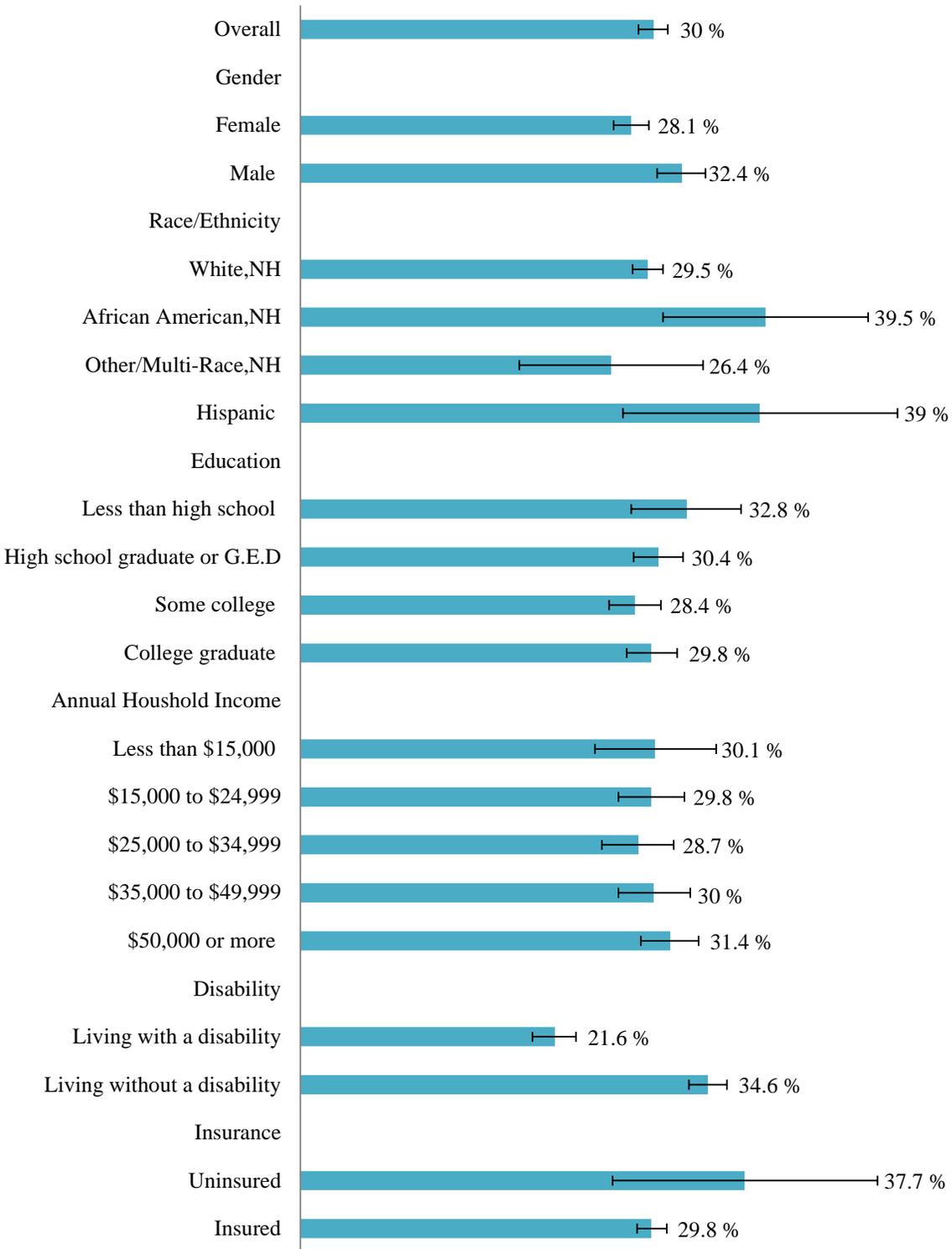
The percentage of Kansas adults 65 years old and older who never received a pneumonia vaccination did not differ significantly by race/ethnicity groups (age-adjusted prevalence), education, annual household income and insurance status.

## Percentage of Adults 65 Years Old and Older Who Have Never Had Pneumonia Vaccination, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	30	28.7-31.2
<b>Gender</b>		
Female	28.1	26.6-29.6
Male	32.4	30.3-34.4
<b>Race/Ethnicity</b>		
White, NH	29.5	28.2-30.8
African-American, NH	39.5	30.8-48.2
Other/Multi-Race, NH	26.4	18.6-34.2
Hispanic	39	27.4-50.7
<b>Education</b>		
Less than high school	32.8	28.1-37.4
High school graduate or G.E.D	30.4	28.3-32.5
Some college	28.4	26.2-30.6
College graduate	29.8	27.7-32.0
<b>Annual Household Income</b>		
Less than \$15,000	30.1	25.0-35.3
\$15,000 to \$24,999	29.8	27.0-32.6
\$25,000 to \$34,999	28.7	25.6-31.7
\$35,000 to \$49,999	30	27.0-33.1
\$50,000 or more	31.4	28.9-33.8
<b>Disability</b>		
Living with a disability	21.6	19.7-23.4
Living without a disability	34.6	33.0-36.2
<b>Insurance</b>		
Uninsured	37.7	26.5-49.0
Insured	29.8	28.6-31.1

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 65 Years Old and Older Who Have Never Had Pneumonia Vaccination, KS BRFSS 2013

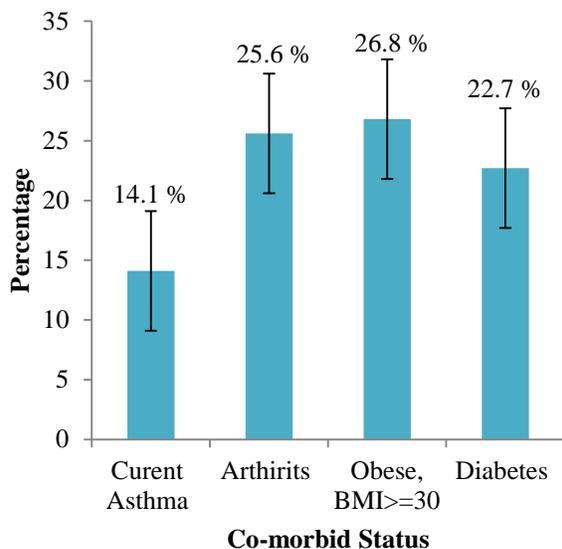


Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 65 Years Old and Older Who Have Never Had Pneumonia Vaccination by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	14.1	10.6-17.5
No	31.4	30.1-32.7
<b>Arthritis Status</b>		
Yes	25.6	24.0-27.3
No	34.4	32.5-36.2
<b>Diabetes Status</b>		
Yes	22.7	20.0-25.4
No	31.8	30.4-33.2
<b>Weight Category</b>		
Normal or Underweight, BMI<25	30.5	28.4-32.7
Overweight, 25<= BMI<30	31	29.0-33.0
Obese, BMI>=30	26.8	24.4-29.2

**Percentage of Adults 65 Years Old and Older Who Have Never Had Pneumonia Vaccination, by Co-morbid Condition, KS BRFSS 2013**



The percentage of Kansas adults 65 years old and older who never received a pneumonia vaccination was significantly **higher** among:

- Adults without current asthma compared with those with current asthma
- Adults without arthritis compared with those with arthritis
- Adults without diabetes compared to those with diabetes

The percentage of Kansas adults 65 years old and older who never received a pneumonia vaccination did not differ significantly by weight status.

**SUMMARY**

Thirty percent of Kansas adults 65 years old and older have never received a pneumonia vaccination. In addition, higher percentages of adults who have never received a pneumonia vaccination were seen among: males, those living without disabilities and those without chronic health conditions (current asthma; arthritis or diabetes).

The Healthy People 2020 goal is to increase the percentage of adults 65 years old and older who are vaccinated against the pneumococcal disease to 90 percent. To meet the goal for Kansas, the percentage of adults who get immunized against pneumococcal needs to increase; further public health efforts are needed.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Clinical Preventative Services: Genetic Counseling

In 2013, the leading cause of death among Kansans was cancer.<sup>12</sup> Early detection of cancer helps initiate treatment and increase chances of survival.<sup>13</sup> Early diagnoses of breast and cervical cancers can be done using screening modalities that can help detect these cancers before symptoms appear.<sup>14</sup> Genetic tests and family health history are important tools to help guide clinical interventions for people who are at an increased risk for hereditary breast, ovarian or colorectal cancer.<sup>15</sup> The Healthy People 2020 goal is to increase the percentage of women with a family history of breast and/or ovarian cancer that receive genetic counseling. Family history of cancer is defined as breast, ovarian or colorectal cancers for females; or breast or colorectal cancers for males.

In 2013, approximately 8 in 10 Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling. The percentage of Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling was significantly **higher** among:

- Adults 18 to 24 years old compared with all other age groups
- Hispanics compared with non-Hispanic whites (age-adjusted prevalence)
- Adults living without a disability compared with those living with a disability
- Adults without insurance compared with adults with insurance

No significant differences were seen in the percentages of Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling by gender, education or annual household income groups.

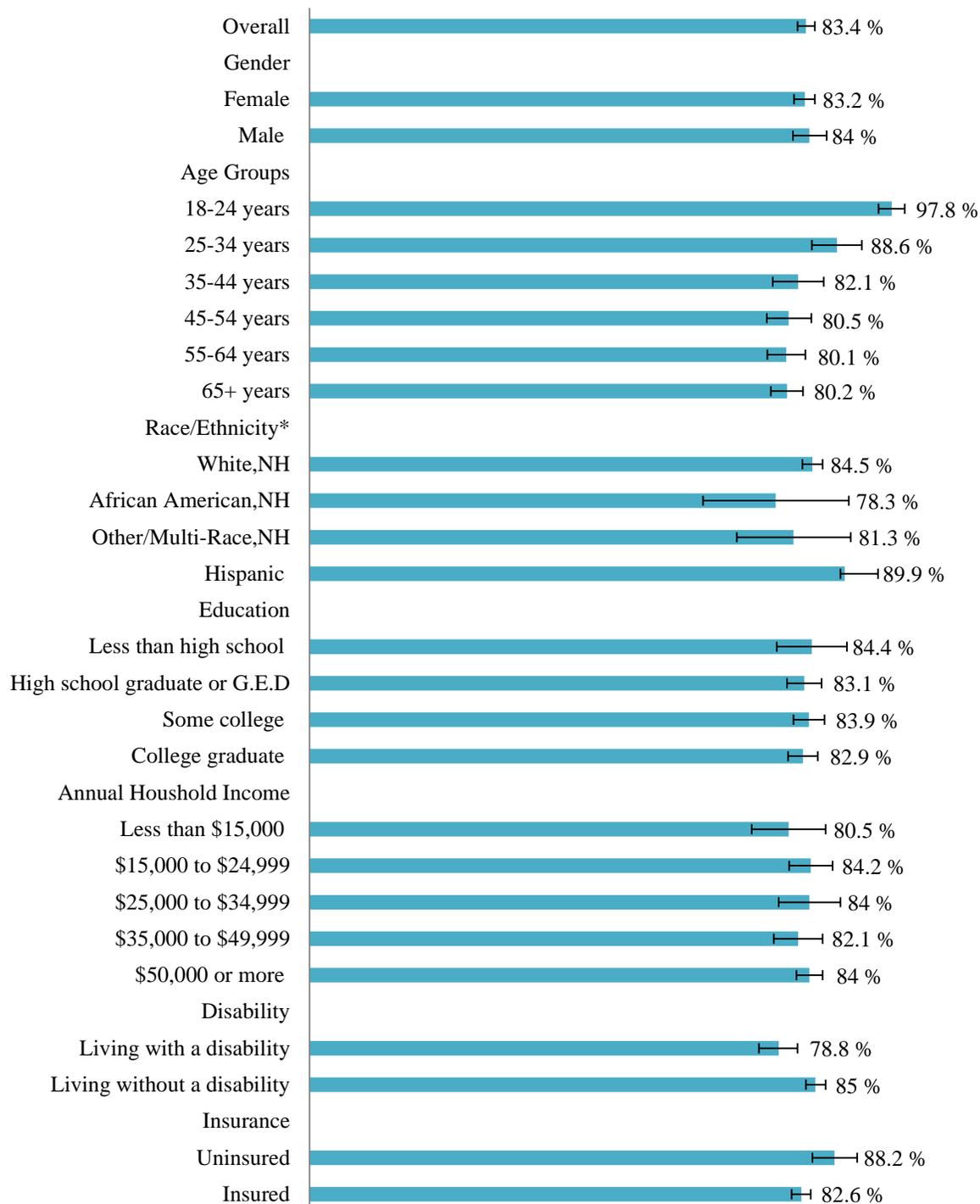
## Percentage of Adults 18 Years Old and Older Who Have Family History\*\* of Breast, Ovarian, or Colorectal Cancer and Did Not Receive Genetic Counseling, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	83.4	82-84.9
<b>Gender</b>		
Female	83.2	81.4-84.9
Male	84	81.2-86.9
<b>Age Groups</b>		
18-24 years	97.8	95.6-100
25-34 years	88.6	84.4-92.8
35-44 years	82.1	77.8-86.4
45-54 years	80.5	76.8-84.3
55-64 years	80.1	76.9-83.3
65+ years	80.2	77.5-82.9
<b>Race/Ethnicity*</b>		
White, NH	84.5	82.8-86.2
African-American, NH	78.3	66.1-90.6
Other/Multi-Race, NH	81.3	71.8-90.9
Hispanic	89.9	89.2-95.5
<b>Education</b>		
Less than high school	84.4	78.5-90.3
High school graduate or G.E.D	83.1	80.2-86
Some college	83.9	81.3-86.5
College graduate	82.9	80.4-85.4
<b>Annual Household Income</b>		
Less than \$15,000	80.5	74.3-86.7
\$15,000 to \$24,999	84.2	80.6-87.9
\$25,000 to \$34,999	84	78.8-89.2
\$35,000 to \$49,999	82.1	78-86.2
\$50,000 or more	84	81.8-86.2
<b>Disability</b>		
Living with a disability	78.8	75.5-82
Living without a disability	85	83.4-86.7
<b>Insurance</b>		
Uninsured	88.2	84.5-92
Insured	82.6	81-84.2

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population  
 \*\*Family history of cancer is defined as breast, ovarian, and colorectal cancers for females; or breast and colorectal cancers for males.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Have Family History\*\* of Breast, Ovarian, or Colorectal Cancer and Did Not Receive Genetic Counseling, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

\*\*Family history of cancer is defined as breast, ovarian, and colorectal cancers for females; or breast and colorectal cancers for males.

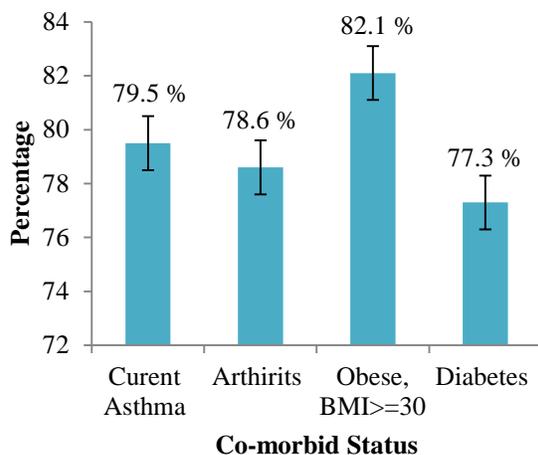
Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Have Family History\*\* of Breast, Ovarian, or Colorectal Cancer and Did Not Receive Genetic Counseling by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	79.5	74.6-84.4
No	83.9	82.3-85.5
<b>Arthritis Status</b>		
Yes	78.6	75.8-81.4
No	85.6	83.9-87.4
<b>Diabetes Status</b>		
Yes	77.3	72.5-82.1
No	84.2	82.7-85.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	84.2	81.8-86.7
Overweight, 25<= BMI<30	83.5	80.8-86.1
Obese, BMI>=30	82.1	79.2-84.9

\*\*Family history of cancer is defined as breast, ovarian, and colorectal cancers for females; or breast and colorectal cancers for males.

**Percentage of Adults 18 Years Old and Older Who Have Family History\*\* of Breast, Ovarian, or Colorectal Cancer and Did Not Receive Genetic Counseling by Co-morbid Conditions, KS BRFSS 2013**



\*\*Family history of cancer is defined as breast, ovarian, and colorectal cancers for females; or breast and colorectal cancers for males.

The percentage of Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling was significantly **higher** among:

- Adults without arthritis compared with those with arthritis
- Adults without diabetes compare to those with diabetes

The percentage of Kansas adults 18 years old and older who have a family history of breast, ovarian or colorectal cancers that did not receive genetic counseling did not differ significantly by current asthma or weight status.

SUMMARY

Approximately 83 percent of Kansas adults 18 years old and older who had a family history of breast, ovarian or colorectal cancers did not receive genetic counseling. In addition, among those with a family history of breast, ovarian or colorectal cancers higher percentages of adults who did not receive genetic counseling were seen among: adults 18 to 24 years old, Hispanics, adults living without disabilities, uninsured adults and those without chronic health conditions (arthritis or diabetes).

The Healthy People 2020 goal is to increase the percentage of women with a family history of breast and/or ovarian cancer that receive genetic counseling. Therefore further public health efforts are needed to address this issue and associated disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Clinical Preventative Services: Child HPV Vaccine

The human papillomavirus (HPV) is a very common virus. About 14 million people become infected with HPV each year.<sup>11</sup> HPV can cause a variety of cancers including but not limited to cervical, vaginal, vulvar and anal cancers as well as genital warts.<sup>11</sup> The best way to protect adolescents from HPV is to get vaccinated. Vaccines are a core component of any preventative service and are a very cost effective preventive service.<sup>7</sup> The Healthy People 2020 goal is to increase the vaccination coverage level of 3 doses of the HPV vaccine.

In 2013, approximately 9 in 10 Kansas adolescents 9 years old and older did not receive all three doses of the HPV vaccine. The percentage of adolescents 9 years old and older that did not receive all three doses of the HPV vaccine was significantly **higher** among:

- Males compared with females
- Adolescents 9 to 12 years old compared with adolescents 13 to 17 years old

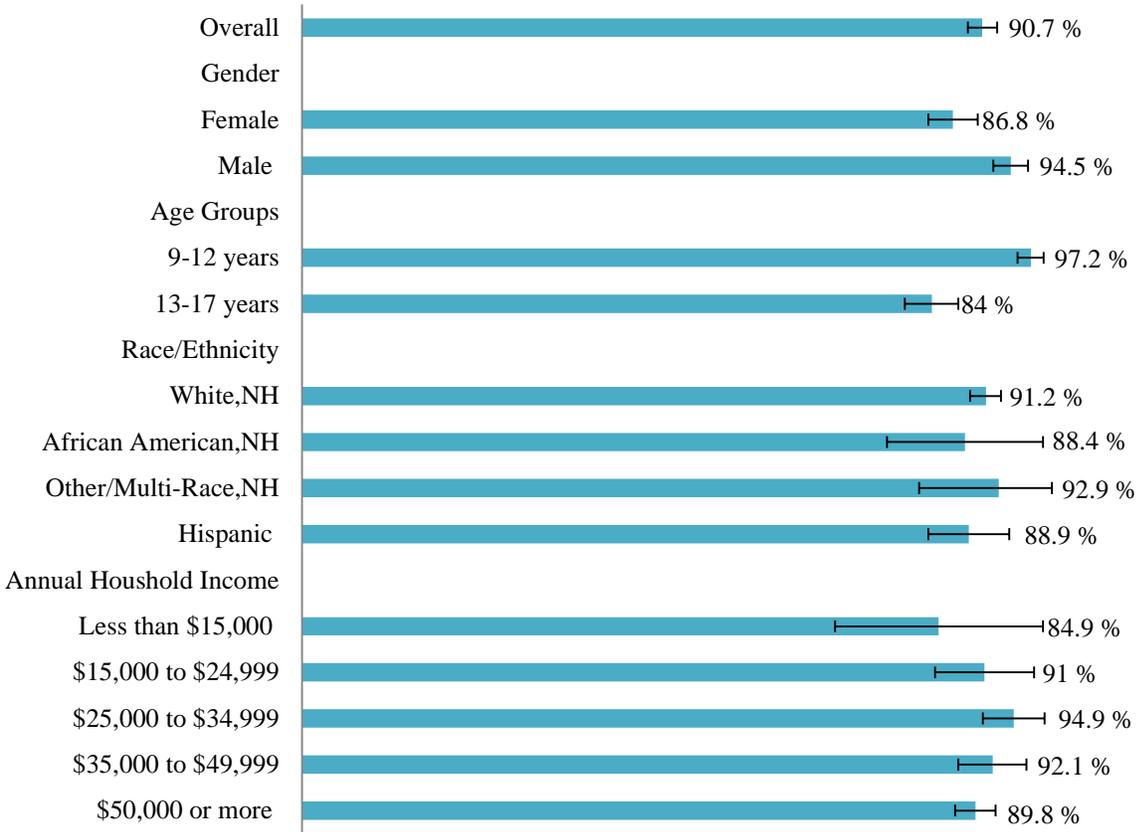
The percentage of adolescents 9 years old and older that did not receive all three doses of the HPV vaccine did not differ significantly by race/ethnicity or annual household income groups.

### Percentage of Adolescents 9 Years Old and Older That Did Not Receive All Three Doses of the HPV Vaccine, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	90.7	88.8-92.7
<b>Gender</b>		
Female	86.8	83.5-90.1
Male	94.5	92.2-96.8
<b>Age Groups</b>		
9-12 years	97.2	95.4-98.9
13-17 years	84	80.4-87.5
<b>Race/Ethnicity</b>		
White, NH	91.2	89.1-93.2
African-American, NH	88.4	78-98.8
Other/Multi-Race, NH	92.9	82.3-100
Hispanic	88.9	83.5-94.3
<b>Annual Household Income</b>		
Less than \$15,000	84.9	71.1-98.8
\$15,000 to \$24,999	91	84.4-97.6
\$25,000 to \$34,999	94.9	90.8-99
\$35,000 to \$49,999	92.1	87.5-96.6
\$50,000 or more	89.8	87.1-92.5

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Children 9 Years Old and Older Who Have Not Received the All Three Doses of the HPV Vaccine, KS BRFSS 2013



### SUMMARY

Approximately 91 percent of Kansas adolescents 9 years old and older did not receive all three doses of the HPV vaccine. In addition, higher percentages of adolescents who did not receive all three doses of the HPV vaccine were seen among: males and adolescents 9 to 12 years old.

The Healthy People 2020 goal is to increase the vaccination coverage level of 3 doses of the HPV vaccine. Therefore further public health efforts are needed to address disparities in population subgroups in Kansas.

## Nutrition, Physical Activity and Obesity: Obesity

Obesity is a complex health issue that can have a wide range of negative health outcomes associated with it, including but not limited to coronary heart disease, cancers, hypertension and sleep apnea.<sup>16</sup> The wide range of health consequences demonstrates the need to reach the Healthy People 2020 goal to reduce the proportion of adults who are obese.

In 2013, approximately 1 in 3 Kansas adults 18 years old and older were obese. The percentage of Kansas adults who were obese was significantly **higher** among:

- Adults 25 years old and older compared with adults 18 to 24 years old; and adults 35 to 64 years old compared with adults 65 years old and older
- Non-Hispanic African-Americans and Hispanics compared with non-Hispanic whites and other/multi-race (age-adjusted prevalence)
- Adults with less than high school education, a high school degree or GED, and some college compared with college graduates
- Adults with annual household income less than \$24,999 and \$35,000 to \$49,999 compared with adults with an annual household income greater than \$50,000
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

The percentage Kansas adults 18 years old and older who were obese did not differ significantly by gender groups.

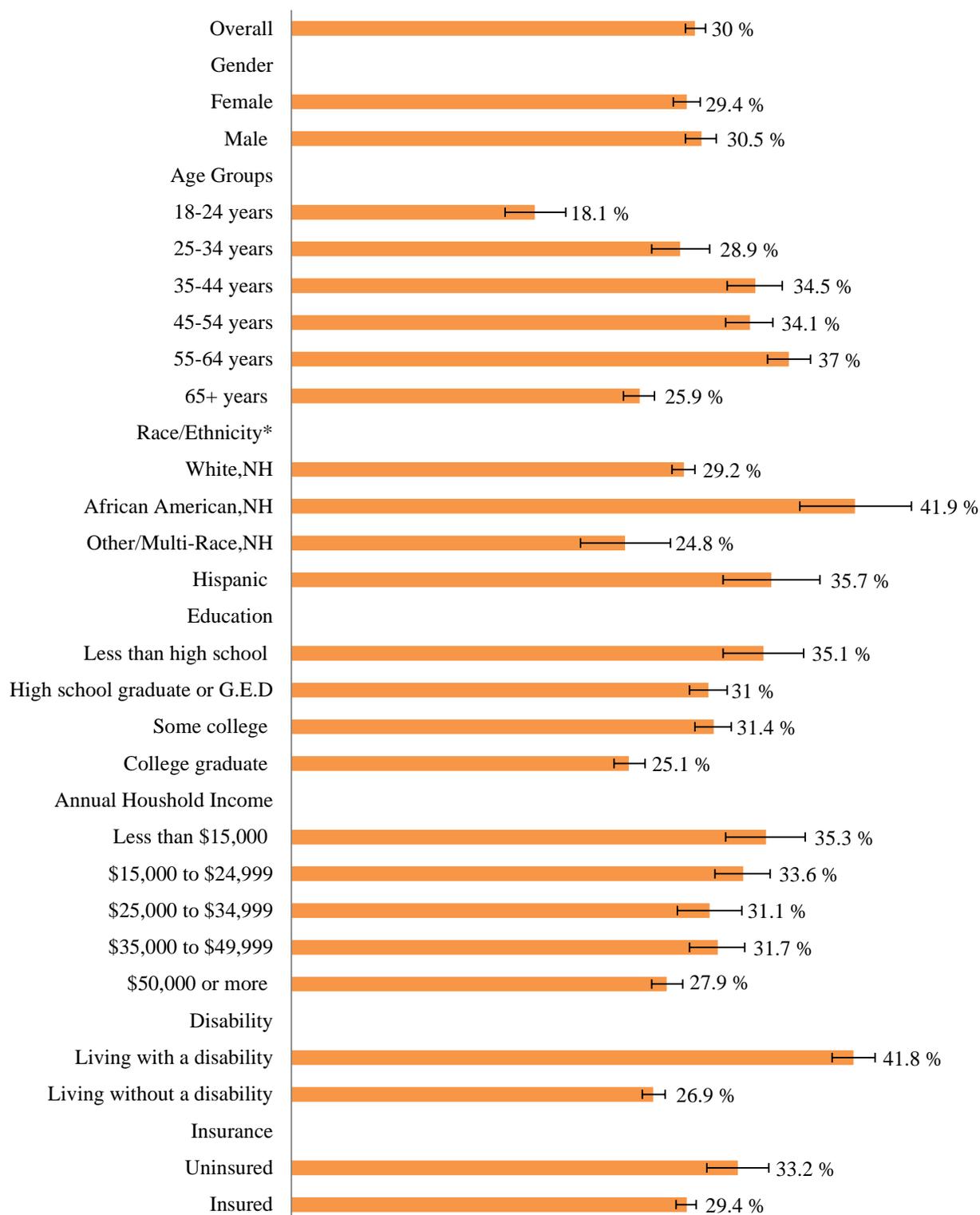
### Percentage of Adults 18 Years Old and Older Who Were Obese, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	30	29.2-30.7
<b>Gender</b>		
Female	29.4	28.4-30.4
Male	30.5	29.4-31.7
<b>Age Groups</b>		
18-24 years	18.1	15.8-20.3
25-34 years	28.9	26.7-31
35-44 years	34.5	32.5-36.6
45-54 years	34.1	32.4-35.9
55-64 years	37	35.4-38.6
65+ years	25.9	24.8-27.1
<b>Race/Ethnicity*</b>		
White, NH	29.2	28.4-30.1
African-American, NH	41.9	37.7-46
Other/Multi-Race, NH	24.8	21.4-28.1
Hispanic	35.7	32.1-39.3
<b>Education</b>		
Less than high school	35.1	32.1-38.1
High school graduate or G.E.D	31	29.6-32.4
Some college	31.4	30.1-32.8
College graduate	25.1	23.9-26.2
<b>Annual Household Income</b>		
Less than \$15,000	35.3	32.4-38.3
\$15,000 to \$24,999	33.6	31.6-35.7
\$25,000 to \$34,999	31.1	28.7-33.5
\$35,000 to \$49,999	31.7	29.7-33.8
\$50,000 or more	27.9	26.7-29
<b>Disability</b>		
Living with a disability	41.8	40.2-43.4
Living without a disability	26.9	26-27.7
<b>Insurance</b>		
Uninsured	33.2	30.9-35.5
Insured	29.4	28.7-30.2

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Are Obese, KS BRFSS 2013



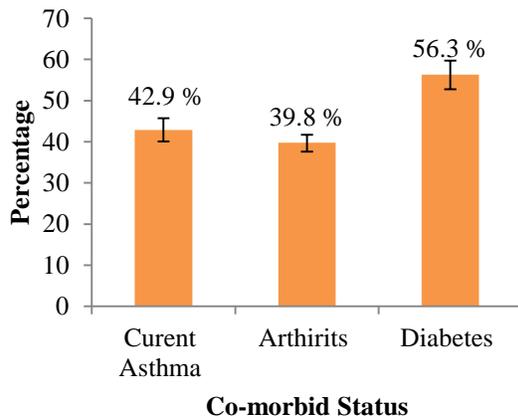
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Were Obese, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	42.9	40.1-45.7
No	28.6	27.9-29.4
<b>Arthritis Status</b>		
Yes	39.8	38.4-41.2
No	26.8	25.9-27.7
<b>Diabetes Status</b>		
Yes	56.3	54-58.7
No	27.1	26.3-27.9

**Percentage of Adults 18 Years Old and Older Who Are Obese by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were obese was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes

**SUMMARY**

Thirty percent of Kansas adults 18 years old and older were obese. In addition, higher percentages of adults who were obese were seen among: older adults, non-Hispanic African-Americans, Hispanics, uninsured adults, adults with lower income and education, and adults with co-morbid conditions (current asthma, diabetes or arthritis) or adults living with a disability.

The Healthy People 2020 goal is to reduce the proportion of adults who are obese to 30.5 percent. The goal for the overall population is met in Kansas, however, overall prevalence is still high and there are disparities in population subgroups that have not met the HP 2020 target. Therefore further public health efforts are needed to address overall prevalence and disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Nutrition, Physical Activity and Obesity:

## Leisure-Time Physical Activity

Physical activity can help to improve health outcomes. People who are physically active can live longer and have a lower risk of chronic health conditions including but not limited to heart disease, depression and some cancers.<sup>17</sup> Thus inactive adults have a higher risk of living unhealthy lives. The Healthy People 2020 goal is to reduce the proportion of adults who engage in no leisure-time physical activity.

In 2013, approximately 1 in 4 Kansas adults 18 years old and older did not participate in leisure-time physical activity in the past 30 days. The percentage of Kansas adults 18 years old and older who did not participate in leisure-time physical activity in the past 30 days was significantly **higher** among:

- Older adults compared with adults in younger age groups
- Hispanics and non-Hispanic African-Americans compared with non-Hispanic whites and (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with annual household income of lower than \$35,000 compared with adults with annual household income of \$35,000 or greater
- Adults living with a disability compared with adults living without a disability

The percentage of Kansas adults 18 years old and older who did not participate in leisure-time physical activity in the past 30 days was not significantly different by gender groups or insurance status.

