## Colorectal Cancer Screening in Kansas: Colonoscopy in the past 10 years

In 2018, 64.6 percent (95% Confidence Interval (CI): 63.1% to 66.2%) of Kansas adults 50-75 years had a colonoscopy in the past 10 years (Table 10-2).

The percentage of Kansans who had a colonoscopy in the last 10 years was significantly lower among Kansans aged 50 to 64 years (60.1%; 95% CI: 58.0% to 62.2%) compared to Kansans aged 65 years and older (73.3%; 95% CI: 71.6% to 75.9%).

The percentage of Kansans 50-75 years who had a colonoscopy in the past 10 years was significantly higher among White (65.7%; 95% CI: 64.1% to 67.3%) compared to other racial groups. The screening rate was also significantly lower among Hispanic (50.2%; 95% CI: 40.7% to 59.7%) compared to non-Hispanic (65.5%; 95% CI: 63.9% to 67.1%) Kansans.

In 2018, there was a trend of having a higher rate of colonoscopy in the past 10 years with increased level of education and more annual household income. The percentage of Kansans 50-75 years who had a colonoscopy in the past 10 years was significantly higher among college graduates (72.9%; 95% CI: 70.7% to 75.1%) compared to those with lower levels of education. In addition, the percentage of Kansans 50-75 years who had a colonoscopy in the past 10 years was significantly lower among those with less than high school (45.8%; 95% CI: 38.2% to 53.4%) compared to those with higher levels of education. Regarding annual household income, the percentage of Kansans 50-75 years who had a colonoscopy in the past 10 years was significantly lower among those whose annual household income was less than \$15,000 (49.1%; 95% CI: 44.3% to 54.0%) compared to those whose annual household income was \$25,000 or higher. In addition, the rate was significantly lower among those whose household income was \$35,000 and higher. Furthermore, the rate was significantly lower among those whose household income was less than \$35,000 compare to those whose household income was \$50,000 or higher (71.5%; 95% CI: 69.4% to 73.7%).

The percentage of Kansans 50-75 years who had a colonoscopy was significantly lower among those without health insurance (31.7%; 95% CI: 25.2% to 38.1%) compared to others with health insurance (67.4%; 95% CI: 65.8% to 69.0%). Additionally, the percentage of Kansans 50-75 years who had a colonoscopy was significantly lower among Kansans living in rural counties (60.5%; 95% CI: 57.8% to 63.2%) compared to those living in urban counties (66.6%; 95% CI: 64.6% to 68.5%). In Kansas, the percentage of adults 50-75 years who had a colonoscopy was significantly lower among those living with a disability (61.2%; 95% CI: 58.2% to 64.2%) compared to those living without a disability (66.3%; 95% CI: 64.5% to 68.2%).

The percentage of Kansans 50-75 years who had a colonoscopy in the past 10 years did not differ significantly by gender groups.

Table 10-2. Percentage of adults 50-75 years who have had a colonoscopy during the past 10 years by selected characteristics, Kansas 2018

Characteristic	Percentage adults 50-75 years and older who have had a colonoscopy during the past 10 years by selected characteristics	95% Confidence Interval		
Total	64.6%	63.1%	to	66.2%
Gender				
Male	63.4%	61.0%	to	65.7%
Female	65.8%	63.7%	to	68.0%
Age group		•		
50-64	60.1%	58.0%	to	62.2%
65-75	73.3%	71.6%	to	75.9%
Race			•	
White	65.7%	64.1%	to	67.3%
African American	57.3%	48.2%	to	66.3%
American Indian/Native Alaskan	50.8%	35.0%	to	66.7%
Asian/Pacific Islander	37.3%	18.7%	to	55.6%
Ethnicity				
Hispanic	50.2%	40.7%	to	59.7%
Non-Hispanic	65.5%	63.9%	to	67.1%
Education		•	,	•
Less than high school	45.8%	38.2%	to	53.4%
High school graduate or GED	61.0%	57.9%	to	64.0%
Some college	64.5%	61.7%	to	67.3%
College graduate	72.9%	70.7%	to	75.1%
Household Income				
Less than \$15,000	42.8%	36.4%	to	49.2%
\$15,000 to \$24,999	52.9%	47.6%	to	58.1%
\$25,000 to \$34,999	60.3%	54.8%	to	65.8%
\$35,000 to \$49,999	66.4%	62.3%	to	70.6%
\$50,000 or higher	71.5%	69.4%	to	73.7%
Insurance Status		•		*
Uninsured	31.7%	25.2%	to	38.1%
Insured	67.4%	65.8%	to	69.0%
County Population Density		1		†
Rural	60.5%	57.8%	to	63.2%
Urban	66.6%	64.6%	to	68.5%
Disability Status				•
Living with a disability	61.2%	58.2%	to	64.2%
Living without a disability	66.3%	64.5%	to	68.2%

<sup>\*</sup>Prevalence estimates are unable to be presented due to insufficient counts.

