# Health Disparities: A Rural – Urban Chartbook





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# Health Disparities: A Rural – Urban Chartbook

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# **Executive Summary**

Rural minorities experience disparities in health and health care delivery. Previous studies have illustrated many of the health disparities experienced by rural residents, such as poorer health status, higher obesity prevalence, more with activity limitations, and higher mortality rates. The Chartbook seeks to expand the work of the National Healthcare Disparities Reports, issued annually by the Agency for Healthcare Research and Quality. These Reports are limited in their discussion of disparities experienced by rural residents and present little data regarding disparities among rural minority populations. The present Chartbook expands upon prior work by examining potential disparities among rural populations in health, health behaviors, preventive services and diabetes care.

Information for the Chartbook was drawn from three sources: the 2005 and the 2006 Behavioral Risk Factor Surveillance Surveys (BRFSS) and the 2005 Area Resource File (ARF). Urban/Rural residence was defined at the county level using Urban Influence Codes (UICs). Counties were categorized as "micropolitan" rural (UIC Codes 3, 5 & 8), "small rural adjacent to a metro area" (UIC Codes 4, 6 & 7), and "remote rural" (UIC Codes 9, 10, 11, & 12). If UIC Codes were 1 or 2, then the county was coded as "Urban". Race / Ethnicity was defined using the BRFSS race definitions, including: Non-Hispanic white (hereafter "white"), non-Hispanic black (hereafter "black"), Asian and Pacific Islander (API, hereafter "Asian"), and American Indian and Alaska Native (AI/AN, hereafter "American Indian"). All other races, as well as respondents who either refused to identify their race or did not know what their race was, were collectively classified as "other." All Hispanics were grouped together, regardless of race.

Key findings of the Chartbook include:

<u>Health & Health Behaviors</u>

- Residents in any rural county were more likely to report fair to poor health status than were residents of urban counties (19.5% versus 15.6%).
- Rural adults were more likely to report having diabetes than were urban adults (9.6% versus 8.4%).
- Rates of diabetes were markedly higher among rural American Indian (15.2%) and black adults (15.1%).
- Rural residents were more likely to be obese than were urban residents (27.4% versus 23.9%).
- Rural black adults were particularly at risk for obesity; their obesity rate ranged from 38.9% in rural micropolitan counties to 40.7% in remote rural counties.
- Rural residents were less likely than urban residents to meet CDC recommendations for moderate or vigorous physical activity (44.0% versus 45.4%).
- Rural black adults were less likely to meet recommendations for physical activity than other rural residents; this difference persisted across all levels of rurality.

# Access to Healthcare Services

- Rural residents were more likely to be uninsured than urban residents (17.8% versus 15.3%).
- Hispanic adults were most likely to lack insurance, with uninsured rates ranging from 40.8% in rural micropolitan counties to 56.1% in small remote rural counties.



- Most rural and urban residents report having a personal health care provider (81.0% and 79.4%, respectively). Across rural counties, residents in remote rural counties were least likely to have a personal physician (78.7%).
- Rural white adults were more likely to report having a personal health care provider than were other adults. Among Hispanic adults, the proportion with a personal provider ranged from 60.4% in rural micropolitan counties to 47.7% in remote rural counties.
- Rural adults were more likely than urban adults to report having deferred care because of cost (15.1% versus 13.1%).
- Black, Hispanic and American Indian rural adults were more likely to report having deferred care due to cost than were white rural adults.

Receipt of Preventive Services

- Rural women were less likely than urban women to be in compliance with mammogram screening guidelines (70.7% versus 77.9%).
- Rural women were less likely to report having a pap smear done within the past three years than urban women (86.0% versus 91.4%).
- Rural residents over age 50 were less likely ever to have had a colorectal cancer screening than were urban residents (57.7% versus 61.4%).

# Quality of Diabetes Care

- The proportion of adults with diabetes who reported receiving at least two hemoglobin A1c tests within the past year was low among both rural (33.1%) and urban (35.0%) residents.
- White rural residents with diabetes were more likely than black or Hispanic residents to receive at least two hemoglobin A1c tests in the past year.
- Only 64.2% of rural and 69.1% of urban adults with diabetes reported receiving an annual dilated eye exam (not significantly different).



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#### Introduction

Rural populations, and rural minority populations in particular, continue to experience marked disparities in health and health care access. The 2001 *Health, United States* report documented many of the health disparities experienced by rural residents. Rural residents experience a higher premature mortality rate, infant mortality rate, and age-adjusted death rate than urban and suburban residents<sup>1</sup>. Rural adults are more likely to report poor health status, obesity and limitations in activity than urban residents<sup>2</sup>.

Health care access is a significant issue for rural residents as well. Short and long-term uninsured status is associated with reduced access to and utilization of health care services<sup>12</sup>. Rural minorities are more likely to lack health insurance, due in large part to the type of employment opportunities offered in rural areas<sup>13</sup> This is especially true of Hispanic rural residents, who are the least likely of all rural residents to have insurance<sup>3</sup>. The lower insurance rates, however, do not fully explain racial differences in healthcare utilization or access<sup>4-6</sup>.

Rural areas have additional problems obtaining needed care. Nearly two-thirds of the rural counties in the U.S. are designated health professional shortage areas (HPSAs). Counties in which blacks or Hispanics are the majority population are more likely to be designated as a HPSA<sup>14</sup>. Studies have shown that minorities are less likely to have a personal physician and have fewer physician visits than whites, for both adults and children<sup>5,15-18</sup>. The literature is unclear, however, whether this relationship holds true for rural minorities, particularly if insurance status and other factors are controlled<sup>15</sup>.

Several studies have shown differences in preventive services delivery across minority groups. Hispanics are less likely to receive some services, such as breast exams, blood pressure screenings, and cholesterol screenings than whites, while blacks were more likely to have had a pap smear<sup>19</sup>. Rural minorities are also less likely to receive preventive care<sup>7</sup> or to be screened for cancer<sup>8</sup> than urban minorities. Access to primary care, however, alleviates or eliminates these racial differences in service delivery<sup>19,20</sup>.

Rural residents with diagnosed disease may experience disparities in treatment. Rural residents with sickle cell anemia are less likely to access services than urban residents<sup>21</sup>. Similarly, rural black adults with diabetes exhibit poorer control than their urban peers<sup>9</sup>. Rural residents over the age of 65 are more likely to have tooth loss, and rural residents in general experienced reduced access to dental services compared to urban residents<sup>22</sup>.

While many studies have examined rural and racial disparities of health or health care, detailed and comprehensive analyses are uncommon. For example, the *2006 National Healthcare Disparities Report*<sup>10</sup> examined rural disparities as one of its priority populations. Only two measures, inpatient heart attack mortality and hospital admissions for pediatric asthma, displayed estimates for non-micropolitan rural areas. These two measures, however, suggested substantial racial disparities for rural residents. The *2007 National Healthcare Disparities Report*<sup>11</sup> expanded the analysis to include noncore areas in all five measures, again finding significant levels of disparity among rural residents. Neither report, however, was able to analyze in depth the experience of minorities across different levels of rurality, or across a wider range of measures.

It is a challenge to obtain usable estimates for many health and access measures among rural residents. The usual method of generating national estimates for many health care indicators is the use of nationally representative datasets. These datasets, however, are limited by the number of



rural respondents, and the numbers are often too small for estimation once specific subgroups are identified. This is the reason for the lack of rural estimates in the National Healthcare Disparities Report.

The notion that rural populations are homogenous across both race and geography appears to be pervasive, despite educational efforts such as the rural-themed issue of the *American Journal of Public Health* (December, 2004). Disease distributions across race and gender differ between rural and urban areas<sup>23</sup>, making different interventions appropriate for each. Effective policy for eliminating health disparities cannot be developed, however, without basic epidemiologic and utilization information about rural populations. A focused report illustrating disparities within rural populations, made widely available and containing state-specific information, should contribute demonstrably to understanding dually disadvantaged populations such as rural minorities.

#### **Objectives**

The report presented here has two objectives:

- To provide an accurate estimate of population health, access to care, quality of care and outcomes among adults, documenting disparities based on residence and race/ethnicity.
- To provide state-specific estimates for key indicators of the preceding measures.

#### Definitions

The chartbook focuses on the <u>adult population</u>, defined as persons 18 and older. Analyses draw on data from two Federal sources: the 2005 Behavioral Risk Factor Surveillance Survey (BRFSS) and the 2005 Area Resource File (ARF).

*Urban/Rural residence* was defined at the county level using Urban Influence Codes (UICs). "Rural" in the aggregate was defined as UIC Codes 3 through 12 ("All rural"). When differentiated by level of rurality, counties were categorized as "micropolitan" rural (UIC Codes 3, 5 & 8), "small rural adjacent to a metro area" (UIC Codes 4, 6 & 7), and "remote rural" (UIC Codes 9, 10, 11, & 12). If UIC Codes are 1 or 2, then the county was coded as "Urban". A fuller description of the population levels included in different UIC Codes is provided in the Technical Notes.

**Race / Ethnicity** was defined using the BRFSS race definitions for online reporting. Classifications included: Non-Hispanic white (hereafter "white"), non-Hispanic black (hereafter "black"), Asian and Pacific Islander (API, hereafter "Asian"), and American Indians and Alaska Natives (AI/AN, hereafter "American Indian"). All other races, as well as respondents who either refused to identify their race or did not know what their race was, were collectively classified as "other." All Hispanics are grouped together, regardless of race.