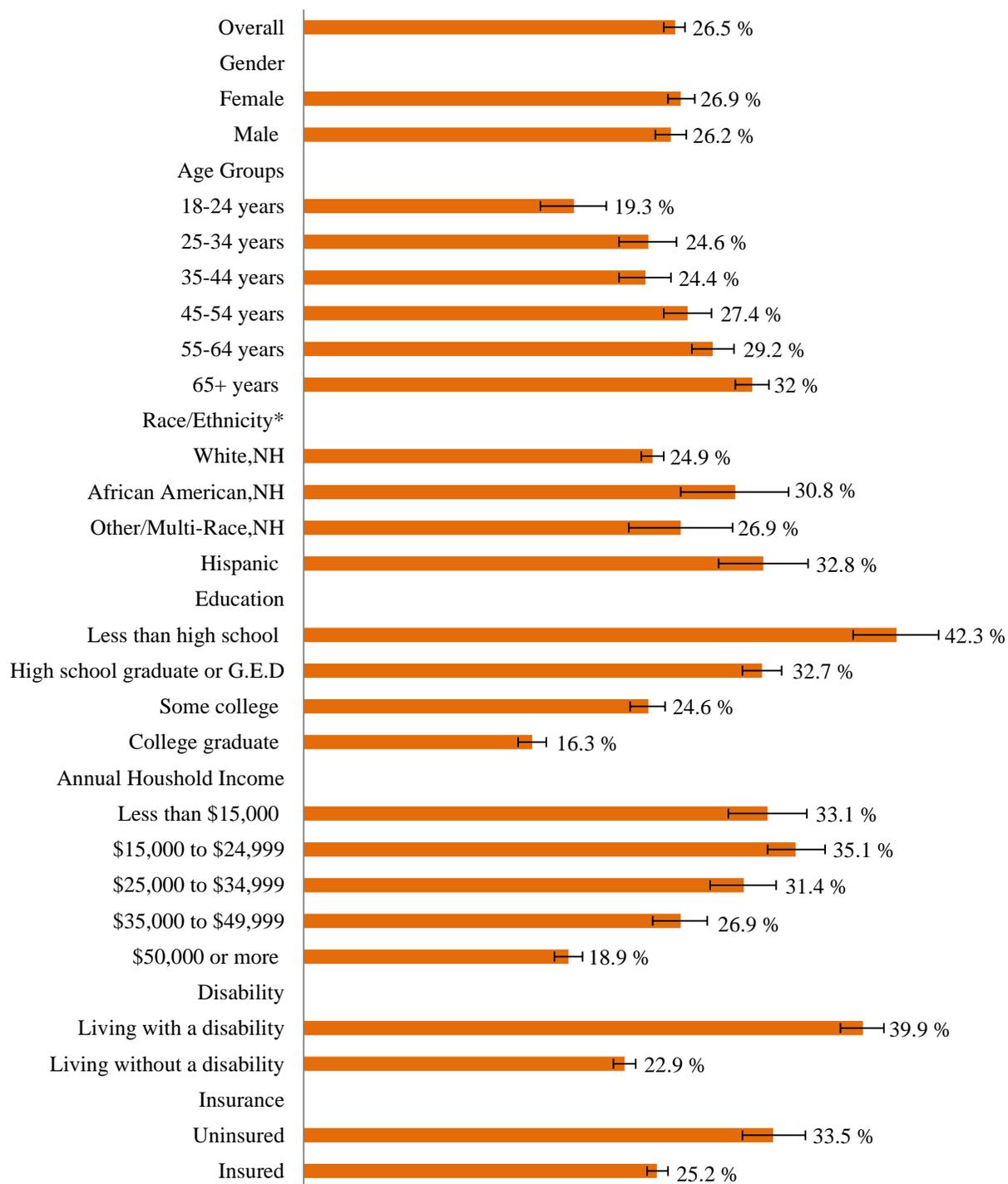
### Percentage of Adults 18 Years Old and Older Not Participating In Leisure-Time Physical Activity in the Past 30 Days, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	26.5	25.8-27.3
<b>Gender</b>		
Female	26.9	25.9-27.8
Male	26.2	25.1-27.3
<b>Age Groups</b>		
18-24 years	19.3	17-21.7
25-34 years	24.6	22.6-26.7
35-44 years	24.4	22.6-26.3
45-54 years	27.4	25.7-29.1
55-64 years	29.2	27.7-30.7
65+ years	32	30.8-33.2
<b>Race/Ethnicity*</b>		
White,NH	24.9	24.1-25.7
African-American,NH	30.8	27-34.7
Other/Multi-Race,NH	26.9	23.2-30.6
Hispanic	32.8	29.6-36
<b>Education</b>		
Less than high school	42.3	39.3-45.4
High school graduate or G.E.D	32.7	31.3-34.1
Some college	24.6	23.4-25.9
College graduate	16.3	15.3-17.3
<b>Annual Household Income</b>		
Less than \$15,000	33.1	30.3-35.9
\$15,000 to \$24,999	35.1	33-37.1
\$25,000 to \$34,999	31.4	29.1-33.8
\$35,000 to \$49,999	26.9	25-28.9
\$50,000 or more	18.9	17.9-19.9
<b>Disability</b>		
Living with a disability	39.9	38.4-41.5
Living without a disability	22.9	22.1-23.7
<b>Insurance</b>		
Uninsured	33.5	31.2-35.7
Insured	33.1	30.3-35.9

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Not Participating in Any Physical Activity Other Than the Regular Job in the Past 30 Days, KS BRFSS 2013



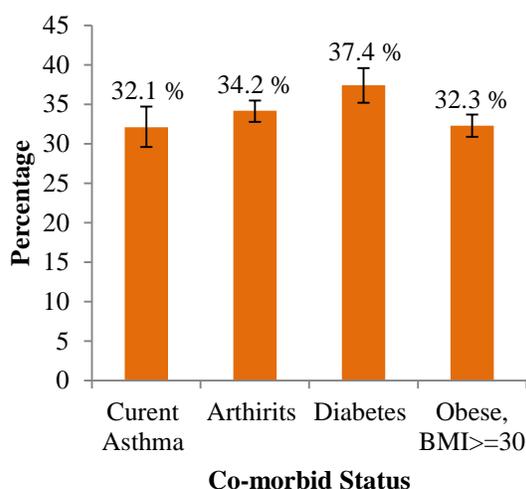
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Not Participating in Leisure-Time Physical Activity in the Past 30 Days, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	32.1	29.5-34.6
No	25.9	25.1-26.6
<b>Arthritis Status</b>		
Yes	34.2	32.9-35.6
No	24	23.1-24.8
<b>Diabetes Status</b>		
Yes	37.4	35.2-39.6
No	25.4	24.6-26.1
<b>Weight Category</b>		
Normal or Underweight, BMI<25	22.9	21.7-24.2
Overweight, 25<= BMI<30	23.9	22.7-25.1
Obese, BMI>=30	32.3	30.9-33.7

**Percentage of Adults 18 years old and older Not Participating in Any Physical Activity Other Than the Regular Job in the Past 30 Days by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not participate in leisure-time physical activity in the past 30 days was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were overweight, normal weight or underweight

**SUMMARY**

Approximately 27 percent of Kansas adults 18 years old and older did not participate in leisure-time physical activity in the past 30 days. In addition, higher percentages of adults who did not participate in leisure-time physical activity in the past 30 days were seen among: younger adults, Hispanics, non-Hispanic African-Americans, uninsured adults, adults with annual household income of less than \$35,000, adults with lower education, adults with co-morbid conditions (current asthma; diabetes; arthritis or obesity) and adults living with disabilities.

The Healthy People 2020 goal is to reduce the proportion of adults who do not participate in leisure-time physical activity to 32.6 percent. While the Healthy People 2020 objective is being met, the overall prevalence is still high and there are disparities in population subgroups that have not met the HP 2020 target. Therefore further public health efforts are needed to address overall prevalence and disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Nutrition, Physical Activity and Obesity: Physical Activity (Aerobic & Strengthening)

Aerobic and strength training are both important components of physical activity. People who are physically active can live longer and have a lower risk of chronic health conditions including but not limited to heart disease, depression and some cancers.<sup>17</sup> Thus inactive adults have a higher risk of living unhealthy lives. The Healthy People 2020 goal is to increase the proportion of adults who meet federal physical activity guidelines of 150 minutes of moderate-intensity aerobic activity and 2 or more days of muscle-strengthening activities every week, 75 minutes of vigorous-intensity aerobic activity and 2 or more days of muscle-strengthening activities every week, or equivalent mix of moderate- and vigorous-intensity activities and 2 or more days of muscle-strengthening activities every week.<sup>18</sup>

In 2013, approximately 2 in 5 Kansas adults 18 years old and older did not participate in any recommended physical activity (aerobic and strengthening). The percentage of Kansas adults 18 years old and older that did not participate in any recommended physical activity (aerobic and strengthening) was significantly **higher** among:

- Females compared with males
- Adults 25 years old and older compared with adults 24 years old and younger
- Hispanics compared with non-Hispanic whites and (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

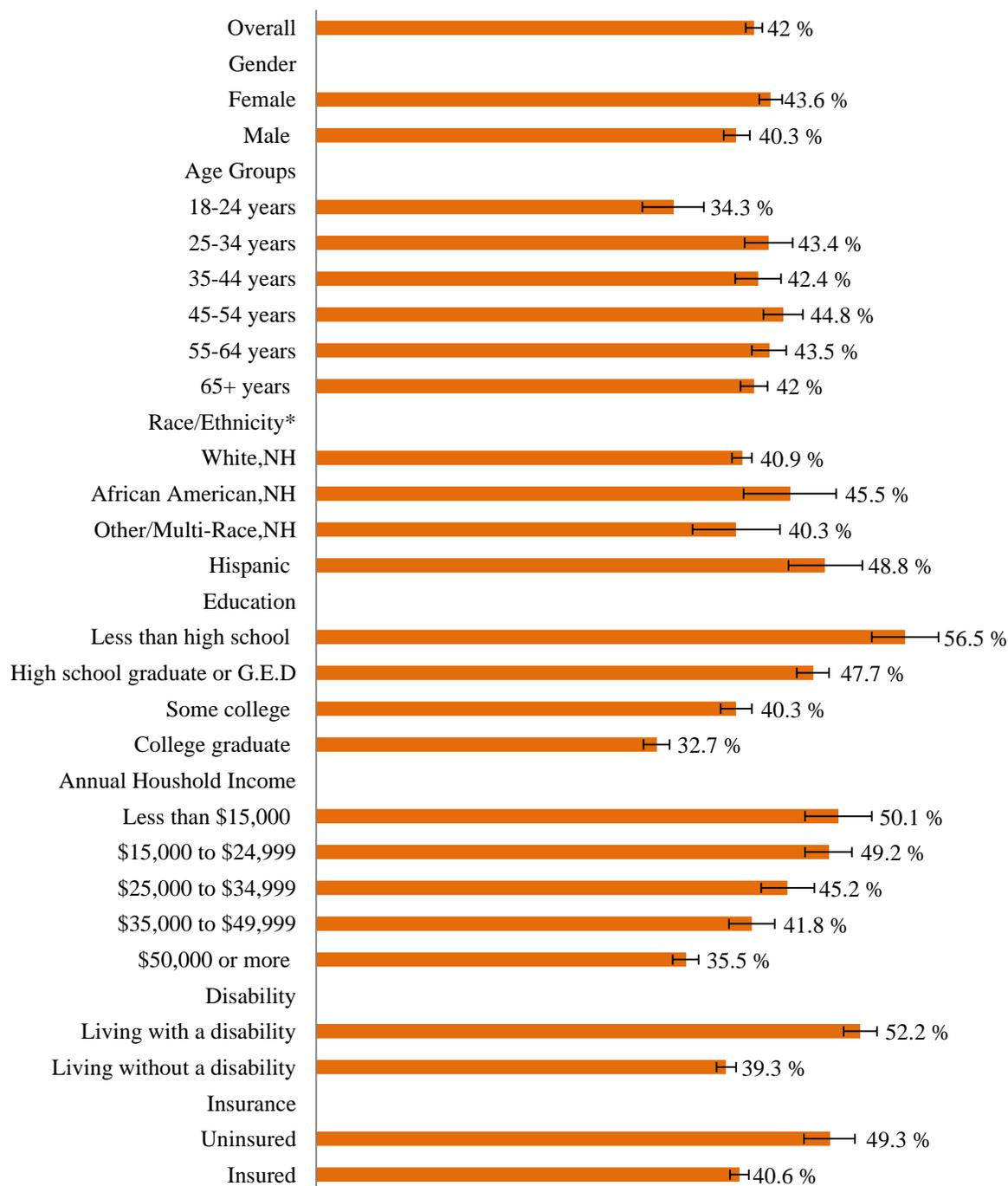
### Percentage of Adults 18 Years Old and Older Not Participating in Any Recommended Physical Activity (Aerobic and Strengthening), KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	42	41.2-42.8
<b>Gender</b>		
Female	43.6	42.5-44.7
Male	40.3	39-41.5
<b>Age Groups</b>		
18-24 years	34.3	31.4-37.3
25-34 years	43.4	41.1-45.7
35-44 years	42.4	40.2-44.6
45-54 years	44.8	42.9-46.7
55-64 years	43.5	41.9-45.2
65+ years	42	40.7-43.3
<b>Race/Ethnicity*</b>		
White,NH	40.9	40-41.9
African-American,NH	45.5	41.1-50
Other/Multi-Race,NH	40.3	36.1-44.5
Hispanic	48.8	45.2-52.3
<b>Education</b>		
Less than high school	56.5	53.3-59.7
High school graduate or G.E.D	47.7	46.2-49.3
Some college	40.3	38.8-41.8
College graduate	32.7	31.5-34
<b>Annual Household Income</b>		
Less than \$15,000	50.1	46.9-53.3
\$15,000 to \$24,999	49.2	47-51.5
\$25,000 to \$34,999	45.2	42.6-47.7
\$35,000 to \$49,999	41.8	39.6-44
\$50,000 or more	35.5	34.3-36.8
<b>Disability</b>		
Living with a disability	52.2	50.6-53.8
Living without a disability	39.3	38.3-40.2
<b>Insurance</b>		
Uninsured	49.3	46.9-51.8
Insured	40.6	39.7-41.5

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Not Participating in Any Recommended Physical Activity (Aerobic and Strengthening), KS BRFSS 2013



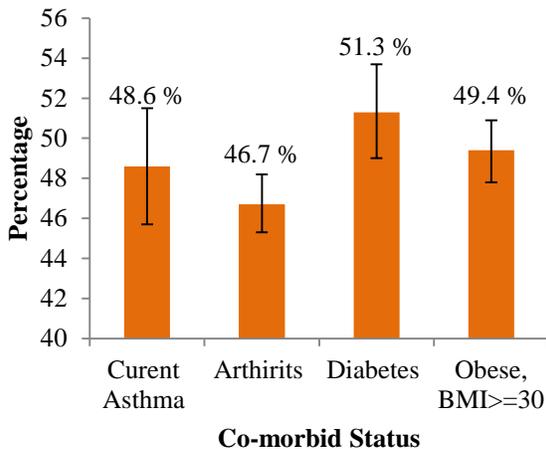
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Not Participating in Any Physical Activity (Aerobic and Strengthening) by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	48.6	45.7-51.5
No	41.3	40.4-42.2
<b>Arthritis Status</b>		
Yes	46.7	45.2-48.1
No	40.5	39.5-41.5
<b>Diabetes Status</b>		
Yes	51.3	48.9-53.6
No	41	40.1-41.9
<b>Weight Category</b>		
Normal or Underweight, BMI<25	36.4	35-37.9
Overweight, 25<= BMI<30	39	37.6-40.4
Obese, BMI>=30	49.4	47.9-51

**Percentage of Adults 18 Years Old and Older Not Participating in Any Physical Activity (Aerobic and Strengthening), by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older that did not participate in any recommended physical activity (aerobic and strengthening) was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were overweight, normal weight or underweight

SUMMARY

Forty-two percent of Kansas adults 18 years old and older did not participate in any recommended physical activity (aerobic and strengthening). In addition, higher percentages of adults who did not participate in any recommended physical activity (aerobic and strengthening) were seen among: females, adults ages 25 years and older, Hispanics, adults with lower income and education, uninsured adults, and those with co-morbid conditions (current asthma, diabetes, arthritis or obesity) or those living with disabilities.

The Healthy People 2020 goal is to increase the proportion of adults who meet federal physical activity guidelines for aerobic and muscle-strengthening activities. Therefore further public health efforts are needed to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Nutrition, Physical Activity and Obesity:

## Physical Activity (Aerobic &/or Strengthening)

Aerobic and strength training are both important components of physical activity. People who are physically active can live longer and have a lower risk of chronic health conditions.<sup>17</sup> The Healthy People 2020 goal is to increase the proportion of adults who meet federal physical activity guidelines of 150 minutes of moderate-intensity aerobic activity and 2 or more days of muscle-strengthening activities every week, 75 minutes of vigorous-intensity aerobic activity and 2 or more days of muscle-strengthening activities every week, or equivalent mix of moderate- and vigorous-intensity activities and 2 or more days of muscle-strengthening activities every week.<sup>18</sup> Adults in this analysis did not meet these guidelines.

In 2013, approximately 4 in 5 Kansas adults 18 years old and older did not participate in recommended physical activity (aerobic and/or strengthening). The percentage of Kansas adults 18 years old and older that did not participate in recommended physical activity (aerobic and/or strengthening) was significantly **higher** among:

- Females compared with males
- Older adults compared with adults in younger age groups
- Hispanics compared with non-Hispanic whites and other/multi-race adults (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with annual household income of less than \$49,999 compared with adults with an annual household income of \$50,000 or higher
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

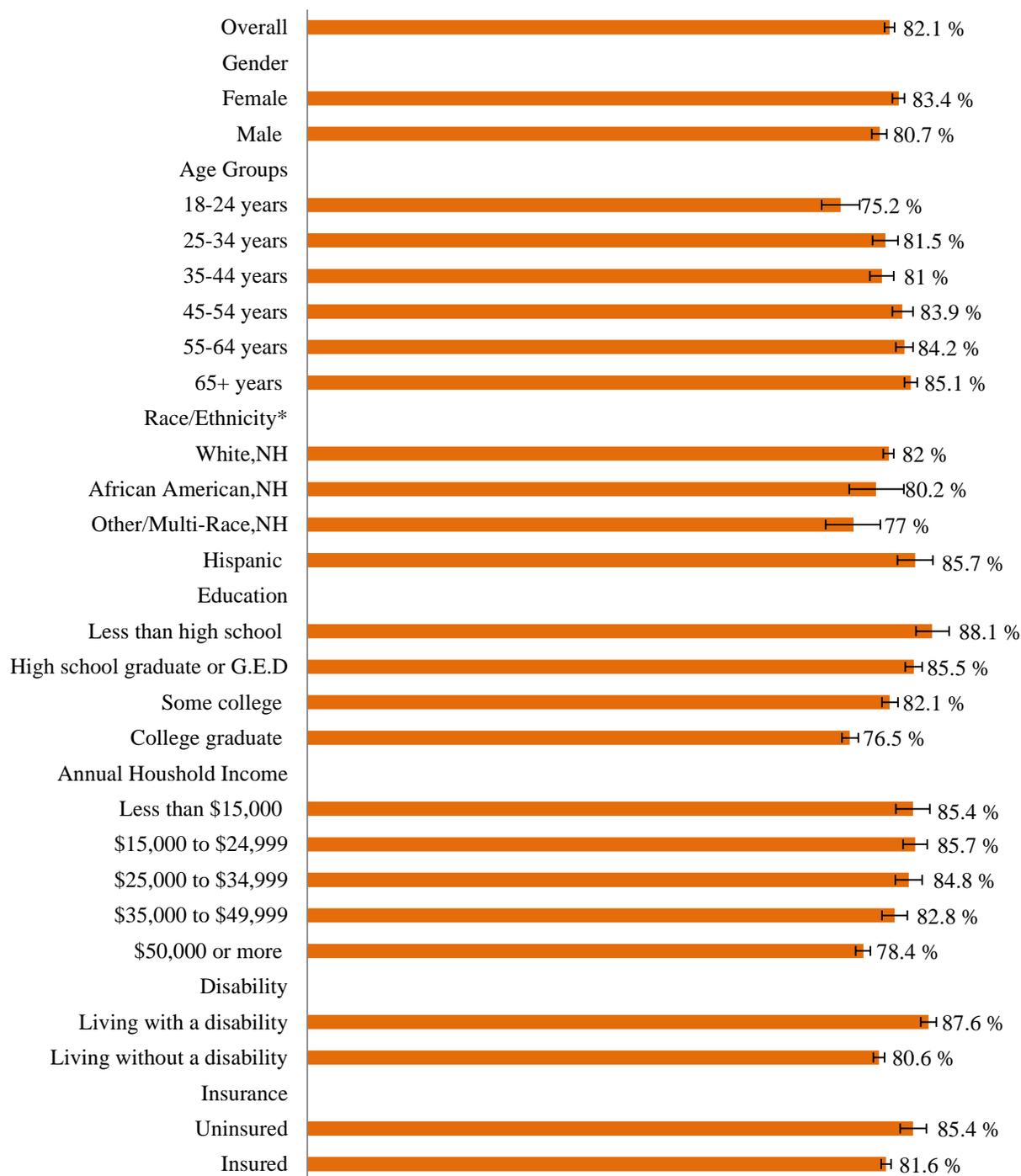
### Percentage of Adults 18 Years Old and Older Not Participating in the Recommended Physical Activity (Aerobic and/or Strengthening), KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	82.1	81.4-82.8
<b>Gender</b>		
Female	83.4	82.6-84.3
Male	80.7	79.7-81.8
<b>Age Groups</b>		
18-24 years	75.2	72.5-77.9
25-34 years	81.5	79.7-83.3
35-44 years	81	79.3-82.7
45-54 years	83.9	82.4-85.3
55-64 years	84.2	83-85.4
65+ years	85.1	84.2-86
<b>Race/Ethnicity*</b>		
White, NH	82	81.3-82.8
African-American, NH	80.2	76.3-84
Other/Multi-Race, NH	77	73.2-80.9
Hispanic	85.7	83.2-88.2
<b>Education</b>		
Less than high school	88.1	85.7-90.4
High school graduate or G.E.D	85.5	84.3-86.7
Some college	82.1	80.9-83.2
College graduate	76.5	75.3-77.6
<b>Annual Household Income</b>		
Less than \$15,000	85.4	83-87.8
\$15,000 to \$24,999	85.7	84-87.4
\$25,000 to \$34,999	84.8	82.9-86.7
\$35,000 to \$49,999	82.8	81-84.6
\$50,000 or more	78.4	77.4-79.5
<b>Disability</b>		
Living with a disability	87.6	86.5-88.7
Living without a disability	80.6	79.8-81.4
<b>Insurance</b>		
Uninsured	85.4	83.5-87.2
Insured	81.6	80.9-82.3

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Not Participating in the Recommended Level of Physical Activity (Aerobic and/or Strengthening), KS BRFSS 2013

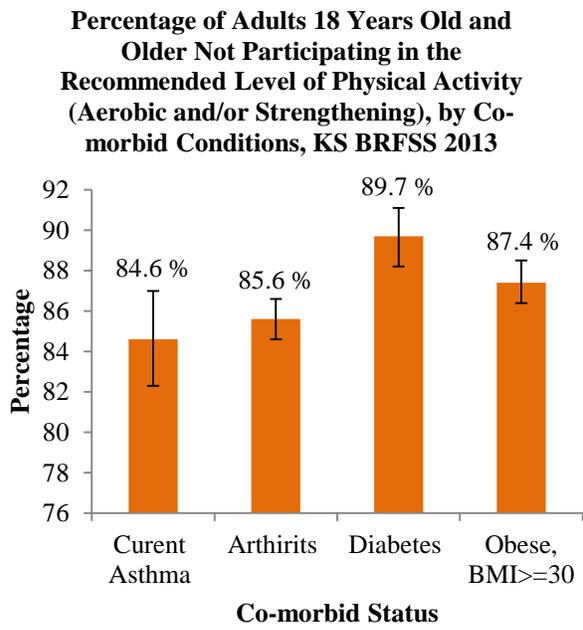


\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Not Participating in the Recommended Level of Physical Activity (Aerobic and/or Strengthening), KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	84.6	82.2-86.9
No	81.8	81.1-82.5
<b>Arthritis Status</b>		
Yes	85.6	84.6-86.6
No	81	80.2-81.8
<b>Diabetes Status</b>		
Yes	89.7	88.3-91.2
No	81.3	80.5-82
<b>Weight Category</b>		
Normal or Underweight, BMI<25	77.3	76-78.6
Overweight, 25<= BMI<30	81.3	80.1-82.4
Obese, BMI>=30	87.4	86.3-88.4



The percentage of Kansas adults 18 years old and older that did not participate in recommended physical activity (aerobic and/or strengthening) was significantly **higher** among:

- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were overweight or obese compared with those who were normal weight or underweight
- Adults who were obese compared with those who were overweight

The percentage of Kansas adults 18 years old and older that did not participate in recommended physical activity (aerobic and/or strengthening) did not differ significantly by current asthma status.

**SUMMARY**

Approximately 82 percent Kansas adults 18 years old and older did not participate in recommended physical activity (aerobic and/or strengthening). In addition, higher percentages of adults who did not participate in recommended physical activity (aerobic and/or strengthening) were seen among: females, older adults, Hispanics, uninsured adults, adults with lower income and education, and those with co-morbid conditions (arthritis; diabetes overweight or obesity) or those living with disabilities.

The Healthy People 2020 goal is to increase the proportion of adults who meet federal physical activity guidelines for aerobic and muscle-strengthening activities. Therefore further public health efforts are needed to reduce prevalence of not participating in recommended physical activity and to address associated disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Nutrition, Physical Activity and Obesity: Fruit Consumption

Fruit provides important vitamins, minerals and fiber that are good for the human body.<sup>19</sup> Eating fruits can help to lower the risk for chronic diseases and ease weight management,<sup>19</sup> leading to a healthier lifestyle and greater quality of life. The Healthy People 2020 goal is to increase the consumption of fruits in the diet.

In 2013, approximately 2 in 5 Kansas adults 18 years old and older did not consume fruit at least once per day. The percentage of Kansas adults 18 years old and older who did not consume fruit at least once per day was significantly **higher** among:

- Males compared with females
- Younger adults compared with adults in older age adults
- Adults with less than a high school degree/GED, high school graduate/GED, and some college education compared with college graduates
- Adults with annual household income of less than \$15,000 compared with adults in with annual household income of \$50,000 or more
- Adults with no insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older that did not consume fruit at least once per day did not differ significantly by race/ethnicity (age-adjusted prevalence) or disability status.

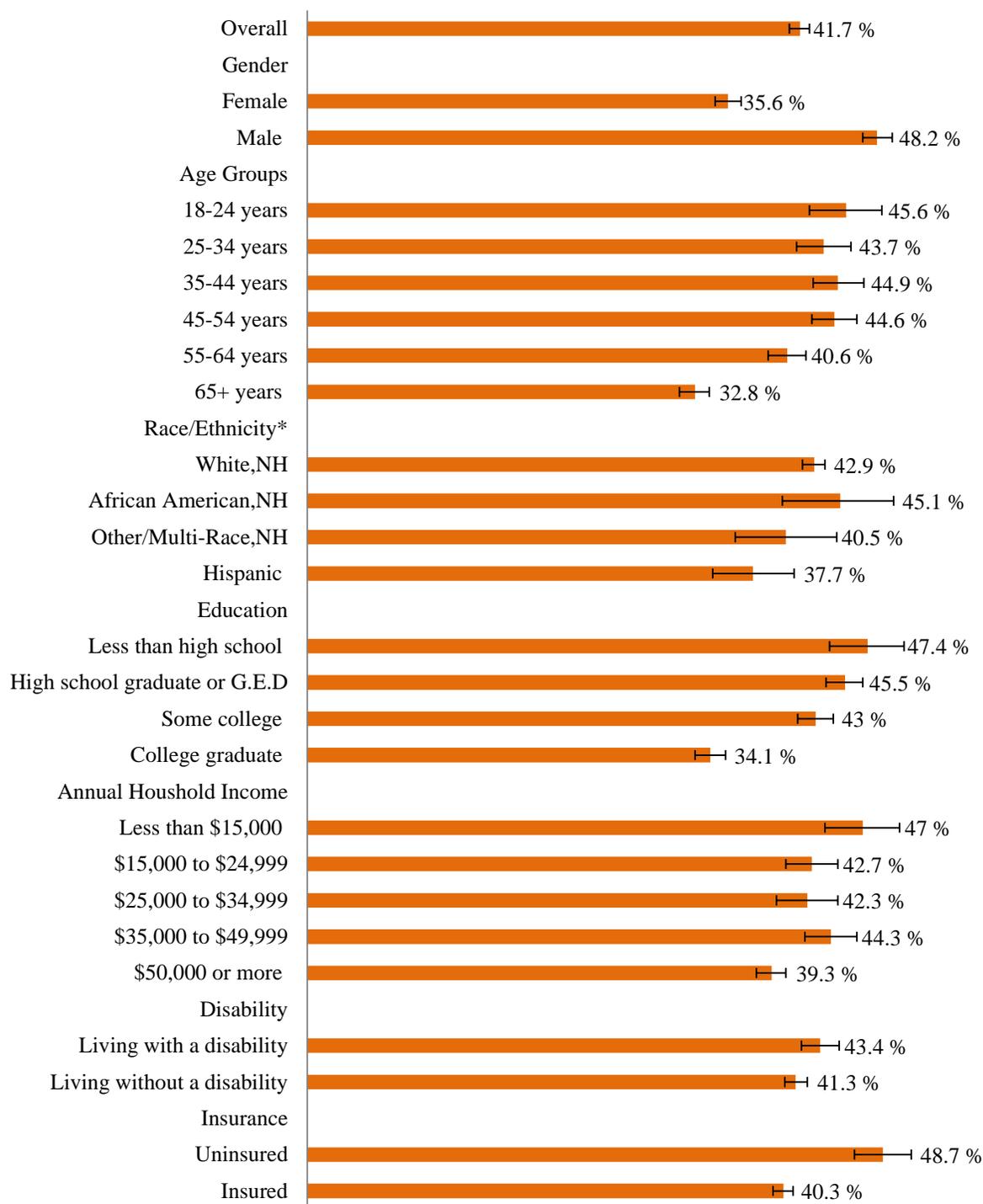
### Percentage of Adults 18 Years Old and Older Who Did Not Consume Fruit at Least Once Per Day, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	41.7	40.9-42.6
<b>Gender</b>		
Female	35.6	34.5-36.7
Male	48.2	46.9-49.4
<b>Age Groups</b>		
18-24 years	45.6	42.6-48.7
25-34 years	43.7	41.4-46
35-44 years	44.9	42.7-47
45-54 years	44.6	42.7-46.5
55-64 years	40.6	39-42.2
65+ years	32.8	31.6-34.1
<b>Race/Ethnicity*</b>		
White, NH	42.9	42-43.9
African-American, NH	45.1	40.6-50
Other/Multi-Race, NH	40.5	36.2-44.8
Hispanic	37.7	34.2-41.1
<b>Education</b>		
Less than high school	47.4	44.3-50.6
High school graduate or G.E.D	45.5	44-47.1
Some college	43	41.5-44.5
College graduate	34.1	32.8-35.4
<b>Annual Household Income</b>		
Less than \$15,000	47	43.9-50.2
\$15,000 to \$24,999	42.7	40.5-44.9
\$25,000 to \$34,999	42.3	39.7-44.9
\$35,000 to \$49,999	44.3	42.1-46.5
\$50,000 or more	39.3	38.1-40.6
<b>Disability</b>		
Living with a disability	43.4	41.8-45
Living without a disability	41.3	40.3-42.2
<b>Insurance</b>		
Uninsured	48.7	46.3-51.1
Insured	40.3	39.5-41.2

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Did Not Consume Fruit at Least Once Per Day, KS BRFSS 2013



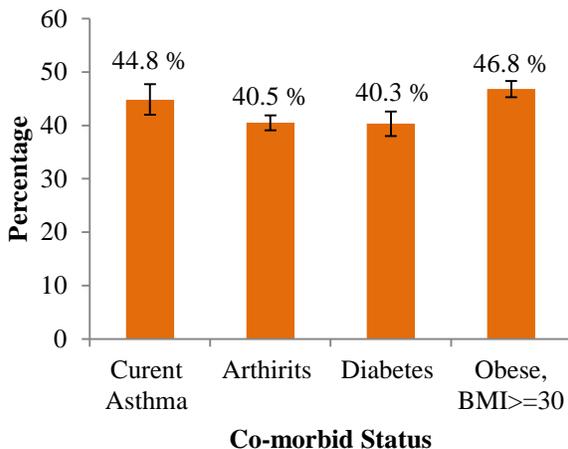
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Who Did Not Consume Fruit at Least Once Per Day, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	44.8	41.9-47.6
No	41.4	40.5-42.3
<b>Arthritis Status</b>		
Yes	40.5	39.1-41.9
No	42.1	41.1-43.1
<b>Diabetes Status</b>		
Yes	40.3	38-42.6
No	41.9	41-42.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	38.3	36.9-39.8
Overweight, 25<= BMI<30	41.3	39.9-42.8
Obese, BMI>=30	46.8	45.3-48.3

**Percentage of Adults 18 Years Old and Older Who Did Not Consume Fruit at Least Once Per Day, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not consume fruit at least once per day was significantly **higher** among:

- Adults who were obese compared with those who were overweight, normal weight or underweight

The percentage of Kansas adults 18 years old and older who did not consume fruit at least once per day did not differ significantly by current asthma, arthritis or diabetes status.

**SUMMARY**

Approximately 42 percent of Kansas adults 18 years old and older did not consume fruit at least once per day. In addition, higher percentages of adults who did not consume fruit at least once per day were seen among: males, younger adults, adults with less than a college degree, adults with an annual household income of less than \$15,000, uninsured adults and obese adults.

Healthy People 2020 goal is to increase the contribution of fruits to the diet. Therefore further public health efforts are needed to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Nutrition, Physical Activity and Obesity: Vegetable Consumption

Vegetables provide important vitamins, minerals, and fiber that are good for the human body.<sup>19</sup> Eating vegetables can help to lower the risk for chronic diseases and ease weight management,<sup>19</sup> leading to a healthier lifestyle and greater quality of life. The Healthy People 2020 goal is to increase the variety and contribution of vegetables to the diet.

In 2013, approximately 1 in 4 Kansas adults 18 years old and older did not consume vegetables at least once per day. The percentage of Kansas adults 18 years old and older who did not consume vegetables at least once per day was significantly **higher** among:

- Males compared with females
- Adults 18 to 24 years old compared with adults in older age groups
- Non-Hispanic African-Americans compared with all other race/ethnicity groups (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults with no insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older who did not consume vegetables at least once per day did not differ significantly by disability status.