Source: 2018 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, Kansas Department of Health and Environment. See Technical Appendix for details on how prevalence estimates were calculated. County population density peer groups are based on the population for each county in the 2000 population, where rural group included Frontier (fewer than 6 persons per square mile), Rural (6 to 19.9 persons per square mile), Densely-Settled Rural (20 to 39.9 persons per square mile), while urban included Semi-Urban (40 to 149.9 persons per square mile), and Urban (150 or more persons per square mile).

## Colorectal Cancer Screening in Kansas: Fecal Occult Blood Test (FOBT) in the past year

In 2018, 6.5 percent (95% Confidence Interval (CI): 5.7% to 7.2%) of Kansas adults 50-75 years have had an FOBT in the past year (Table 10-3).

The percentage of Kansans who have had an FOBT in the past year was significantly lower among Kansans aged 50 to 64 years (4.5%; 95% CI: 3.6% to 5.3%) compared to Kansans aged 65-75 years (10.5%; 95% CI: 9.0% to 11.9%).

However, the percentage of Kansans 50-75 years who had an FOBT in the past year was significantly lower among college graduates (4.7%; 95% CI: 3.8% to 5.7%) when compared with high school graduates (8.2%; 95% CI: 6.7% to 13.4%).

In Kansas, the percentage of adults 50-75 years who had an FOBT in the past year was significantly lower among those living without a disability (5.4%; 95% CI: 4.6% to 6.2%) compared to those living with a disability (8.7%; 95% CI: 7.1% to 10.2%).

In 2018, the percentage of Kansans 50-75 years who had an FOBT in the past year did not differ significantly by race, household income, or the county population density. It was not available to evaluate differences by ethnicity or the insurance status due to the insufficient numbers to calculate the rates in some categories.

The percentage of Kansans who had an FOBT in the past two years did not differ significantly by gender.

Table 10-3. Percentage of adults 50-75 years and older who have had an FOBT in the past year by selected characteristics, Kansas 2018

Characteristic	Percentage adults 50-75 years and older who have had an FOBT in the past by selected characteristics	95% Confidence Interval		
Total	6.5%	5.7%	to	7.2%
Gender				
Male	7.2%	6.1%	to	8.3%
Female	5.8%	4.8%	to	6.8%
Age group				
50-64	4.5%	3.6%	to	5.3%
65-75	10.5%	9.0%	to	11.9%
Race				
White	6.5%	5.7%	to	7.3%
African American	5.6%	2.3%	to	9.0%
American Indian/Native Alaskan*	-	-	-	-
Asian/Pacific Islander*	-	-	-	-
Ethnicity				
Hispanic*	-	-	-	-
Non-Hispanic	6.7%	5.9%	to	7.5%
Education				
Less than high school	6.1%	3.0%	to	9.9%
High school graduate or GED	8.2%	6.7%	to	13.4%
Some college	6.9%	5.5%	to	8.2%
College graduate	4.7%	3.8%	to	5.7%
Household Income				
Less than \$15,000	9.0%	5.3%	to	12.8%
\$15,000 to \$24,999	6.3%	4.1%	to	8.4%
\$25,000 to \$34,999	8.1%	5.3%	to	11.0%
\$35,000 to \$49,999	6.6%	4.6%	to	8.6%
\$50,000 or higher	6.0%	5.0%	to	7.1%
Insurance Status				
Uninsured*	-	-	-	-
Insured	6.9%	6.1%	to	7.6%
County Population Density			_	
Rural	7.0%	5.7%	to	8.3%
Urban	6.2%	5.3%	to	7.1%
Disability Status		•	•	
Living without a disability	5.4%	4.6%	to	6.2%
Living with a disability	8.7%	7.1%	to	10.2%

<sup>\*</sup>Prevalence estimates are unable to be presented due to insufficient counts.

Source: 2018 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, Kansas Department of Health and Environment. See Technical Appendix for details on how prevalence estimates were calculated. County population density peer groups are based on the population for each county in the 2000 population, where rural group included Frontier (fewer than 6 persons per square mile), Rural (6 to 19.9 persons per square mile), Densely-Settled Rural (20 to 39.9 persons per square mile), while urban included Semi-Urban (40 to 149.9 persons per square mile), and Urban (150 or more persons per square mile).

## Colorectal Cancer Screening in Kansas: Meeting the U.S. Prevention Services Task Force Recommendations

The U.S. Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer among adults age 50-75 years using FOBT or FIT annually, FIT-DNA annually or every three years, sigmoidoscopy every 5 years, CT colonography every 5 years, sigmoidoscopy every 10 years combined with annual FIT, or colonoscopy every 10 years.<sup>29</sup>

In 2018, 67.3 percent (95% Confidence Interval (CI): 65.7% to 68.8%) of Kansas adults aged 50-75 years old met the USPSTF recommendation for colorectal cancer screening (Table 10-4).