#### How the Chartbook is Organized

The Chartbook is organized into two main sections. The first section presents the national estimates for adult health. Chapter 1 provides information on health and health behaviors, including perceived health status, prevalence of risk factors such as obesity and physical inactivity, and reported prevalence for asthma and diabetes. Chapter 2 addresses access to care, including health insurance, costs of care, and use of selected services. Chapter 3 examines receipt of recommended preventive services. The quality of diabetes care, for adults who report that they experience this disease, is examined in Chapter 4. The second section of the Chartbook presents state estimates (if available) by the same topic areas. The state sections are presented in table format.



#### About the Behavioral Risk Factor Surveillance Survey

Information about health, health care, and access to care presented in the Chartbook is primarily drawn from the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a state-based, telephone administered system of health surveys, which collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. It particularly focuses on health issues like asthma, diabetes, health care access, alcohol use, hypertension, obesity, cancer screening, nutrition and physical activity, tobacco use, and more. There is a core module and a state specific module administered during the survey. The core module is uniform across the U.S., while the state modules vary based on state needs and requirements. Data are collected monthly in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. There are more than 350,000 adults interviewed each year, making the BRFSS the largest telephone health survey in the world.

For more information on the BRFSS, please read the methodology report at the main website: http://www.cdc.gov/brfs.



# National Profile



# Chapter 1: Health & Health Behaviors

Characteristics of individuals that may place them at increased risk for adverse health outcomes are presented below. In this section, information is provided for major race/ethnicity groups within the U.S. population, by the level of rurality of the county in which they live.

## <u>Highlights:</u>

- Residents in any rural county were more likely to report fair to poor health status than were urban residents (19.5% versus 15.6%).
- The proportion of persons in fair to poor health increases from 18.6% in rural micropolitan counties to 21.9% in remote rural counties.
- In remote rural counties, 32.1% of Hispanic, 29.2% of black, and 27.6% of American Indian respondents were in fair to poor health in 2005.
- Rural adults were more likely to report having diabetes than were urban adults (9.6% versus 8.4%).
- Rates of diabetes were markedly higher among rural American Indian (15.7%) and black adults (15.1%).
- American Indian respondents were more likely than other groups to report limitations in their activities due to physical, mental or emotional problems. 34.7% of American Indians living in small adjacent rural counties reported such limitations.
- Rural residents were more likely to be obese than were urban residents (27.4% versus 23.9%).
- Rural black adults were particularly at risk for obesity; their obesity rate ranged from 38.9% in rural micropolitan counties to 40.7% in remote rural counties.
- Rural residents were less likely than urban residents to meet CDC recommendations for moderate or vigorous physical activity (44.0% versus 45.4%).
- Rural black adults were less likely to meet recommendations than other rural residents; this difference persisted across all levels of rurality.



#### **Health Status**

Residents in any rural county were more likely to report fair to poor health status than were urban residents. The proportion of residents in fair to poor health increased steadily with level of rurality, and was highest among residents of remote rural counties. Among rural adults, race / ethnicity differences included:

> • Among white, Hispanic, and adults of "other" race, the more rural the county, the more likely that the person would describe their health as only fair to poor.

Among black adults,



#### Adults Reporting Fair to Poor Health, by Level of Rurality, in Percents

respondents in small adjacent rural counties were less likely to report fair to poor health than were residents in other rural counties.

• Among Asian and American Indian adults, persons in small, adjacent rural counties were more likely than those in other rural settings to report only fair to poor health.



#### Adults Reporting Fair to Poor Health, by Race and Level of Rurality, in Percents

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



## Asthma

Rural adults were more likely to report having asthma than were urban adults.

Micropolitan rural residents had a higher asthma rate than other rural residents. Among rural adults, race / ethnicity differences included:

- Rural American Indian adults and those of other races had the highest reported rate of asthma, across all levels of rurality, while Asians were the lowest.
- Among black adults, asthma rates did not differ by residence.



# Adults with Asthma, by Level of Rurality, in Percents

# Adults with Asthma, by Race and Level of Rurality, in Percents



<sup>†</sup> Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



## Diabetes

Rural adults were more likely than urban adults to report having diabetes. Within rural counties, adults in small, adjacent rural counties were most likely to report having diabetes. Among rural adults, race / ethnicity differences included:

- Rural black adults were nearly 20% more likely to report having diabetes than were urban black residents.
   Within rural residents, American Indian and black persons were more likely to report having diabetes than white rural residents.
- Rural Asians consistently reported low rates of diabetes, less than onehalf of blacks and American Indians.



# \_Adults with Diabetes, by Level of Rurality, in Percents

#### Adults with Diabetes, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



## **Activity Limitations**

Similar proportions of rural and urban adults experience limitations in their daily activities because of physical, mental or emotional problems. Among rural adults, race / ethnicity differences included:

- A greater proportion of American Indians and persons of other race/ethnicity reported a limiting condition than among white, black or Hispanic rural residents.
- Slightly more than a third of American Indians living in small adjacent rural counties reported limitations in daily activities.



# Adults with Activity Limitations, by Level of Rurality, in Percents



### Adults with Activity Limitations, by Race and Level of Rurality, in Percents

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents were asked if they had any physical, mental, or emotional problems that limited their activities. Positive responses were used to estimate activity limitation prevalence.



## Need for Assistive Equipment

Rural adults were more likely to report needing equipment for a health problem than were urban adults. The proportion of adults reporting that they needed assistive equipment increased with level of rurality. Among rural adults, race / ethnicity differences included:

- Black, American Indian, and respondents of other races were more likely to report needing equipment than were whites, Asians, or Hispanics.
- American Indians living in rural areas were markedly less likely to report needing assistive equipment than were their peers living in urban counties.



#### Adults Needing Assistive Equipment, by Level of Rurality, in Percents

# Adults Needing Assistive Equipment, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents were asked if they currently had a health problem that required equipment, such as a cane, a wheelchair, a special bed, or a special telephone. The analysis is limited to those who indicated having a limiting condition and also reported needing such equipment.



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# Obesity

Rural residents were more likely to be obese than were urban residents. Among rural residents, adults living in Micropolitan rural areas were the most likely to be obese, while remote rural residents were the least likely. Among rural adults, race / ethnicity differences included:

- Black residents had the highest reported obesity rate across all levels of rurality, with nearly two out of five having a BMI greater than or equal to 30.
- Black and other race adults living in remote rural areas were more likely to be obese than those living in other rural areas.



#### Obesity Among Adults, by Level of Rurality, in Percents

• Rural Asian residents had approximately twice the obesity rate of urban Asian residents.



#### Obesity Among Adults, by Race and Level of Rurality, in Percents

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents self-reported their height and weight, which were used to calculate a Body Mass Index (BMI). For this section, obesity was defined as having a BMI greater than or equal to 30.



# Overweight

Overall, nearly two thirds of the population was either obese or overweight in 2005. More rural residents were overweight or obese than urban residents, a difference that persisted across levels of rurality. Among rural adults, race / ethnicity differences included:

- Among rural residents, black adults were the most likely to be overweight or obese, a trend that continued across levels of rurality.
- There were no differences across rurality for Hispanic, American Indian, or Asian residents.



#### Overweight or Obese Adults, by Level of Rurality, in Percents

### Overweight or Obese Adults, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents self-reported their height and weight, which were used to calculate a Body Mass Index (BMI). For this section, overweight was defined as having a BMI greater than or equal to 25.



## **Physical Activity**

Rural adults were less likely to meet <u>moderate</u> <u>or vigorous</u> physical activity recommendations than urban adults. Remote rural residents were the least likely to report moderate or vigorous physical activity. Among rural adults, race / ethnicity differences included:

- Rural black adults were less likely to meet recommendations than other rural residents; this difference persisted across all levels of rurality.
- Black persons living in remote rural areas were more likely to be active compared to other black rural residents.



#### Adults who Met Moderate or Vigorous Physical Activity Recommendations, by Level of Burality, in Percents

Adults Who Met Moderate or Vigorous Physical Activity Recommendations, by Race and Level of Rurality, in Percents



"n/a" indicates too few observations to display a stable estimate.

Respondents reported how many times per week they engaged in moderate or vigorous physical activity. These activity levels were then compared to CDC recommendations for physical activity. This measure provides estimates for those who met either moderate or vigorous physical activity recommendations. See 93Hhttp://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html for more details.



## Moderate Physical Activity

Rural residents as a whole were more likely to meet recommendations for <u>moderate</u> physical activity (excluding vigorous) than were urban residents. In addition, the proportion of adults meeting moderate physical activity recommendations was lower in remote rural counties than in other rural counties. Among rural adults, race / ethnicity differences included:

> • Remote rural black residents were the least likely to meet recommendations for moderate physical activity.



#### Adults Who Met Moderate Physical Activity Recommendations, by Level of Rurality, in Percents

#### Adults Who Met Moderate Physical Activity Recommendations, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents reported how many times per week they engaged in moderate physical activity. These activity levels were then compared to CDC recommendations for physical activity. These estimates are for those who met the moderate physical activity recommendations. See 92Hhttp://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html for more details.



### **Vigorous Physical Activity**

Rural residents were less likely to meet recommendations for <u>vigorous</u> physical activity than were urban residents. Remote rural residents were less likely to meet vigorous activity guidelines than were other rural residents. Among rural adults, race / ethnicity differences included:

- Black adults were consistently less likely to meet recommendations for vigorous activity, across all levels of rurality, than were persons of other race/ethnicity groups.
- Black residents of remote rural areas were more likely to meet vigorous physical activity guidelines than were other rural blacks.



#### Adults Who Met Vigorous Physical Activity Recommendations, by Level of Rurality, in Percents

#### Adults Who Met Vigorous Physical Activity Recommendations, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05  $\ddagger$  Significantly different from urban, p < 0.05(n/a) indicates too few observations to display a stable estimate.