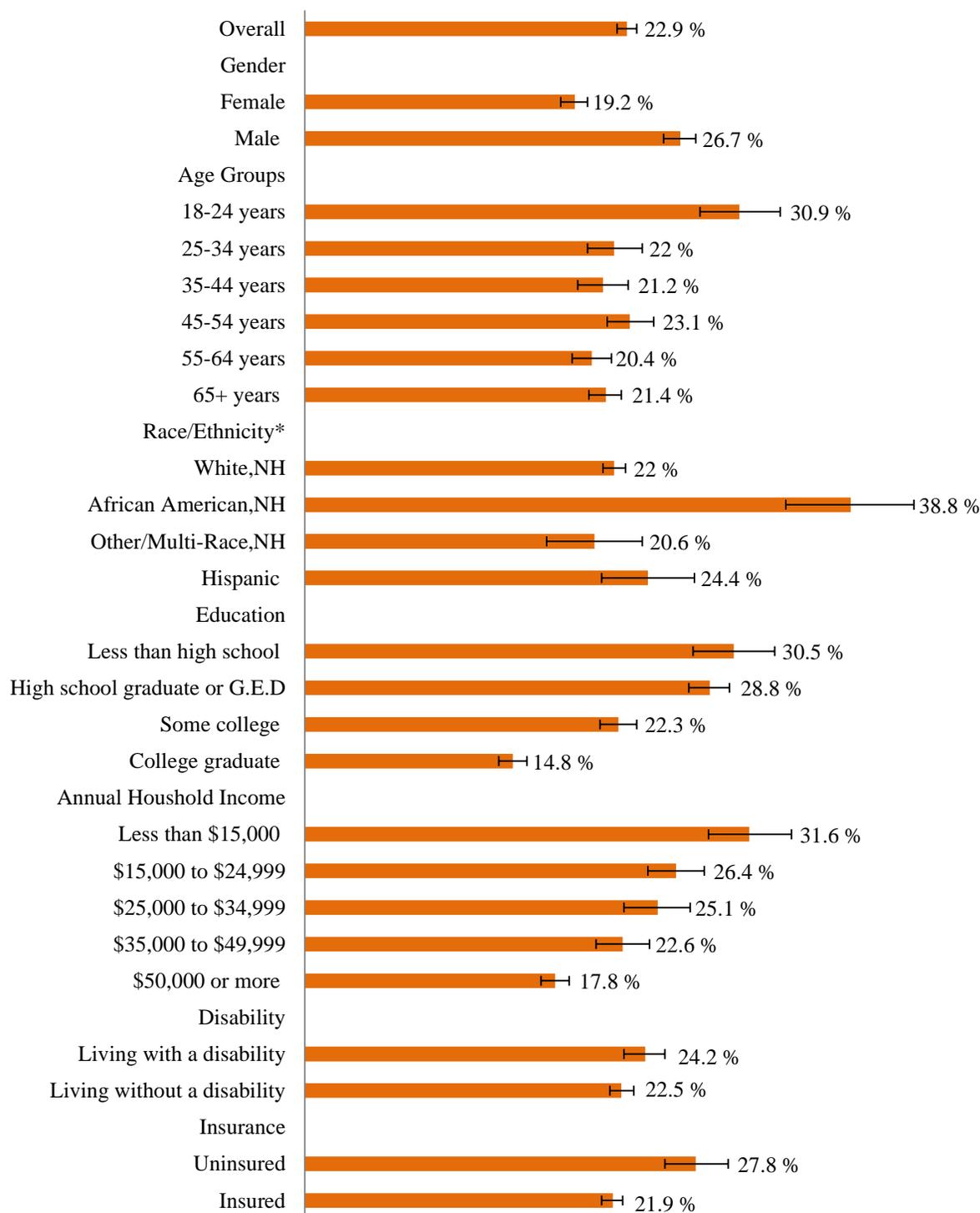
### Percentage of Adults 18 Years Old and Older Who Did Not Consume Vegetables at Least Once Per Day, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	22.9	22.2-23.6
<b>Gender</b>		
Female	19.2	18.3-20.2
Male	26.7	25.6-27.9
<b>Age Groups</b>		
18-24 years	30.9	28-33.7
25-34 years	22	20-23.9
35-44 years	21.2	19.4-23
45-54 years	23.1	21.4-24.7
55-64 years	20.4	19-21.8
65+ years	21.4	20.3-22.6
<b>Race/Ethnicity*</b>		
White, NH	22	21.2-22.8
African-American, NH	38.8	34.3-43.4
Other/Multi-Race, NH	20.6	17.2-24
Hispanic	24.4	21.1-27.7
<b>Education</b>		
Less than high school	30.5	27.6-33.4
High school graduate or G.E.D	28.8	27.4-30.3
Some college	22.3	21-23.6
College graduate	14.8	13.8-15.8
<b>Annual Household Income</b>		
Less than \$15,000	31.6	28.6-34.5
\$15,000 to \$24,999	26.4	24.4-28.4
\$25,000 to \$34,999	25.1	22.8-27.5
\$35,000 to \$49,999	22.6	20.7-24.5
\$50,000 or more	17.8	16.8-18.8
<b>Disability</b>		
Living with a disability	24.2	22.8-25.7
Living without a disability	22.5	21.6-23.3
<b>Insurance</b>		
Uninsured	27.8	25.5-30
Insured	21.9	21.2-22.7

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Did Not Consume Vegetables at Least Once Per Day, KS BRFSS 2013



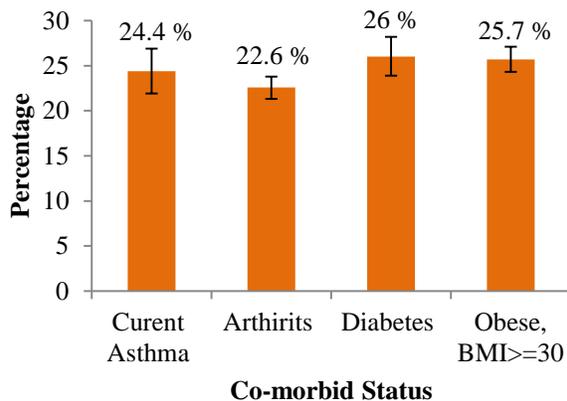
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Who Did Not Consume Vegetables at Least Once Per Day, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	24.4	21.9-26.9
No	22.7	21.9-23.5
<b>Arthritis Status</b>		
Yes	22.6	21.4-23.9
No	22.9	22-23.8
<b>Diabetes Status</b>		
Yes	26	23.8-28.1
No	22.5	21.8-23.3
<b>Weight Category</b>		
Normal or Underweight, BMI<25	21.5	20.2-22.7
Overweight, 25<= BMI<30	21.9	20.7-23.2
Obese, BMI>=30	25.7	24.3-27.1

**Percentage of Adults 18 Years Old and Older Who Did Not Consume Vegetables at Least Once Per Day, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not consume vegetables at least once per day was significantly **higher** among:

- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were overweight, normal weight or underweight

The percentage of Kansas adults 18 years old and older who did not consume vegetables at least once per day did not differ significantly by current asthma or arthritis status.

**SUMMARY**

Approximately 22 percent of Kansas adults 18 years old and older did not consume vegetables at least once per day. In addition, higher percentages of adults who did not consume vegetables at least once per day were seen among: females, adults 18 to 24 years old, non-Hispanic African-Americans, uninsured adults, adults with lower income and education and adults with co-morbid conditions (diabetes or obesity).

The Healthy People 2020 goal is to increase the variety and contribution of vegetables to the diet. Therefore further public health efforts are needed to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Nutrition, Physical Activity and Obesity: Adult Sugar-Sweetened Drink Consumption

In the U.S., sugar-sweetened drink consumption contributes to significant calories in the diets of adults.<sup>20</sup> Obesity and other chronic health conditions are associated with daily sugar-sweetened drink consumption.<sup>21</sup> The Healthy People 2020 goal is to reduce the consumption of calories from added sugars.

In 2013, approximately 3 in 4 Kansas adults 18 years old and older drank a sugar-sweetened drink at least once in the past 30 days. Sugar-sweetened drinks are defined in this report as soda or pop, sweetened fruit drinks (e.g. Kool-Aid, lemonade), sweet tea, and spots or energy drinks (e.g. Gatorade and Red Bull). The percentage of Kansas adults 18 years old and older who drank a sugar-sweetened drink at least once in the past 30 days was significantly **higher** among:

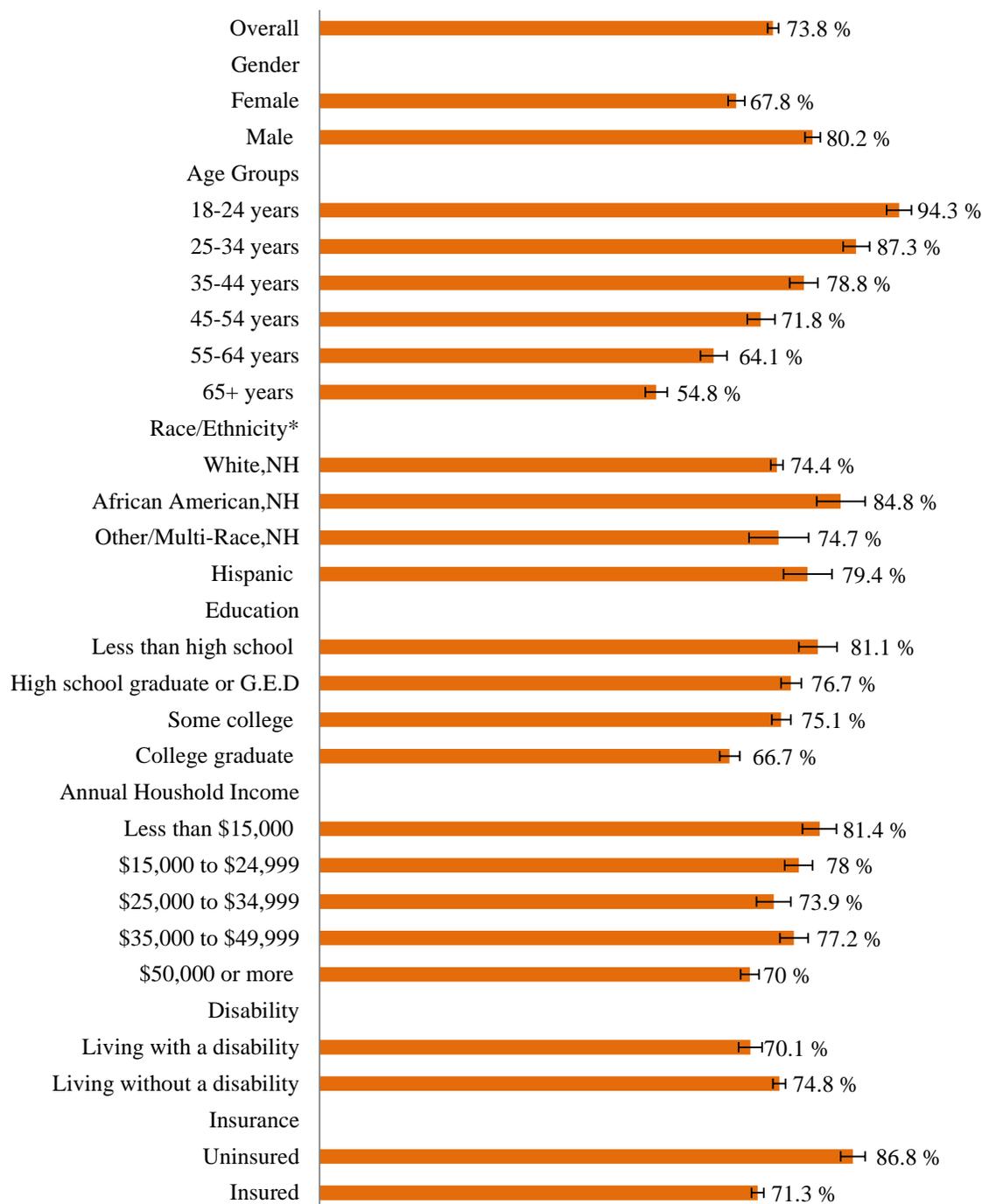
- Males compared with females
- Younger adults compared with adults in older age groups
- Non-Hispanic African-Americans compared with all other race/ethnicity groups (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with an annual household income of less than \$15,000 compared with adults in with an annual household income of \$25,000-\$34,999 and \$50,000 or more
- Adults living without a disability compared with adults living with a disability
- Adults with no insurance compared with adults with insurance

<b>Percentage of Adults 18 Years Old and Older Who Drank Any Sugar-Sweetened Drink at Least Once in the Past 30 Days, KS BRFSS 2013</b>			
Demographic Characteristics	Weighted Percentage	95% CI	
<b>Overall</b>	73.8	72.9-74.7	
<b>Gender</b>			
Female	67.8	66.4-69.1	
Male	80.2	78.9-81.4	
<b>Age Groups</b>			
18-24 years	94.3	92.3-96.3	
25-34 years	87.3	85.1-89.4	
35-44 years	78.8	76.5-81.1	
45-54 years	71.8	69.5-74	
55-64 years	64.1	61.9-66.2	
65+ years	54.8	53-56.6	
<b>Race/Ethnicity*</b>			
White ,NH	74.4	73.4-75.4	
African-American ,NH	84.8	80.8-88.7	
Other/Multi-Race, NH	74.7	69.8-79.5	
Hispanic	79.4	75.4-83.3	
<b>Education</b>			
Less than high school	81.1	78-84.2	
High school graduate or G.E.D	76.7	75-78.3	
Some college	75.1	73.5-76.6	
College graduate	66.7	65-68.3	
<b>Annual Household Income</b>			
Less than \$15,000	81.4	78.7-84.2	
\$15,000 to \$24,999	78	75.8-80.3	
\$25,000 to \$34,999	73.9	71.1-76.7	
\$35,000 to \$49,999	77.2	74.9-79.5	
\$50,000 or more	70	68.5-71.5	
<b>Disability</b>			
Living with a disability	70.1	68.2-72	
Living without a disability	74.8	73.8-75.8	
<b>Insurance</b>			
Uninsured	86.8	84.8-88.8	
Insured	71.3	70.3-72.3	

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Drank Any Sugar-Sweetened Drink at Least Once in the Past 30 Days, KS BRFSS 2013



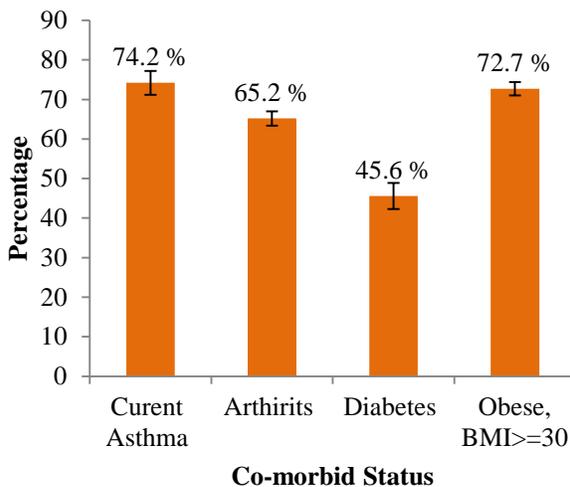
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults Who Drank Any Sugar-Sweetened Drink at Least Once in the Past 30 Days, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	74.2	71.2-77.2
No	73.7	72.7-74.6
<b>Arthritis Status</b>		
Yes	65.2	63.4-67
No	76.7	75.6-77.7
<b>Diabetes Status</b>		
Yes	45.6	42.3-48.9
No	76.9	76-77.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	74.5	73-76.1
Overweight, 25<= BMI<30	74	72.4-75.6
Obese, BMI>=30	72.7	71-74.4

**Percentage of Adults 18 years old and older That Drank Any Sugar Drink at Least Once in the Past 30 Days, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who drank a sugar-sweetened drink at least once in the past 30 days was significantly **higher** among:

- Adults without arthritis compared with those with arthritis
- Adults without diabetes compared with those with diabetes

The percentage of Kansas adults 18 years old and older who drank a sugar-sweetened drink at least once in the past 30 days did not differ significantly by current asthma status or weight status.

**SUMMARY**

Approximately 74 percent of Kansas adults 18 years old and older drank a sugar-sweetened drink at least once in the past 30 days. In addition, higher percentages of adults who drank a sugar-sweetened drink at least once in the past 30 days were seen among: males, younger adults, non-Hispanic African-Americans, uninsured adults, adults with lower education, adults with an annual household income of less than \$15,000, adults without co-morbid conditions (diabetes or arthritis) and adults living without disabilities.

The Healthy People 2020 goal is to reduce the consumption of calories from added sugars. Therefore further public health efforts are needed to address high consumption of sugar-sweetened drinks among Kansans.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Nutrition, Physical Activity, and Obesity: Youth Sugar-Sweetened Drink Consumption

In the U.S., sugar-sweetened drinks are the largest source of added sugars among youth.<sup>22</sup> Sugar-sweetened drinks can contribute to significant amount of calories in the diet of youth, potentially contributing to obesity.<sup>23</sup> Sugar-sweetened drinks are defined in this report as flavored milk, pop, punch, Kool-Aid, sports drinks, other fruit flavored drinks or sweet tea. The Healthy People 2020 goal is to reduce the consumption of calories from added sugars.

In 2013, approximately 9 in 10 Kansas youth 17 years old and younger drank a sugar-sweetened drink at least once in the past 30 days. The percentage of Kansas youth 17 years old and younger that drank a sugar-sweetened drink at least once in the past 30 days was significantly **higher** among:

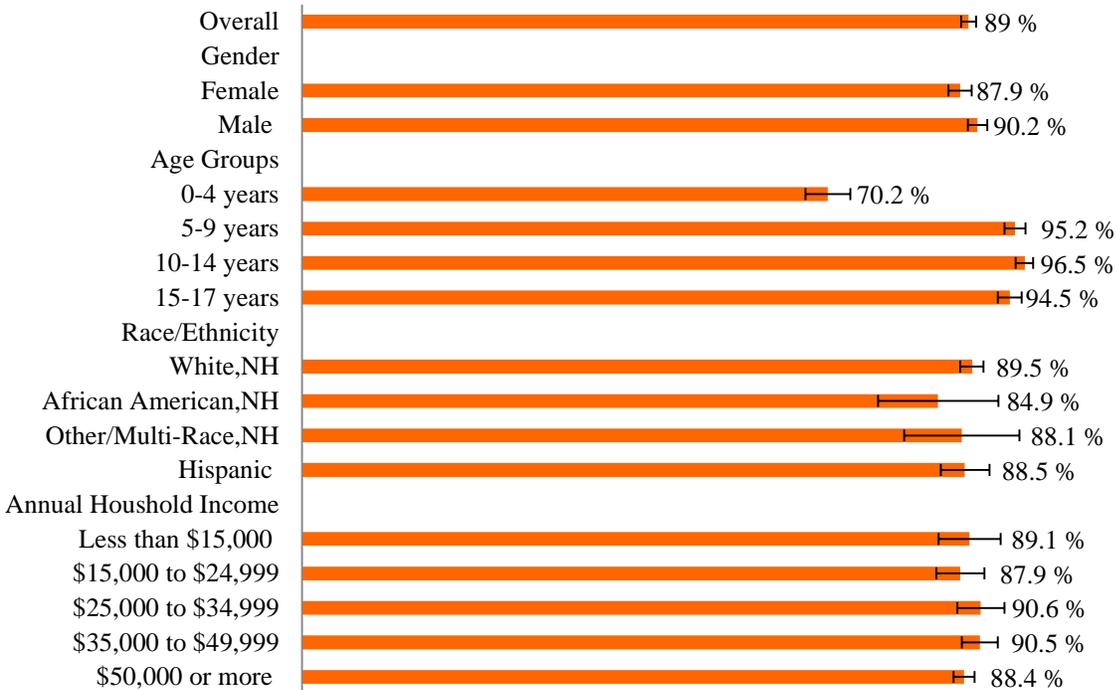
- Youth 5 to 17 years old compared with youth 0 to 4 years old.

The percentage of Kansas youth 17 years old and younger who drank a sugar-sweetened drink at least once in the past 30 days did not differ significantly by gender, race/ethnicity or annual household income groups.

<b>Percentage of Youth 17 Years Old and Younger Who Drank Any Sugar-Sweetened Drink at Least Once in the Past 30 Days, KS BRFSS 2013</b>		
Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	89	88-90
<b>Gender</b>		
Female	87.9	86.3-89.4
Male	90.2	88.9-91.5
<b>Age Groups</b>		
0-4 years	70.2	67.2-73.2
5-9 years	95.2	93.8-96.6
10-14 years	96.5	95.3-97.6
15-17 years	94.5	92.9-96.1
<b>Race/Ethnicity</b>		
White, NH	89.5	87.9-91
African-American, NH	84.9	76.9-93
Other/Multi-Race, NH	88.1	80.4-95.8
Hispanic	88.5	85.3-91.8
<b>Annual Household Income</b>		
Less than \$15,000	89.1	85-93.3
\$15,000 to \$24,999	87.9	84.7-91.1
\$25,000 to \$34,999	90.6	87.5-93.8
\$35,000 to \$49,999	90.5	88.1-92.9
\$50,000 or more	88.4	87-89.8

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Youth 17 Years Old and Younger Who Drank Any Sugar-Sweetened Drink at Least Once in the Past 30 Days, KS BRFSS 2013



### SUMMARY

Approximately 89 percent of Kansas youth 17 years old and younger drank a sugar-sweetened drink at least once in the past 30 days. In addition, higher percentages of youth who drank a sugar-sweetened drink at least once in the past 30 days were seen among: youth 5 to 17 years old.

The Healthy People 2020 goal is to reduce the consumption of calories from added sugars. Therefore further public health efforts are needed to address the high consumption of sugar drinks among Kansas youth.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Tobacco Use: Current Cigarette Smoking

Tobacco use is one of the most preventable causes of morbidity and mortality.<sup>24</sup> More deaths are caused each year by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides and homicides combined.<sup>25,26</sup> The Healthy People 2020 goal is to reduce smoking among adults.

Current smoking is defined as adults who have smoked 100 cigarettes in their entire life and smoke now, either every day or some days. In 2013, approximately 1 in 5 Kansas adults 18 years old and older currently smoke cigarettes. The percentage of Kansas adults 18 years old and older who currently smoke cigarettes was significantly **higher** among:

- Males compared with females.
- Adults 64 old years and younger compared with adults 65 years old and older; and adults 25 to 34 years old compared with all other age groups
- Non-Hispanic African-Americans compared with non-Hispanic whites
- Non-Hispanic Whites, non-Hispanic African-Americans and non-Hispanic Other/Multi-Race adults compared with Hispanics (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

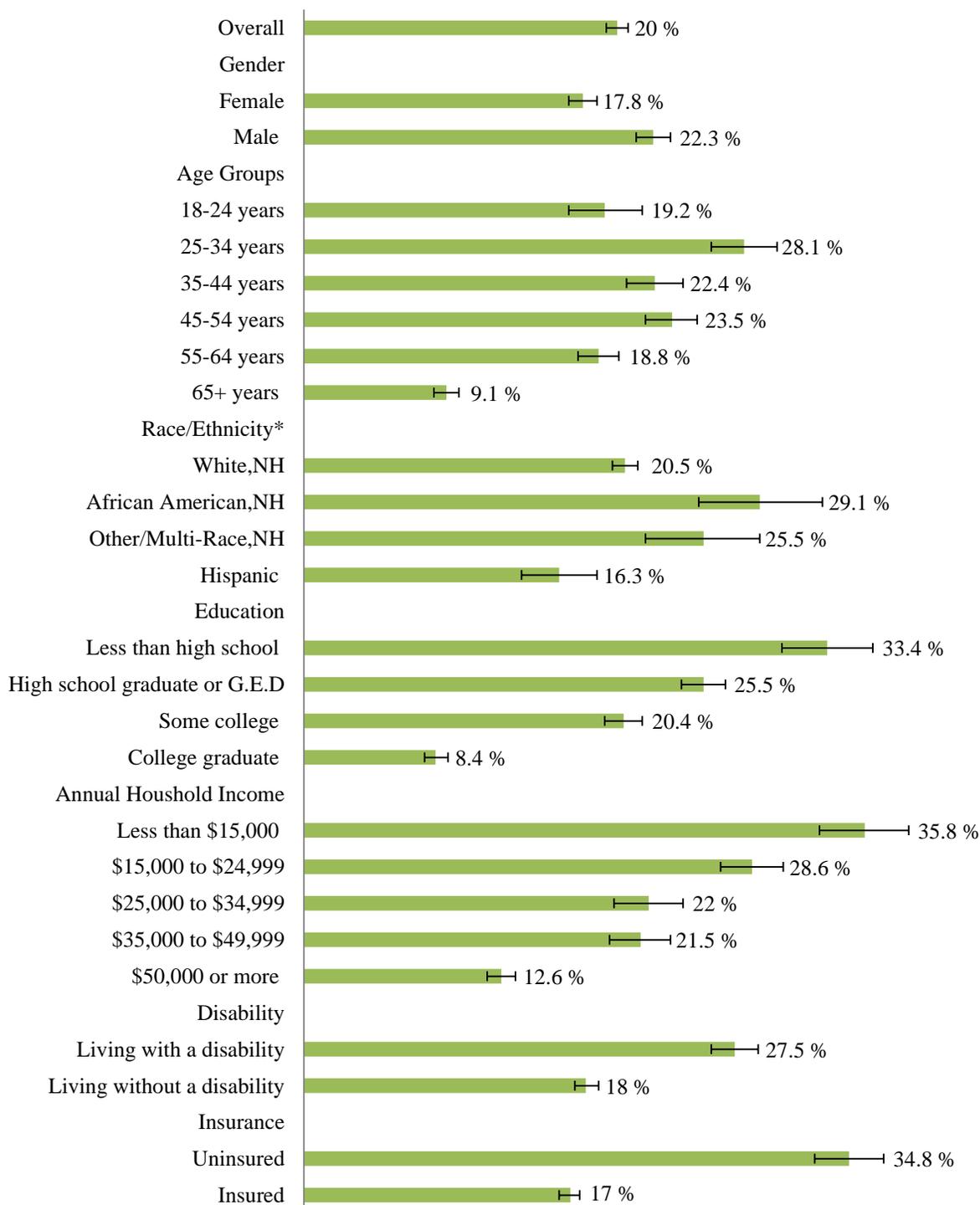
### Percentage of Adults 18 Years Old and Older Who Currently Smoke Cigarettes, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	20	19.3-20.7
<b>Gender</b>		
Female	17.8	16.9-18.7
Male	22.3	21.2-23.4
<b>Age Groups</b>		
18-24 years	19.2	16.8-21.5
25-34 years	28.1	26-30.2
35-44 years	22.4	20.6-24.2
45-54 years	23.5	21.9-25.2
55-64 years	18.8	17.5-20.1
65+ years	9.1	8.3-9.9
<b>Race/Ethnicity*</b>		
White, NH	20.5	19.7-21.3
African-American, NH	29.1	25.1-33
Other/Multi-Race, NH	25.5	21.9-29.2
Hispanic	16.3	13.9-18.7
<b>Education</b>		
Less than high school	33.4	30.5-36.3
High school graduate or G.E.D	25.5	24.1-26.9
Some college	20.4	19.2-21.6
College graduate	8.4	7.6-9.1
<b>Annual Household Income</b>		
Less than \$15,000	35.8	33-38.7
\$15,000 to \$24,999	28.6	26.6-30.6
\$25,000 to \$34,999	22	19.8-24.2
\$35,000 to \$49,999	21.5	19.6-23.5
\$50,000 or more	12.6	11.7-13.5
<b>Disability</b>		
Living with a disability	27.5	26-29
Living without a disability	18	17.2-18.7
<b>Insurance</b>		
Uninsured	34.8	32.6-37
Insured	17	16.4-17.7

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Currently Smoke Cigarettes, KS BRFSS 2013



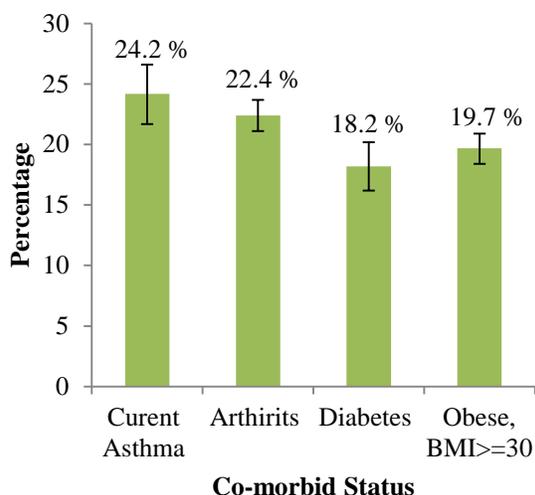
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Currently Smoke Cigarettes, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	24.2	21.8-26.7
No	19.6	18.8-20.3
<b>Arthritis Status</b>		
Yes	22.4	21.1-23.7
No	19.2	18.4-20
<b>Diabetes Status</b>		
Yes	18.2	16.2-20.2
No	20.2	17.7-19.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	21.8	20.5-23
Overweight, 25<= BMI<30	19.3	18.1-20.5
Obese, BMI>=30	19.7	18.5-21

**Percentage of Adults 18 Years Old and Older Who Currently Smoke Cigarettes, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who currently smoke cigarettes was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis

The percentage of Kansas adults who currently smoke cigarettes did not differ significantly by diabetes or weight status.

SUMMARY

About 20 percent of Kansas adults 18 years old and older currently smoke cigarettes. In addition, higher percentages of adults who currently smoke cigarettes were seen among: males, adults 64 years old and younger, non-Hispanic African-Americans, non-Hispanic other/multi-race, non-Hispanic whites; uninsured adults, adults with lower income and education, adults with co-morbid conditions (current asthma or arthritis) and those living with a disability.

The Healthy People 2020 goal is to reduce smoking by adults to 12 percent. Therefore further public health efforts are needed to reach the objective and to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Tobacco Use: Smokeless Tobacco

Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontal disease and tooth loss.<sup>27</sup> The Healthy People 2020 goal is to reduce the use of smokeless tobacco products by adults.

A smokeless tobacco user is defined as an adult who currently uses chewing tobacco, snuff or snus (Swedish for snuff) some days or every day. In 2013, approximately 1 in 20 Kansas adults 18 years old and older were currently using any smokeless tobacco product. The percentage of Kansas adults 18 years old and older who currently use any smokeless tobacco products was significantly **higher** among:

- Males compared with females
- Adults 54 years old and younger compared with adults 55 years old and older
- Non-Hispanic whites compared with Hispanics (age-adjusted prevalence).
- High school graduates compared with adults with some college or college graduates
- Adults living without a disability compared with adults living with a disability

The percentage of Kansas adults 18 years old and older who currently use any smokeless tobacco products did not differ significantly by annual household income groups or insurance status.

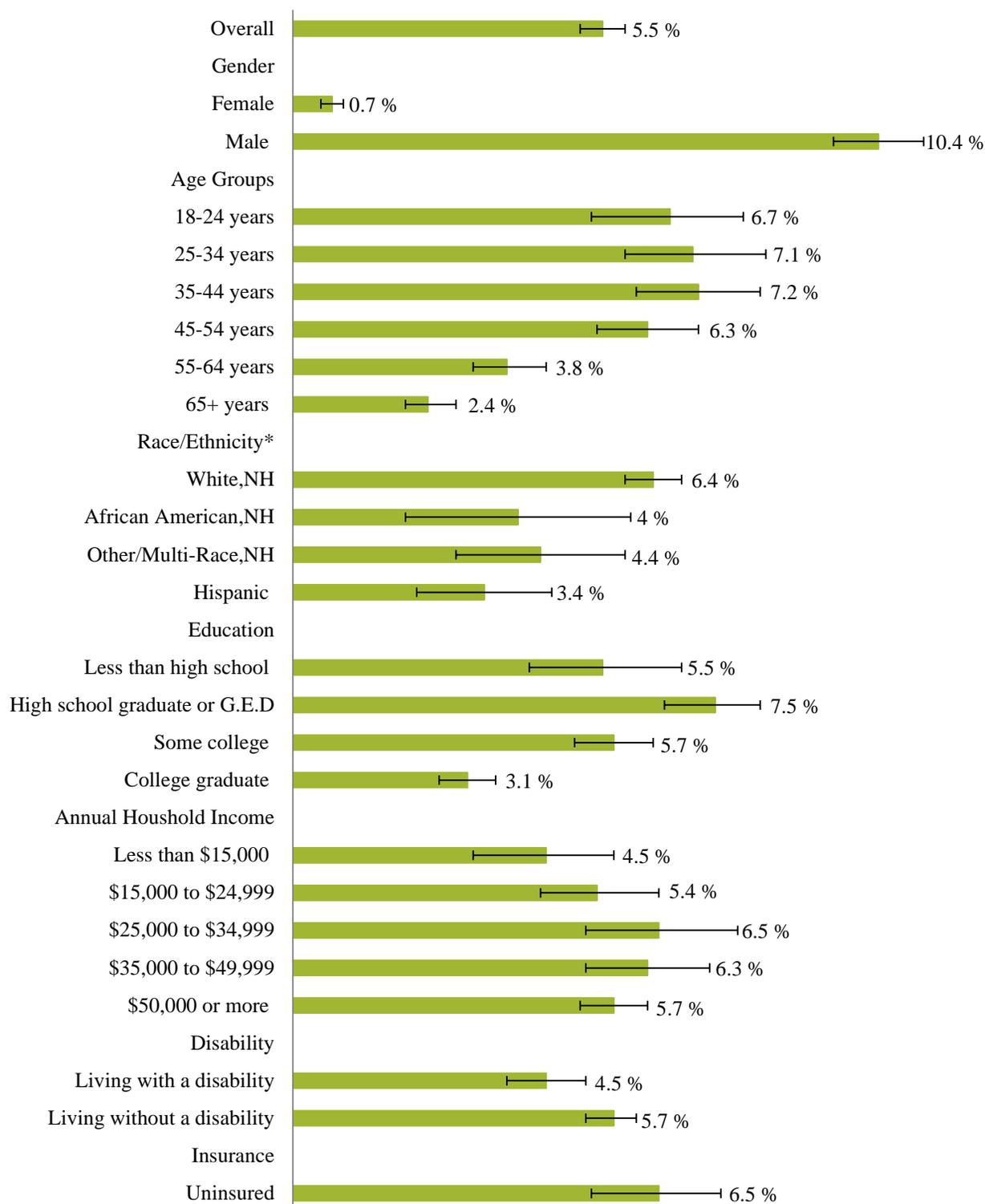
### Percentage of Adults 18 Years Old and Older Who Currently Use Any Smokeless Tobacco Products, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	5.5	5.1-5.9
<b>Gender</b>		
Female	0.7	0.5-0.9
Male	10.4	9.6-11.2
<b>Age Groups</b>		
18-24 years	6.7	5.4-8.1
25-34 years	7.1	5.8-8.3
35-44 years	7.2	6.1-8.3
45-54 years	6.3	5.4-7.2
55-64 years	3.8	3.1-4.4
65+ years	2.4	1.9-2.8
<b>Race/Ethnicity*</b>		
White, NH	6.4	5.9-6.9
African-American, NH	4	2-6
Other/Multi-Race, NH	4.4	2.9-5.9
Hispanic	3.4	2.2-4.6
<b>Education</b>		
Less than high school	5.5	4.1-6.8
High school graduate or G.E.D	7.5	6.7-8.4
Some college	5.7	5-6.4
College graduate	3.1	2.6-3.6
<b>Annual Household Income</b>		
Less than \$15,000	4.5	3.3-5.8
\$15,000 to \$24,999	5.4	4.3-6.4
\$25,000 to \$34,999	6.5	5.1-7.8
\$35,000 to \$49,999	6.3	5.2-7.4
\$50,000 or more	5.7	5.1-6.3
<b>Disability</b>		
Living with a disability	4.5	3.8-5.2
Living without a disability	5.7	5.3-6.2
<b>Insurance</b>		
Uninsured	6.5	5.4-7.7
Insured	5.3	4.9-5.7

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Currently Use Any Smokeless Tobacco Products, KS BRFSS 2013



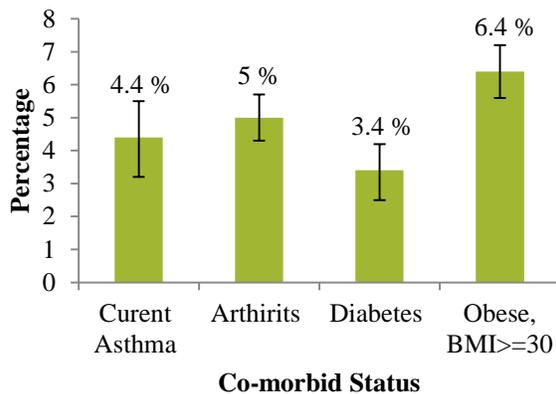
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Currently Use Any Smokeless Tobacco Products, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	4.4	3.3-5.6
No	5.6	5.1-6
<b>Arthritis Status</b>		
Yes	5	4.3-5.7
No	5.6	5.2-6.1
<b>Diabetes Status</b>		
Yes	3.4	2.6-4.3
No	5.7	5.3-6.1
<b>Weight Category</b>		
Normal or Underweight, BMI<25	4.4	3.7-5
Overweight, 25<= BMI<30	6.5	5.8-7.3
Obese, BMI>=30	6.4	5.6-7.2

**Percentage of Adults 18 Years Old and Older Who Currently Use Any Smokeless Tobacco Products, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who currently use any smokeless tobacco products was significantly **higher** among:

- Adults without diabetes compared with adults with diabetes
- Adults who were obese or overweight compared with adults who were normal or underweight

The percentage of Kansas adults who currently use any smokeless tobacco products did not differ significantly by current asthma or arthritis status.