The percentage of Kansans adults who met the USPSTF recommendation for colorectal screening was significantly lower among Kansans aged 50-64 years (62.1%; 95% CI: 60.0% to 64.2%) compared to Kansans aged 65-75 years (77.6%; 95% CI: 75.6% to 79.6%).

In 2018, the percentage of Kansans aged 50-75 years old who met the USPSTF recommendation for colorectal screening was significantly lower among Hispanics (51.5%; 95% CI: 41.9% to 61.0%) compared to Non-Hispanics (65.5; 95% CI: 63.9% to 67.1%).

In 2018, the percentage of Kansans aged 50-75 years old who have met the USPSTF recommendation for colorectal screening were significantly lower among those with education level less than high school, followed by those who were high school graduates, and significantly higher among those who graduated from college, followed by those who attended some college education.

In Kansas, there is a trend of increasing the screening rate of colorectal cancer with increasing the household income, where the lowest percentage of Kansans aged 50-75 years who have met the USPSTF recommendation for colorectal screening was for those whose annual household income was less than \$15,000 (47.0%; 95% CI: 40.5% to 53.6%) and the highest percentage was for those whose annual household income was \$50,000 or more (73.7%; 95% CI: 71.5% to 75.6%).

The percentage of Kansans aged 50-75 years old who have met the USPSTF recommendation for colorectal screening was significantly lower among those without health insurance (32.7%; 95% CI: 26.2% to 39.2%) compared to adults with health insurance (70.2%; 95% CI: 68.6% to 71.7%) in 2018.

The percentage of Kansans aged 50-75 years old who have met the USPSTF recommendation for colorectal screening was significantly lower among Kansans living in rural (63.2%; 95% CI: 60.5% to 65.9%) when compared to those living in urban counties (69.2%; 95% CI: 67.3% to 71.1%).

In Kansas, the percentage of adults aged 50-75 years old who have met the USPSTF recommendation for colorectal screening did not differ significantly by gender, race, or the disability status.

<sup>&</sup>lt;sup>29</sup> Force USPST, Bibbins-Domingo K, Grossman DC, Curry SJ, Davidson KW, Epling JW, Jr., et al. 2016b. Screening for colorectal cancer: Us preventive services task force recommendation statement. JAMA 315:2564-2575.

Table 10-4. Percentage of adults aged 50-75 years old who have met the USPSTF screening guidelines for colorectal cancer, Kansas 2018

Characteristic	Percentage adults 50-75 years old who have met the USPSTF screening guidelines by selected characteristics	95% Confidence Interval		
Total	67.3%	65.7%	to	68.8%
Gender				
Male	65.8%	63.5%	to	68.2%
Female	68.6%	66.5%	to	70.7%
Age group				
50-64	62.1%	60.0%	to	64.2%
65-75	77.6%	75.6%	to	79.6%
Race				
White	68.2%	66.6%	to	69.8%
African American	60.3%	51.3%	to	69.3%
American Indian/Native Alaskan	55.2%	39.0%	to	71.3%
Asian/Pacific Islander	43.5%	24.0%	to	63.0%
Ethnicity				
Hispanic	51.5%	41.9%	to	61.0%
Non-Hispanic	65.5%	63.9%	to	67.1%
Education				•
Less than high school	49.5%	41.9%	to	57.1%
High school graduate or GED	63.9%	60.9%	to	66.9%
Some college	67.6%	64.9%	to	70.3%
College graduate	74.6%	72.4%	to	76.7%
Household Income				
Less than \$15,000	47.0%	40.5%	to	53.6%
\$15,000 to \$24,999	56.0%	50.7%	to	61.2%
\$25,000 to \$34,999	64.2%	58.8%	to	69.6%
\$35,000 to \$49,999	68.7%	64.6%	to	72.8%
\$50,000 or higher	73.6%	71.5%	to	75.6%
Insurance Status				
Uninsured	32.7%	26.2%	to	39.2%
Insured	70.2%	68.6%	to	71.7%
County Population Density				
Rural	63.2%	60.5%	to	65.9%
Urban	69.2%	67.3%	to	71.1%
Disability Status				
Living with a disability	64.5%	61.5%	to	67.4%
Living without a disability	68.6%	66.8%	to	70.4%

Source: 2018 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, Kansas Department of Health and Environment. See Technical Appendix for details on how prevalence estimates were calculated. County population density peer groups are based on the population for each county in the 2000 population, where rural group included Frontier (fewer than 6 persons per square mile), Rural (6 to 19.9 persons per square mile), Densely-Settled Rural (20 to 39.9 persons per square mile), while urban included Semi-Urban (40 to 149.9 persons per square mile), and Urban (150 or more persons per square mile).