Respondents reported how many times, per week, they engaged in vigorous physical activity. These activity levels were then compared to CDC recommendations for physical activity. These estimates are for those who met these recommendations.

See 91Hhttp://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html for more details.



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# Chapter 2: Access to Health Care

Measures regarding adults' reported access to health care services, including health insurance, having a personal health care provider, and having to defer care because of cost, are presented here.

<u>Highlights:</u>

- Rural residents were more likely to be uninsured than urban residents (17.8% versus 15.3%).
- The proportion of uninsured persons increased as the level of rurality increased, from 16.6% in rural micropolitan counties to 21.2% in remote rural counties.
- Hispanic adults were most likely to lack insurance, with uninsured rates ranging from 40.8% in rural micropolitan counties to 56.1% in small remote rural counties.
- Most rural and urban residents report having a personal health care provider (81.0% and 79.4%, respectively). Across rural counties, residents in remote rural counties were least likely to have a personal physician (78.7%).
- Rural white adults were more likely to report having a personal health care provider than were other adults. Among Hispanic adults, the proportion with a personal provider ranged from 60.4% in rural micropolitan counties to 47.7% in remote rural counties.
- Rural adults were more likely than urban adults to report having deferred care because of cost (15.1% versus 13.1%). This proportion increased with level of rurality, from 14.5% in rural micropolitan counties to 16.2% in remote rural counties.
- Black, Hispanic and American Indian rural adults were more likely to report having deferred care due to cost than were whites (23.6%, 25.3% and 20.7%, respectively, compared to 13.3%).



#### Health Insurance Coverage

Rural residents were more likely to be uninsured than were urban residents. The proportion of uninsured persons increased as the level of rurality increased, with residents of remote rural counties having the highest rate of uninsurance. Among rural adults, race / ethnicity differences included:

- White adults were markedly more likely to report having insurance than non-white adults, in every rurality category.
- Hispanic adults were most likely to be uninsured. More than half of Hispanic residents in remote rural counties lacked health insurance in 2005 (56.1%).



#### Adults Without Health Insurance, by Level of Rurality, in Percents

#### Adults Without Health Insurance, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Health insurance coverage was based upon the respondents' answer to the following question: "Do you have any kind of health care coverage, including health insurance, prepaid plans such HMOs, or government plans such as Medicare?" Analysis includes all adults, including those age 65 and older.



## Primary Care Provider Availability

Provider to population ratios are used to assess the ability of residents to obtain care in their county of residence. A higher ratio indicates fewer providers available for the residents of the area, an indicator of limited access. The primary care provider to population ratio for rural counties, one primary care physician to every 1,461 persons was higher than for urban counties, where it was one person to every 880 persons. Within rural counties, small adjacent rural counties had the highest overall ratios, and remote rural counties had the lowest. Among rural adults, race / ethnicity differences included:



#### Primary Care Provider to Population Ratios, by Level of Rurality

- Minority rural counties had a higher provider to person ratios than rural counties with majority white populations.
- Small adjacent counties had the highest provider/ population ratios, regardless of the racial distribution of their population.



#### Primary Care Provider to Population Ratios, by Race and Level of Rurality

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

The ratio of active primary care physicians to county-level population was calculated for all U.S. counties using data from the Area Resource File. In addition to classifying by rurality, we designated counties as majority white or majority non-white. The results are displayed by level of rurality as well as racial group. All analyses are for the year 2005.



#### Personal Health Care Provider

Most adults reported having a personal doctor or other health care provider. Rural and urban adults did not differ. Among rural adults, race / ethnicity differences included:

- Overall, rural minority residents were less likely to have a personal provider than white residents.
- Hispanic adults were consistently least likely to report a personal provider, across levels of rurality. Less than half (47.7%) of Hispanics living in remote rural counties reported having a personal provider.



#### Adults with a Personal Provider, by Level of Rurality, in Percents



#### Adults with a Personal Provider, by Race and Level of Rurality, in Percents

<sup>†</sup> Significantly different, by race, p < 0.05 <sup>‡</sup> Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

The BRFSS asked "Do you have one person you think of as your personal doctor or health care provider? This analysis shows persons who answered "yes" to that question.



#### **Deferred Care Because of Cost**

Rural residents were more likely to report that cost had kept them from seeing a doctor than were urban residents. The proportion of adults who reported deferring care because of cost increased with the level of rurality. Among rural adults, race / ethnicity differences included:

- In general, rural minority respondents were more likely to report cost as a barrier to receiving care than were rural white and Asian respondents.
- More than one-fourth of Hispanic adults living in small adjacent rural counties reported that they did not see a provider due to cost.



#### Adults Reporting Deferring Care Because of Cost, by Level of Rurality, in Percents



# Adults Reporting Deferring Care Because of Cost, by Race and Level of Rurality, in Percents



*†* Significantly different, by race, p < 0.05 $\ddagger$  Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Respondents were asked if, in the past 12 months, they "needed to see a doctor but could not because of cost." This analysis shows persons who answered "yes" to that question.



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# **Chapter 3: Receipt of Preventive Services**

Receipt of age- and sex-appropriate preventive services is a measure of the quality of care the individual is able to obtain. In the following section, we provide information regarding key adult preventive health services.

<u>Highlights:</u>

- There were no overall differences in the proportion of rural and urban adults who received an annual flu vaccination (64.6 and 63.8%, respectively).
- Rural women were less likely than urban women to be in compliance with mammogram screening guidelines (70.7% versus 76.6%).
- In urban areas, black women were more likely to meet recommendations than white women (78.5% versus 76.7%).
- Rural black women, however, were less likely than white women to have received mammograms (66.0% versus 71.3%).
- Rural women were less likely to report having a Pap smear done within the past three years than urban residents (86.3% versus 91.4%).
- Black rural women were more likely than their white peers to receive a Pap smear (89.7% versus 86.0%).
- Rural residents over age 50 were less likely ever to have had a colorectal cancer screening than were urban residents (57.7% versus 57.9%).



### Receipt of Age-Appropriate Recommended Routine Physical Examination

Rural residents were less likely to report having received an age-appropriate checkup (defined below) than were urban residents. The proportion of adults reporting checkups did not vary markedly across levels of rurality. Among rural adults, race / ethnicity differences included:

• Black adults were most likely to report receiving a checkup, while Hispanics were least likely to report this service.



#### Adults Who Have Received Age-Appropriate Checkups, by Level of Rurality, in Percents

# Adults Who Have Received Age-Appropriate Checkups, by Race and Level of Rurality, in Percents



The American Medical Association recommends that adults 18-39 years old have a routine physical exam once every five years, and those over 40 years should have a routine physical exam every two years. These estimates present those over the age of 18 who reported being in compliance with these recommendations.



#### Annual Flu Vaccination

Overall, less than two thirds of adults over age 65 received the recommended influenza vaccination in 2005. There were no differences in influenza vaccination rates among urban and rural residents, or across levels of rurality. Among rural adults, race / ethnicity differences included:

- White adults had consistent immunization rates across all levels of rurality.
- Black rural adults had the lowest immunization rates (42.4%, followed by Hispanic rural adults (57.3%), and American Indian adults (62.2%).



#### Adults over age 65 with an Annual Flu Vaccination, by Level of Rurality, in Percents



### Adults over age 65 with an Annual Flu Vaccination, by Race and Level of Rurality, in Percents



<sup>†</sup> Significantly different, by race, p < 0.05 <sup>‡</sup> Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Annual influenza vaccinations are recommended for all individuals over the age of 65, as well as those who are immunosuppressed. The charts above show estimates for persons over the age of 65.



#### Pneumonia Vaccination

Slightly less than two thirds of adults over age 65 report having received a pneumonia vaccination. Pneumonia vaccination rates were similar across rural and urban populations and did not vary directly with level of rurality. Among rural adults, race / ethnicity differences included:

- Black and Hispanic adults were less likely than whites to have received the pneumonia vaccination, in both urban and rural areas.
- Less than one out of three rural blacks in small adjacent rural areas received a pneumonia vaccination.



#### Adults over age 65 with a Pneumonia Vaccination, by Level of Rurality, in Percents

#### Adults over age 65 with a Pneumonia Vaccination, by Race and Level of Rurality, in Percents



<sup>†</sup> Significantly different, by race, p < 0.05 <sup>‡</sup> Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

A Pneumonia vaccination is recommended once an individual turns age 65. The charts above show immunization rates among individuals over the age of 65.



#### Mammography

While most women reported receiving ageappropriate mammograms, rural women were less likely than urban women to be in compliance with mammogram screening guidelines, with women living in remote rural areas being least likely to meet recommendations. Among rural women, race / ethnicity differences included:

- Whites and blacks had similar rates of meeting recommendations when compared to urban women.
- Only approximately two-thirds of Hispanic rural women met recommendations.

#### Adult Women Over Age 40 who Met Mammogram Recommendations, By Level of Rurality, in Percents



### Adult Women Over Age 40 who Met Mammogram Recommendations, By Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Mammograms are recommended every three years for women over the age of 40. These estimates are based upon female respondents over the age of 40 who reported having a mammogram in the previous three years. This data is from the 2006 BRFSS.



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## Pap Smear

While overall rates for Pap screening were high, rural women were less likely to report having a pap smear within the past three years than were urban women. Pap smear rates were lowest in remote rural areas. Among rural adults, race / ethnicity differences included:

- Hispanic and American Indian women in remote rural areas were more likely to meet recommendations than other rural women.
- Rural Asian women had low rates of meeting recommendations, but because of small sample sizes for this group, the differences were not significant.



