

Heart Disease in Kansas

2013 Kansas Behavioral Risk Factor Surveillance System

In 2013, heart disease was the second leading cause of death among Kansans.¹ Heart disease refers to several different types of heart conditions, the most common being coronary artery disease.² Coronary artery disease can cause heart attacks, angina and heart failure.² In the U.S., coronary heart disease costs \$108.9 billion each year.³ 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 who 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/ethnicity groups (age-adjusted prevalence).

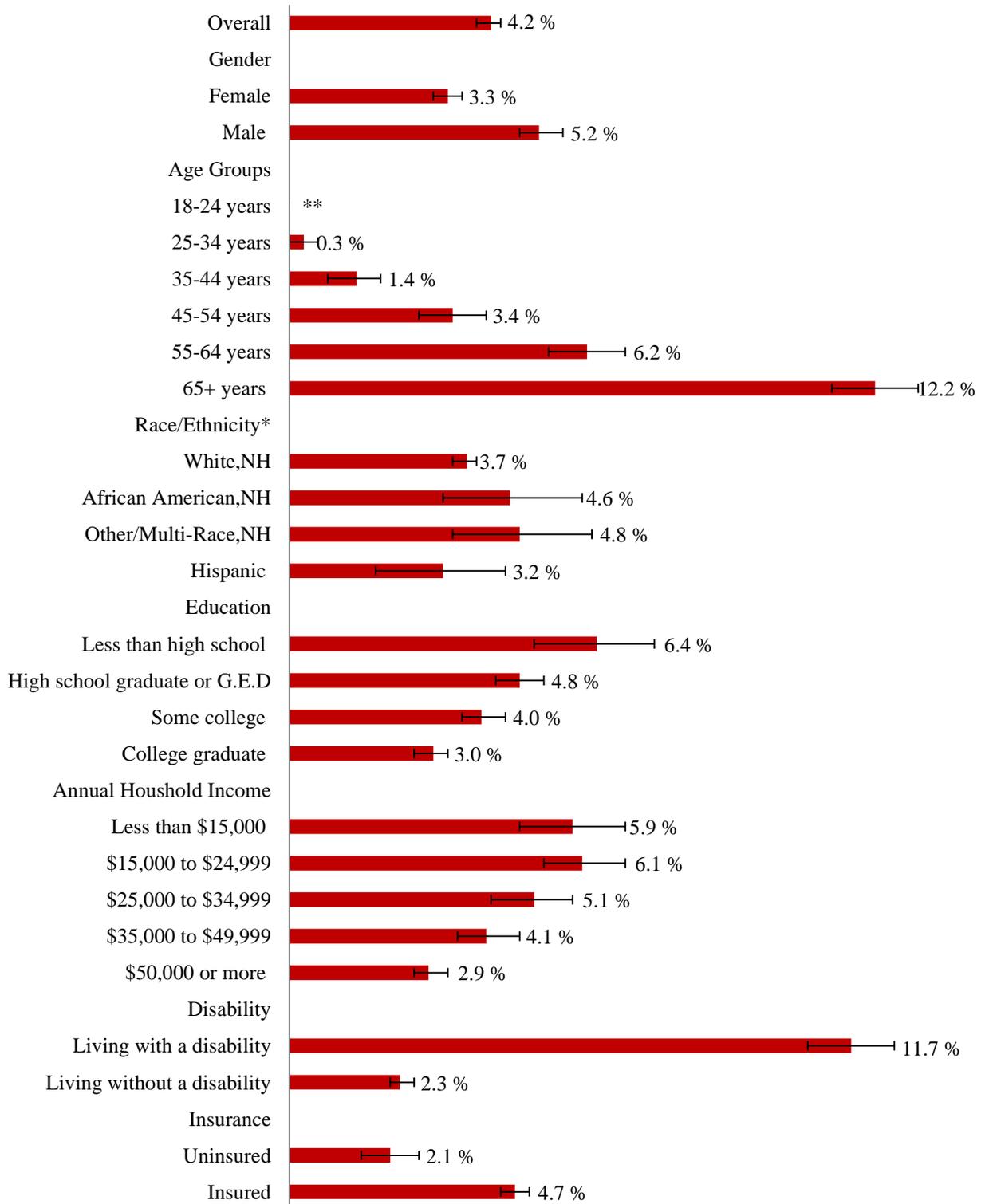
*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.

** Insufficient sample and/or statistically unreliable estimate

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

Demographic Characteristics	Weighted Percentage	95% CI
Overall	4.2	4-4.5
Gender		
Female	3.3	3.0-3.6
Male	5.2	4.7-5.6
Age Groups		
18-24 years	**	**
25-34 years	0.3	0.0-0.6
35-44 years	1.4	0.9-2.0
45-54 years	3.4	2.7-4.1
55-64 years	6.2	5.4-7.0
65+ years	12.2	11.3-13.1
Race/Ethnicity*		
White, NH	3.7	3.5-4.0
African-American, NH	4.6	3.1-6.0
Other/Multi-Race, NH	4.8	3.3-6.2
Hispanic	3.2	1.9-4.6
Education		
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	4.0	3.5-4.4
College graduate	3.0	2.7-3.4
Annual Household Income		
Less than \$15,000	5.9	4.8-7.0
\$15,000 to \$24,999	6.1	5.2-6.9
\$25,000 to \$34,999	5.1	4.3-6.0
\$35,000 to \$49,999	4.1	3.4-4.7
\$50,000 or more	2.9	2.5-3.2
Disability		
Living with a disability	11.7	10.8-12.6
Living without a disability	2.3	2.0-2.5
Insurance		
Uninsured	2.1	1.5-2.7
Insured	4.7	4.4-5.0

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



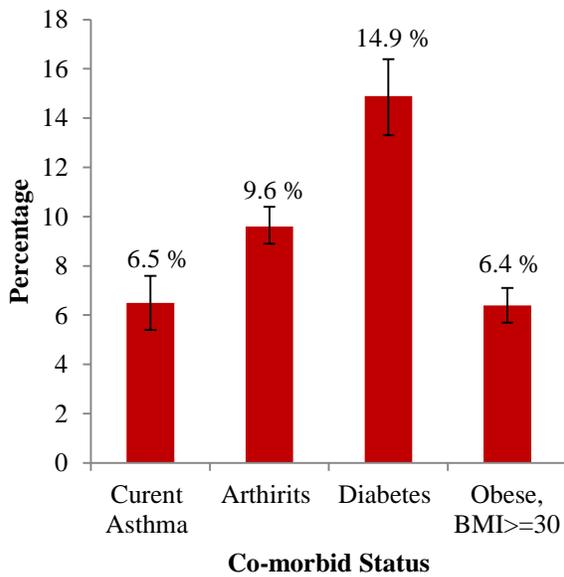
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Percentage of Adults 18 Years Old and Older With Diagnosed Heart Disease by Co-morbid Conditions, KS BRFSS 2013

Co-Morbid Conditions	Weighted Percentage	95% CI
Current Asthma Status		
Yes	6.5	5.4-7.6
No	4.0	3.7-4.3
Arthritis Status		
Yes	9.6	8.8-10.3
No	2.6	2.3-2.8
Diabetes Status		
Yes	14.9	13.4-16.5
No	3.1	2.9-3.4
Weight Category		
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, 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.

References:

1. 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.
2. 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.
3. 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.

Technical Notes

The Behavioral Risk Factor Surveillance System (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. 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).

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

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.