**SUMMARY**

Approximately 6 percent of Kansas adults 18 years old and older were current smokeless tobacco product users. In addition, higher percentages of adults who were currently using any smokeless tobacco products were seen among: males, adults 54 years old and younger, non-Hispanics whites, high school graduates, adults living without a disability and adults with co-morbid conditions (diabetes; overweight or obesity).

The Healthy People 2020 goal is to reduce the use of smokeless tobacco products by adults to 0.3 percent. Therefore further public health efforts are needed to reach the objective and to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Tobacco Use: Electronic Cigarettes

Electronic cigarettes or e-cigarettes are battery-powered devices that provide doses of nicotine and other additives to the user in an aerosol. E-cigarettes have not been fully studied so it is difficult to determine the potential risk.<sup>28</sup> But e-cigarettes release nicotine when inhaled and nicotine has been linked to adverse effects on adolescent brain develop that may result in lasting deficits in cognitive function.<sup>29</sup>

In 2013, approximately 3 in 20 Kansas adults 18 years old and older have ever used or tried e-cigarettes. The percentage of Kansas adults 18 years old and older that have ever used or tried e-cigarettes was significantly **higher** among:

- Males compared with females.
- Younger adults compared with adults in older age groups
- Non-Hispanic whites, non-Hispanic African-Americans and non-Hispanic other/multi-race adults compared with Hispanics (age-adjusted prevalence).
- Adults who did not graduate high school or receive a GED, high school graduates /GED and adults with some college compared with college graduates.
- Adults with an annual household income of less than \$15,000 compared with adults with an annual household income of \$25,000 or more
- Adults living with a disability compared with adults living without a disability
- Adults without insurance compared with adults with insurance

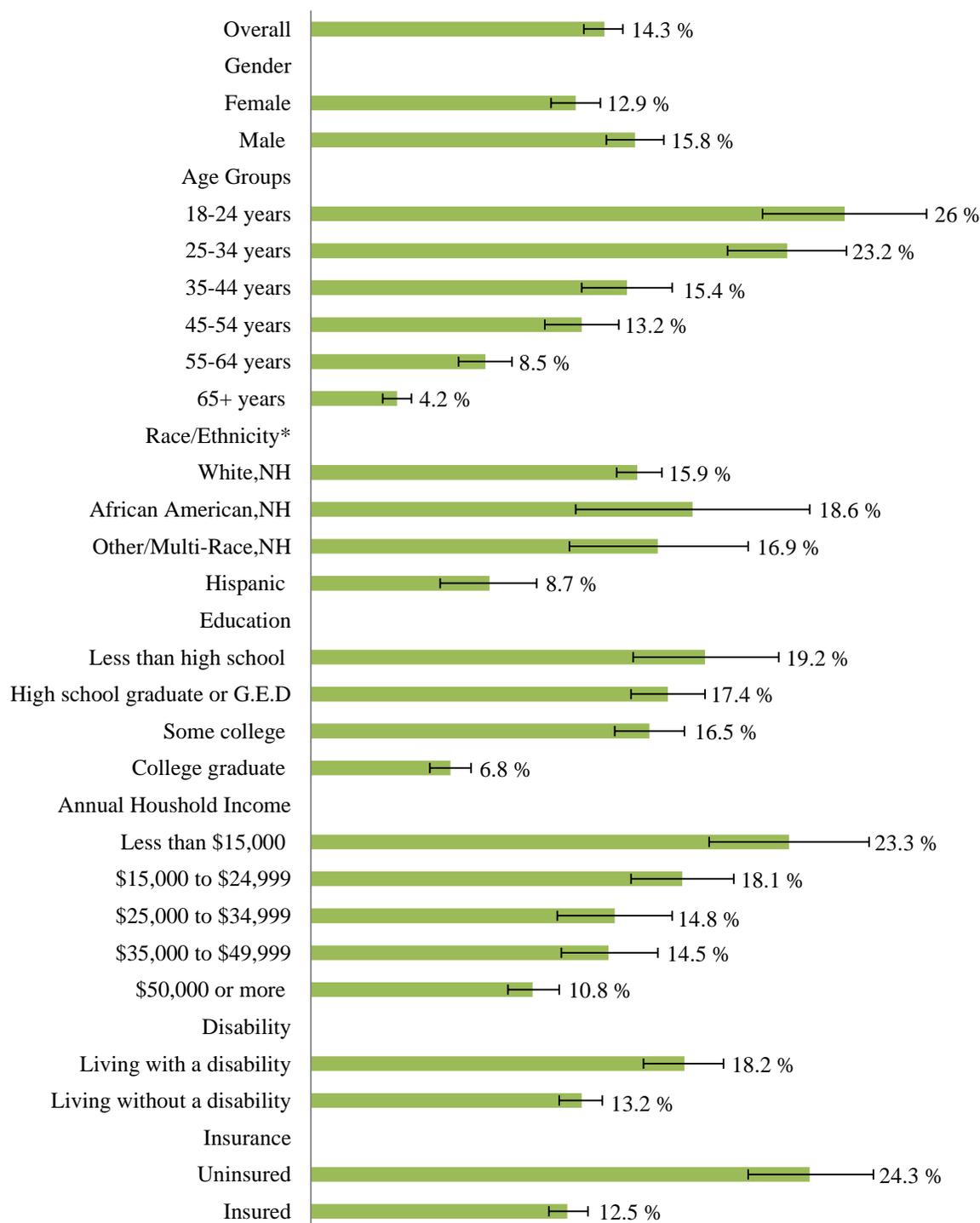
### Percentage of Adults 18 Years Old or Older Who Have Ever Used or Tried Electronic Cigarettes or E-Cigarettes, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	14.3	13.4-15.3
<b>Gender</b>		
Female	12.9	11.7-14.1
Male	15.8	14.4-17.2
<b>Age Groups</b>		
18-24 years	26	22-30
25-34 years	23.2	20.3-26.1
35-44 years	15.4	13.2-17.6
45-54 years	13.2	11.4-15
55-64 years	8.5	7.2-9.8
65+ years	4.2	3.5-4.9
<b>Race/Ethnicity*</b>		
White, NH	15.9	14.7-16.9
African-American, NH	18.6	12.9-24.3
Other/Multi-Race, NH	16.9	12.5-21.2
Hispanic	8.7	6.4-11.1
<b>Education</b>		
Less than high school	19.2	15.6-22.7
High school graduate or G.E.D	17.4	15.6-19.2
Some college	16.5	14.8-18.2
College graduate	6.8	5.8-7.8
<b>Annual Household Income</b>		
Less than \$15,000	23.3	19.4-27.2
\$15,000 to \$24,999	18.1	15.6-20.6
\$25,000 to \$34,999	14.8	12-17.6
\$35,000 to \$49,999	14.5	12.1-16.8
\$50,000 or more	10.8	9.5-12
<b>Disability</b>		
Living with a disability	18.2	16.3-20.2
Living without a disability	13.2	12.2-14.3
<b>Insurance</b>		
Uninsured	24.3	21.2-27.3
Insured	12.5	11.5-13.4

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Have Ever Used or Tried Electronic Cigarettes or E-Cigarettes, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old or Older Who Have Ever Used or Tried Electronic Cigarettes or E-Cigarettes, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	18.2	15.1-21.4
No	13.8	12.9-14.8
<b>Arthritis Status</b>		
Yes	13.8	12.3-15.3
No	14.4	13.3-15.6
<b>Diabetes Status</b>		
Yes	12	9.2-14.9
No	14.6	13.6-15.6
<b>Weight Category</b>		
Normal or Underweight, BMI<25	16.6	14.8-18.3
Overweight, 25<= BMI<30	13.2	11.7-14.8
Obese, BMI>=30	13.6	12-15.2

The percentage of Kansas adults 18 years old and older who have ever used or tried e-cigarettes was significantly **higher** among:

- Adults with current asthma compared with those without current asthma

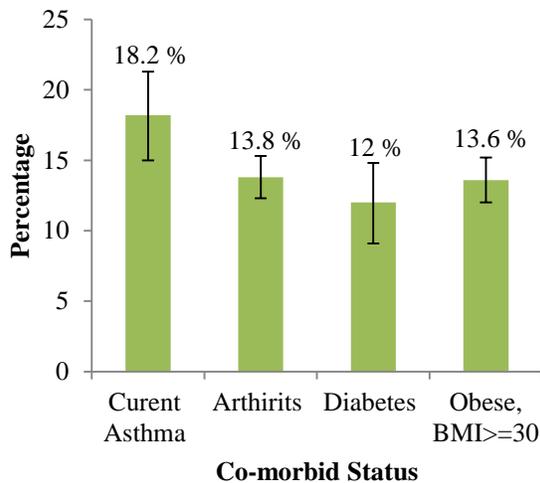
The percentage of Kansas adults 18 years old and older who have ever used or tried e-cigarettes did not differ significantly by arthritis, diabetes or weight status.

**SUMMARY**

Approximately 14 percent of Kansas adults 18 years old and older have ever used or tried e-cigarettes. In addition, higher percentages of adults who have ever used or tried e-cigarettes were seen among: males, younger adults, non-Hispanic African-Americans, non-Hispanic other/multi-race adults, non-Hispanic whites, adults with less than a college degree, adults with an annual household income of less than \$15,000, uninsured adults, adults with current asthma and those living with a disability.

Therefore further public health efforts are needed to reduce e-cigarette use and to address disparities in population subgroups in Kansas.

**Percentage of Adults 18 years old and older Who Have Ever Used or Tried Electronic Cigarettes or E-Cigarettes, by Co-morbid Conditions, KS BRFSS 2013**



Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Oral Health: Oral Health Care System

Oral health is an essential and integral component of overall health throughout life. The word oral refers to the whole mouth, including the teeth, gums, hard and soft palate, linings of the mouth and throat, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws. Regular check-ups are essential for detecting early signs of oral health problems that can then lead to early prevention and treatment of problems.<sup>30</sup> The Healthy People 2020 goal is to increase the proportion of adults who used the oral health care system in the past year.

In 2013, approximately 1 in 3 Kansas adults 18 years old and older did not use the oral health care system in the past 12 months. The percentage of Kansas adults 18 years old and older who did not use the oral health care system in the past 12 months was significantly **higher** among:

- Males compared with females
- Adults 25 to 34 years old compared with all the other age groups
- Non-Hispanic African-Americans, non-Hispanic other/multi-race adults and Hispanics compared with non-Hispanic whites (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

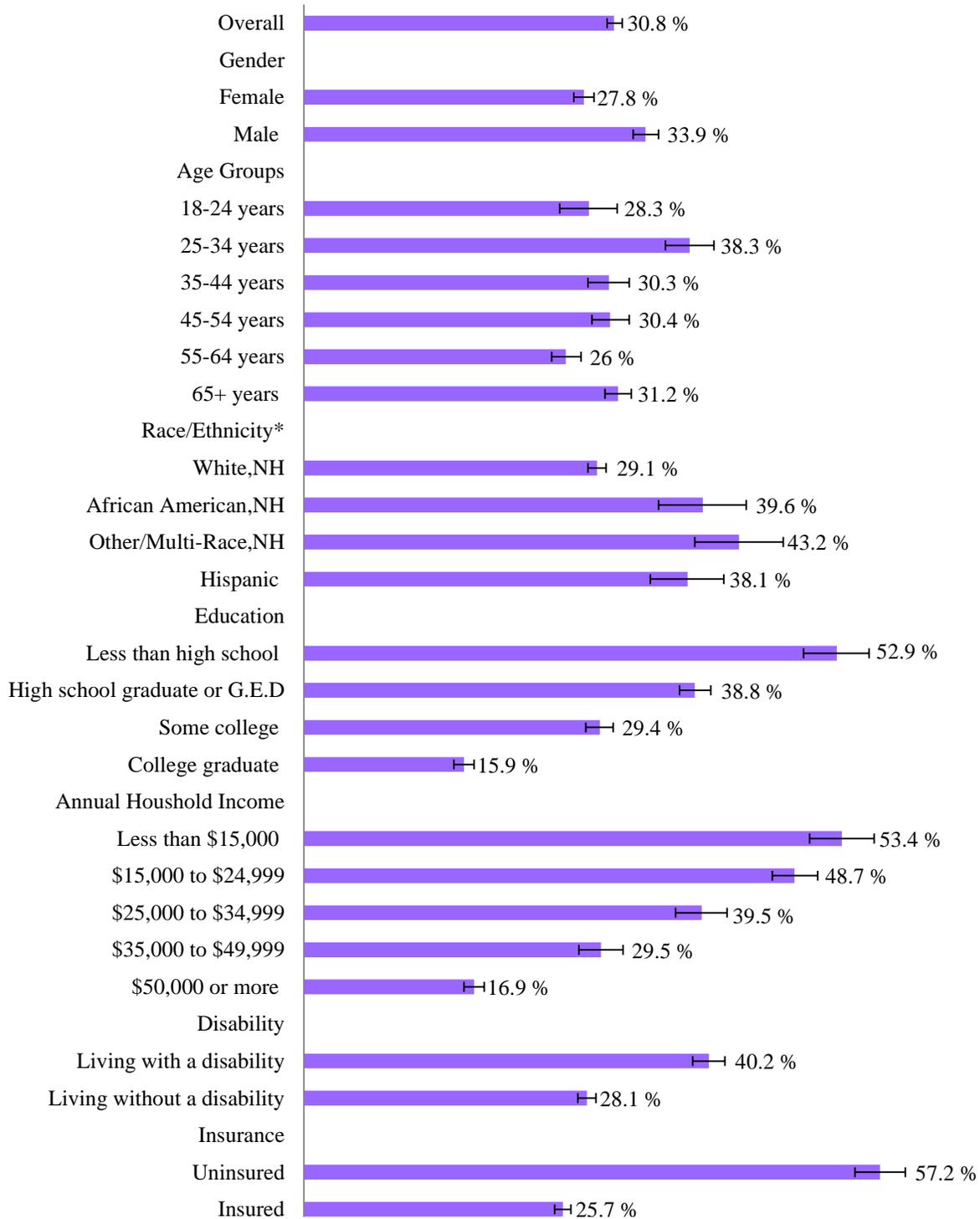
### Percentage of Adults 18 Years Old and Older Who Have Not Used the Oral Health Care System in the Past 12 Months, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	30.8	30-31.5
<b>Gender</b>		
Female	27.8	26.8-28.8
Male	33.9	32.6-35.1
<b>Age Groups</b>		
18-24 years	28.3	25.5-31.2
25-34 years	38.3	35.9-40.7
35-44 years	30.3	28.3-32.4
45-54 years	30.4	28.5-32.2
55-64 years	26	24.5-27.4
65+ years	31.2	29.9-32.5
<b>Race/Ethnicity*</b>		
White, NH	29.1	28.2-30
African-American, NH	39.6	35.3-44
Other/Multi-Race, NH	43.2	38.8-47.6
Hispanic	38.1	34.5-41.8
<b>Education</b>		
Less than high school	52.9	49.7-56.2
High school graduate or G.E.D	38.8	37.2-40.3
Some college	29.4	28.1-30.8
College graduate	15.9	14.9-16.9
<b>Annual Household Income</b>		
Less than \$15,000	53.4	50.2-56.6
\$15,000 to \$24,999	48.7	46.4-50.9
\$25,000 to \$34,999	39.5	37-42.1
\$35,000 to \$49,999	29.5	27.3-31.7
\$50,000 or more	16.9	15.9-17.9
<b>Disability</b>		
Living with a disability	40.2	38.6-41.8
Living without a disability	28.1	27.2-29
<b>Insurance</b>		
Uninsured	57.2	54.7-59.7
Insured	25.7	24.9-26.5

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Have Not Used the Oral Health Care System in the Past 12 Months, KS BRFSS 2013



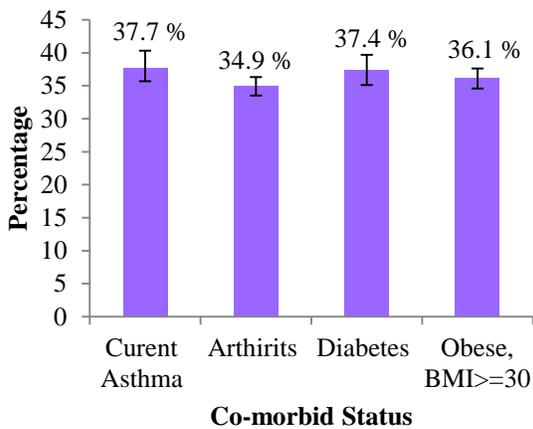
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Have Not Used the Oral Health Care System in the Past 12 Months, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	37.7	35.1-39.7
No	30	29.2-30.8
<b>Arthritis Status</b>		
Yes	34.9	33.5-36.3
No	29.4	28.4-30.3
<b>Diabetes Status</b>		
Yes	37.4	35.1-39.7
No	30	29.2-30.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	27.8	26.4-29.2
Overweight, 25<= BMI<30	28.4	27.1-29.8
Obese, BMI>=30	36.1	34.6-37.6

**Percentage of Adults 18 Years Old and Older Who Have Not Used the Oral Health Care System in the Past 12 Months, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not use the oral health care system in the past 12 months was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with adults who were overweight, normal weight or underweight

**SUMMARY**

Approximately 31 percent of Kansas adults 18 years old and older did not use the oral health care system in the past 12 months. In addition, higher percentages of adults who did not use the oral health care system in the past 12 months were seen among: males, adults 24 to 34 years old, Hispanics, non-Hispanic African-Americans, non-Hispanic other/multi-race adults; uninsured adults, adults with lower income and education, adults with co-morbid conditions (current asthma; diabetes; arthritis or obesity) and those living with a disability.

To address associated disparities with accessing the oral health care system, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Oral Health: Dental Insurance

Lack of access to health services is a persistent barrier to good health.<sup>1</sup> This is inclusive of oral health services especially since oral health and general health status are interrelated. A developmental Healthy People 2020 goal is to increase the proportion of people with dental insurance.

In 2013, more than 1 in 3 Kansas adults 18 years old and older did not have dental insurance. The percentage of Kansas adults 18 years old and older with no dental insurance was significantly **higher** among:

- Adults 65 years old and older compared with adults in all other age groups
- Hispanics compared with non-Hispanic whites and non-Hispanic other/multi race adults (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older with no dental insurance did not differ significantly by gender groups.

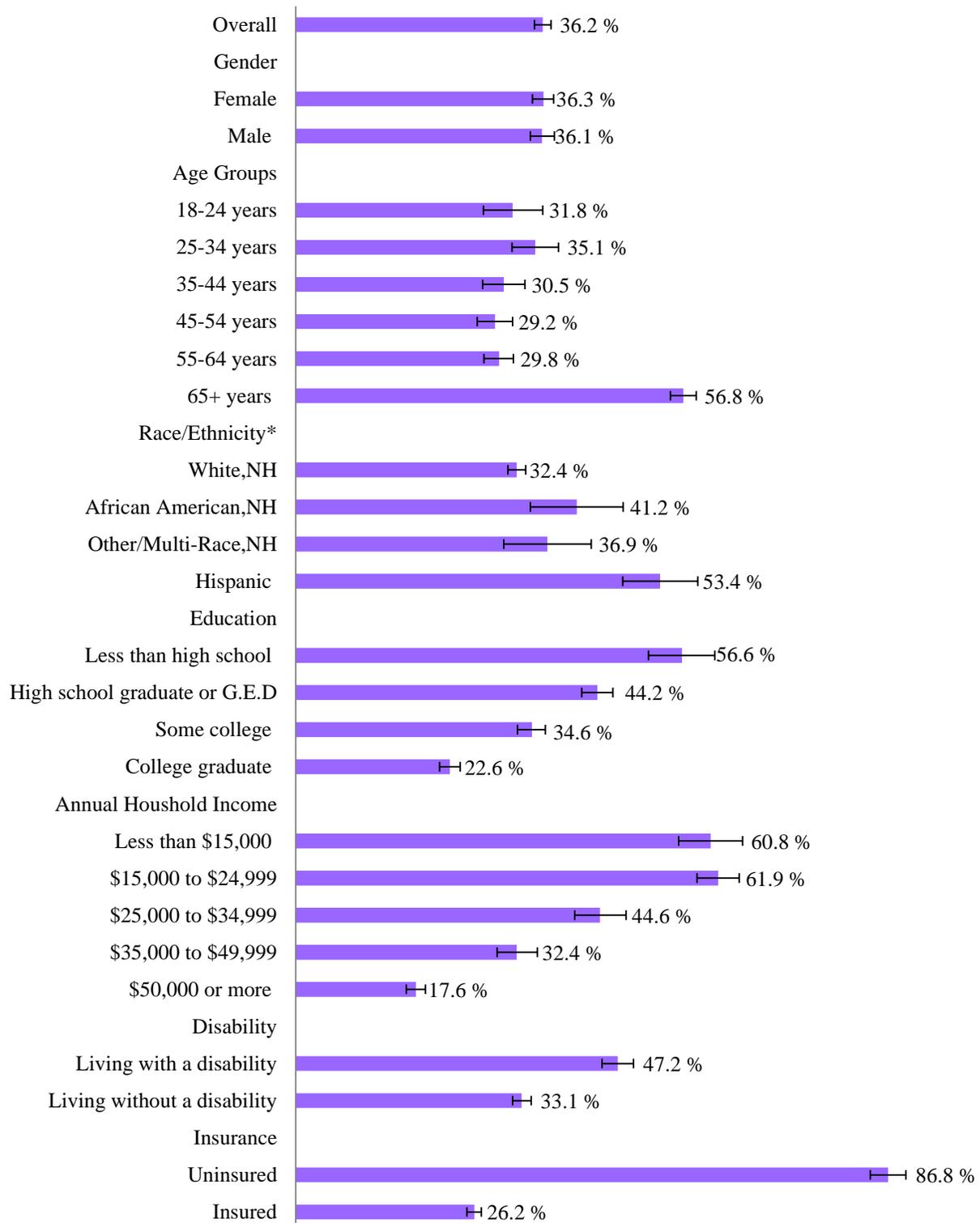
### Percentage of Adults 18 Years Old and Older With No Dental Insurance, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	36.2	35-37.4
<b>Gender</b>		
Female	36.3	34.8-37.9
Male	36.1	34.3-37.8
<b>Age Groups</b>		
18-24 years	31.8	27.4-36.1
25-34 years	35.1	31.7-38.5
35-44 years	30.5	27.4-33.6
45-54 years	29.2	26.6-31.8
55-64 years	29.8	27.7-32
65+ years	56.8	54.9-58.7
<b>Race/Ethnicity*</b>		
White, NH	32.4	31.1-33.7
African-American, NH	41.2	34.4-48
Other/Multi-Race, NH	36.9	30.5-43.3
Hispanic	53.4	47.9-58.9
<b>Education</b>		
Less than high school	56.6	51.8-61.5
High school graduate or G.E.D	44.2	41.9-46.5
Some college	34.6	32.6-36.7
College graduate	22.6	21.1-24.1
<b>Annual Household Income</b>		
Less than \$15,000	60.8	56.1-65.5
\$15,000 to \$24,999	61.9	58.8-65
\$25,000 to \$34,999	44.6	40.8-48.3
\$35,000 to \$49,999	32.4	29.4-35.3
\$50,000 or more	17.6	16.2-19
<b>Disability</b>		
Living with a disability	47.2	44.9-49.5
Living without a disability	33.1	31.7-34.4
<b>Insurance</b>		
Uninsured	86.8	84.2-89.4
Insured	26.2	25.2-27.3

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older With No Dental Insurance, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With No Dental Insurance, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	37.1	33-41.2
No	36	34.8-37.3
<b>Arthritis Status</b>		
Yes	44.1	42-46.2
No	33.6	32.2-35
<b>Diabetes Status</b>		
Yes	45.5	42.2-48.9
No	35.2	33.9-36.4
<b>Weight Category</b>		
Normal or Underweight, BMI<25	34.6	32.5-36.6
Overweight, 25<= BMI<30	35.2	33.2-37.1
Obese, BMI>=30	37.8	35.6-40

The percentage of Kansas adults 18 years old and older without dental insurance was significantly **higher** among:

- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes

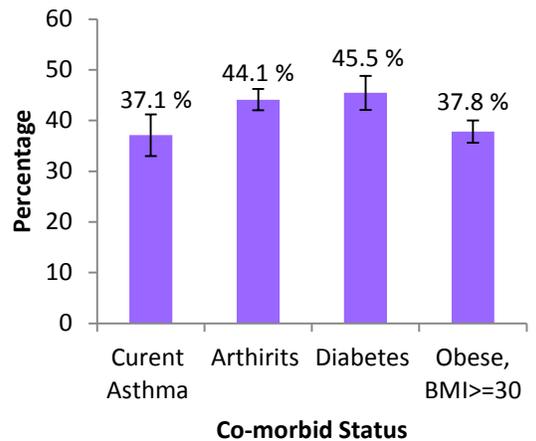
The percentage of Kansas adults 18 years old and older with no dental insurance did not differ significantly by current asthma or weight status.

SUMMARY

Approximately 36 percent of Kansas adults 18 years old and older did not have dental insurance. In addition, higher percentages of adults who did not have dental insurance were seen among: older adults, Hispanics, uninsured adults, adults with lower annual income and education, adults with co-morbid conditions (diabetes or arthritis), and those living with a disability.

A developmental Healthy People 2020 goal is to increase the proportion of people with dental insurance. More than one-third of Kansans 18 years old and older did not have dental insurance and lower insurance rates exist in certain population subgroups, further public health efforts are needed to address this issue.

**Percentage of Adults 18 Years Old and Older With No Dental Insurance, by Co-morbid Conditions, KS BRFSS 2013**



Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Oral Health: Lost All Permanent Teeth

Loss of all permanent teeth indicates poor oral health. Oral infections that may cause tooth loss such as periodontal (gum) diseases may increase the risk of heart disease, may put pregnant women at greater risk of premature delivery, and may complicate control of blood sugar for people living with diabetes.<sup>30</sup> Thus preventing loss of teeth is the major step in the health of the person. The Healthy People 2020 goal is reduce the proportion of adults 65 to 74 years old who have lost all their natural teeth.

In 2013, approximately 1 in 6 Kansas adults 65 to 74 years old have lost all their permanent teeth. The percentage of Kansas adults 65 to 74 years old who have lost all their permanent teeth was significantly **higher** among:

- Non-Hispanic other/ multi-race adults compared non-Hispanic whites
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability

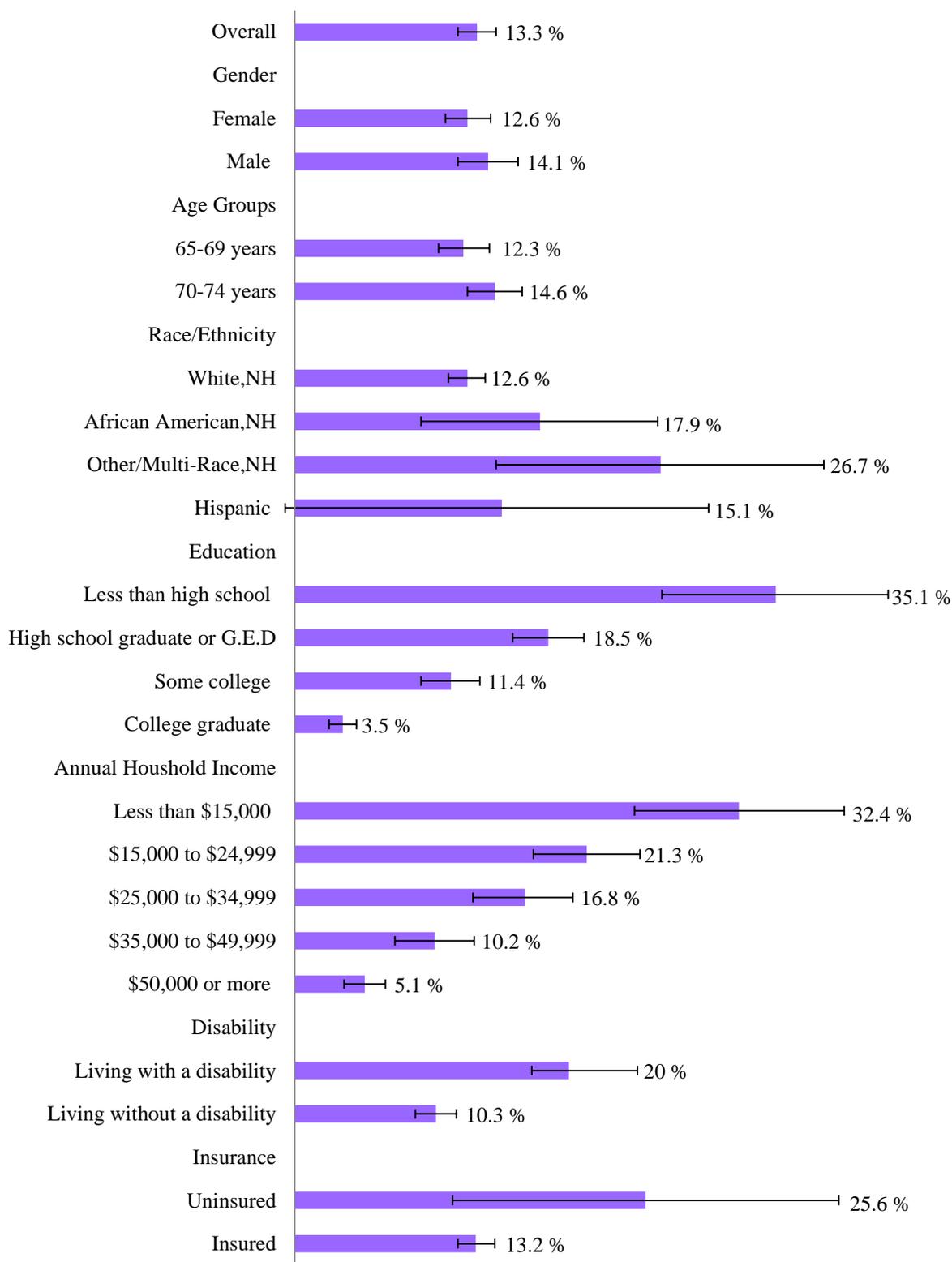
The percentage of Kansas adults 65 to 74 years old who have lost all their permanent teeth did not differ significantly by gender, age or insurance groups.

### Percentage of Adults 65 to 74 Years Old Who Have Lost All Their Permanent Teeth, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	13.3	11.9-14.7
<b>Gender</b>		
Female	12.6	10.9-14.2
Male	14.1	11.9-16.3
<b>Age Groups</b>		
65-69 years	12.3	10.4-14.1
70-74 years	14.6	12.6-16.6
<b>Race/Ethnicity</b>		
White, NH	12.6	11.3-14
African-American, NH	17.9	9.3-26.6
Other/Multi-Race, NH	26.7	14.8-38.7
Hispanic	15.1	0-30.9
<b>Education</b>		
Less than high school	35.1	26.9-43.4
High school graduate or G.E.D	18.5	15.9-21.1
Some college	11.4	9.3-13.6
College graduate	3.5	2.5-4.5
<b>Annual Household Income</b>		
Less than \$15,000	32.4	24.7-40
\$15,000 to \$24,999	21.3	17.4-25.2
\$25,000 to \$34,999	16.8	13.3-20.6
\$35,000 to \$49,999	10.2	7.3-13.1
\$50,000 or more	5.1	3.6-6.6
<b>Disability</b>		
Living with a disability	20	15-22.7
Living without a disability	10.3	8.8-11.8
<b>Insurance</b>		
Uninsured	25.6	11.5-39.7
Insured	13.2	11.8-14.5

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 65 to 74 Years Old Who Have Lost All Their Permanent Teeth

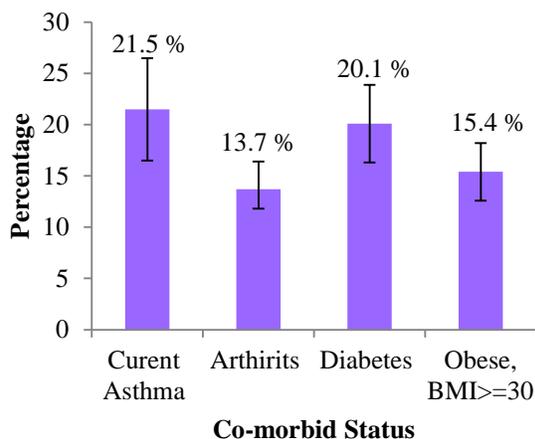


Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 65 to 74 Years Old Who Have Lost All Their Permanent Teeth, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	21.5	16.5-26.5
No	12.6	11.2-14
<b>Arthritis Status</b>		
Yes	13.7	11-15.6
No	13	11.1-15
<b>Diabetes Status</b>		
Yes	20.1	16.3-23.9
No	11.5	10.1-12.9
<b>Weight Category</b>		
Normal or Underweight, BMI<25	13.3	10.8-15.7
Overweight, 25<= BMI<30	11.8	9.8-13.8
Obese, BMI>=30	15.4	12.6-18.2

**Percentage Of Adults 65-74 Years Old Who Have Lost All Their Permanent Teeth, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 65 to 74 years old who have lost all their permanent teeth was significantly **higher** among:

- Adults with current asthma compared with adults without current asthma
- Adults with diabetes compared with adults without diabetes

The percentage of Kansas adults 65 to 74 years old who have lost all their permanent teeth did not differ significantly by arthritis or weight status.

**SUMMARY**

Approximately 13 percent of Kansas adults 65 to 74 years old have lost all their permanent teeth. In addition, higher percentages of adults who have lost all their permanent teeth were seen among: non-Hispanic other/ multi-race adults, adults with lower income and education, adults living with a disability, and those with co-morbid conditions (current asthma or diabetes).

The Healthy People 2020 goal is to reduce the proportion of adults 65 to 74 years old who have lost all their natural teeth to 21.6 percent. While overall Kansans 65 to 74 years old are meeting the Healthy People 2020 goal, the overall prevalence is still high and there are disparities in population subgroups that have not met the HP 2020 target. Therefore further public health efforts are needed to address overall prevalence and disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Substance Abuse: Binge drinking

Alcohol consumption is the third leading preventable cause of death in the U.S.<sup>31</sup> Binge drinking is defined as adult males having five or more drinks on one occasion and adult females having four or more drinks on one occasion in the past 30 days. Binge drinking is associated with alcohol poisoning, unintentional injuries, suicide and hypertension, among other health outcomes.<sup>32</sup> The Healthy People 2020 goal is to reduce the proportion of adults engaging in binge drinking during the past 30 days.