# Adult Women over age 21 who Met Pap Smear Recommendations, by Level of Rurality, in

## Adult Women over age 21 who Met Pap Smear Recommendations, by Race and Level of Rurality, in Percents



 $\dagger$  Significantly different, by race, p < 0.05  $\ddagger$  Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Pap smears are recommended for sexually active women (or over the age of 21) every three years. These estimates are based upon respondents' self-reported date of their last Pap smear, limited to adult women over the age of 21. This data is from the 2006 BRFSS.



### **Colorectal Cancer Screening**

Rural residents over age 50 were less likely ever to have had colorectal cancer screening than were urban residents. Screening rates did not vary consistently across level of rurality, and were highest for residents in small adjacent rural counties. Among rural adults, race / ethnicity differences included:

- In general, minority adults had lower testing rates than white adults.
- Rural black adults were markedly less likely to have colorectal cancer screening than urban black residents.
- Rural Hispanic residents had the lowest screening rate, with only two out of five (40.4%) reporting colorectal cancer screening.



#### Adults over age 50 Receiving Colorectal Screening, by Level of Rurality, in Percents

### Adults over age 50 Receiving Colorectal Screening, by Race and Level of Rurality, in Percents



† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Colonoscopy and/or sigmoidoscopy are recommended screenings for colorectal cancer for men and women aged 50 years and older. These estimates are based upon respondents over the age of 50 who reported having a colonoscopy or sigmoidoscopy in the past 10 years. There were too few Asian and American Indian respondents to generate stable estimates for each group individually. The two groups are combined into the 'Other' race category.



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#### Dental Visits with a Cleaning

Rural residents were less likely to report having received an annual dental exam with a cleaning than were urban residents. Remote rural residents were least likely to have had an annual dental cleaning. Among rural adults, race / ethnicity differences included:

- Rural Asian adults were more likely than other rural minority adults to have received an annual dental cleaning.
- Black rural adults were markedly less likely than were white rural adults to report an annual dental cleaning (67.4% versus 85.1%).
- Rural American Indian adults were markedly less likely than urban





Level of Rurality, in Percents

American Indian adults to have received an annual dental cleaning (71.1% versus 92.7%).



#### Adults with an Annual Dental Cleaning, by Race and Level of Rurality, in Percents

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



# Chapter 4: Quality of Diabetes Care

Diabetes is a chronic disease with marked public health significance, given its high prevalence in the adult population and its status as a "disparity diagnosis," that is, a disease more common in minority than in white populations. Because of the importance of diabetes, 44 states administered a series of questions concerning diabetes care in the 2005 BRFSS. Findings regarding the quality of diabetes care received by rural and urban adults with diabetes are presented in this chapter.

<u>Highlights:</u>

- Rural and urban adults with diabetes were equally likely to have received an annual diabetes examination (89.4% and 88.9%, respectively).
- The proportion of adults with diabetes who reported receiving at least two hemoglobin A1c tests within the past year was low among both rural (33.1%) and urban (35.0%) residents.
- White rural residents with diabetes were more likely than black or Hispanic residents to have received 2 hemoglobin A1c tests in the past year.
- There were no differences in foot exam rates between urban and rural residents with diabetes.
- The proportion of persons with diabetes reporting an annual foot exam increased as the level of rurality increased, from 65.0% in rural micropolitan counties to 70.4% in remote rural counties.
- Only 72.4% of rural and 74.8% of urban adults with diabetes reported receiving an annual dilated eye exam (not significantly different).


#### **Annual Diabetes Exam**

The American Diabetes Association recommends that adults with diabetes be seen by a health care provider for their diabetes at least annually for health risk maintenance. Rural and urban adults with diabetes were equally likely to have received an annual diabetes examination. Among rural adults with diabetes, race / ethnicity differences included:

• Blacks had the highest reported annual exam rate (93.9%), while Hispanics reported the lowest (85.0%).



#### Adults with Diabetes with an Annual Exam, by Level of Rurality, in Percents



#### Adults with Diabetes with an Annual Exam, by Race and Level of Rurality, in Percents

<sup>†</sup> Significantly different, by race, p < 0.05 <sup>‡</sup> Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Information above is based on answers to the question, "How many times in the past 12 months have you seen a doctor, nurse or other health professional for your diabetes?" There were too few Asian and American Indian respondents to generate stable estimates for each group individually. The two groups are combined into the 'Other' race category.



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#### Hemoglobin A1C Testing

The American Diabetes Association recommends that patients with diabetes receive at least two Hemoglobin A1C measures per year to assess glycemic control. The proportion of adults with diabetes who reported at least two Hemoglobin A1C tests in the past year was low in both rural and urban areas. Receipt of appropriate testing did not vary across levels of rurality. Among rural adults with diabetes:

• Black and Hispanic persons with diabetes were less likely to have two annual Hemoglobin A1C tests than were other rural residents.



# Adults with Diabetes with Two HgA1C Tests in Previous 12 Months, By Race and Level of Rurality, in Percents



"n/a" indicates too few observations to display a stable estimate.

Charts are based on the less stringent ADA recommendation, at least two HgA1C tests in the past 12 months. There were too few Asian and American Indian respondents to generate stable estimates for each group individually. The two groups are combined into the 'Other' race category.



90%

#### **Annual Diabetic Foot Exam**

All Urban†

The American Diabetes Association recommends that patients with diabetes have an annual foot exam to screen for distal symmetric polyneuropathy. There were no differences in foot exam rates between urban and rural residents with diabetes. The proportion with an annual foot exam increased as the level of rurality increased. Among rural adults with diabetes, race / ethnicity differences included:

> • Black respondents were most likely to report having received a foot examination within the year, followed by whites, and individuals of other race/ethnicity.

> > All Rural†

Hispanic persons with diabetes were ٠ least likely to report having received a foot exam.





# Adults with Diabetes with an Annual Foot





"n/a" indicates too few observations to display a stable estimate.

Charts above are based on respondent answers to the question, "About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?" There were too few Asian and American Indian respondents to generate stable estimates for each group individually. The two groups are combined into the 'Other' race category.



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#### Annual Dilated Eye Exam

The American Diabetes Association recommends that patients with diabetes have an annual dilated eye exam to screen for retinopathy. Rural residents with diabetes were less likely to have received a dilated eye exam than were urban residents with diabetes. Residents in small, adjacent rural areas with diabetes were the least likely to have a dilated eye exam. Among rural adults with diabetes, race / ethnicity differences included:

> • Persons of "other" race/ ethnicity were those most likely to report receiving an eye exam, followed by black adults with diabetes, whites, and Hispanic adults.



# Adults with Diabetes with an Annual Eye Exam, by Level of Rurality, in Percents





#### Adults with Diabetes with an Annual Eye Exam, by Race and Level of Rurality, in Percents

Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.

Charts are based on respondent answers to the question: When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light." *There were too few Asian and American Indian respondents to generate stable estimates for each group individually. The two groups are combined into the 'Other' race category.* 



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# **State Tables**



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			Access to care		Receipt of	of Preventive	e Services	3 Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup>†</sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam	
	Urban	81.1	14.8	16.2	60.6	86.2	78.0	10.0	75.5	
ılts	Rural	74 <b>.</b> 1‡	22.0 <sup>‡</sup>	18.4	58.8	75.2	75.4 <sup>‡</sup>	12.4	71.8	
l Adı	Micro	74.0	19.5 <sup>‡</sup>	17.9	55.2	73.7	80.2	12.2	69.6	
All	Small Adj.	76.4	23.6 <sup>‡</sup>	18.9	65.4	79.8	50.8	11.1	73.2	
	Remote	69.0	25.4 <sup>‡</sup>	18.7	55.3	n/a	n/a	16.4	75.2	
	Urban	81.7	11.1	13.6	65.3	86.8	77.2	8.9	72.9	
dults	Rural	76.8 <sup>‡</sup>	17.5	15.9	61.5	74.9	72.4	11.8	69.8	
te Ac	Micro	81.7	11.1	13.6	65.3	73.4	77.6	8.9	72.9	
Whi	Small Adj.	75.6	18.7	16.2	56.9	79.2	48.7	12.1	68.1	
	Remote	78.0	16.6	17.6	71.9	n/a	n/a	10.9	70.6	
	Urban	81.0	22.1	21.1	45.0	85.9	81.4	11.8	81.9	
dults	Rural	64.7 <sup>‡</sup>	30.4	30.1	46.0	86.3	80.3	15.0	88.0	
ck Ac	Micro	67.1	20.9	24.4	49.6	78.3	n/a	11.2	n/a	
Blac	Small Adj.	73.8	33.4	28.0	41.2	78.3	n/a	13.8	90.7	
	Remote	43.9	45.1	45.6	38.4	n/a	n/a	25.1	76.1	
y II	Urban	72.4	29.3	27.2	46.3	75.4	78.8	13.0	65.4	
Othe nicit	Rural	46.1 <sup>‡</sup>	29.0	14.5	92.4	77.4	76.8	20.7	51.4	
Ethi	Micro	54.1 <sup>‡</sup>	23.8	18.2	83.2	63.4	86.6	13.6	n/a	
dults ace/	Small Adj.	38.1	21.7	12.4	n/a	63.4	86.6	29.0	74.4	
A. R	Remote	53.6	49.9	14.9	n/a	n/a	n/a	11.4	n/a	
ts	Urban	78.9	22.0	24.1	45.3	85.1	81.2	18.5	77.0	
Adul	Rural	80.8	70.8	17.3	19.6	83.5	78.4	7.7	46.6	
nic /	Micro	81.3	51.1	39.2	n/a	n/a	n/a	23.5	n/a	
lispa	Small Adj.	80.1	77.1	13.6	n/a	n/a	n/a	n/a	n/a	
H	Remote	83.4	63.4	7.9	n/a	n/a	n/a	27.9	n/a	

## Alabama

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



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# Alaska

A rural urban analysis could not be provided for Alaska, because its county and state codes were not reported to BRFSS.



