

# Hypertension in Kansas

## 2013 Kansas Behavioral Risk Factor Surveillance System

One of the leading modifiable risk factors for heart disease and stroke is hypertension.<sup>1</sup> Adults with hypertension are at higher risk for heart disease, stroke, congestive heart failure and end-stage renal disease.<sup>1</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:

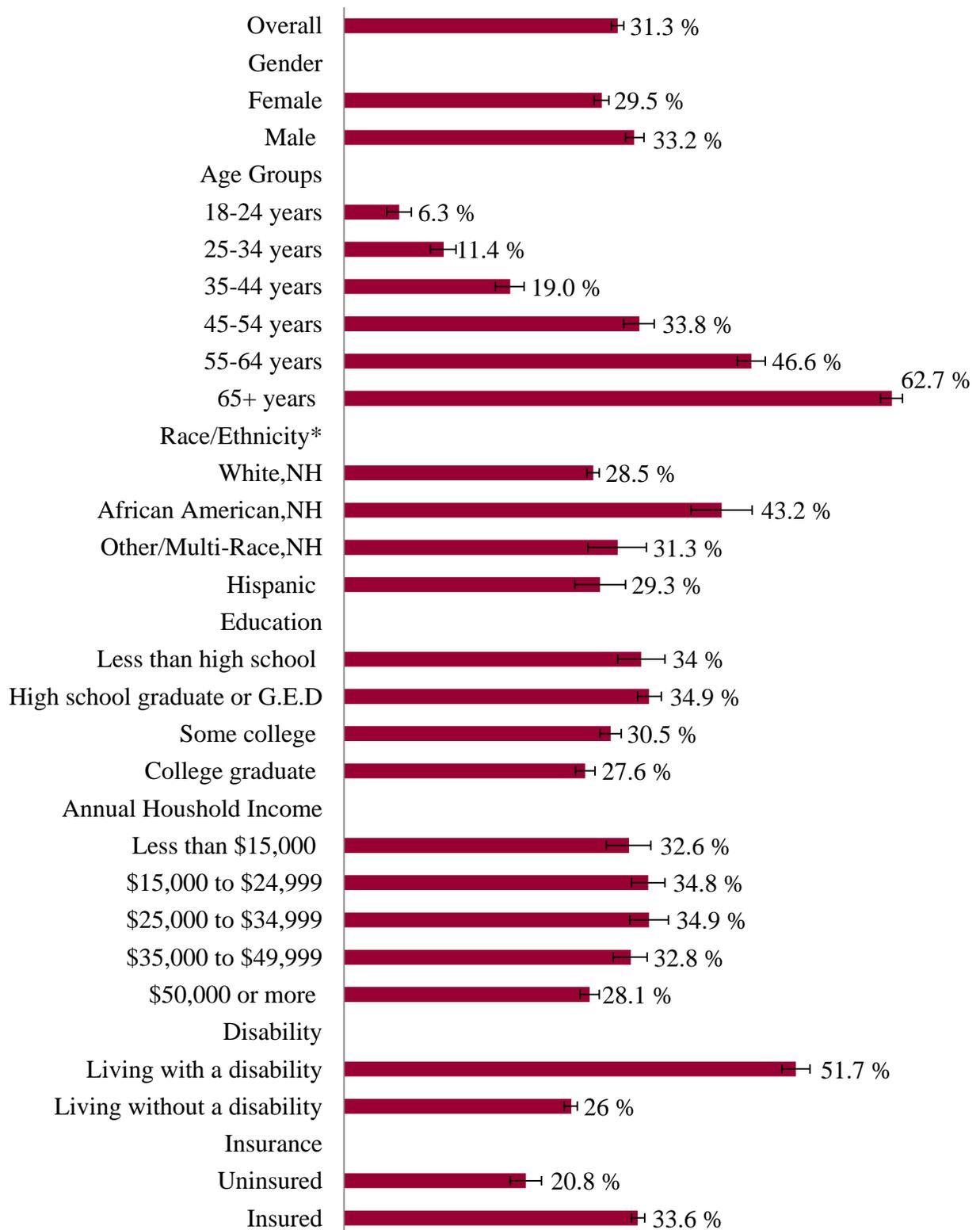
- Males compared with females
- Older adults compared with younger adults
- Non-Hispanic African-Americans compared with all other race/ethnicity groups (age-adjusted prevalence).
- High school graduates or adults with a GED compared with adults with some college and college graduates
- Adults with an 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	19.0	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	34.0	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	26.0	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

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

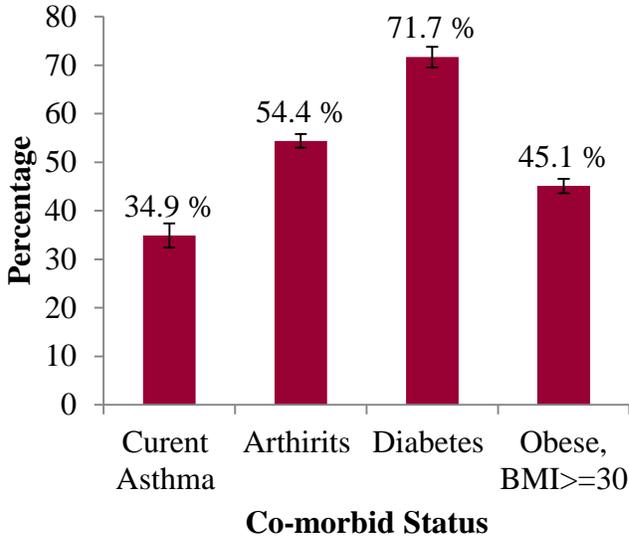


\*Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population

**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	31.0	30.3-31.7
<b>Arthritis Status</b>		
Yes	54.4	53-55.8
No	24.0	23.2-24.8
<b>Diabetes Status</b>		
Yes	71.7	69.6-73.9
No	27.0	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.

## References:

1. 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.

## 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](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.