In 2013, approximately 1 in 6 Kansas adults 18 years old and older were binge drinkers. The percentage of Kansas adults 18 years old and older who were binge drinkers was significantly **higher** among:

- Males compared with females
- Younger adults compared with adults in older age groups
- Non-Hispanic whites compared with non-Hispanic African-Americans and other/multi race adults (age-adjusted prevalence)
- Adults with an annual household income of \$35,000 and higher compared with adults with annual household income of less than \$15,000
- Adults not living with a disability compared with adults living with a disability
- Adults without insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older who were binge drinkers did not differ significantly by education groups.

### Percentage of Adults 18 Years Old and Older Who Were Binge Drinkers,\*\* KS BRFSS 2013

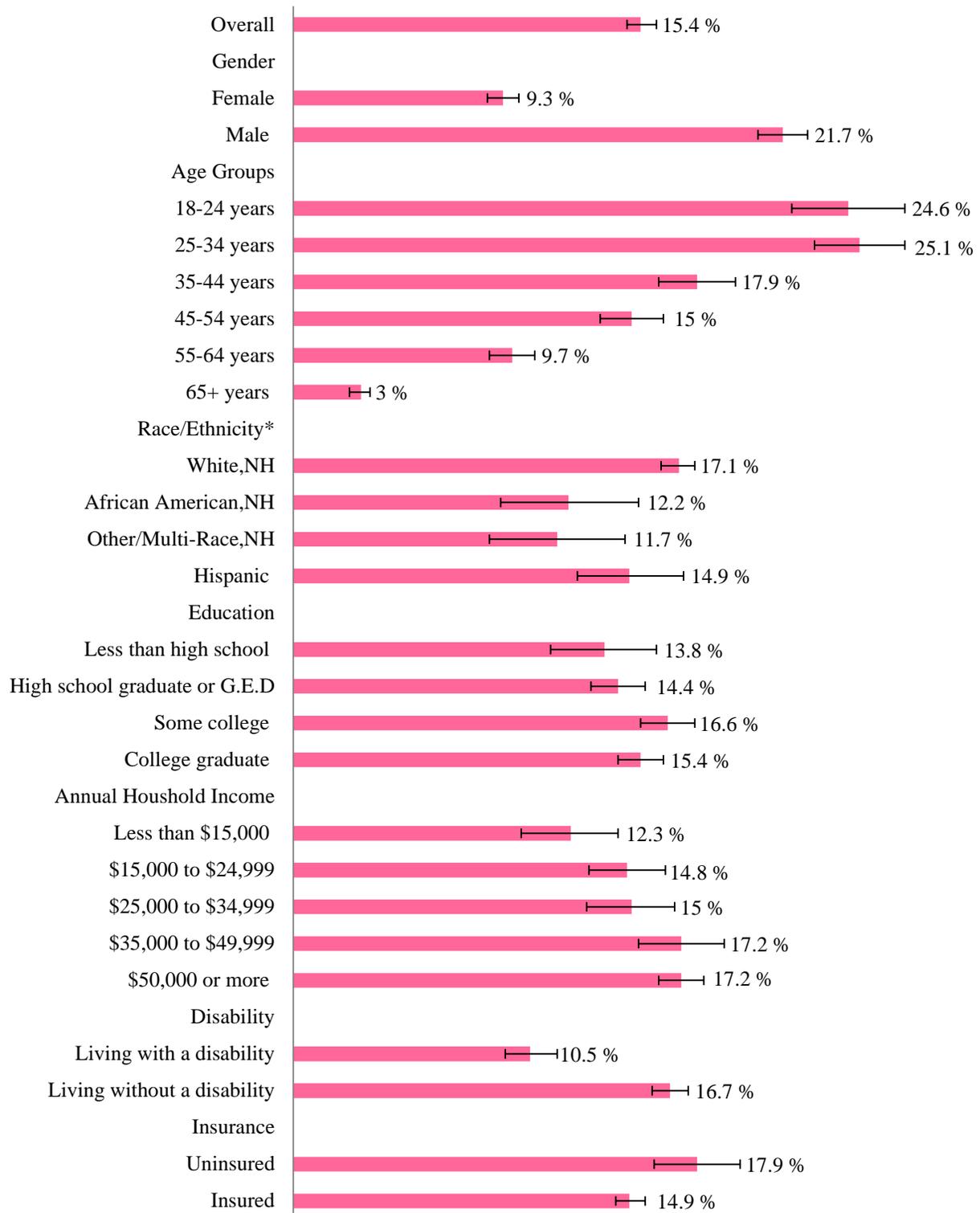
Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	15.4	14.7-16
<b>Gender</b>		
Female	9.3	8.6-10
Male	21.7	20.6-22.8
<b>Age Groups</b>		
18-24 years	24.6	22.1-27.1
25-34 years	25.1	23.1-27.1
35-44 years	17.9	16.2-19.6
45-54 years	15	13.6-16.4
55-64 years	9.7	8.7-10.7
65+ years	3	2.6-3.5
<b>Race/Ethnicity*</b>		
White, NH	17.1	16.4-17.9
African-American, NH	12.2	9.1-15.2
Other/Multi-Race, NH	11.7	8.7-14.7
Hispanic	14.9	12.5-17.2
<b>Education</b>		
Less than high school	13.8	11.5-16.2
High school graduate or G.E.D	14.4	13.2-15.6
Some college	16.6	15.4-17.8
College graduate	15.4	14.4-16.4
<b>Annual Household Income</b>		
Less than \$15,000	12.3	10.2-14.5
\$15,000 to \$24,999	14.8	13.1-16.5
\$25,000 to \$34,999	15	13.1-17
\$35,000 to \$49,999	17.2	15.3-19.1
\$50,000 or more	17.2	16.2-18.2
<b>Disability</b>		
Living with a disability	10.5	9.3-11.6
Living without a disability	16.7	15.9-17.5
<b>Insurance</b>		
Uninsured	17.9	16-19.8
Insured	14.9	14.2-15.5

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

\*\* Males having five or more drinks or females having four or more drinks on one occasion in the past 30 days

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Were Binge Drinkers, KS BRFSS 2013



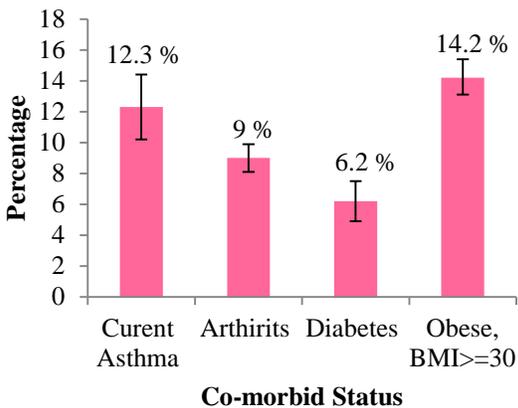
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Were Binge Drinkers, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	12.3	10.2-14.4
No	15.6	14.9-16.3
<b>Arthritis Status</b>		
Yes	9	8.1-9.9
No	17.4	16.6-18.2
<b>Diabetes Status</b>		
Yes	6.2	4.9-7.5
No	16.4	15.7-17.1
<b>Weight Category</b>		
Normal or Underweight, BMI<25	16.1	15-17.3
Overweight, 25<= BMI<30	16.9	15.8-18
Obese, BMI>=30	14.2	13-15.3

**Percentage of Adults 18 Years Old and Older Who Were Binge Drinkers, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were binge drinkers was significantly **higher** among:

- Adults without current asthma compared with those with current asthma.
- Adults without arthritis compared with those with arthritis.
- Adults without diabetes compared with those with diabetes.
- Adults who were overweight compared with those who were obese.

**SUMMARY**

Approximately 15 percent of Kansas adults 18 years old and older were binge drinkers. In addition, higher prevalence of binge drinking was seen among: males, younger adults, Non-Hispanic whites, adults with an annual household income of \$35,000 and greater, uninsured adults, adults without current asthma, adults without arthritis, adults without diabetes, overweight adults and adults living without a disability.

The Healthy People 2020 goal is to reduce the proportion of people engaging in binge drinking to 24.4 percent. Kansas is meeting the Healthy People 2020 goal, however, overall prevalence is still high and there are disparities in population subgroups that have not met the HP 2020 target. Therefore further public health efforts are needed to address overall prevalence and disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Mental Health: Serious Psychological Distress

Mental health is essential to personal well-being, family and interpersonal relationships, and contribution to community or society.<sup>33</sup> The burden of mental illness on health and productivity in the U.S. is underestimated.<sup>34</sup> Healthy People 2020 included mental health as a leading health indicator.

Serious Psychological Distress (SPD) is a nonspecific measure of psychological distress that has been psychometrically validated and shown to be able to distinguish community Diagnostic and Statistical Manual of Mental Disorders -IV cases from noncases.<sup>35</sup> In 2013, approximately 3 percent of Kansans 18 years old and older were ever diagnosed with Serious Psychological Distress (SPD). The percentage of Kansas adults 18 years old and older who were ever diagnosed with SPD was significantly **higher** among:

- Adults 25 to 34 years old and 45 to 64 years old compared with adults 65 years old and older
- Adults with less than a high school education compared with those higher education groups
- Adults with annual household income of less than \$15,000 compared with adults in all other higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with no insurance compared with adults with insurance

The percentage of Kansas adults 18 years old and older who were ever diagnosed with SPD did not differ significantly by gender groups or race/ethnicity groups (age-adjusted prevalence).

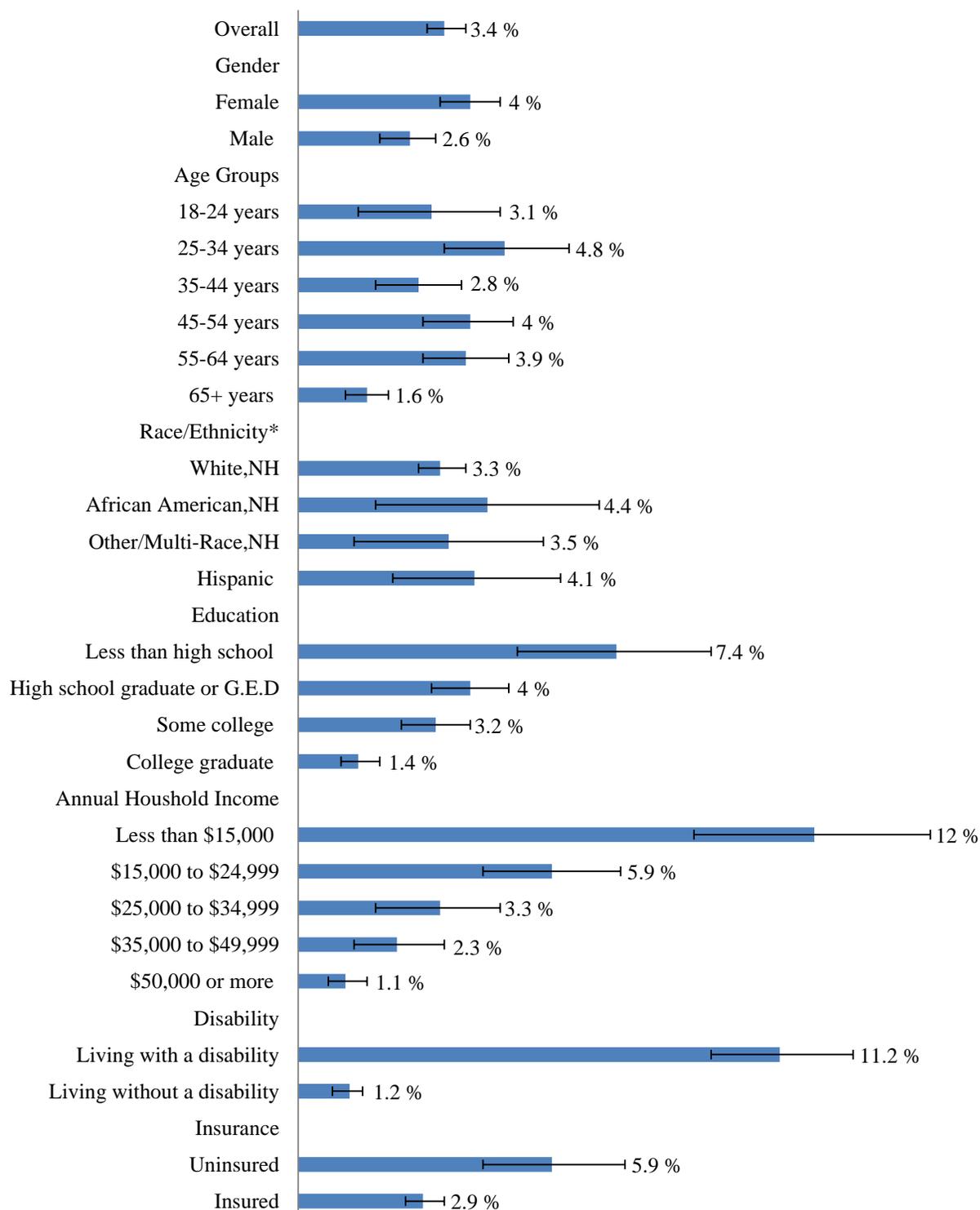
## Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Serious Psychological Distress, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	3.4	2.9-3.8
<b>Gender</b>		
Female	4	3.3-4.7
Male	2.6	2-3.3
<b>Age Groups</b>		
18-24 years	3.1	1.5-4.8
25-34 years	4.8	3.3-6.2
35-44 years	2.8	1.8-3.8
45-54 years	4	3-5.1
55-64 years	3.9	2.9-4.9
65+ years	1.6	1.1-2.1
<b>Race/Ethnicity*</b>		
White, NH	3.3	2.7-3.8
African-American, NH	4.4	1.8-7
Other/Multi-Race, NH	3.5	1.3-5.7
Hispanic	4.1	2.1-6
<b>Education</b>		
Less than high school	7.4	5.2-9.7
High school graduate or G.E.D	4	3.1-4.9
Some college	3.2	2.4-4
College graduate	1.4	0.9-1.8
<b>Annual Household Income</b>		
Less than \$15,000	12	9.3-14.8
\$15,000 to \$24,999	5.9	4.3-7.5
\$25,000 to \$34,999	3.3	1.9-4.8
\$35,000 to \$49,999	2.3	1.2-3.3
\$50,000 or more	1.1	0.6-1.5
<b>Disability</b>		
Living with a disability	11.2	9.5-12.8
Living without a disability	1.2	0.9-1.6
<b>Insurance</b>		
Uninsured	5.9	4.2-7.5
Insured	2.9	2.4-3.3

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Serious Psychological Distress, KS BRFSS 2013



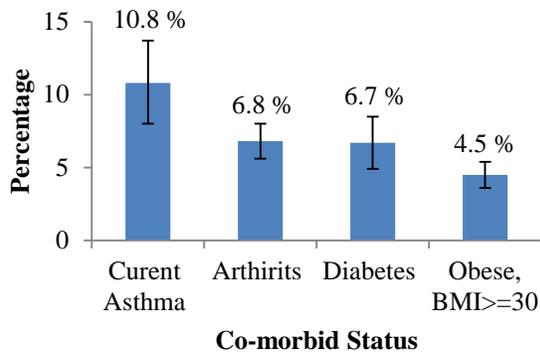
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Serious Psychological Distress, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	10.8	7.9-13.6
No	2.6	2.2-3.1
<b>Arthritis Status</b>		
Yes	6.8	5.6-8
No	2.2	1.7-2.7
<b>Diabetes Status</b>		
Yes	6.7	4.9-8.5
No	2.9	2.5-3.4
<b>Weight Category</b>		
Normal or Underweight, BMI<25	3.1	2.3-3.8
Overweight, 25<= BMI<30	2.6	1.9-3.3
Obese, BMI>=30	4.5	3.6-5.4

**Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Serious Psychological Distress, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with SPD was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Obese adults compared with overweight adults

**SUMMARY**

Approximately 3 percent of Kansas adults 18 years old and older were ever diagnosed with SPD. In addition, higher percentages of adults who were ever diagnosed with SPD were seen among: adults 25 to 34 years old, adults 45 to 64 years old, adults who did not graduate high school or receive a GED, adults with annual household income of less than \$15,000 uninsured adults, those with co-morbid conditions (current asthma, arthritis, diabetes or obesity) and adults living with a disability.

To address associated disparities with SPD, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Mental Health: Depression

Depression and anxiety are considered leading causes of mental health disorders. They are associated with increased risk of morbidity, mortality and poor quality of life.<sup>36</sup> Healthy People 2020 included mental health as a leading health indicator and an objective to reduce the proportion of adults 18 years old and older who experience major depressive episodes.

In 2013, approximately 1 in 6 Kansas adults 18 years old and older had ever been diagnosed with depression. The percentage of Kansas adults 18 years old and older who were ever diagnosed with depression was significantly **higher** among:

- Females compared with males
- Adults 25 to 64 years old compared with adults 65 years old and older.
- Non-Hispanic whites compared with Hispanics (age-adjusted prevalence)
- Adults who did not graduate high school or receive a GED or did not graduate college compared with college graduates
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability

The percentage of Kansas adults 18 years old and older who were ever diagnosed with depression did not differ significantly by insurance status.

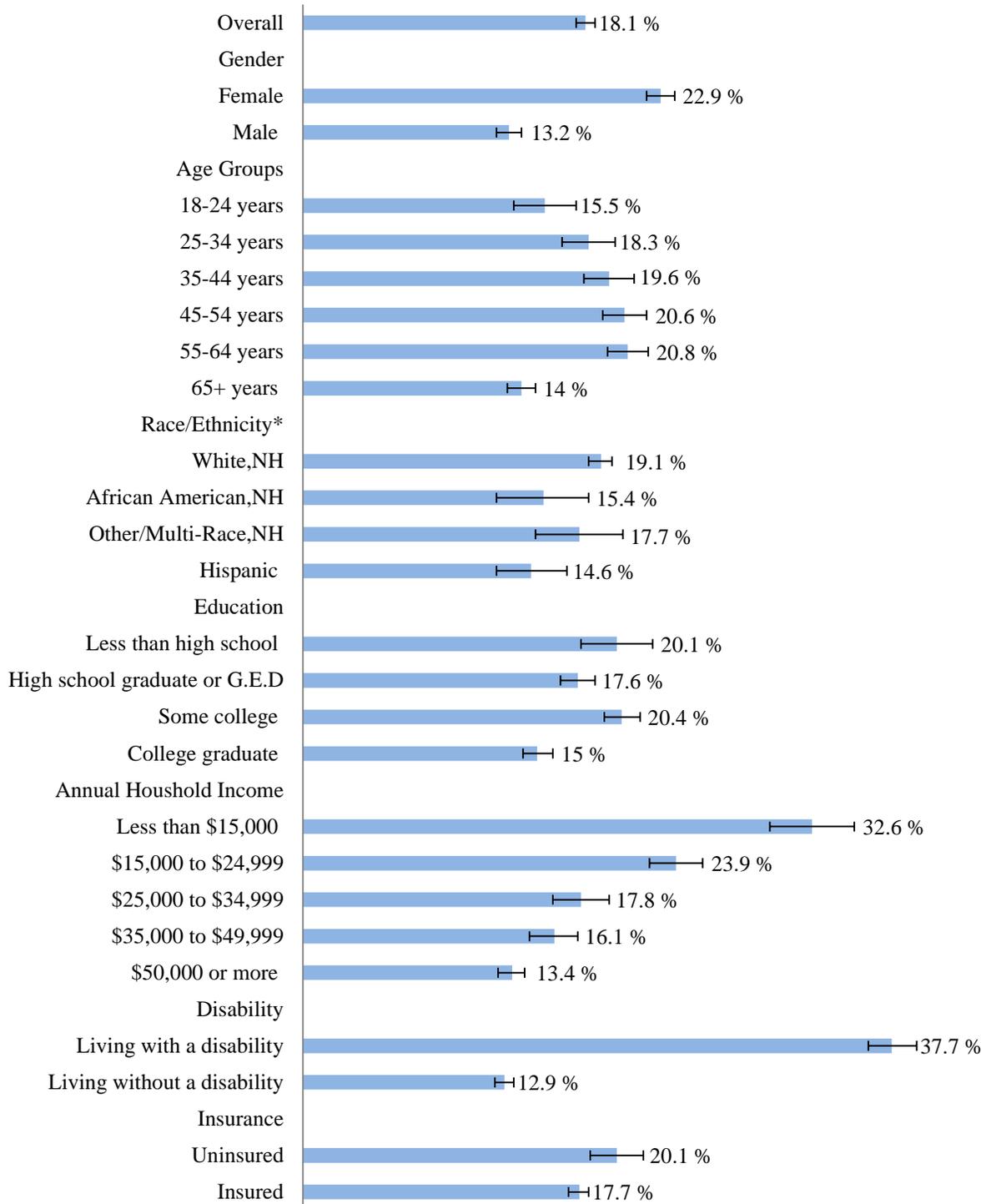
### Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Depression, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	18.1	17.5-18.7
<b>Gender</b>		
Female	22.9	22-23.8
Male	13.2	12.4-14
<b>Age Groups</b>		
18-24 years	15.5	13.5-17.5
25-34 years	18.3	16.6-20
35-44 years	19.6	18-21.2
45-54 years	20.6	19.2-22
55-64 years	20.8	19.5-22.1
65+ years	14	13.1-14.9
<b>Race/Ethnicity*</b>		
White, NH	19.1	18.4-19.9
African-American, NH	15.4	12.5-18.4
Other/Multi-Race, NH	17.7	14.9-20.5
Hispanic	14.6	12.3-16.8
<b>Education</b>		
Less than high school	20.1	17.8-22.4
High school graduate or G.E.D	17.6	16.5-18.7
Some college	20.4	19.2-21.5
College graduate	15	14-15.9
<b>Annual Household Income</b>		
Less than \$15,000	32.6	29.9-35.3
\$15,000 to \$24,999	23.9	22.2-25.6
\$25,000 to \$34,999	17.8	16-19.6
\$35,000 to \$49,999	16.1	14.6-17.7
\$50,000 or more	13.4	12.6-14.3
<b>Disability</b>		
Living with a disability	37.7	36.1-39.2
Living without a disability	12.9	12.3-13.5
<b>Insurance</b>		
Uninsured	20.1	18.4-21.8
Insured	17.7	17.1-18.4

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Depression, KS BRFSS 2013



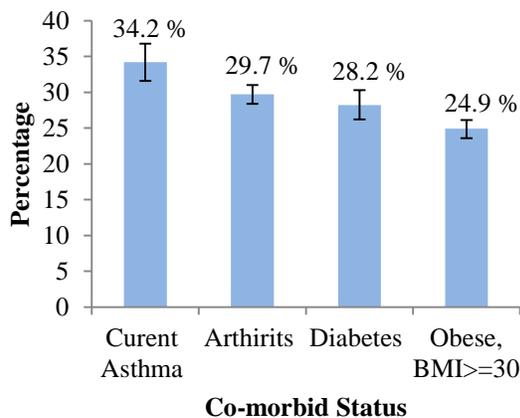
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Depression, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	34.2	31.6-36.8
No	16.4	15.8-17
<b>Arthritis Status</b>		
Yes	29.7	28.4-31
No	14.5	13.8-15.1
<b>Diabetes Status</b>		
Yes	28.2	26.1-30.2
No	17	16.4-17.7
<b>Weight Category</b>		
Normal or Underweight, BMI<25	15.3	14.3-16.3
Overweight, 25<= BMI<30	15.7	14.8-16.7
Obese, BMI>=30	24.9	23.7-26.2

**Percentage of Adults 18 Years Old and Older Who Were Ever Diagnosed With Depression, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with depression was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were normal weight, underweight or overweight

**SUMMARY**

Approximately 18 percent of Kansas adults 18 years old and older have ever been diagnosed with depression. In addition, higher percentages of adults who have ever been diagnosed with depression were seen among: females, adults 25 to 64 years old, non-Hispanic whites, adults with less than a high school, high school graduates, adults with some college education, adults with lower annual household income, adults with co-morbid conditions (current asthma, arthritis, diabetes or obesity) and those living with a disability.

To address high prevalence of depression and associated disparities among adults 18 years old and older, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Reproductive & Sexual Health: HIV Testing

CDC recommends that health care providers test everyone between the ages of 13 and 64 years at least once as part of routine health care.<sup>37</sup> In the U.S., 1 out of 6 people with HIV do not know they are infected.<sup>33</sup> HIV continues to be a major public health issue. Approximately 1.1 million Americans are living with HIV.<sup>38</sup> A leading Healthy People 2020 objective is to increase the proportion of persons who have been tested for HIV in the past 12 months.

In 2013, approximately 9 in 10 Kansas adults 18 to 64 years old did not have an HIV test in the past year. The percentage of Kansas adults 18 to 64 years old who did not have an HIV test in the past year was significantly **higher** among:

- Adults 45 years old and older compared with adults in the younger age groups
- Non-Hispanic whites, non-Hispanic other/multi-race adults and Hispanics compared with non-Hispanic African-Americans (age-adjusted prevalence)
- College graduates compared with adults with a high school degree or GED or some college education
- Adults with annual household income of \$25,000 or more compared with adults in with an annual household income of less than \$15,000
- Adults not living with a disability compared with adults living with a disability

The percentage of Kansas adults 18 to 64 years old who did not have an HIV test in the past year did not differ significantly by gender and insurance status.

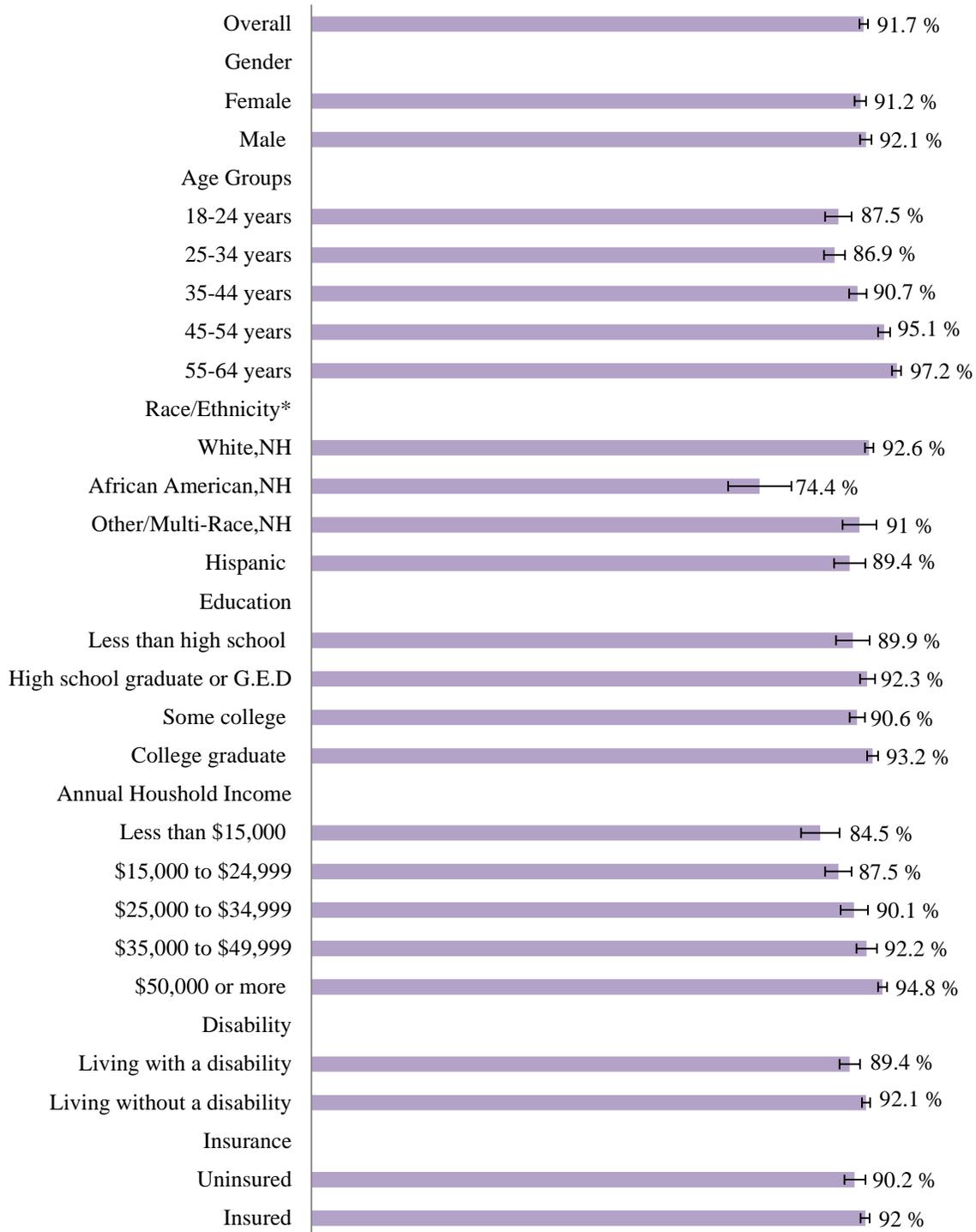
### Percentage of Adults 18 to 64 Years Old Who Did Not Have a HIV Test in the Past Year, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	91.7	91-92.4
<b>Gender</b>		
Female	91.2	90.3-92.2
Male	92.1	91.2-93.1
<b>Age Groups</b>		
18-24 years	87.5	85.3-89.7
25-34 years	86.9	85.2-88.7
35-44 years	90.7	89.2-92.1
45-54 years	95.1	94.1-96.1
55-64 years	97.2	96.5-98
<b>Race/Ethnicity*</b>		
White, NH	92.6	91.9-93.3
African-American, NH	74.4	69.1-79.6
Other/Multi-Race, NH	91	88.2-93.8
Hispanic	89.4	86.8-92
<b>Education</b>		
Less than high school	89.9	87.1-92.7
High school graduate or G.E.D	92.3	91-93.5
Some college	90.6	89.3-91.8
College graduate	93.2	92.3-94.1
<b>Annual Household Income</b>		
Less than \$15,000	84.5	81.3-87.7
\$15,000 to \$24,999	87.5	85.3-89.7
\$25,000 to \$34,999	90.1	87.8-92.3
\$35,000 to \$49,999	92.2	90.5-93.9
\$50,000 or more	94.8	94-95.5
<b>Disability</b>		
Living with a disability	89.4	87.7-91.1
Not Living with a disability	92.1	91.4-92.8
<b>Insurance</b>		
Uninsured	90.2	88.4-91.9
Insured	92	91.3-92.8

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 to 64 Years Old Who Did Not Have a HIV Test in the Past Year, KS BRFSS 2013



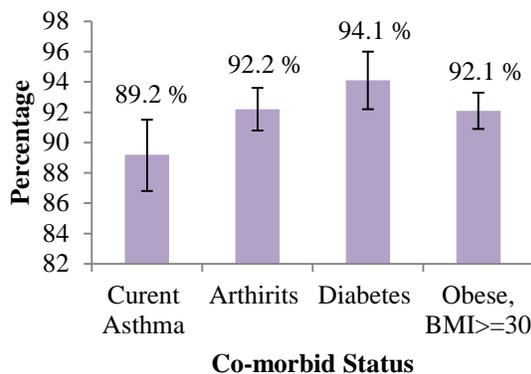
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 to 64 Years Old Who Have Been Tested for HIV in the Past Year, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	89.2	86.9-91.6
No	91.9	91.2-92.6
<b>Arthritis Status</b>		
Yes	92.2	90.8-93.6
No	91.6	90.8-92.3
<b>Diabetes Status</b>		
Yes	94.1	92.2-96
No	91.6	90.9-92.2
<b>Weight Category</b>		
Normal or Underweight, BMI<25	91.4	90.2-92.6
Overweight, 25<= BMI<30	92.2	91.1-93.4
Obese, BMI>=30	92.1	90.9-93.3

**Percentage of Adults 18 to 64 Years Old Who Did Not Have a HIV Test in the Past Year, by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 to 64 years old who did not have an HIV test in the past year did not differ significantly by current asthma, arthritis, diabetes or weight status.

**SUMMARY**

Approximately 92 percent of Kansas adults 18 to 64 years old did not have an HIV test in the past year. In addition, higher percentages of adults who did not have an HIV test in the past year were seen among: adults 45 years old and older, non-Hispanic whites, non-Hispanic other/multi-race adults, Hispanics, college graduates, adults with annual household income of \$25,000 or more and adults not living with a disability.

A Leading Healthy People 2020 objective is to increase the proportion of persons who have been tested for HIV in the past 12 months. To address low percentages of HIV testing among adults 18 to 64 years old in the population and in subgroups, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Diabetes

Diabetes is the seventh leading cause of death in the U.S.<sup>39</sup> Diabetes is a major cause of heart disease and stroke, and the leading cause of kidney failure, non-traumatic lower limb amputations, and new cases of blindness among adults in the U.S.<sup>39</sup> The Healthy People 2020 goal for diabetes is to reduce the disease and economic burden of diabetes mellitus and improve the quality of life for all persons who have, or are at risk for diabetes mellitus.

In 2013, approximately 1 in 10 Kansas adults 18 years old and older had ever been diagnosed with diabetes. The percentage of Kansas adults 18 years old and older who were ever diagnosed with diabetes was significantly **higher** among:

- Older adults compared with younger adults
- Non-Hispanic African-Americans, other/multi-race adults and Hispanics compared with non-Hispanics whites (age-adjusted prevalence)
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

The percentage of Kansas adults 18 years old and older who were ever diagnosed with diabetes did not differ significantly by gender groups.