### Arkansas

			Access	to care	Receipt of Preventive Servic			es Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam <sup>†</sup>	
	Urban	81.5	16.4	14.6	65.1	82.6	72.7	8.5	69.8	
ılts	Rural	75.4	21.7 <sup>‡</sup>	17.9 <sup>‡</sup>	$66.4^{\ddagger}$	79.0	69.0	9.6	57.7	
Adu	Micro	77.7	18.9	17.6 <sup>‡</sup>	66.9	82.4	73.0	8.3	62.1	
IIV	Small Adj.	73.6	21.3 <sup>‡</sup>	17.3	67.5 <sup>‡</sup>	74.0	$65.4^{\ddagger}$	$10.6^{\ddagger}$	56.6	
	Remote	73.4	28.1	19.3	63.9	72.1	58.4 <sup>‡</sup>	10.6	51.5	
	Urban	83.1	13.2	12.7	67.0	83.9	73.2	8.5	67.7	
dults	Rural	77.7 <sup>‡</sup>	19.6 <sup>‡</sup>	15.7 <sup>‡</sup>	68.7	78.8	71.4 <sup>‡</sup>	8.7	57.1 <sup>†</sup>	
te Ac	Micro	79.7 <sup>‡</sup>	17.9 <sup>‡</sup>	14.9	69.0	82.5	76.1 <sup>‡</sup>	8.0	59.4	
Whi	Small Adj.	78.1 <sup>‡</sup>	18.2 <sup>‡</sup>	14.7	71.5	72.9	$69.3^{\ddagger}$	8.4	56.9	
	Remote	73.3 <sup>‡</sup>	25.0 <sup>‡</sup>	18.7	64.0	72.2	53.9 <sup>‡</sup>	10.5	53.6	
	Urban	76.9	28.8	20.9	28.7	83.9	75.4	9.5	84.7	
dults	Rural	63.4 <sup>‡</sup>	27.3	27.5	38.7	85.0	63.6	12.3	65.4	
sk Ac	Micro	67.1 <sup>‡</sup>	29.9	36.8	45.0	82.5	59.3	7.8	73.2	
Blac	Small Adj.	54.7	19.1	15.7	23.0	n/a	63.5	22.6	71.2	
	Remote	65.2	32.3	13.8	60.5	63.4	n/a	11.0	23.2	
r -	Urban	67.6	26.1	22.6	59.5	81.8	68.4	7.4	67.2	
Othe	Rural	68.7	26.2	25.9	49.3	74.1	41.7	15.8	75.2	
of ( Ethi	Micro	70.7	14.8	18.3	39.4	76.1	30.0	15.0	91.1	
lults ace/	Small Adj.	70.4	24.9	30.5	49.9	59.3	23.3	14.1	71.9	
Ac R:	Remote	61.6	48.0	28.9	76.3	81.9	n/a	20.8	58.7	
s	Urban	77.9	43.8	28.2	52.3	47.8	52.4	7.2	91.7	
Adult	Rural	60.2 <sup>‡</sup>	46.7 <sup>‡</sup>	33.6	74.3	73.2	40.0	14.7	26.9	
nic f	Micro	60.5 <sup>‡</sup>	15.9	33.6	73.1	n/a	63.1	11.8	39.4	
ispa	Small Adj.	44.5	54.5	36.7	n/a	65.6	26.8	21.6	24.8	
H	Remote	94.3	62.6	27.1	44.5	n/a	n/a	2.8	n/a	



### Arizona

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence *	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to $\cos t^{\dagger}$	Flu Vaccine	Pap Smear	$\begin{array}{l} \mathbf{M} \mathbf{a} \mathbf{m} \mathbf{m} \mathbf{o} \\ \mathbf{-g} \mathbf{r} \mathbf{a} \mathbf{m}^{\dagger} \end{array}$	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	85.3	18.4	13.9	63.9	85.6	78.9	8.4	71.2
dults	Rural	80.0	22.7 <sup>‡</sup>	14.4 <sup>‡</sup>	56.3	79.9	68.0 <sup>‡</sup>	10.3	65.0
All A	Micro	78.6 <sup>‡</sup>	20.3 <sup>‡</sup>	14.3	57.2	79.3	68.5	10.1	60.9
· ·	Small Adj.	84.0	29.5 <sup>‡</sup>	14.8 <sup>‡</sup>	53.4	81.4	66.1	10.7	76.8
ts	Urban	87.0	9.7	9.3	63.7	87.4	78.5	8.3	70.4
Adul	Rural	83.0	17.2 <sup>‡</sup>	12.5	55.2	78.9	68.7	8.3	62.9
hite	Micro	81.4	16.7 <sup>‡</sup>	13.3	57.7	80.7	69.1 <sup>‡</sup>	9.6	62.3
M	Small Adj.	88.2	19.1 <sup>‡</sup>	10.0	46.8	71.9	$66.8^{\ddagger}$	6.9	65.9
ts	Urban	86.8	28.4	13.8	44.7	81.9	74.1	4.2	90.1
Adul	Rural	85.0	8.6	1.2	66.3	86.3	82.6	1.2	n/a
lack .	Micro	n/a	7.2	1.5	75.7	62.8	82.6	1.5	n/a
B	Small Adj.	21.7	14.6	n/a	59.8	n/a	n/a	n/a	n/a
ner ity	Urban	85.4	30.1	16.1	81.9	77.1	82.3	8.9	95.4
f Oth hnic	Rural	79.0	37.4	18.3 <sup>‡</sup>	67.1	73.0	64.0	15.2	89.2
lts of e/Et	Micro	72.8	27.1	15.7	47.9	53.8	64.7	12.7	n/a
Adu Rac	Small Adj.	82.2	42.8	19.7	n/a	83.3	63.3	16.4	86.5
ults	Urban	79.7	44	28.8	62.8	82.3	82.0	9.1	67.4
c Ad	Rural	69.2	33.8	19.5	59.8	88.6	66.7	12.4	53.4
pani	Micro	69.4	31.3	17.7	56.0	85.4	66.4	11.6	50.1
His	Small Adj.	67.9	48.2	30.0	89.3	n/a	71.1	17.3	72.3

\*Arizona has no counties considered remote rural. The display has been edited to include only categories relevant to this state.



# California

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	82.4	17.4	14.0	65.1	n/a	n/a	8.7	56.8
ults	Rural	79.8	14.5 <sup>‡</sup>	18.8	69.9	n/a	n/a	10.5	51.9
Adı	Micro	81.1	16.6	17.6	75.5	n/a	n/a	11.2	49.0
IIA	Small Adj.	72.9	10.5	22.8	58.4	n/a	n/a	8.6	48.7
	Remote	87.6	12.3 <sup>‡</sup>	16.9	46.7	n/a	n/a	10.5	75.6
	Urban	90.2	7.5	8.7	67.6	n/a	n/a	7.5	65.7
dults	Rural	79.9 <sup>‡</sup>	11.2 <sup>‡</sup>	14.8 <sup>‡</sup>	68.5	n/a	n/a	7.7	69.7
te Ao	Micro	81.2 <sup>‡</sup>	14.4 <sup>‡</sup>	13.5 <sup>‡</sup>	77.1	n/a	n/a	6.4	76.4
Whi	Small Adj.	74.9 <sup>‡</sup>	7.2 <sup>‡</sup>	18.3 <sup>‡</sup>	49.1	n/a	n/a	8.0	55.8
	Remote	84.2	4.9	13.6	46.7	n/a	n/a	13.3	75.6
	Urban	84.4	11.2	11.1	70.9	n/a	n/a	11.1	56.8
dults	Rural	n/a	n/a	n/a	n/a	n/a	n/a	72.7	n/a
ck A	Micro	n/a	n/a	n/a	n/a	n/a	n/a	72.7	n/a
Blae	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
т у	Urban	90.3	10.4	10.4	59.3	n/a	n/a	7.2	61.5
Othe nicit	Rural	88.3	19	24.5	48.8	n/a	n/a	13.9	50.9
of e Eth	Micro	84.3	17.7	27.6	44.4	n/a	n/a	18.5	50.9
dults ace/	Small Adj.	n/a	19	19.0	n/a	n/a	n/a	n/a	n/a
A	Remote	n/a	40.3	n/a	n/a	n/a	n/a	n/a	n/a
ts	Urban	70.8	32.0	21.8	57.7	n/a	n/a	10.3	47.4
Adul	Rural	69.2	29.5	37.3	n/a	n/a	n/a	16.2	n/a
nic /	Micro	73.5	29.0	30.6	n/a	n/a	n/a	19.0	n/a
lispa	Small Adj.	38.7	24.4	54.1	n/a	n/a	n/a	18.7	n/a
H	Remote	n/a	40.0	38.6	n/a	n/a	n/a	n/a	n/a