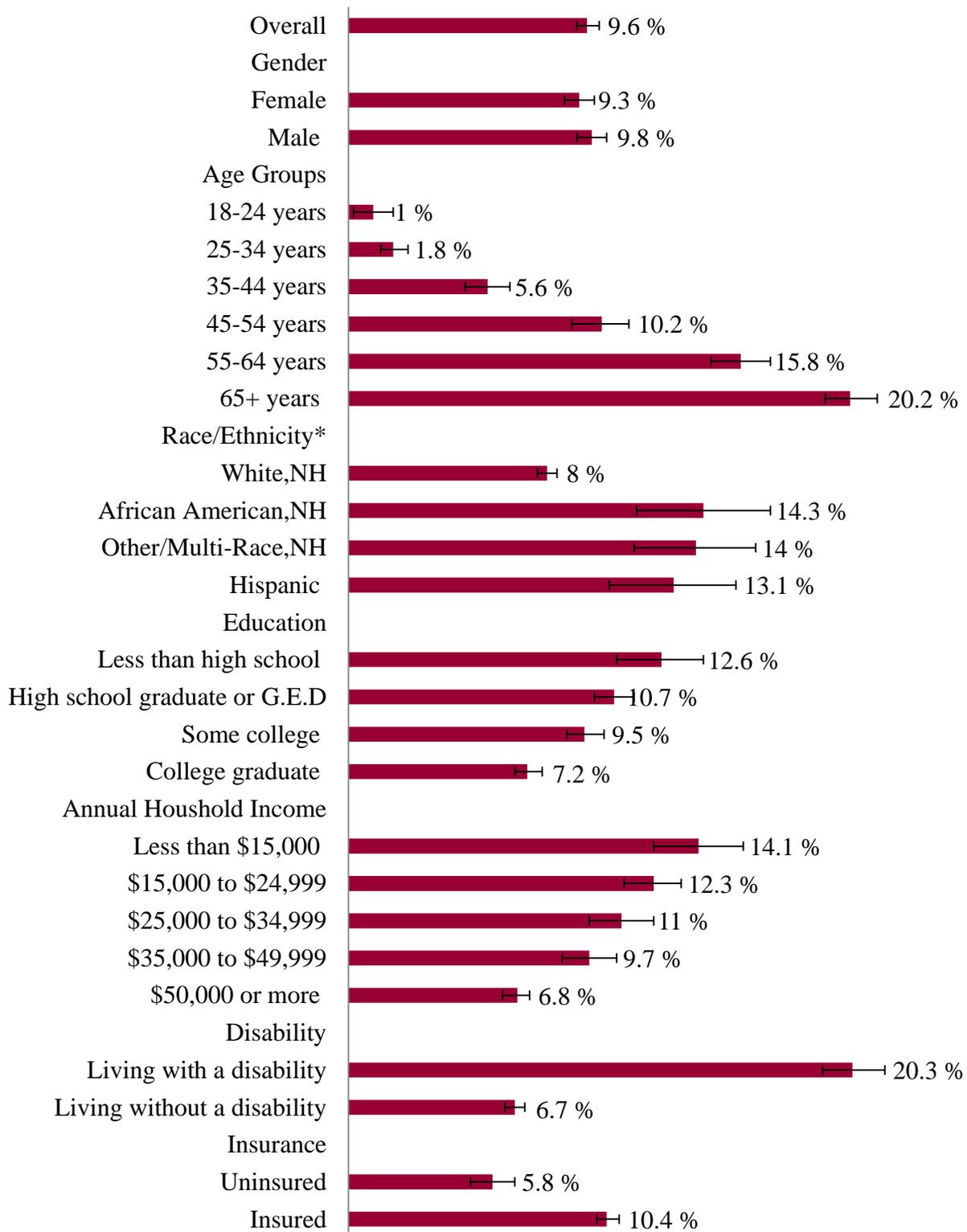
### Percentage of Adults 18 Years Old and Older With Diagnosed Diabetes, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	9.6	9.1-10
<b>Gender</b>		
Female	9.3	8.7-9.9
Male	9.8	9.2-10.4
<b>Age Groups</b>		
18-24 years	1	0.2-1.8
25-34 years	1.8	1.2-2.3
35-44 years	5.6	4.7-6.5
45-54 years	10.2	9.1-11.4
55-64 years	15.8	14.6-17
65+ years	20.2	19.1-21.2
<b>Race/Ethnicity*</b>		
White, NH	8	7.6-8.4
African-American, NH	14.3	11.6-17
Other/Multi-Race, NH	14	11.6-16.5
Hispanic	13.1	10.6-15.7
<b>Education</b>		
Less than high school	12.6	10.9-14.4
High school graduate or G.E.D	10.7	9.9-11.5
Some college	9.5	8.7-10.2
College graduate	7.2	6.6-7.7
<b>Annual Household Income</b>		
Less than \$15,000	14.1	12.3-15.9
\$15,000 to \$24,999	12.3	11.2-13.5
\$25,000 to \$34,999	11	9.7-12.3
\$35,000 to \$49,999	9.7	8.6-10.8
\$50,000 or more	6.8	6.3-7.4
<b>Disability</b>		
Living with a disability	20.3	19-21.5
Living without a disability	6.7	6.3-7.1
<b>Insurance</b>		
Uninsured	5.8	4.9-6.7
Insured	10.4	9.9-10.8

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Diabetes, KS BRFSS 2013



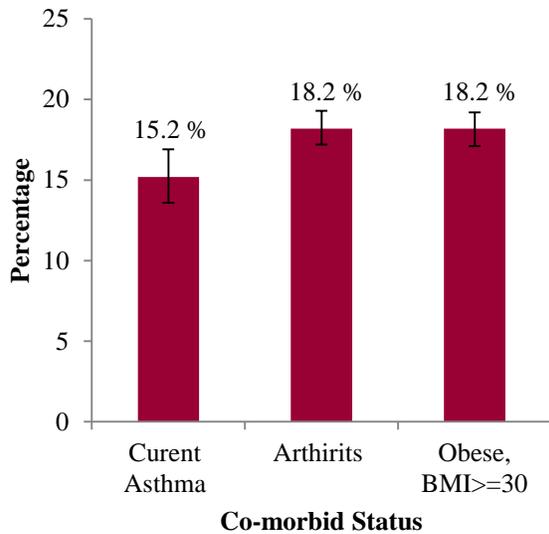
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed Diabetes by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	15.2	13.5-16.8
No	9	8.6-9.5
<b>Arthritis Status</b>		
Yes	18.2	17.1-19.2
No	6.8	6.4-7.2
<b>Weight Category</b>		
Normal or Underweight, BMI<25	3.7	3.2-4.2
Overweight, 25<= BMI<30	8.3	7.6-9
Obese, BMI>=30	18.2	17.2-19.3

**Percentage of Adults 18 Years Old and Older with Diagnosed Diabetes by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with diabetes was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults who were obese compared with those who were overweight or normal/underweight

**SUMMARY**

Approximately 10 percent of Kansas adults 18 years old and older have ever been diagnosed with diabetes. In addition, higher percentages of adults who have ever been diagnosed with diabetes were seen among: older adults, non-Hispanic African-Americans, other/multi-race adults; Hispanics, those with lower education and annual household income, those with insurance, those with chronic health conditions (current asthma; arthritis or obesity) and those living with a disability.

To reduce prevalence of diabetes among adults 18 years old and older and to address associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Pre-Diabetes

A person with pre-diabetes is at a higher risk for developing type 2 diabetes or other serious health problems.<sup>40</sup> It is estimated that 15 to 30 percent of people with pre-diabetes will develop type 2 diabetes without any lifestyle changes within five years.<sup>40</sup> Pre-diabetes is defined as those who answered “pre-diabetes or borderline diabetes” to the question “have you ever been told that you have diabetes?” The Healthy People 2020 goal is to reduce pre-diabetes and the economic burden of diabetes mellitus and improve the quality of life for all persons who have or at risk for diabetes mellitus.<sup>13</sup>

In 2013, approximately 1 in 14 Kansas adults 18 years old and older had ever been diagnosed with pre-diabetes. The percentage of Kansas adults who were ever diagnosed with pre-diabetes was significantly **higher** among:

- Adults ages 45 years and older compared with adults to 44 years old and younger
- Adults with some college compared with college graduates
- Adults living with a disability compared with adults living without a disability

The percentage of Kansas adults 18 years old and older who were ever diagnosed with pre-diabetes did not differ significantly by gender, race/ethnicity (age-adjusted prevalence), annual household income or insurance status.

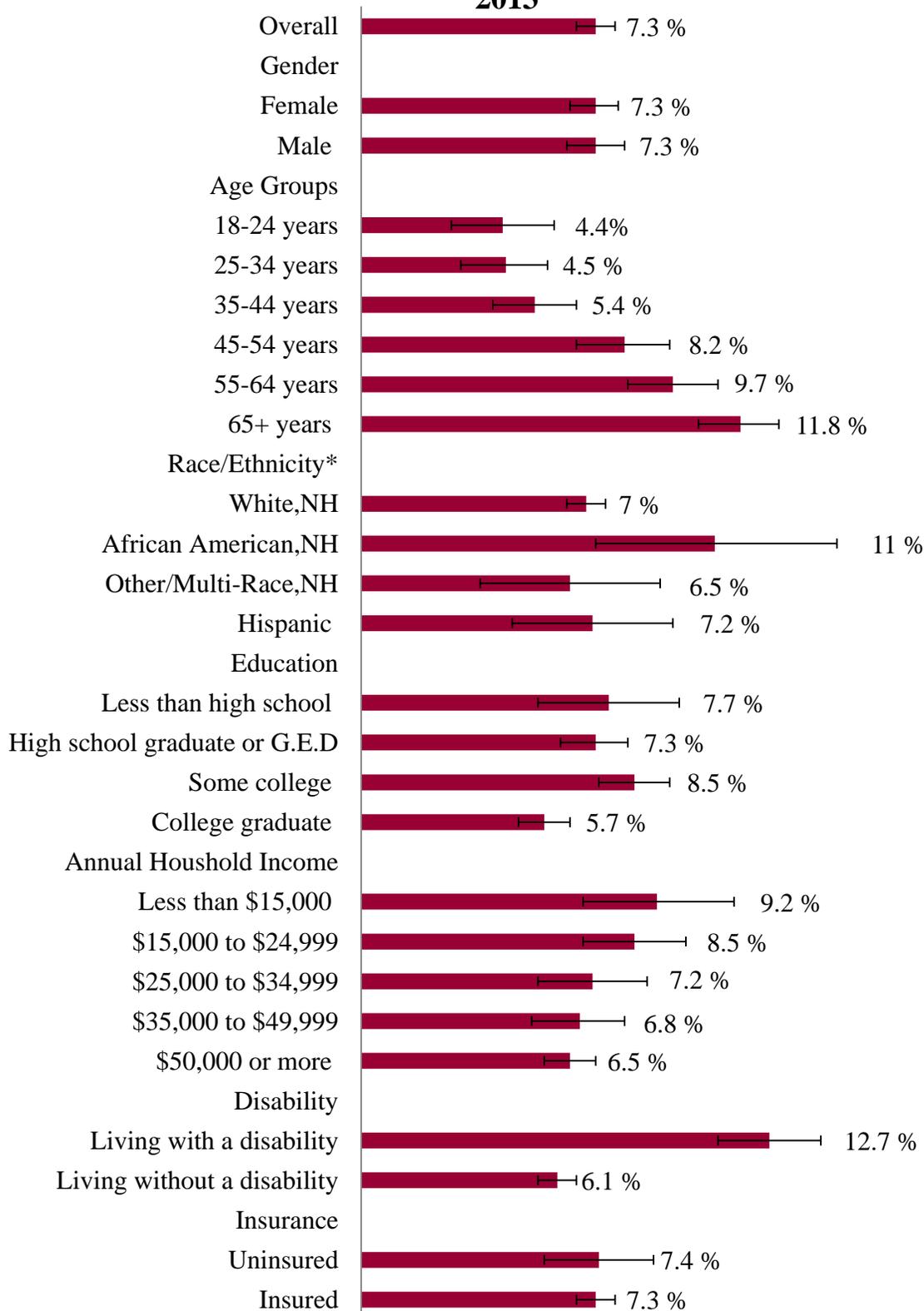
### Percentage of Adults 18 Years Old and Older with Diagnosed Pre-Diabetes or Borderline Diabetes, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	7.3	6.7-7.9
<b>Gender</b>		
Female	7.3	6.6-8.1
Male	7.3	6.4-8.2
<b>Age Groups</b>		
18-24 years	4.4	2.8-6
25-34 years	4.5	3.2-5.9
35-44 years	5.4	4.1-6.7
45-54 years	8.2	6.8-9.7
55-64 years	9.7	8.3-11.1
65+ years	11.8	10.6-13.1
<b>Race/Ethnicity*</b>		
White, NH	7	6.4-7.6
African-American, NH	11	7.2-14.7
Other/Multi-Race, NH	6.5	3.7-9.3
Hispanic	7.2	4.7-9.7
<b>Education</b>		
Less than high school	7.7	5.5-9.9
High school graduate or G.E.D	7.3	6.3-8.4
Some college	8.5	7.4-9.6
College graduate	5.7	4.9-6.5
<b>Annual Household Income</b>		
Less than \$15,000	9.2	6.8-11.5
\$15,000 to \$24,999	8.5	6.9-10.1
\$25,000 to \$34,999	7.2	5.5-8.9
\$35,000 to \$49,999	6.8	5.4-8.3
\$50,000 or more	6.5	5.7-7.3
<b>Disability</b>		
Living with a disability	12.7	11.1-14.3
Living without a disability	6.1	5.5-6.7
<b>Insurance</b>		
Uninsured	7.4	5.7-9.1
Insured	7.3	6.7-7.9

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Pre-Diabetes or Borderline Diabetes, KS BRFSS 2013



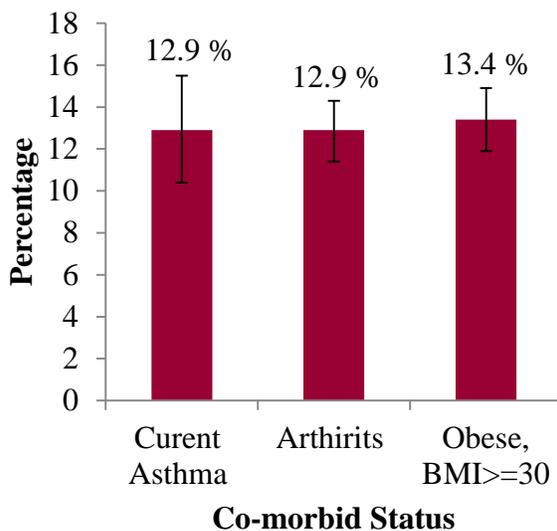
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older with Diagnosed Pre-Diabetes or Borderline Diabetes by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	12.9	10.3-15.4
No	6.8	6.2-7.3
<b>Arthritis Status</b>		
Yes	12.9	11.5-14.4
No	5.7	5.1-6.3
<b>Weight Category</b>		
Normal or Underweight, BMI<25	3.1	2.5-3.8
Overweight, 25<= BMI<30	6.7	5.8-7.6
Obese, BMI>=30	13.4	11.9-14.9

**Percentage of Adults 18 Years Old and Older with Diagnosed Pre-Diabetes or Borderline Diabetes by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with pre-diabetes was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults who were obese compared with those who were normal weight or underweight and overweight

**SUMMARY**

Approximately 7 percent of Kansas adults have ever been diagnosed with pre-diabetes. In addition, higher percentages of adults who have ever been diagnosed with pre-diabetes were seen among: adults 45 years old and older, adults with some college, those with chronic health conditions (current asthma; arthritis or obesity) and those living with a disability.

To address associated disparities with pre-diabetes, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Hypertension

One of the leading modifiable risk factors for heart disease and stroke is hypertension.<sup>41</sup> Adults with hypertension are at higher risk for heart disease, stroke, congestive heart failure and end-stage renal disease.<sup>41</sup> The Healthy People 2020 goal is to reduce the proportion of adults with hypertension.

In 2013, about 1 in 3 Kansas adults 18 years old and older had ever been diagnosed with hypertension. The percentage of Kansas adults 18 years old and older who were ever diagnosed with hypertension was significantly **higher** among:

- Males compared with females
- Older adults compared with younger adults
- Non-Hispanic African-Americans compared with all other race/ethnicity groups (age-adjusted prevalence).
- High school graduates or adults with a GED compared with adults with some college and college graduates
- Adults with an annual household income of \$49,999 or less compared with adults in an annual household income of \$50,000 or more
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

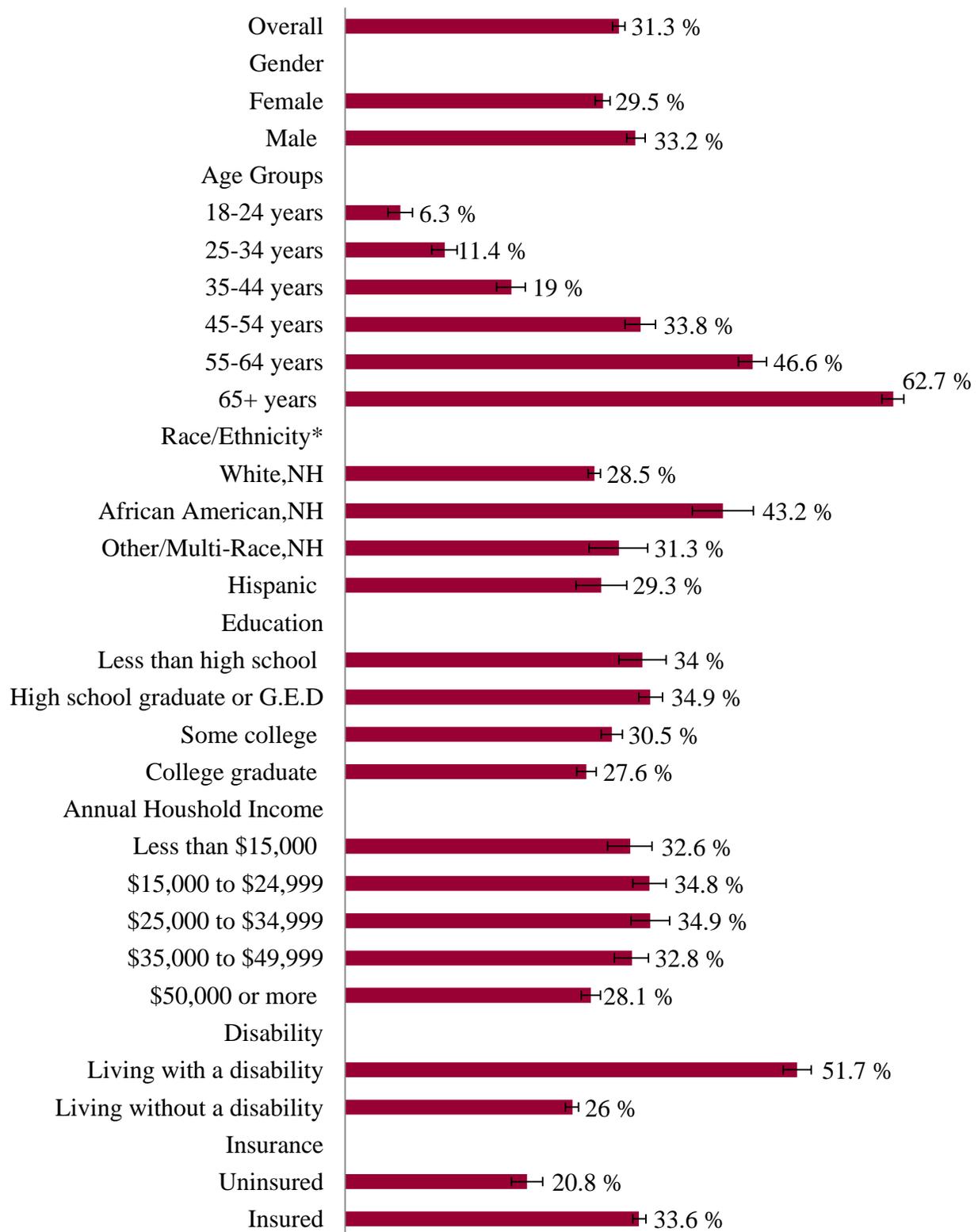
### Percentage of Adults 18 Years Old and Older with Diagnosed Hypertension, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	31.3	30.6-32
<b>Gender</b>		
Female	29.5	28.7-30.4
Male	33.2	32.1-34.2
<b>Age Groups</b>		
18-24 years	6.3	4.9-7.7
25-34 years	11.4	10-12.9
35-44 years	19	17.4-20.7
45-54 years	33.8	32.1-35.6
55-64 years	46.6	45-48.2
65+ years	62.7	61.5-64
<b>Race/Ethnicity*</b>		
White, NH	28.5	27.8-29.2
African-American, NH	43.2	39.7-46.7
Other/Multi-Race, NH	31.3	28-34.7
Hispanic	29.3	26.4-32.2
<b>Education</b>		
Less than high school	34	31.3-36.7
High school graduate or G.E.D	34.9	33.5-36.2
Some college	30.5	29.3-31.7
College graduate	27.6	26.5-28.7
<b>Annual Household Income</b>		
Less than \$15,000	32.6	30.1-35.2
\$15,000 to \$24,999	34.8	32.9-36.7
\$25,000 to \$34,999	34.9	32.7-37.1
\$35,000 to \$49,999	32.8	30.9-34.8
\$50,000 or more	28.1	27-29.2
<b>Disability</b>		
Living with a disability	51.7	50.1-53.3
Living without a disability	26	25.3-26.8
<b>Insurance</b>		
Uninsured	20.8	19-22.6
Insured	33.6	32.8-34.3

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Hypertension, KS BRFSS 2013



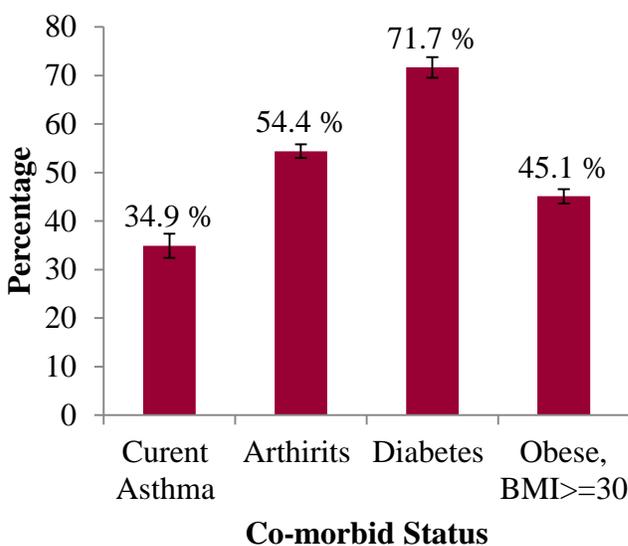
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed Hypertension by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	34.9	32.4-37.4
No	31	30.3-31.7
<b>Arthritis Status</b>		
Yes	54.4	53-55.8
No	24	23.2-24.8
<b>Diabetes Status</b>		
Yes	71.7	69.6-73.9
No	27	26.4-27.7
<b>Weight Category</b>		
Normal or Underweight, BMI<25	19.1	18.1-20.1
Overweight, 25<= BMI<30	32.6	31.4-33.9
Obese, BMI>=30	45.1	43.6-46.6

**Percentage of Adults 18 Years Old and Older with Diagnosed Hypertension by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with hypertension was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were normal weight/underweight or overweight
- Overweight adults compared with normal or underweight adults

**SUMMARY**

About 31 percent of Kansas adults 18 years old and older have ever been diagnosed with hypertension. In addition, higher percentages of adults who have ever been diagnosed with hypertension were seen among: males, older adults, non-Hispanic African-Americans, high school graduates/GED, adults with an annual household income of \$49,999 or less, adults with insurance, those with chronic health conditions (current asthma, arthritis, diabetes, obesity or overweight) and those living with a disability.

The Healthy People 2020 objective is to reduce the proportion of adults with hypertension to 26.9 percent. Further public health efforts are needed to reach the objective and to address disparities in population subgroups in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Asthma

Asthma is a huge public health issue. It affects not only the individual but also their families, schools, neighborhoods, cities and states. The cost of asthma also affects the health care system since the annual health care expenditures for asthma are estimated at \$20.7 billion.<sup>42</sup> The Healthy People 2020 goal for asthma is to reduce the disease, death and economic burden, and improve the quality of life for all persons with asthma.

In 2013, approximately 1 in 10 Kansas adults 18 years old and older had been diagnosed with current asthma. The percentage of Kansas adults 18 years old and older who were diagnosed with current asthma was significantly **higher** among:

- Females compared with males
- Non-Hispanic African-Americans compared with Hispanics (age-adjusted prevalence)
- Adults who did not graduate high school/GED compared with all other education groups
- Adults with annual household incomes of less than \$15,000 compared with adults in all higher income groups
- Adults with annual household incomes of \$15,000-\$24,999 compared with adults with an annual household income of \$50,000 or more
- Adults living with a disability compared with adults living without a disability

The percentage of Kansas adults 18 years old and older who were diagnosed with current asthma did not differ significantly by age groups or insurance status.

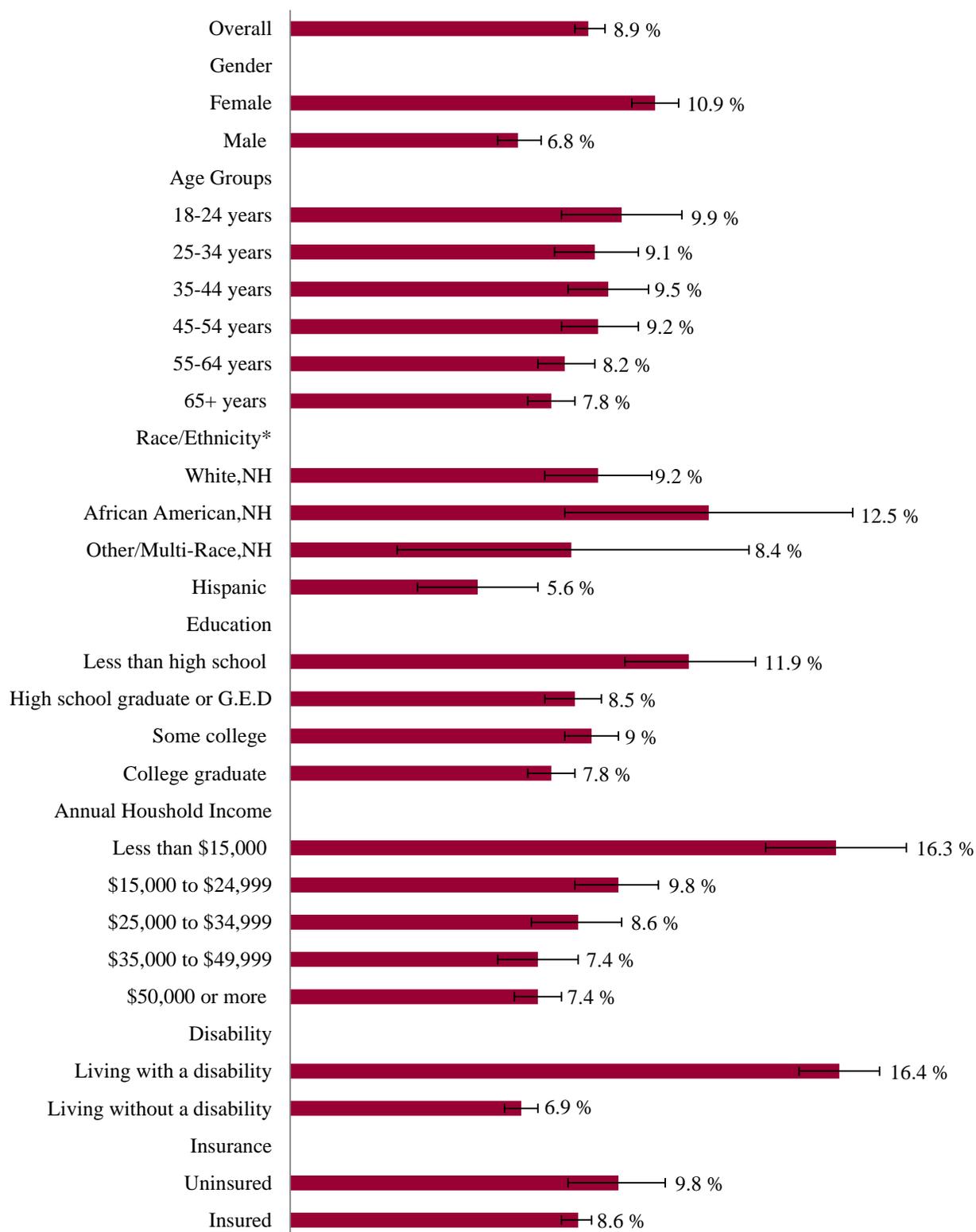
### Percentage of Adults 18 Years Old and Older With Current Asthma, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	8.9	8.4-9.3
<b>Gender</b>		
Female	10.9	10.2-11.6
Male	6.8	6.1-7.4
<b>Age Groups</b>		
18-24 years	9.9	8.1-11.7
25-34 years	9.1	7.8-10.3
35-44 years	9.5	8.3-10.7
45-54 years	9.2	8-10.3
55-64 years	8.2	7.3-9
65+ years	7.8	7.1-8.5
<b>Race/Ethnicity*</b>		
White, NH	9.2	7.6-10.8
African-American, NH	12.5	8.2-16.8
Other/Multi-Race, NH	8.4	3.1-13.6
Hispanic	5.6	3.8-7.4
<b>Education</b>		
Less than high school	11.9	9.9-13.8
High school graduate or G.E.D	8.5	7.7-9.4
Some college	9	8.2-9.8
College graduate	7.8	7.1-8.5
<b>Annual Household Income</b>		
Less than \$15,000	16.3	14.2-18.4
\$15,000 to \$24,999	9.8	8.6-11.1
\$25,000 to \$34,999	8.6	7.3-10
\$35,000 to \$49,999	7.4	6.2-8.6
\$50,000 or more	7.4	6.7-8.1
<b>Disability</b>		
Living with a disability	16.4	15.2-17.6
Living without a disability	6.9	6.4-7.4
<b>Insurance</b>		
Uninsured	9.8	8.4-11.3
Insured	8.6	8.2-9.1

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Current Asthma, KS BRFSS 2013



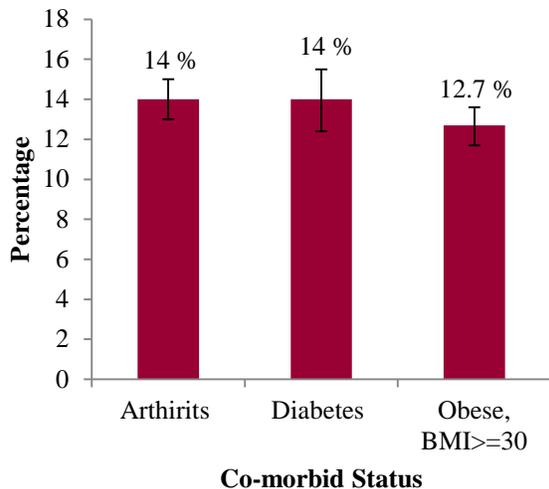
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Current Asthma by co-morbid conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Arthritis Status</b>		
Yes	14	13-15
No	7.3	6.8-7.8
<b>Diabetes Status</b>		
Yes	14	12.5-15.6
No	8.3	7.8-8.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	7.5	6.7-8.4
Overweight, 25<= BMI<30	6.9	6.2-7.7
Obese, BMI>=30	12.7	11.8-13.7

**Percentage of Adults 18 Years Old and Older with Current Asthma by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were diagnosed with current asthma was significantly **higher** among:

- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were overweight and normal/underweight

**SUMMARY**

About 9 percent of Kansas adults 18 years old and older have been diagnosed with current asthma. In addition, higher percentages of adults who have been diagnosed with current asthma were seen among: females, non-Hispanic African-Americans, adults who did not graduate high school/GED, adults with annual household incomes of less than \$24,999, those with chronic health conditions (arthritis, diabetes or obesity) and those living with a disability.

To address overall burden of current asthma and associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Arthritis

Arthritis is the most common cause of disability.<sup>43</sup> In 2003 the U.S. total attributable cost for arthritis and other rheumatic conditions was about \$128 billion (\$80.8 as direct cost that is medical expenditures and \$47.1 billion were indirect cost that is loss of earnings).<sup>44</sup> Arthritis includes people who have ever been told they have some form of arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia. The Healthy People 2020 goal for arthritis is to reduce the disease and economic burden, and improve the quality of life for all persons with arthritis.

In 2013, approximately 1 in 4 Kansas adults 18 years old and older had diagnosed arthritis. The percentage of Kansas adults 18 years old and older who were diagnosed with arthritis was significantly **higher** among:

- Females compared with males.
- Older adults compared with younger adults.
- Non-Hispanic African-Americans, non-Hispanic whites, and non-Hispanic other/multi-race adults compared with Hispanics (age-adjusted prevalence)
- Adults with lower education compared with college graduates
- Adults with lower annual household incomes compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

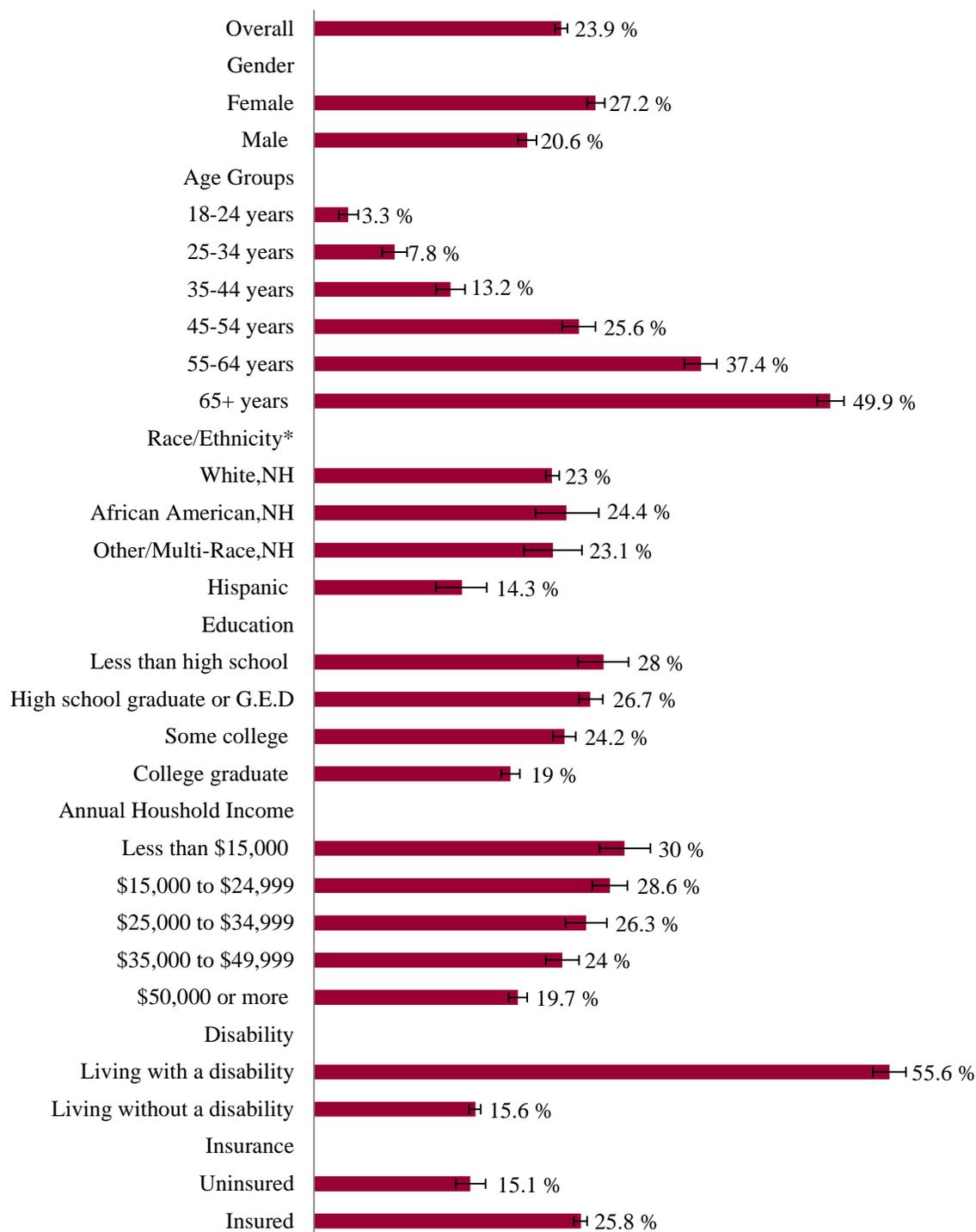
### Percentage of Adults 18 Years Old and Older Diagnosed With Some Form of Arthritis, Rheumatoid Arthritis, Gout, Lupus or Fibromyalgia, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	23.9	23.3-24.5
<b>Gender</b>		
Female	27.2	26.3-28
Male	20.6	19.7-21.5
<b>Age Groups</b>		
18-24 years	3.3	2.3-4.2
25-34 years	7.8	6.6-9
35-44 years	13.2	11.8-14.6
45-54 years	25.6	24-27.2
55-64 years	37.4	35.9-39
65+ years	49.9	48.6-51.2
<b>Race/Ethnicity*</b>		
White, NH	23	22.3-23.6
African-American, NH	24.4	21.3-27.4
Other/Multi-Race, NH	23.1	20.3-25.9
Hispanic	14.3	11.9-16.8
<b>Education</b>		
Less than high school	28	25.6-30.5
High school graduate or G.E.D	26.7	25.5-27.8
Some college	24.2	23.1-25.3
College graduate	19	18.1-19.9
<b>Annual Household Income</b>		
Less than \$15,000	30	27.5-32.4
\$15,000 to \$24,999	28.6	26.9-30.3
\$25,000 to \$34,999	26.3	24.3-28.3
\$35,000 to \$49,999	24	22.4-25.6
\$50,000 or more	19.7	18.8-20.6
<b>Disability</b>		
Living with a disability	55.6	54-57.2
Living without a disability	15.6	15.1-16.2
<b>Insurance</b>		
Uninsured	15.1	13.6-16.5
Insured	25.8	25.2-26.5

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Diagnosed with Some Form of Arthritis, Rheumatoid Arthritis, Gout, Lupus or Fibromyalgia, KS BRFSS 2013



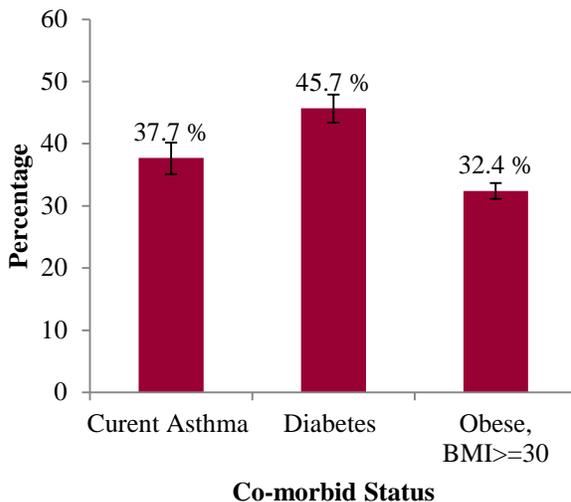
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Diagnosed With Some Form of Arthritis, Rheumatoid Arthritis, Gout, Lupus or Fibromyalgia by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma</b>		
Yes	37.7	35.2-40.3
No	22.6	22-23.2
<b>Diabetes Status</b>		
Yes	45.7	43.5-48
No	21.6	21-22.3
<b>Weight Category</b>		
Normal or Underweight, BMI<25	18.3	17.4-19.3
Overweight, 25<= BMI<30	23.6	22.6-24.7
Obese, BMI>=30	32.4	31.1-33.7

**Percentage of Adults 18 Years Old and Older Diagnosed with Some Form of Arthritis, Rheumatoid Arthritis, Gout, Lupus or Fibromyalgia by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were diagnosed with arthritis was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with diabetes compared with those without diabetes
- Adults who were obese or overweight compared with those who were normal/underweight

**SUMMARY**

Approximately 24 percent of Kansas adults 18 years old and older have been diagnosed with arthritis. In addition, higher percentages of adults who have ever been diagnosed with arthritis were seen among: females, older adults, those with lower education, those with a lower annual household income, non-Hispanic African-Americans, non-Hispanic whites, non-Hispanic other/multi race adults, those with insurance, those with chronic health conditions (current asthma, diabetes or obesity) and those living with a disability.

To address high prevalence of arthritis and associated disparities in population subgroups, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Heart Disease

In 2013, the second leading cause of death among Kansans was heart disease.<sup>12</sup> Heart disease refers to several different types of heart conditions, the most common being coronary artery disease.<sup>45</sup> Coronary artery disease can cause heart attacks, angina and heart failure.<sup>45</sup> In the U.S., coronary heart disease costs \$108.9 billion each year.<sup>46</sup> One Healthy People 2020 goal for heart disease is to increase overall cardiovascular health in the U.S. population.

In 2013, approximately 1 in 25 Kansas adults 18 years old and older had ever been diagnosed with heart disease. The percentage of Kansas adults 18 years old and older that had ever been diagnosed with heart disease was significantly **higher** among:

- Males compared with females
- Older adults compared with younger adults
- Adults with lower education compared with adults in higher education groups
- Adults with an annual household income of less than \$24,999 compared with adults with an annual household income of \$35,000 or more
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

The percentage of Kansas adults 18 years old and older who had ever been diagnosed with heart disease did not differ significantly by race/ groups (age-adjusted prevalence).

### Percentage of Adults 18 Years Old and Older With Diagnosed Heart Disease, KS BRFSS 2013

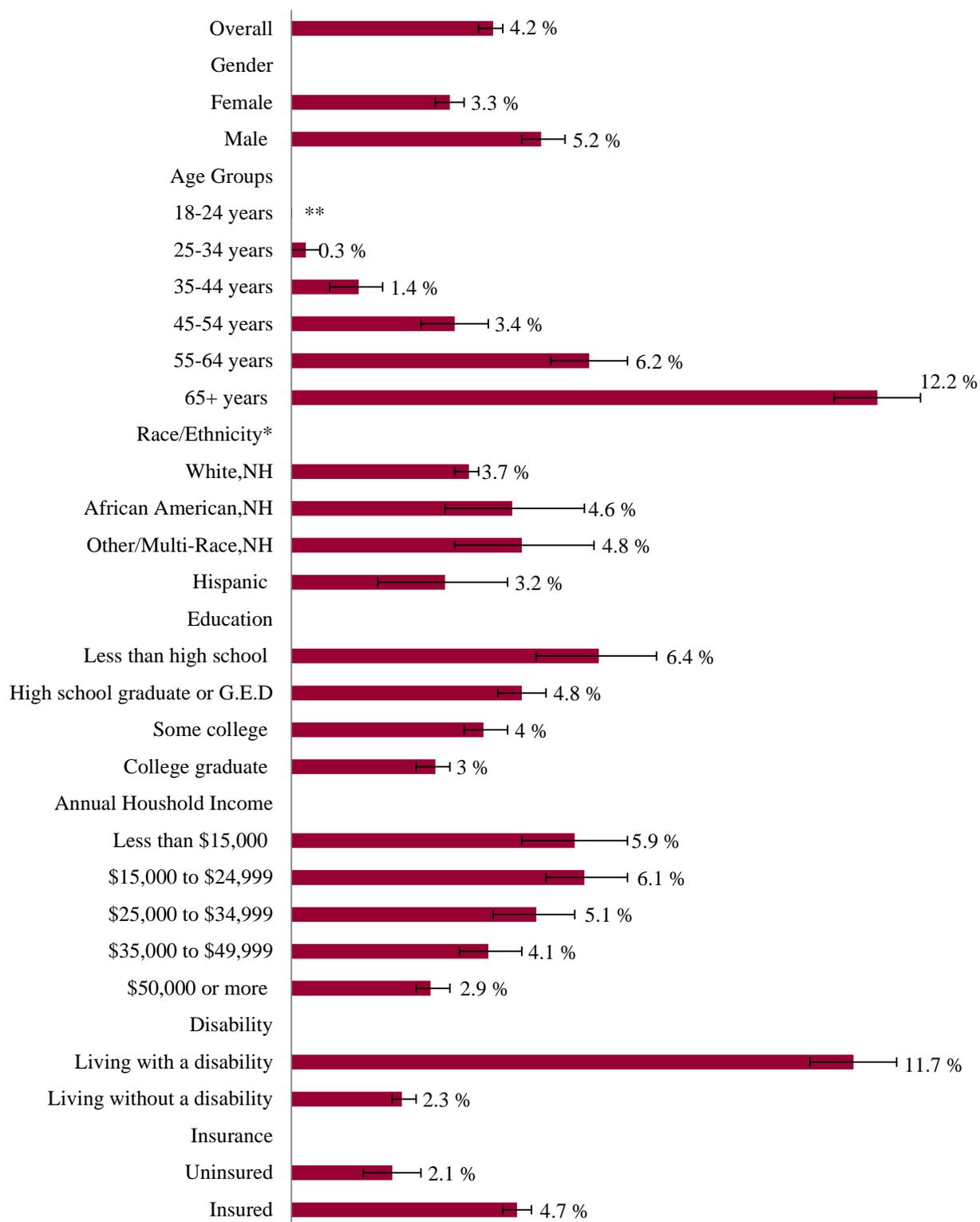
Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	4.2	4-4.5
<b>Gender</b>		
Female	3.3	3-3.6
Male	5.2	4.7-5.6
<b>Age Groups</b>		
18-24 years	**	**
25-34 years	0.3	0-0.6
35-44 years	1.4	0.9-2
45-54 years	3.4	2.7-4.1
55-64 years	6.2	5.4-7
65+ years	12.2	11.3-13.1
<b>Race/Ethnicity*</b>		
White, NH	3.7	3.5-4
African-American, NH	4.6	3.1-6
Other/Multi-Race, NH	4.8	3.3-6.2
Hispanic	3.2	1.9-4.6
<b>Education</b>		
Less than high school	6.4	5.2-7.7
High school graduate or G.E.D	4.8	4.3-5.3
Some college	4	3.5-4.4
College graduate	3	2.7-3.4
<b>Annual Household Income</b>		
Less than \$15,000	5.9	4.8-7
\$15,000 to \$24,999	6.1	5.2-6.9
\$25,000 to \$34,999	5.1	4.3-6
\$35,000 to \$49,999	4.1	3.4-4.7
\$50,000 or more	2.9	2.5-3.2
<b>Disability</b>		
Living with a disability	11.7	10.8-12.6
Living without a disability	2.3	2-2.5
<b>Insurance</b>		
Uninsured	2.1	1.5-2.7
Insured	4.7	4.4-5

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

\*\* Insufficient sample and/or statistically unreliable estimate

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Heart Disease, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

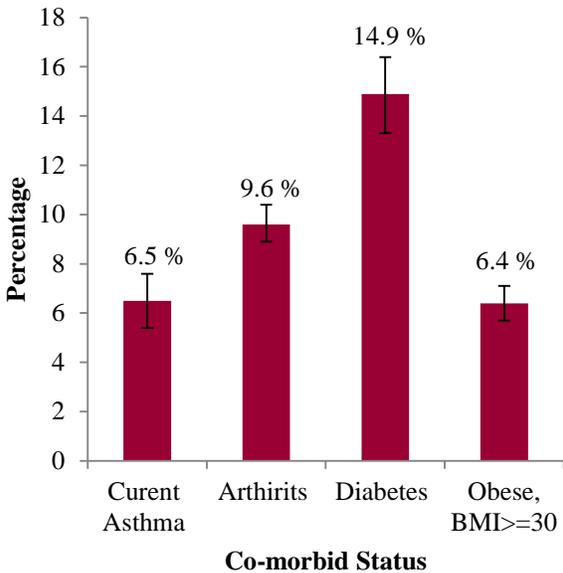
\*\* Insufficient sample and/or statistically unreliable estimate.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed Heart Disease by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	6.5	5.4-7.6
No	4	3.7-4.3
<b>Arthritis Status</b>		
Yes	9.6	8.8-10.3
No	2.6	2.3-2.8
<b>Diabetes Status</b>		
Yes	14.9	13.4-16.5
No	3.1	2.9-3.4
<b>Weight Category</b>		
Normal or Underweight, BMI<25	2.8	2.5-3.2
Overweight, 25<= BMI<30	4.1	3.6-4.5
Obese, BMI>=30	6.4	5.7-7.1

**Percentage of Adults 18 Years Old and Older with Diagnosed Heart Disease by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with heart disease was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were normal/underweight
- Adults who were overweight compared with those who were normal/underweight

**SUMMARY**

About 4 percent of Kansas adults 18 years old and older have ever been diagnosed with heart disease. In addition, higher percentages of adults who have ever been diagnosed with heart disease were seen among: males, older adults, those with lower education, adults with annual household income of less than \$24,999, those with insurance, and those with chronic health conditions (current asthma, arthritis, diabetes or obesity) and those living with a disability.

One Healthy People 2020 goal for heart disease is to increase overall cardiovascular health in the U.S. To address this, Kansas needs to reduce prevalence and risk factors of heart disease among adults 18 years old and older as well as address associated disparities.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Cancer

In 2013, the leading cause of death among Kansans was cancer.<sup>12</sup> Yet, many cancers are preventable by reducing risk factors such as tobacco use, physical inactivity, poor nutrition and obesity.<sup>47</sup> Therefore, it is important to continue to monitor cancer prevalence in Kansas. Healthy People 2020 has several objectives related to reducing the death rate of specific types of cancers, such as lung, uterine, colorectal and prostate, just to name a few.

In 2013, approximately 1 in 15 Kansas adults 18 years old and older had ever been diagnosed with cancer (excluding skin cancer). The percentage of Kansas adults 18 years old and older who were ever diagnosed with cancer (excluding skin cancer) was significantly **higher** among:

- Females compared with males
- Older adults compared with younger adults
- Non-Hispanic African-Americans and non-Hispanic whites compared Hispanics (age-adjusted prevalence)
- Adults with an annual household income less than \$24,999 compared with adults with an annual household income of \$50,000 or more
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

The percentage of Kansas adults 18 years old and older who were ever diagnosed with cancer (excluding skin cancer) did not differ significantly by education groups.

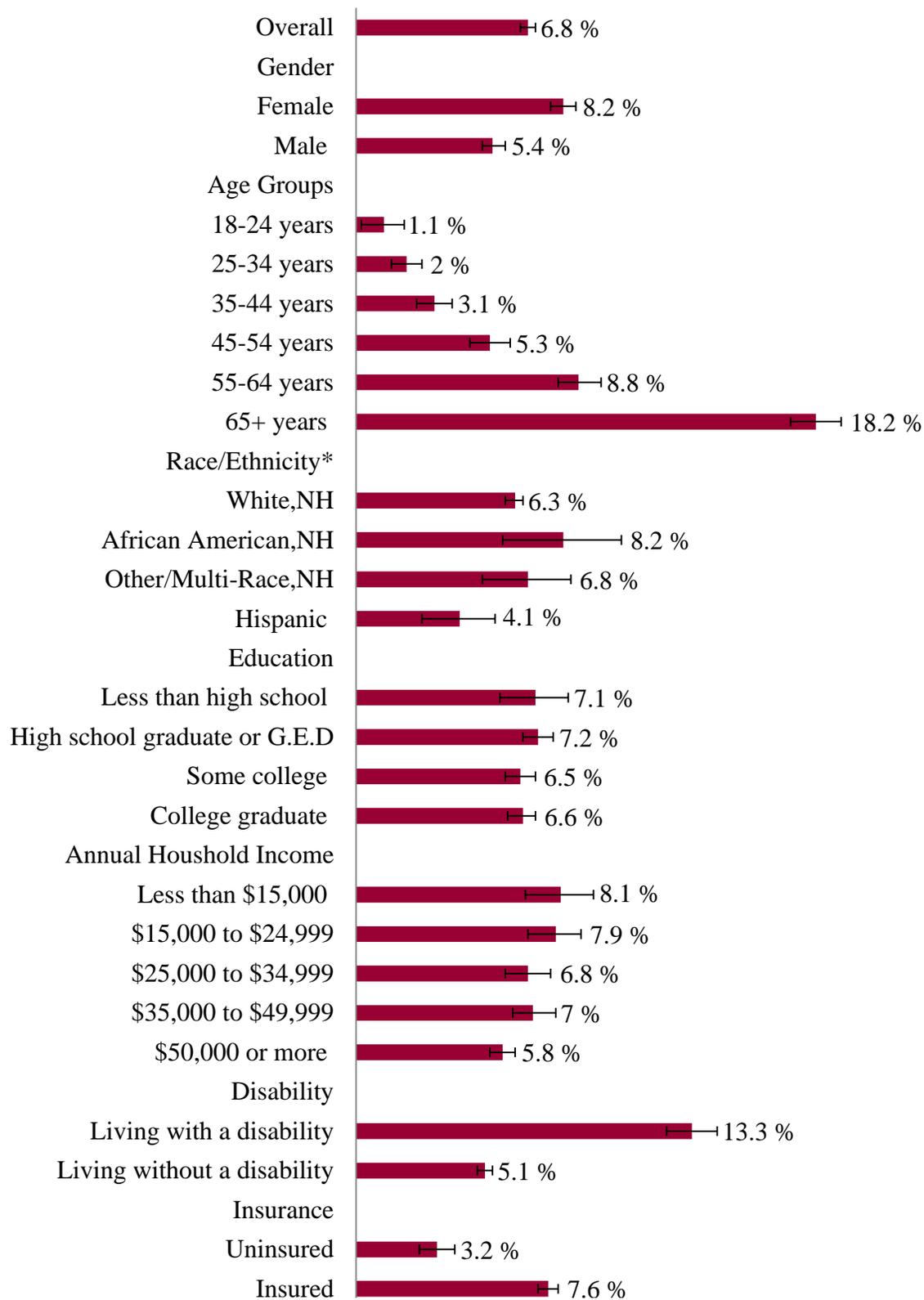
### Percentage of Adults 18 Years Old and Older With Diagnosed Cancer, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	6.8	6.5-7.1
<b>Gender</b>		
Female	8.2	7.7-8.7
Male	5.4	4.9-5.8
<b>Age Groups</b>		
18-24 years	1.1	0.3-2
25-34 years	2	1.4-2.6
35-44 years	3.1	2.4-3.8
45-54 years	5.3	4.5-6.1
55-64 years	8.8	7.9-9.6
65+ years	18.2	17.2-19.2
<b>Race/Ethnicity*</b>		
White, NH	6.3	6-6.7
African-American, NH	8.2	5.9-10.6
Other/Multi-Race, NH	6.8	5.1-8.6
Hispanic	4.1	2.7-5.6
<b>Education</b>		
Less than high school	7.1	5.8-8.5
High school graduate or G.E.D	7.2	6.6-7.8
Some college	6.5	5.9-7.1
College graduate	6.6	6.1-7.2
<b>Annual Household Income</b>		
Less than \$15,000	8.1	6.8-9.5
\$15,000 to \$24,999	7.9	6.9-9
\$25,000 to \$34,999	6.8	5.9-7.7
\$35,000 to \$49,999	7	6.1-7.8
\$50,000 or more	5.8	5.3-6.3
<b>Disability</b>		
Living with a disability	13.3	12.3-14.3
Living without a disability	5.1	4.8-5.4
<b>Insurance</b>		
Uninsured	3.2	2.5-3.9
Insured	7.6	7.2-8

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Cancer, KS BRFSS 2013



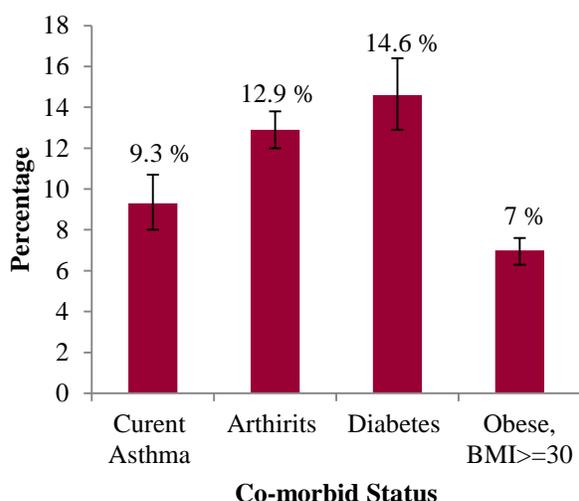
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed Cancer by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	9.3	7.9-10.6
No	6.6	6.2-6.9
<b>Arthritis Status</b>		
Yes	12.9	12-13.8
No	4.9	4.5-5.2
<b>Diabetes Status</b>		
Yes	14.6	12.8-16.3
No	6	5.7-6.3
<b>Weight Category</b>		
Normal or Underweight, BMI<25	6.9	6.2-7.5
Overweight, 25<= BMI<30	7	6.4-7.6
Obese, BMI>=30	7	6.4-7.7

**Percentage of Adults 18 Years Old and Older with Diagnosed Cancer by Co-Morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with cancer (excluding skin cancer) was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes

The percentage of Kansas adults 18 years old and older who were ever diagnosed with cancer (excluding skin cancer) did not differ significantly by weight status.

**SUMMARY**

Approximately 7 percent of Kansas adults 18 years old and older have ever been diagnosed with cancer (excluding skin cancer). In addition, higher percentages of adults who have ever been diagnosed with cancer (excluding skin cancer) were seen among: females, older adults, non-Hispanic African-Americans, non-Hispanic whites, adults with an annual household income less than \$24,999, those with insurance, adults with chronic health conditions (current asthma, arthritis or diabetes) and those living with a disability.

To reduce prevalence of cancer (excluding skin cancer) among adults 18 years old and older and to address associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Skin Cancer

In the U.S., the most common type of cancer is skin cancer.<sup>48</sup> The deadliest kind of skin cancer is melanoma and is caused by exposure to ultraviolet (UV) light.<sup>48</sup> Therefore, it is important to reduce UV exposure and track the prevalence of skin cancer. The Healthy People 2020 goals for skin cancer are to reduce the melanoma cancer death rate and to increase the proportions of people who participate in behaviors that reduce their exposure to harmful UV irradiation and avoid sunburn.

In 2013, approximately 1 in 15 Kansas adults 18 years old and older had ever been diagnosed with skin cancer. The percentage of Kansas adults 18 years old and older who were ever diagnosed with skin cancer was significantly **higher** among:

- Older adults compared with younger adults
- Non-Hispanics whites compared with Hispanics and non-Hispanic other/multi-race adults (age-adjusted prevalence)
- College graduates compared with adults with some college and adults who did not graduate high school/GED
- Adults with an annual household income of \$25,000 or more compared with adults with an annual household income less than \$15,000
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

The percentage of Kansas adults 18 years old and older who were ever diagnosed with skin cancer did not differ significantly by gender groups.

### Percentage of Adults 18 Years Old and Older With Diagnosed Skin Cancer, KS BRFSS 2013

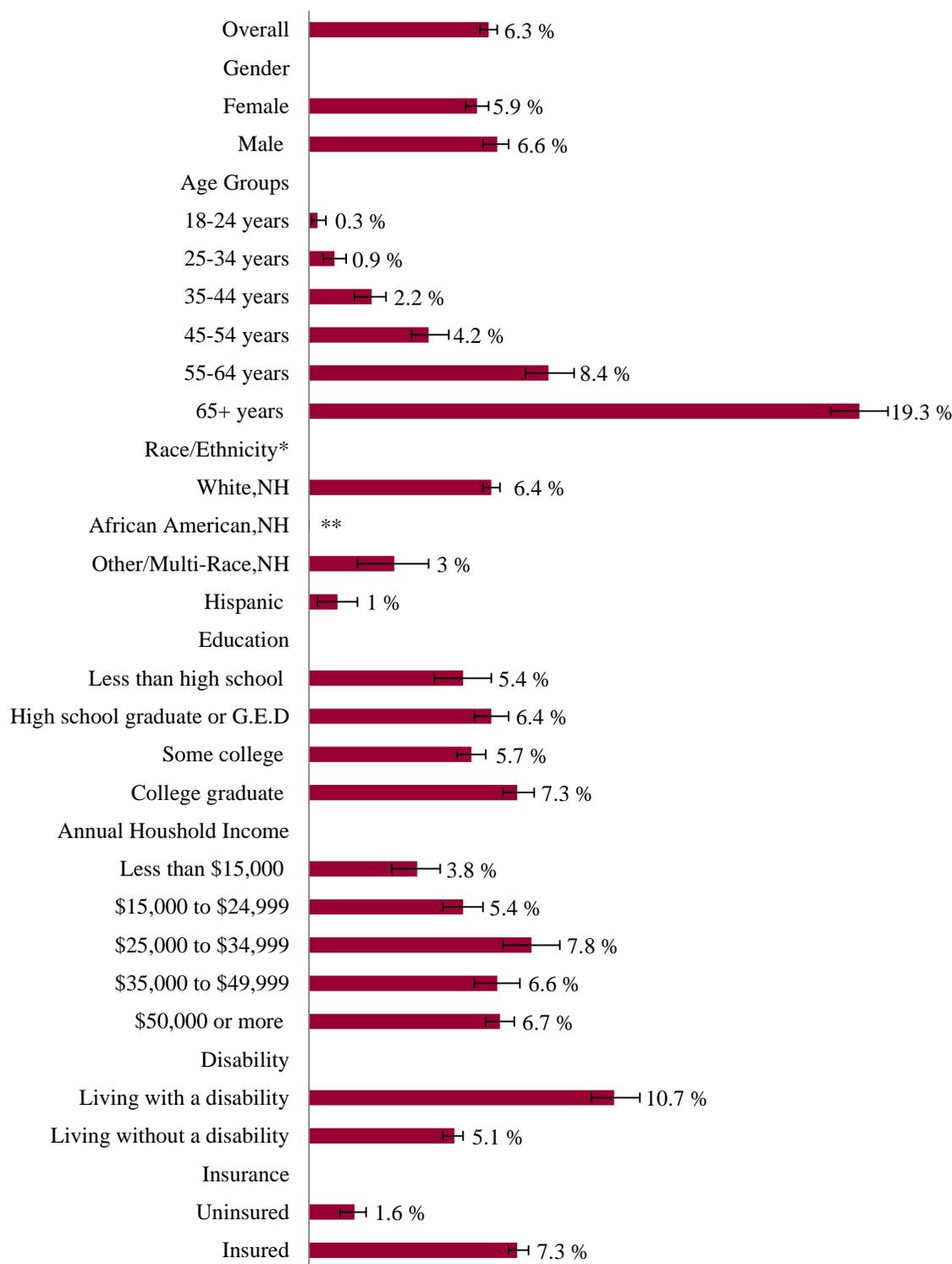
Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	6.3	6-6.6
<b>Gender</b>		
Female	5.9	5.5-6.3
Male	6.6	6.2-7.1
<b>Age Groups</b>		
18-24 years	0.3	0-0.5
25-34 years	0.9	0.5-1.3
35-44 years	2.2	1.7-2.8
45-54 years	4.2	3.5-4.8
55-64 years	8.4	7.5-9.2
65+ years	19.3	18.3-20.3
<b>Race/Ethnicity*</b>		
White, NH	6.4	6.1-6.7
African-American, NH	**	**
Other/Multi-Race, NH	3	1.8-4.3
Hispanic	1	0.3-1.7
<b>Education</b>		
Less than high school	5.4	4.4-6.4
High school graduate or G.E.D	6.4	5.8-7
Some college	5.7	5.2-6.2
College graduate	7.3	6.7-7.8
<b>Annual Household Income</b>		
Less than \$15,000	3.8	3-4.7
\$15,000 to \$24,999	5.4	4.7-6.1
\$25,000 to \$34,999	7.8	6.8-8.8
\$35,000 to \$49,999	6.6	5.8-7.4
\$50,000 or more	6.7	6.2-7.2
<b>Disability</b>		
Living with a disability	10.7	9.8-11.5
Living without a disability	5.1	4.8-5.5
<b>Insurance</b>		
Uninsured	1.6	1.2-2.1
Insured	7.3	6.9-7.6

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

\*\* Insufficient sample and/or statistically unreliable estimate

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed Skin Cancer, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

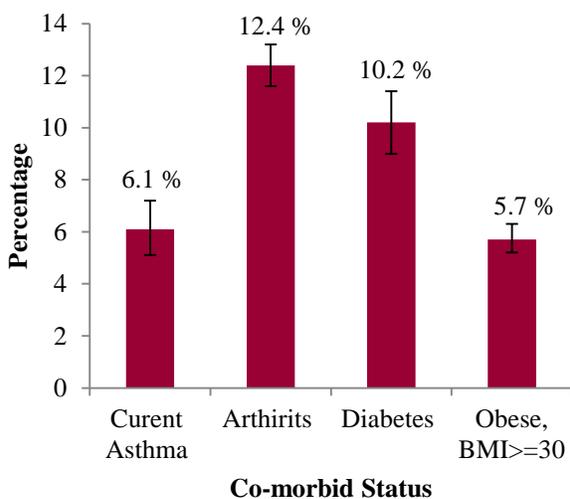
\*\* Insufficient sample and/or statistically unreliable estimate

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed Skin Cancer by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	6.1	5-7.1
No	6.3	6-6.6
<b>Arthritis Status</b>		
Yes	12.4	11.6-13.2
No	4.4	4.1-4.7
<b>Diabetes Status</b>		
Yes	10.2	9-11.4
No	5.9	5.6-6.2
<b>Weight Category</b>		
Normal or Underweight, BMI<25	6.6	6.1-7.2
Overweight, 25<= BMI<30	7	6.5-7.6
Obese, BMI>=30	5.7	5.1-6.2

**Percentage of Adults 18 Years Old and Older with Diagnosed Skin Cancer by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with skin cancer was significantly **higher** among:

- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were overweight compared with those who were obese

**SUMMARY**

Approximately 6 percent of Kansas adults 18 years old and older have ever been diagnosed with skin cancer. In addition, higher percentages of adults who have ever been diagnosed with skin cancer were seen among: older adults, college graduates, adults with an annual household income of \$25,000 or more, those with insurance, adults with chronic health conditions (arthritis, diabetes or overweight adults) and adults living with a disability.

To reduce prevalence of skin cancer among adults 18 years old and older and to address associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: Cholesterol Test

Cholesterol is a waxy, fatty substance that the human body needs, but too much cholesterol can cause build up in the artery walls.<sup>49</sup> There are no signs and symptoms of high cholesterol, therefore getting your blood checked is the only way to know. High cholesterol increases the risk for heart disease and stroke—two leading causes of death.<sup>49</sup> The Healthy People 2020 goal is to increase the proportion of adults who have had their blood cholesterol checked with the preceding 5 years.