# Colorado

			Access	to care	Receipt of Preventive Servi		e Services	es Diabetes Care	
	Residence	Self- Reported Health Status	No Health Insurance Coverage $^{\dagger}$	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	87.4	15.1	12.1	75.5	85.3	72.6	6.0	77.9
ılts	Rural	87.3 <sup>‡</sup>	19.0 <sup>‡</sup>	16.0	70.0	80.3	68.3	5.2	$69.0^{\ddagger}$
Adu	Micro	87.5	15.5	15.9	71.3	83.7	73.1	4.3	76.8
ИI	Small Adj.	89.4	25.6	19.3	63.4	75.3	46.8	4.3	54.1
	Remote	86.5	19.1 <sup>‡</sup>	15.1 <sup>‡</sup>	71.1	74.0	61.5	5.9	68.1
	Urban	90.6	9.4	10.3	76.9	85.5	73.4	5.9	81.4
dults	Rural	89.2	15.6 <sup>‡</sup>	14.2 <sup>‡</sup>	70.0	79.7	67.3	4.8	64.2
te Ao	Micro	90.0	12.8 <sup>‡</sup>	14.8 <sup>‡</sup>	69.7	83.6	71.8	4.4	73.7
Whi	Small Adj.	92.1	26.7 <sup>‡</sup>	18.1 <sup>‡</sup>	64.2	77.2	48.8	4.2	54.1
	Remote	88.1	14.1 <sup>‡</sup>	12.9 <sup>‡</sup>	71.8	70.9	58.7	5.1	61.9
	Urban	85.4	20.3	15.0	75.3	n/a	n/a	8.5	51.7
ults	Rural	73.1	n/a	n/a	n/a	89.4	68.0	n/a	n/a
k Ad	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	73.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
H A	Urban	82.3	15.4	15.0	72.9	76.9	76.6	5.9	74.0
<b>Othe</b> nicity	Rural	86.5	21.5	24.7	72.6	n/a	68.9	6.5	42.9
of ( Ethr	Micro	83.1	19.0	25.2	n/a	n/a	68.9	n/a	n/a
lults ace/	Small Adj.	78.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ac	Remote	92.6	33.8	36.8	26.0	n/a	n/a	13.7	42.9
ts	Urban	74.5	39.9	19.0	55.5	86.3	65.8	6.0	70.4
Adul	Rural	75.5	40.2	24.8	65.3	79.4	78.1	7.3	n/a
mic /	Micro	70.5	34.7	22.0	n/a	80.6	91.1	4.1	n/a
ispa	Small Adj.	79.3	27.0	30.3	32.5	63.8	36.2	5.8	n/a
H	Remote	76.5	46.6	24.3	65.3	80.0	n/a	9.2	n/a



# Connecticut

			Access	to care	Receipt of Preventive Serv			es Diabetes Care		
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam	
ults	Urban	87.8	8.9	9.6	70.9	85.9	82.0	7.5	72.6	
١٩dı	Rural	88.1	11.1	6.6	75.1	85.4	80.8	7.7	75.1	
ΠN	Micro	88.1	11.1	6.6	75.1	85.4	80.8	7.7	75.1	
പജ	Urban	89.3	5.9	7.0	71.9	86.1	82.6	7.2	77.5	
Whit Adult	Rural	90.9	10.9	6.6	74.4	86.2	81.4	7.7	74.0	
V	Micro	90.9	10.9	6.6	74.4	86.2	81.4	7.7	74.0	
lults	Urban	82.3	14.7	13.2	59.0	85.8	80.9	13.1	85.4	
ik Ac	Rural	42.2	4.7	4.7	n/a	88.1	n/a	33.1	n/a	
Blac	Micro	42.2	4.7	4.7	n/a	88.1	n/a	33.1	n/a	
of	Urban	87.0	18.5	25.8	43.2	84.5	74.4	4.4	13.3	
ults of ther	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Ad O	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
nic s	Urban	76.0	31.8	26.5	66.0	85.3	77.5	9.3	39.4	
spar	Rural	27.1	23.5	10.9	n/a	54.0	42.4	6.1	n/a	
Hi A	Micro	27.1	23.5	10.9	n/a	54.0	42.4	6.1	n/a	

\* All rural counties in Connecticut fell into the "micropolitan" category of rurality, with no small adjacent or remote rural counties. Thus, the display has been edited to reflect only categories relevant to this state.



## Delaware

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
ts	Urban	87.8	7.2	8.3	66.7	88.5	83.3	9.2	75.1
ll Adul	Rural	84.0	9.9	11.2	64.5	88.3	84.1	10.1	78.3
N	Micro	84.0	9.9	11.2	64.5	88.3	84.1	10.1	78.3
ults	Urban	88.4	6.2	6.9	68.9	89.2	82.2	8.6	74.8
ite Ad	Rural	84.1	8.0	9.8	65.0	88.6	83.4	10.0	77.1
ЧМ	Micro	84.1	8.0	9.8	65.0	88.6	83.4	10.0	77.1
ults	Urban	84.7	9.5	13.2	60.5	87.1	91.8	11.3	69.4
ck Ad	Rural	87.2	5.4	24.0	60.2	80.9	88.1	9.0	88.2
Bla	Micro	87.2	5.4	24.0	60.2	80.9	88.1	9.0	88.2
)ther icity	Urban	87.7	10.7	14.5	37.5	81.6	76.3	11.6	84.5
s of O /Ethn	Rural	66.7	39.4	11.4	74.0	92.9	85.2	19.4	76.3
Adult Race	Micro	66.7	39.4	11.4	74.0	92.9	85.2	19.4	76.3
dults	Urban	89.1	14.9	8.9	42.7	89.5	97.3	9.9	n/a
anic A	Rural	87.7	28.5	12.4	24.4	n/a	n/a	4.8	n/a
Hisp	Micro	87.7	28.5	12.4	24.4	n/a	n/a	4.8	n/a

\* All rural counties in Delaware fell into the "micropolitan" category of rurality, with no small adjacent or remote rural counties. Thus, the display has been edited to reflect only categories relevant to this state.



# Florida

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence*	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes	Annual Diabetic Foot Exam
ts	Urban	82.9	19.4	14.6	55.5	82.5	77.8	10.0	67.9
qul	Rural	77.3	20.4	16.9	60.3 <sup>‡</sup>	76.8	72.2	10.9	71.3
II A	Micro	76.8 <sup>‡</sup>	18.4	15.1	60.1 <sup>‡</sup>	76.2	75.4	11.0	74.4
V	Small Adj.	78.0	23.4	19.6	60.9	78.1	64.4	10.8	66.9
	Urban	84.9	13.1	10.8	57.9	83.1	79.5	9.3	67.2
nite ults	Rural	77.0 <sup>‡</sup>	18.9	16.3	65.5	76.3	71.9	10.8	76.2
Wł Ad	Micro	76.6 <sup>‡</sup>	16.6	14.5‡	66.8‡	76.2	74.9	10.5	82.4
	Small Adj.	77.5 <sup>‡</sup>	22.2	18.8‡	62.4 <sup>‡</sup>	76.6	64.0	11.3	68.2
	Urban	82.8	23.0	21.0	39.3	82.4	75.9	15.9	80.2
ack ults	Rural	64.1	19.8	16.8	19.1	79.4	76.0	16.7	53.4
Bl Ad	Micro	55.4	13.9	18.8	5.8	60.3	77.7	21.1	44.8
_	Small Adj.	75.3	27.4	14.2	44.6	89.9	73.0	10.9	75.8
	Urban	84.4	29.9	16.9	57.0	71.3	68.4	6.9	82.4
ts of ner	Rural	85.8 <sup>‡</sup>	7.4	9.2	38.3	77.7	75.5	5.6	51.0
Adul Otł	Micro	n/a	7.3	5.3	5.3	84.0	97.4	1.0	n/a
T	Small Adj.	74.8 <sup>‡</sup>	7.4	12.1	73.9	73.7	55.0	9.1	45.6
lults	Urban	75.6	35.7	23.4	45.6	83.5	74.2	9.7	56.4
c Ad	Rural	85.2	43.0	27.6	30.7	79.8	73.9	10.4	50.3
pani	Micro	82.5	38.0	20.5	32.9	78.6	74.0	12.1	53.5
His	Small Adj.	93.3	58.6	48.6	13.1	85.7	73.8	5.5	29.7

\* There were no remote rural counties in Florida. Thus, the display has been edited to reflect only categories relevant to this state.



# Georgia

			Access	to care	Receipt of Preventive Ser			Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to $\cot^{\dagger}$	Flu Vaccine <sup>†</sup>	Pap Smear <sup>†</sup>	Mammo- gram	Self- Reported Diabetes	Annual Diabetic Foot Exam	
	Urban	85.3	15.6	14.9	63.1	77.4	91.2	8.8	72.8	
ilts	Rural	78.3	19.5 <sup>‡</sup>	20.2	56.6 <sup>‡</sup>	76.6	88.0	11.7 <sup>‡</sup>	67.9	
Adu	Micro	76.1	15.8	18.8	56.1	67.8	90.7	10.5 <sup>‡</sup>	62.5	
ЧI	Small Adj.	80.9	22.3	23.0	52.6 <sup>‡</sup>	$69.4^{\ddagger}$	82.8	12.9	70.1	
	Remote	79.5	26.3	17.7	70.0	77.7	93.5	13.3	80.9	
	Urban	85.9	12.0	12.3	66.3	$78.6^{\ddagger}$	92.9	8.1	73.5	
lults	Rural	79.2 <sup>‡</sup>	16.2 <sup>‡</sup>	18.7	60.5	73.5 <sup>‡</sup>	88.1 <sup>‡</sup>	9.0	61.3	
te Ac	Micro	79.2 <sup>‡</sup>	13.2 <sup>‡</sup>	18.7 <sup>‡</sup>	59.3	69.1 <sup>‡</sup>	89.6	7.2	55.9	
Whi	Small Adj.	79.7 <sup>‡</sup>	19.6 <sup>‡</sup>	19.5 <sup>‡</sup>	58.3	71.1 <sup>‡</sup>	84.3	10.3	58.6	
	Remote	77.9 <sup>‡</sup>	18.2 <sup>‡</sup>	16.8 <sup>‡</sup>	71.3	76.5	93.5	12.5	81.6	
	Urban	82.4	19.7	20.2	47.7	75.7	89.8	9.7	77.2	
dults	Rural	75.7 <sup>‡</sup>	23.0 <sup>‡</sup>	23.9	41.4	68.8	89.7	19.5 <sup>‡</sup>	73.9	
sk Ac	Micro	68.1 <sup>‡</sup>	13.6 <sup>‡</sup>	20.0	45.8	64.3 <sup>‡</sup>	93.7	19.8 <sup>‡</sup>	66.4	
Blac	Small Adj.	83.4 <sup>‡</sup>	30.1 <sup>‡</sup>	30.8	28.8	$62.5^{\ddagger}$	84.2	20.6 <sup>‡</sup>	82.7	
	Remote	82.1 <sup>‡</sup>	37.4 <sup>‡</sup>	19.0	53.7	79.4 <sup>‡</sup>	93.1	15.0 <sup>‡</sup>	77.3	
нь	Urban	91.2	20.5	15.5	70.9	66.4	91.9	7.2	62.5	
Othe nicity	Rural	75.8	41.4	23.5	72.2	74.8	62.7	14.5	78.0	
of ( Ethi	Micro	71.3	42.2	17.4	42.8	65.9	93.6	23.9	73.4	
dults ace/	Small Adj.	75.0	7.5	31.4	67.4	94.2	37.0	9.6	n/a	
Ac R	Remote	86.8	81.5	26.5	n/a	n/a	n/a	n/a	n/a	
s	Urban	87.3	36.2	16.7	93.6	77.9	77.6	15.1	50.2	
Adult	Rural	80.0	40.1	18.2	86.6	n/a	89.7	6.2	77.3	
nic /	Micro	76.3	44.0	15.9	85.8	56.9	85.0	2.1	91.8	
ispa	Small Adj.	95.3	33.3	32.7	n/a	n/a	n/a	4.7	n/a	
H	Remote	82.7	n/a	n/a	n/a	n/a	n/a	82.4	n/a	



# Hawaii

			Access	to care	Receipt of Preventive Servi		e Services	es Diabetes Care		
	Residence*	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam	
dults	Urban	87.0	6.7	5.3	73.4	81.3	77.7	8.0	87.0	
A II A	Rural Micropolitan	84.9 <sup>‡</sup>	10.8	8.6	69.3	81.0	75.1	8.1	84.9	
Adults	Urban	91.3	6.4	4.9	74.8	86.4	78.7	5.4	91.3	
White	Rural Micropolitan	89.4	11.9 <sup>‡</sup>	9.3 <sup>‡</sup>	66.9	84.2	74.5	4.5	89.4	
Adults	Urban	90.6	2.8	6.3	n/a	89.3	71.5	9.5	90.6	
Black	Rural Micropolitan	n/a	n/a	13.4	61.1	88.1	84.7	4.0	n/a	
er Ithnic	Urban	85.1	6.8	5.3	73.5	79.6	77.9	8.9	85.1	
Oth Race/F	Rural Micropolitan	82.6	9.3	7.3	70.6	78.2	76.8	10.1	82.6	
anic 11ts	Urban	89.7	8.0	6.7	63.0	81.1	71.6	7.7	89.7	
Hisp Adı	Rural Micropolitan	80.5 <sup>‡</sup>	16.1 <sup>‡</sup>	14.0 <sup>‡</sup>	74.1	85.7	64.0	10.7	80.5	

\* All rural counties in Hawaii fell into the "micropolitan" category of rurality, with no small adjacent or remote rural counties. Thus, the display has been edited to reflect only categories relevant to this state.



## Idaho

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence	Self- Reported Health Status	$\begin{array}{c} No\\ Health\\ Insurance\\ Coverage^{\dagger} \end{array}$	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	85.7	16.0	14.8	64.7	78.8	69.6	7.9	68.7
ılts	Rural	85.2	22.2 <sup>‡</sup>	14.5	64.4	73.0	63.8	$7.2^{\ddagger}$	61.4
Adu	Micro	86.1	$20.7^{\ddagger}$	15.0	62.7	72.4	64.0	$6.6^{\ddagger}$	59.1
IIV	Small Adj.	83.3	23.1 <sup>‡</sup>	13.5	63.3	72.5	59.8	7.9	65.1
	Remote	85.8	26.6 <sup>‡</sup>	14.8	72.8	80.0	70.5	8.0	61.7
	Urban	85.9	13.1	13.9	65.0	78.7	69.9	7.7	69.1
dults	Rural	86.1	18.0 <sup>‡</sup>	13.9	64.5	72.0	63.9	7.2	59.9
te Ac	Micro	86.7	15.9 <sup>‡</sup>	14.3	63.3	71.8	63.2	6.7	55.8
Whi	Small Adj.	84.2	19.8 <sup>‡</sup>	12.9	63.1	70.5	63.2	7.6	65.7
	Remote	87.5	$22.2^{\ddagger}$	14.5	71.9	76.9	70.2	8.1	61.5
	Urban	80.3	9.1	28.8	n/a	n/a	n/a	n/a	n/a
lults	Rural	n/a	38.3	61.7	n/a	n/a	n/a	n/a	n/a
sk Ac	Micro	n/a	38.3	61.7	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
H L	Urban	87.2	24.4	23.6	63.5	83.3	68.1	13.5	84.9
Othe	Rural	77.2	22.2	26.1	61.6	80.0	55.1	16.0	75.9
of ( Ethr	Micro	83.6	19.5	24.7	56.8	78.6	57.0	15.2	93.5
lults ace/	Small Adj.	68.7	21.7	26.6	70.1	81.3	53.3	16.1	50.8
Ac R:	Remote	70.5	41.6	32.9	n/a	n/a	n/a	20.5	43.3
ts	Urban	82.1	43.0	19.8	44.3	80.1	64.0	6.3	39.1
Adul	Rural	80.6	63.9 <sup>‡</sup>	14.3	62.1	79.7	68.2	3.3	66.7
nic f	Micro	82.1	60.0	15.6	42.1	77.9	80.1	2.3	41.2
ispa	Small Adj.	81.8	73.0 <sup>‡</sup>	11.3	64.6	75.0	24.7	6.5	70.4
H	Remote	71.2	69.9 <sup>‡</sup>	12.4	n/a	n/a	n/a	3.4	n/a



# Illinois

			Access	to care	Receipt of	of Preventiv	e Services	Diabete	es Care
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	84.2	15.0	12.8	55.1	84.0	74.7	8.6	84.2
ilts	Rural	84.3	12.3	11.3	59.6	77.0	77.6	9.0	84.3
Adu	Micro	85.0	11.7	12.8	59.9	77.0	77.6	10.0‡	85.0
ЧI	Small Adj.	84.9	12.7	10.4	58.7	n/a	n/a	5.7	84.9
	Remote	79.1	13.8	5.8	60.0	n/a	n/a	10.5	79.1
	Urban	89.1	7.4	8.0	58.5	83.6	76.1	6.8	89.1
lults	Rural	83.9	11.1	10.4	61.8	73.2	78.6	9.8 <sup>‡</sup>	83.9
te Ac	Micro	84.9 <sup>‡</sup>	9.9 <sup>‡</sup>	11.0	62.7	73.2	78.6	11.1‡	84.9
Whit	Small Adj.	84.2‡	12.7 <sup>‡</sup>	10.9	58.7	n/a	n/a	5.9 <sup>‡</sup>	84.2
	Remote	$78.0^{\ddagger}$	13.3 <sup>‡</sup>	6.5	64.0	n/a	n/a	11.7 <sup>‡</sup>	78.0
	Urban	75.0	22.5	20.2	39.2	87.8	74.3	16.9	75.0
lults	Rural	76.1	15.1	4.1	n/a	n/a	n/a	n/a	76.1
k Ad	Micro	76.6	n/a	6.2	n/a	n/a	n/a	n/a	76.6
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	64.8	64.8	n/a	n/a	n/a	n/a	n/a	64.8
<b>.</b>	Urban	91.3	16.4	10.9	52.5	74.9	63.6	7.4	91.3
Othen	Rural	86.2	11.4	22.6	n/a	n/a	n/a	n/a	86.2
of C Ethr	Micro	79.8	16.8	33.1	n/a	n/a	n/a	n/a	79.8
lults ace/_	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ad R	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	68.6	41.6	27.6	57.1	84.8	70.8	7.9	68.6
vdult	Rural	93.6	37.3	22.9	n/a	n/a	n/a	3.5	93.6
nic A	Micro	92.7	38.7	26.4	n/a	n/a	n/a	4.0	92.7
ispaı	Small Adj.	n/a	38.4	n/a	n/a	n/a	n/a	n/a	n/a
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a