In 2013, approximately 1 in 4 Kansas adults 18 years old and older did not have their cholesterol checked with the past 5 years. The percentage of Kansas adults 18 years old and older who did not have their cholesterol checked within the past 5 years was significantly **higher** among:

- Males compared with females
- Younger adults compared with older adults
- Hispanics compared with all other race/ethnicity groups (age-adjusted prevalence)
- Adults with lower education compared with adults with higher education
- Adults with lower annual household income compared with adults in higher annual household income groups
- Adults living without a disability compared with adults living with a disability
- Adults with no insurance compared with adults with insurance

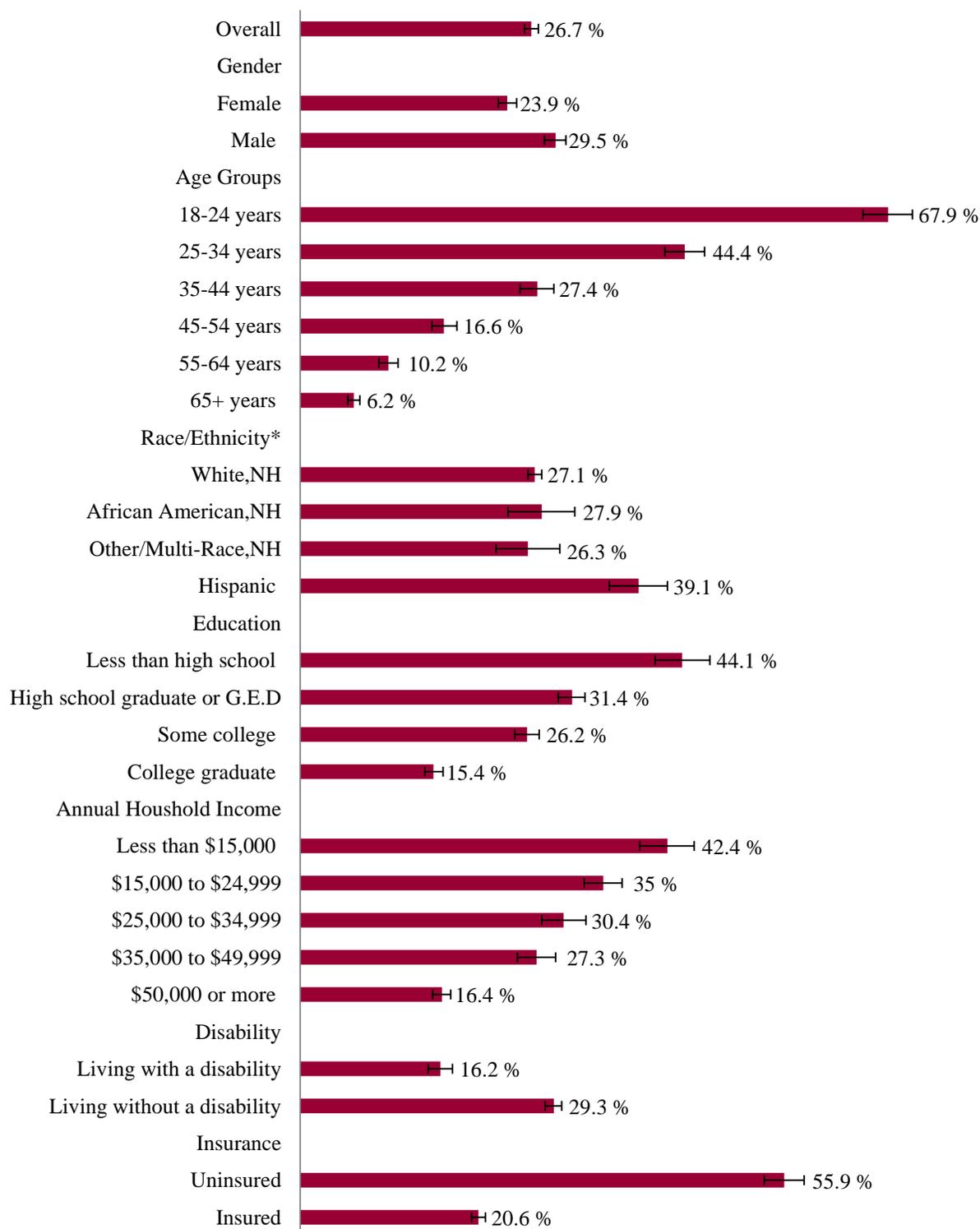
### Percentage of Adults 18 Years Old and Older Who Did Not Have Their Cholesterol Checked Within the Past 5 Years, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	26.7	25.9-27.5
<b>Gender</b>		
Female	23.9	22.8-24.9
Male	29.5	28.3-30.8
<b>Age Groups</b>		
18-24 years	67.9	65.1-70.8
25-34 years	44.4	42.1-46.7
35-44 years	27.4	25.5-29.4
45-54 years	16.6	15.1-18
55-64 years	10.2	9.1-11.3
65+ years	6.2	5.5-6.9
<b>Race/Ethnicity*</b>		
White, NH	27.1	26.3-27.9
African-American, NH	27.9	24.1-31.8
Other/Multi-Race, NH	26.3	22.6-30
Hispanic	39.1	35.8-42.5
<b>Education</b>		
Less than high school	44.1	40.9-47.2
High school graduate or G.E.D	31.4	29.9-33
Some college	26.2	24.8-27.6
College graduate	15.4	14.3-16.4
<b>Annual Household Income</b>		
Less than \$15,000	42.4	39.3-45.6
\$15,000 to \$24,999	35	32.8-37.2
\$25,000 to \$34,999	30.4	27.8-32.9
\$35,000 to \$49,999	27.3	25.1-29.5
\$50,000 or more	16.4	15.4-17.5
<b>Disability</b>		
Living with a disability	16.2	14.8-17.6
Living without a disability	29.3	28.4-30.3
<b>Insurance</b>		
Uninsured	55.9	53.6-58.2
Insured	20.6	19.8-21.4

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older Who Did Not Have Their Cholesterol Checked Within the Past 5 Years, KS BRFSS 2013



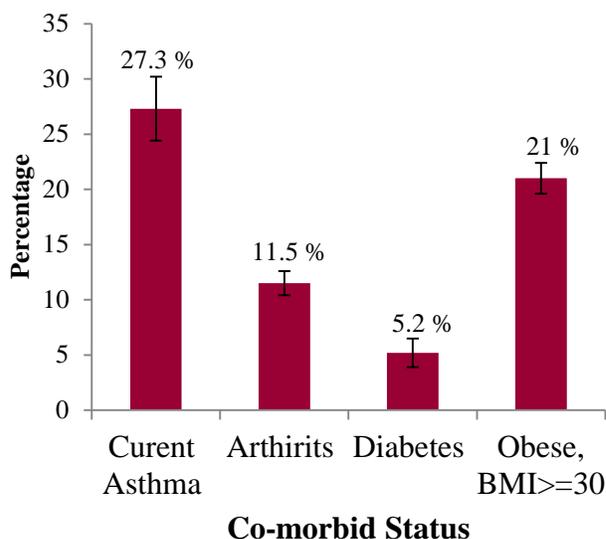
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older Who Did Not Have Their Cholesterol Checked Within the Past 5 Years by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	27.3	24.4-30.2
No	26.4	25.6-27.3
<b>Arthritis Status</b>		
Yes	11.5	10.4-12.6
No	31.5	30.5-32.5
<b>Diabetes Status</b>		
Yes	5.2	3.9-6.5
No	28.9	28-29.8
<b>Weight Category</b>		
Normal or Underweight, BMI<25	33.2	31.7-34.7
Overweight, 25<= BMI<30	23.4	22.1-24.8
Obese, BMI>=30	21	19.6-22.4

**Percentage of Adults 18 Years Old and Older Who Did Not Have Their Cholesterol Checked Within the Past 5 Years by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who did not have their cholesterol checked within the past 5 years was significantly **higher** among:

- Adults without arthritis compared with those with arthritis
- Adults without diabetes compared with those with diabetes
- Adults who were normal/underweight compared with those who were overweight or obese

**SUMMARY**

Approximately 27 percent of Kansas adults 18 years old and older did not have their cholesterol checked within the past 5 years. In addition, higher percentages of adults who did not have their cholesterol checked within the past 5 years were seen among: males, younger adults, Hispanics, those with lower education, adults with lower annual household income, uninsured adults, those without chronic health conditions (arthritis or diabetes) normal/ underweight adults and adults living without a disability.

The Healthy People 2020 goal is to increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years. Therefore to increase the prevalence of cholesterol testing among adults 18 years old and older and to address associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Chronic Health Conditions: High Cholesterol

High blood cholesterol puts a person at twice the risk for developing heart disease,<sup>50</sup> which was the second leading cause of death in Kansas in 2013.<sup>12</sup> The Healthy People 2020 goal for high blood cholesterol is to reduce the proportion of adults with high total blood cholesterol levels.

In 2013, approximately 2 in 5 Kansas adults 18 years old and older had ever been diagnosed with high cholesterol. The percentage of Kansas adults 18 years old and older who were ever diagnosed with high cholesterol was significantly **higher** among:

- Older adults compared with younger adults
- Adults with lower education compared with adults in higher education groups
- Adults with lower annual household incomes compared with adults with an annual household income of \$50,000 or more
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

The percentage of Kansas adults 18 years old and older who were ever diagnosed with high cholesterol did not differ significantly by gender or race/ethnicity (age-adjusted prevalence) groups.

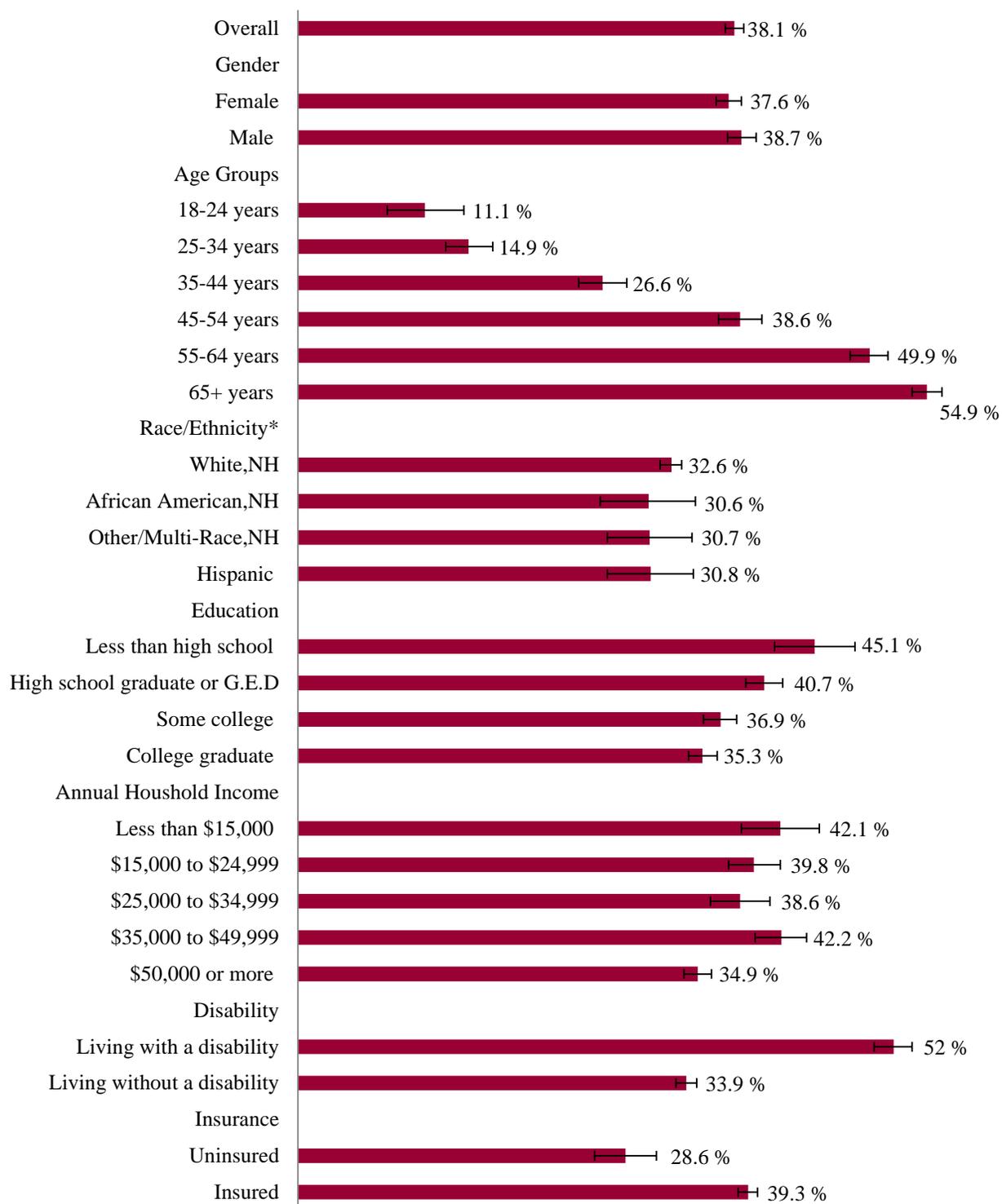
### Percentage of Adults 18 Years Old and Older With Diagnosed High Cholesterol, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	38.1	37.3-38.9
<b>Gender</b>		
Female	37.6	36.5-38.7
Male	38.7	37.4-39.9
<b>Age Groups</b>		
18-24 years	11.1	7.7-14.4
25-34 years	14.9	12.8-16.9
35-44 years	26.6	24.5-28.7
45-54 years	38.6	36.7-40.5
55-64 years	49.9	48.3-51.6
65+ years	54.9	53.6-56.2
<b>Race/Ethnicity*</b>		
White, NH	32.6	31.7-33.6
African-American, NH	30.6	26.5-34.8
Other/Multi-Race, NH	30.7	27-34.4
Hispanic	30.8	27.1-34.6
<b>Education</b>		
Less than high school	45.1	41.6-48.6
High school graduate or G.E.D	40.7	39.1-42.3
Some college	36.9	35.5-38.4
College graduate	35.3	34-36.5
<b>Annual Household Income</b>		
Less than \$15,000	42.1	38.7-45.5
\$15,000 to \$24,999	39.8	37.5-42
\$25,000 to \$34,999	38.6	36-41.2
\$35,000 to \$49,999	42.2	40-44.5
\$50,000 or more	34.9	33.7-36.1
<b>Disability</b>		
Living with a disability	52	50.4-53.7
Living without a disability	33.9	33-34.8
<b>Insurance</b>		
Uninsured	28.6	25.9-31.3
Insured	39.3	38.5-40.2

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 Years Old and Older with Diagnosed High Cholesterol, KS BRFSS 2013



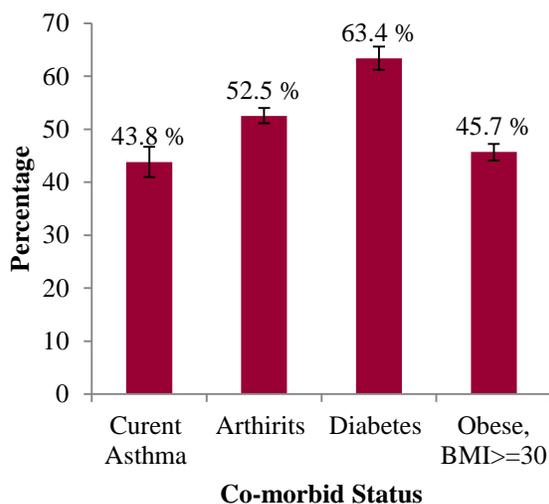
\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

**Percentage of Adults 18 Years Old and Older With Diagnosed High Cholesterol by Co-morbid Conditions, KS BRFSS 2013**

Co-Morbid Conditions	Weighted Percentage	95% CI
<b>Current Asthma Status</b>		
Yes	43.8	40.9-46.6
No	37.5	36.7-38.4
<b>Arthritis Status</b>		
Yes	52.5	51-53.9
No	32.2	31.3-33.2
<b>Diabetes Status</b>		
Yes	63.4	61.2-65.6
No	34.7	33.8-35.5
<b>Weight Category</b>		
Normal or Underweight, BMI<25	28.9	27.5-30.2
Overweight, 25<= BMI<30	39.9	38.5-41.3
Obese, BMI>=30	45.7	44.2-47.3

**Percentage of Adults 18 Years Old and Older with Diagnosed High Cholesterol by Co-morbid Conditions, KS BRFSS 2013**



The percentage of Kansas adults 18 years old and older who were ever diagnosed with high cholesterol was significantly **higher** among:

- Adults with current asthma compared with those without current asthma
- Adults with arthritis compared with those without arthritis
- Adults with diabetes compared with those without diabetes
- Adults who were obese compared with those who were overweight or normal/ underweight
- Adults who were overweight compared with those who were normal/ underweight

**SUMMARY**

Approximately 38 percent of Kansas adults 18 years old and older have ever been diagnosed with high cholesterol. In addition, higher percentages of adults who have ever been diagnosed with high cholesterol were seen among: older adults, those with lower education, adults with lower annual household income, those with insurance, and those with chronic health conditions (current asthma, arthritis, diabetes, overweight or obesity) and living with a disability.

The Healthy People 2020 goal for high blood cholesterol is to reduce the proportion of adults with high total blood cholesterol levels. Therefore to reduce prevalence of high cholesterol among adults 18 years old and older and to address associated disparities, further public health efforts are needed in Kansas.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Chronic Health Conditions: Multiple Chronic Conditions

Chronic diseases and conditions are the most common, costly, and preventable of all health problems.<sup>51</sup> In Kansas, 55 percent (95% CI: 54.4-56.0) of adults 18 years old and older had ever been diagnosed by a doctor, nurse or other health professional with one or more of the following conditions: heart attack, coronary heart disease, stroke, asthma, skin cancer, other cancers (excluding skin), chronic obstructive pulmonary disease, arthritis, kidney disease, diabetes or hypertension. Multiple chronic conditions (MCC) are a significant and increasing burden on health. Adults with multiple chronic conditions are at increased risk for mortality and poorer everyday functioning.<sup>52</sup> MCC are also associated with substantial health care cost.<sup>52</sup> For this analysis adults with MCC are defined as adults ever being diagnosed by a doctor, nurse or other health professional with two or more conditions from the abovementioned list.

In 2013, approximately 1 in 3 Kansas adults 18 years old and older had ever been diagnosed with MCC. The percentage of Kansas adults 18 years old and older who were ever diagnosed with MCC was significantly **higher** among:

- Females compared with males
- Older adults compared with younger adults
- Non-Hispanic African-Americans compared non-Hispanic whites and Hispanics
- Non-Hispanics whites compared with Hispanics (age-adjusted prevalence)
- Adults who did not graduate college compared with college graduates
- Adults in lower annual household income groups compared with adults in higher annual household income groups
- Adults living with a disability compared with adults living without a disability
- Adults with insurance compared with adults with no insurance

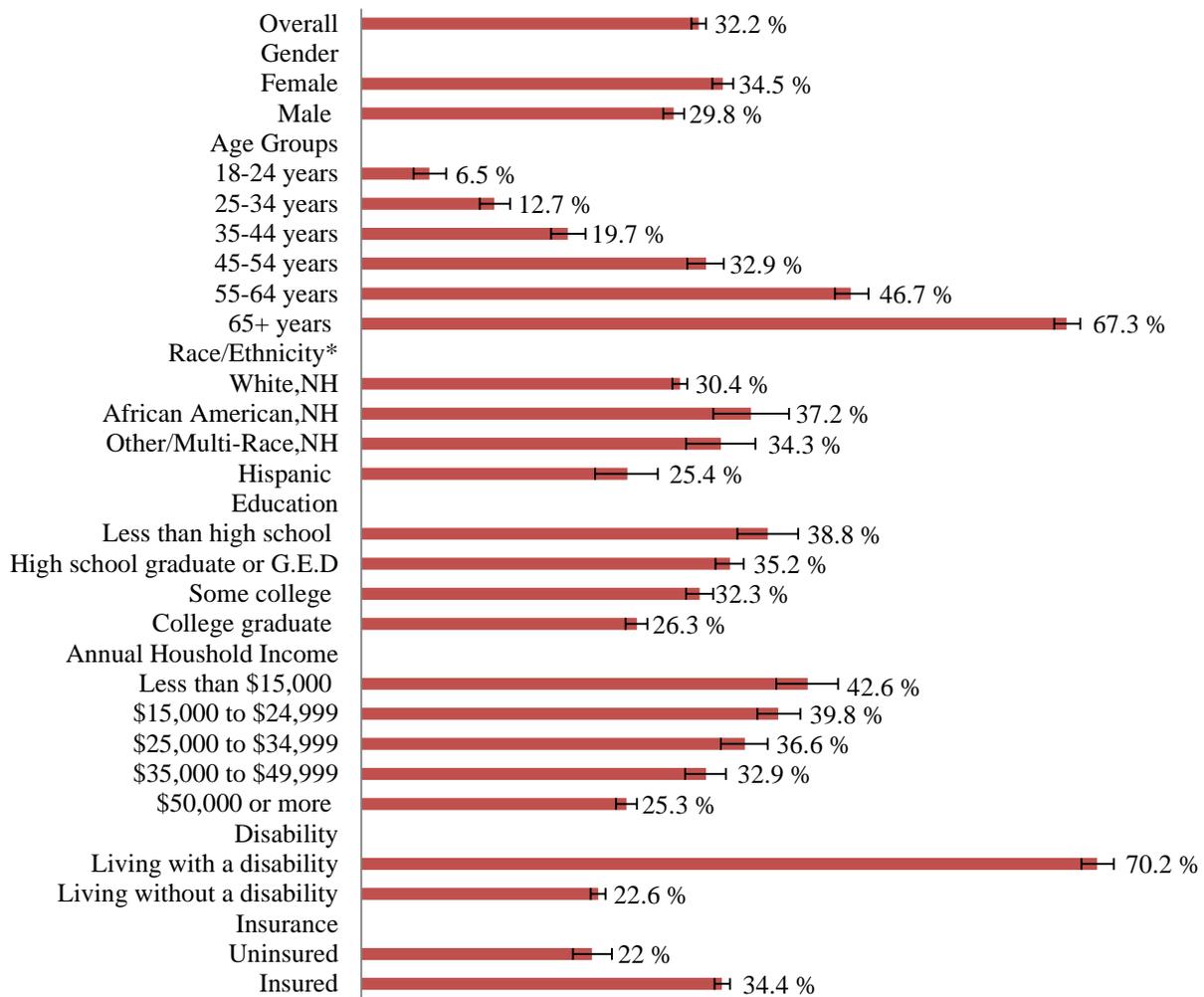
## Percentage of Adults 18 Years Old and Older With Multiple Chronic Conditions, KS BRFSS 2013

Demographic Characteristics	Weighted Percentage	95% CI
<b>Overall</b>	32.2	31.5-32.9
<b>Gender</b>		
Female	34.5	33.5-35.5
Male	29.8	28.8-30.8
<b>Age Groups</b>		
18-24 years	6.5	4.9-8.0
25-34 years	12.7	11.2-14.1
35-44 years	19.7	18.0-21.3
45-54 years	32.9	31.2-34.7
55-64 years	46.7	45.0-48.2
65+ years	67.3	66.0-68.5
<b>Race/Ethnicity*</b>		
White, NH	30.4	29.7-31.1
African-American, NH	37.2	33.6-40.8
Other/Multi-Race, NH	34.3	31.0-37.6
Hispanic	25.4	22.5-28.3
<b>Education</b>		
Less than high school	38.8	35.9-41.7
High school graduate or G.E.D	35.2	33.9-36.6
Some college	32.3	31.0-33.6
College graduate	26.3	25.3-27.4
<b>Annual Household Income</b>		
Less than \$15,000	42.6	39.7-45.6
\$15,000 to \$24,999	39.8	37.7-41.8
\$25,000 to \$34,999	36.6	34.4-38.9
\$35,000 to \$49,999	32.9	31.0-34.9
\$50,000 or more	25.3	24.3-26.3
<b>Disability</b>		
Living with a disability	70.2	68.6-71.7
Living without a disability	22.6	21.9-23.3
<b>Insurance</b>		
Uninsured	22	20.1-23.8
Insured	34.4	33.6-35.1

\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

## Percentage of Adults 18 years Old and Older with Diagnosed Multiple Chronic Conditions, KS BRFSS 2013



\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

### SUMMARY

Approximately 32 percent of Kansas adults 18 years old and older have ever been diagnosed with MCC. In addition, higher percentages of adults who have ever been diagnosed with MCC was seen among: females, older adults, non-Hispanic African-Americans, non-Hispanic whites, adults with lower education levels, adults with lower annual household income levels, those living with a disability and those with insurance.

Further public health efforts are needed in Kansas to reduce and address the prevalence of MCC among adults 18 years old and older and associated disparities.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

# Technical Notes

## Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS is the world's largest annual population-based survey system tracking health conditions and risk behaviors in the United States since 1984. It is coordinated by the Centers for Disease Control and Prevention (CDC) and is conducted in every state and several territories in the United States. The Kansas Department of Health and Environment (KDHE), Bureau of Health Promotion (BHP) conducted the first BRFSS survey in Kansas in 1990 as a point-in-time survey. Since 1992, BHP has conducted the Kansas BRFSS survey annually, thus providing the ability to examine the burden and monitor the trends of various diseases and risk factors/behaviors.

BRFSS is the only source of population-based data for several public health indicators in Kansas. The 2013 Kansas BRFSS was conducted among non-institutionalized adults 18 years old and older living in private residences and college housing with landline and/or cell phone service.

For the 2013 Kansas BRFSS survey, the target total (combined landline and cell phone sample) sample size was 20,000 complete interviews with a target of 14,000 complete interviews for the landline telephone survey component (70% of total sample) and 6,000 complete interviews for the cellular telephone survey component (30% of total sample).

The weighted data analysis was conducted to estimate overall prevalence of the specific indicators in relation to Healthy People 2020 i.e. risk factors, diseases and behaviors among adults 18 years old and older in Kansas. In addition, when comparing within subgroups to overall prevalence estimates, stratified analyses was done to examine burden of the Healthy People 2020 indicators within different population subgroups based on socio-demographic factors, risk behaviors and co-morbid conditions.

### **Several considerations should be taken into account when interpreting BRFSS estimates:**

- The prevalence estimates from 2013 Kansas BRFSS are representative of non-institutionalized adults 18 years old and older living in private residences and college housing with landline and/or cell phone service.
- BRFSS estimates do not apply to individuals residing in residences without telephone service and those who reside on military bases, prisons or nursing homes.
- Due to changes in survey design and weighting methodology in 2011, comparisons cannot be made between the prevalence estimates generated for previous years and those generated for 2011, 2012 and 2013.

For more information on BRFSS methodology, visit [www.kdheks.gov/brfss/technotes.html](http://www.kdheks.gov/brfss/technotes.html).

**Age-adjustment:**

Age-adjustment is a statistical method for standardizing prevalence estimates for groups that have different underlying age distributions thus making them more comparable. Age-adjusted prevalence estimates should be used to compare groups if the underlying population distribution is different or changes over time (for example, comparing estimates for veterans and civilians). Age-adjusted prevalence estimates should be understood as relative indices, not as actual measures of burden, and should not be compared with unadjusted prevalence estimates.

All age-adjusted prevalence estimates in this report are computed using the direct method. Briefly, prevalence estimates are first computed within each age group stratum. The products of each age-specific rate multiplied by the proportion of the 2000 U.S. Standard Population in that age category are summed across the age group strata.

# References

1. Institute of Medicine. Health Services, Coverage, and Access. Institute of Medicine website. 2009. Available at: <http://www.iom.edu/Global/Topics/Health-Services-Coverage-Access.aspx>. Accessed December 10, 2013.
2. Hoffman C, Paradise J. 2008. Health Insurance and Care in the United States. *Ann N Y Acad Sci*. 1136:149-160.
3. Starfield B, Leiyu S, Macinko J. 2005. Contribution of Primary Care to Health Systems and Health. *The Milbank Quarterly*. 83(3):457-502.
4. U.S. Department of Health and Human Services. Injury and Violence Prevention. Healthy People 2020 website. 2014. Available at <http://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention>. Accessed December 10, 2013.
5. Centers for Disease Control and Prevention. Seat Belts: Get the Facts. CDC website. 2014. Available at: <http://www.cdc.gov/Motorvehiclesafety/seatbelts/facts.html>. Accessed December 10, 2013.
6. Centers for Disease Control and Prevention. Falls Among Older Adults: An Overview. CDC website. 2014. Available at: <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html>. Accessed February 1, 2014.
7. U.S. Department of Health and Human Services. Immunization and Infectious Diseases. Healthy People 2020 website. 2014. Available at: <http://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases>. Accessed February 18, 2014.
8. Centers for Disease Control and Prevention. Key Facts About Seasonal Flu Vaccine. CDC website. 2014. Available at: <http://www.cdc.gov/flu/protect/keyfacts.htm>. Accessed February 1, 2014.
9. Centers for Disease Control and Prevention. Children, the Flu , and the Flu Vaccine. CDC website. 2014. Available at: <http://www.cdc.gov/flu/protect/children.htm>. Accessed November 3, 2014.
10. National Foundation for Infectious Diseases. Pneumococcal Disease. Adult Vaccination website. 2014. Available at: <http://www.adultvaccination.org/vpd/pneumococcal>. Accessed November 4, 2014.
11. Centers for Disease Control and Prevention. Preteen and Teen Vaccine. CDC website. 2014. Available at: <http://www.cdc.gov/vaccines/who/teens/vaccines/hpv.html>. Accessed November 4, 2014.
12. Kansas Department of Health and Environment. Kansas Annual Summary of Vital Statistics 2013. KDHE website. 2014. Available at: <http://www.kdheks.gov/hci/AS2013.htm>. Accessed February 9, 2015.
13. American Cancer Society. American Cancer Society Guidelines for the Early Detection of Cancer. American Cancer Society website. 2014. Available at: <http://www.cancer.org/healthy/findcancerearly/cancerscreeningguidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer>. Accessed November 18, 2014.
14. National Institutes of Health. Screening and Testing to Detect Cancer. National Cancer Institute website. 2014. Available at: <http://www.cancer.gov/cancertopics/screening>. Accessed November 18, 2014.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

15. U.S. Department of Health and Human Services. Genomics. Healthy People 2020 website. 2014. Available at: <https://www.healthypeople.gov/2020/topics-objectives/topic/genomics>. Accessed November 18, 2014.
16. Centers for Disease Control and Prevention. Adults Obesity Facts. CDC website. 2014. Available at: <http://www.cdc.gov/obesity/data/adult.html>. Accessed February 1, 2014.
17. Centers for Disease Control and Prevention. Strengthen Your Bones and Muscles. CDC website. 2011. Available at: <http://www.cdc.gov/physicalactivity/everyone/health/index.html#StrengthenBonesMuscles>. Accessed February 1, 2014.
18. Centers for Disease Control and Prevention. How much physical activity do adults need. CDC website. 2014. Available at: <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>. Accessed November 17, 2014.
19. Centers for Disease Control and Prevention. Fruit and Vegetables. CDC website. 2014. Available at: <http://www.cdc.gov/nutrition/everyone/fruitsvegetables/index.html>. Accessed November 6, 2014.
20. Welsh JA, Sharma AJ, Grellinger L, Vos MB. Consumption of added sugars is decreasing in the United States. *Am J Clin Nutr*. 2011;94(3):726–34.
21. Malik VS, Popkin BM, Bray GA, Despres JP, Hu FB. Sugar-sweetened beverages, obesity, type 2 diabetes mellitus, and cardiovascular disease risk. *Circulation*. 2011;121:1356–1364.
22. Reedy J, Krebs-Smith SM. Dietary sources of energy, solid fats, and added sugars among children and adolescents in the United States. *Journal of the American Dietetic Association*. 2010;110(10):1477–1484.
23. Berkey CS, Rockett HRH, Field AE, Gillman MW, Colditz GA. Sugar-added beverages and adolescent weight change. *Obesity Research*. 2004;12:778–788.
24. Costas A, Christophi el al. Prevalence and social environment of cigarette smoking in Cyprus youth. *BMC Public Health*. 2008; 8:190
25. Centers for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report*. 2008; 57(45):1226–1228. Accessed December 10, 2013.
26. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual Causes of Death in the United States. *JAMA: Journal of the American Medical Association*. 2004; 291(10):1238–1245 [cited 2010 July 26].
27. Centers for Disease Control and Prevention. Smoking and Tobacco Use. CDC website. 2014. Available at: [http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/smokeless/health\\_effects/index.htm](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/smokeless/health_effects/index.htm). Accessed February 1, 2014.
28. U.S. Department of Health and Human Services. Electronic Cigarettes (e-Cigarettes). U.S. Food and Drug Administration website. 2014. Available at: <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm172906.htm>. Accessed November 10, 2014.
29. Centers for Disease Control and Prevention. More than a quarter-million youth who had never smoked a cigarette used e-cigarettes in 2013. CDC website. 2014. Available at: <http://www.cdc.gov/media/releases/2014/p0825-e-cigarettes.html>. Accessed November 10, 2014.
30. Centers for Disease Control and Prevention. The Burden of Oral Disease. CDC website. 2013. Available at: <http://www.cdc.gov/OralHealth/publications/library/burdenbook/> Accessed December 10, 2013.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

31. Courtney KE and Polich J. Binge Drinking in Young Adults: Data, Definitions, and Determinants. *Psychological Bulletin*. 2009 January; 135(1): 142–156.
32. Naimi T, Brewer RD, Mokdad A, et al. Binge Drinking Among U.S. Adults. *JAMA*. 2003; 289 (1):70–75.
33. U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General*. Washington, DC: US Department of Health and Human Services;1999. Available at: <http://www.surgeongeneral.gov/library/mentalhealth/summary.html>. Accessed October 22, 2010.
34. National Institute of Mental Health. Statistics. National Institute of Mental Health website. 2010. Available at: <http://www.nimh.nih.gov/health/topics/statistics/index.shtml>. Accessed October 22, 2010.
35. Shih M, Hootman JM, Strine TW, Chapman DP, Brady TJ. Serious Psychological Distress in U.S. Adults with Arthritis. *Journal of General Internal Medicine*. 2006; 21:1160–1166.
36. Centers for Disease Control and Prevention. Treatment Works: Get Help for Depression and Anxiety. Centers for Disease Control and Prevention website. 2012. Available at: <http://www.cdc.gov/features/Depression/index.html>. Accessed February 1, 2014.
37. Centers for Disease Control and Prevention. HIV/AIDS. CDC website. 2014. Available at: <http://www.cdc.gov/hiv/basics/testing.html>. Accessed March 3, 2014.
38. Centers for Disease Control and Prevention. HIV prevalence estimates—United States, 2006. *MMWR*. 2008;57(39):1073-76.
39. Centers for Disease Control and Prevention. *National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011*. Atlanta, GA: U.S. Department of Health and Human Services; 2011.
40. U.S. Department of Health and Human Services. Heart Disease and Stroke. Healthy People 2020 website. 2014. Available at: <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=21>. Accessed December 10, 2013.
41. Centers for Disease Control and Prevention. High Blood Pressure-High Blood Pressure Facts. CDC website. 2013. Available at: <http://www.cdc.gov/bloodpressure/facts.htm>. Accessed December 10, 2013.
42. National Institutes of Health, National Heart, Lung, and Blood Institute (NHLBI). Morbidity and mortality: 2009 chart book on cardiovascular, lung and blood diseases. Bethesda, MD: NHLBI; 2009 Oct [cited 2010 Mar 29]. Available at <http://www.nhlbi.nih.gov/resources/docs/cht-book.htm>. Accessed March 7, 2014.
43. Brault MW, Hootman J, Helmick CG, et al. Prevalence and most common causes of disability among adults, United States, 2005. *MMWR*. 2009;58(16):421-26.
44. Centers for Disease Control and Prevention. Arthritis. CDC website. 2011. Available at: [http://www.cdc.gov/arthritis/data\\_statistics/cost.htm](http://www.cdc.gov/arthritis/data_statistics/cost.htm). Accessed March 7, 2014
45. Centers for Disease Control and Prevention. About heart disease. CDC website. 2009. Available at: <http://www.cdc.gov/heartdisease/about.htm>. Accessed November 11, 2014
46. Heidenreich PA, Trogon JG, Khavjou OA, et al. Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association. *Circulation*. 2011;123(8):933–44.
47. U.S. Department of Health and Human Services. Cancer. Healthy People 2020 website. 2014. Available at: <https://www.healthypeople.gov/2020/topics-objectives/topic/cancer>. Accessed on November 21, 2014.

Due to changes in BRFSS survey methodology 2011, 2012 and 2013 BRFSS estimates cannot be compared with estimates from previous years. See Technical Notes for more information about BRFSS survey methodology.

48. Centers for Disease Control and Prevention. Skin Cancer. CDC website. 2014. Available at: <http://www.cdc.gov/cancer/skin/>. Accessed November 21, 2014.
49. Centers for Disease Control and Prevention. High Cholesterol. CDC website. 2014. Available at: <http://www.cdc.gov/cholesterol/>. Accessed November 21, 2014.
50. Centers for Disease Control and Prevention. Cholesterol Fact Sheet. CDC website. 2013. Available at: [http://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/fs\\_cholesterol.htm](http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_cholesterol.htm). Accessed November 21, 2014.
51. Centers for Disease Control and Prevention. Chronic Diseases and Health Promotion. CDC website. 2014. Available at: <http://www.cdc.gov/chronicdisease/overview/index.htm>. Accessed January 26, 2015.
52. U.S. Department of Health and Human Services. HHS Initiative on Multiple Chronic Conditions. Health and Human Services website. 2014. Available at: <http://www.hhs.gov/ash/initiatives/mcc/>. Accessed November 21, 2014.