# Indiana

			Access	to care	Receipt of Preventive Service		e Services	Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine <sup>†</sup>	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	84.5	14.9	13.8	65.0	82.0	73.4	8.7	72.9
llts	Rural	79.9	16.3 <sup>‡</sup>	12.6	61.7	76.0	71.4	10.9	64.2
Adu	Micro	81.7	15.5 <sup>‡</sup>	12.8	57.1	76.0	71.4	10.2	65.4
ИI	Small Adj.	75.5	17.9	11.2	71.8	n/a	n/a	13.4	61.8
	Remote	70.0	25.0	18.5	92.5	n/a	n/a	10.1	59.4
	Urban	85.7	12.6	12.0	66.6	82.5	72.8	8.1	69.9
lults	Rural	80.9 <sup>‡</sup>	13.6	11.7	$62.8^{\dagger}$	74.5	71.2	10.6 <sup>‡</sup>	63.7
te Ac	Micro	82.5 <sup>‡</sup>	12.5	11.6	57.9 <sup>†</sup>	74.5	71.2	9.8	66.7
Whi	Small Adj.	77.1 <sup>‡</sup>	15.9	11.7	73.4 <sup>†</sup>	n/a	n/a	13.0	57.5
	Remote	71.6	23.1	15.9	92.5	n/a	n/a	10.9	59.4
lults	Urban	80.7	24.4	21.2	48.1	82.6	75.7	11.9	93.4
	Rural	76.3	28.9	12.7	33.3	n/a	n/a	10.8	n/a
sk Ac	Micro	70.2	20.4	16.0	33.3	n/a	n/a	13.6	n/a
Blac	Small Adj.	n/a	60.9	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
r -	Urban	70.9	23.6	30.1	52.0	61.5	79.7	12.1	80.2
Othe	Rural	55.7	14.6	36.5	81.4	85.5	64.4	35.4	71.3
of ( Ethr	Micro	67.0	18.6	42.8	81.4	85.5	64.4	30.6	55.5
lults ace/	Small Adj.	n/a	n/a	13.5	n/a	n/a	n/a	52.9	n/a
Ac R:	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	78.5	34.8	22.2	53.5	89.0	79.5	12.7	71.3
Adult	Rural	71.4	70.2 <sup>‡</sup>	18.2	n/a	n/a	n/a	6.7	49.7
nic /	Micro	77.1	70.3 <sup>‡</sup>	20.1	n/a	n/a	n/a	6.7	36.6
ispa	Small Adj.	48.6	75.0 <sup>‡</sup>	n/a	n/a	n/a	n/a	8.7	n/a
H	Remote	49.7	50.3 <sup>‡</sup>	50.3	n/a	n/a	n/a	n/a	n/a



## Iowa

			Access	to care	Receipt of Preventive Serv			Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear <sup>†</sup>	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam <sup>†</sup>	
	Urban	90.4	10.3	8.7	71.2	80.8	89.5	6.7	80.9	
llts	Rural	85.3	10.9 <sup>‡</sup>	9.5	72.0	77.1	79.3	8.1 <sup>‡</sup>	65.2	
Adu	Micro	84.4	11.5 <sup>‡</sup>	9.5	73.4	77.7	81.0	9.5 <sup>‡</sup>	65.0	
ИI	Small Adj.	86.8	9.6	8.4	73.1	74.9	72.8	$7.9^{\ddagger}$	54.2	
	Remote	84.6	11.7	11.1	68.9	n/a	n/a	$6.6^{\ddagger}$	83.7	
	Urban	91.2	8.7	8.2	72.1	81.4	89.6	6.6	80.3	
dults	Rural	85.8	9.5	9.3	72.2	$76.8^{\ddagger}$	79.1	8.5 <sup>‡</sup>	$64.8^{\dagger}$	
te Ad	Micro	85.7 <sup>‡</sup>	8.6	9.0	73.5	77.3 <sup>‡</sup>	79.8	10.1 <sup>‡</sup>	64.7 <sup>†</sup>	
Whit	Small Adj.	86.8‡	8.6	8.0	73.4	75.1 <sup>‡</sup>	76.2	8.1 <sup>‡</sup>	53.5 <sup>†</sup>	
	Remote	84.8 <sup>‡</sup>	11.8	11.3	69.2	n/a	n/a	7.0 <sup>‡</sup>	83.7 <sup>†</sup>	
lults	Urban	83.7	24	18.6	55.5	68.1	78.7	19.5	93.7	
	Rural	54.8	33.6	15.6	26.4	n/a	n/a	3.7	n/a	
k Ac	Micro	50.5	36.8	17.1	n/a	n/a	n/a	4.1	n/a	
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
<b>.</b>	Urban	87.7	28.4	20.9	28.2	78.5	88.5	3.2	n/a	
Othen	Rural	83.4	22.9	11.3	77.1	56.3	90.8	5.1	n/a	
of C Ethr	Micro	85.7	36.3	2.8	46.6	45.3	n/a	6.6	n/a	
lults ace/_	Small Adj.	84.6	8.8	27.8	n/a	n/a	73.0	7.3	n/a	
Ad Rs	Remote	78.6	18	4.7	n/a	n/a	n/a	n/a	n/a	
s	Urban	71.1	34.1	9.9	50.9	71.1	97.7	4.6	35.9	
vdult	Rural	78.1	39.1	14.4	56.0	80.2	73.6	1.1	30.5	
nic A	Micro	71.9	45.5	17.2	86.5	88.4	86.9	2.1	30.5	
ispaı	Small Adj.	91.1	56.8	13.2	32.5	45.2	47.6	n/a	n/a	
H	Remote	81.2	8.3	8.8	n/a	n/a	n/a	n/a	n/a	



### Kansas

			Access	to care	Receipt of Preventive Services			Diabetes Care*
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup>†</sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes
	Urban	87.9	11.4	11.6	66.7	84.6	76.0	7.4
ults	Rural	85.1	15.9 <sup>‡</sup>	12.6 <sup>‡</sup>	65.3	80.4	75.4	8.1 <sup>‡</sup>
νqı	Micro	85.8	16.0 <sup>‡</sup>	13.0 <sup>‡</sup>	65.3	80.8	76.5	7.8
All	Small Adj.	80.7	14.0	12.6	64.5	74.8	64.2	$9.8^{\ddagger}$
	Remote	85.5	16.2 <sup>‡</sup>	12.2	65.5	81.7	71.4	$8.0^{\ddagger}$
so.	Urban	88.5	8.6	9.9	67.5	84.6	76.6	7.0
dult	Rural	85.7 <sup>‡</sup>	13.6	11.0	65.5	80.1	76.2	8.0
e A	Micro	$86.5^{\ddagger}$	14.0 <sup>‡</sup>	11.0	65.8	80.5	77.5	7.4
Vhit	Small Adj.	80.7 <sup>‡</sup>	13.7 <sup>‡</sup>	11.9	64.3	73.6	63.7	10.4
1	Remote	$86.2^{\ddagger}$	13.0 <sup>‡</sup>	10.7	65.5	82.9	71.2	8.2
s	Urban	79.6	13.9	23.7	49.4	85.5	76.5	10.9
dult	Rural	73.5	15.2	24.2	68.1	90.6	67.7	25.7
k Ad	Micro	74.6	16.5	23.5	60.3	90.6	60.1	26.1
lac	Small Adj.	35.2	n/a	29.7	n/a	n/a	n/a	n/a
щ	Remote	75.6	n/a	34.3	n/a	n/a	n/a	34.3
ty er	Urban	89.7	9.1	16.7	50.4	85.1	67.3	8.7
Oth nici	Rural	76.3 <sup>‡</sup>	19.2	20.6	48.9	70.9	55.2	10.7
of ( Ethi	Micro	83.3	23.6	21.8	45.9	66.7	49.6	10.0 <sup>‡</sup>
ults ce/]	Small Adj.	90.5	11.8	16.3	46.0	n/a	65.7	n/a
Adı Ra	Remote	57.6	15.3	20.6	55.6	n/a	n/a	17.0 <sup>‡</sup>
lts	Urban	84.5	47.0	23.9	78.2	83.1	69.1	8.4
Adu	Rural	84.6	42.6	27.6	80.9	84.6	71.5	4.1
nic	Micro	83.1	32.2 <sup>‡</sup>	25.7	79.3	85.7	73.3	5.8 <sup>‡</sup>
spaı	Small Adj.	47.6	70.5	70.5	n/a	n/a	n/a	n/a
Hi	Remote	91.9	68.0	30.3	n/a	n/a	46.0	n/a

\* Note: Kansas did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.



# Kentucky

			Access	to care	Receipt of Preventive Service			<b>Diabetes Care</b>		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes	Annual Diabetic Foot Exam	
	Urban	80.7	14.4	14.7	63.1	84.1	78.9	9.3	68.1	
ılts	Rural	70.8	21.6	20.8	61.4	79.4	71.2	9.8	59.8	
Adu	Micro	72.8	19.3	19.6	62.0	80.8	73.8	10.5	56.4	
IIA	Small Adj.	74.7	18.8	18.7	65.0	85.6	74.0	8.1	66.3	
	Remote	65.2	26.9	24.0	58.1	76.4	67.0	10.3 <sup>‡</sup>	60.2	
	Urban	81.9	12.7	13.3	64.7	83.6	78.5	8.9	68.5	
lults	Rural	70.8 <sup>‡</sup>	21.0 <sup>‡</sup>	20.1 <sup>‡</sup>	61.6	79.8	70.9 <sup>‡</sup>	9.6	60.2	
te Ac	Micro	72.6 <sup>‡</sup>	18.2 <sup>‡</sup>	18.4 <sup>‡</sup>	62.1	80.3	73.9 <sup>‡</sup>	10.0	59.4	
Whit	Small Adj.	74.8 <sup>‡</sup>	18.3 <sup>‡</sup>	18.4 <sup>‡</sup>	66.2	89.6	74.2 <sup>‡</sup>	7.8	63.4	
	Remote	65.4 <sup>‡</sup>	26.7 <sup>‡</sup>	23.7 <sup>‡</sup>	57.8	77.5	$66.4^{\ddagger}$	10.5	59.1	
lults	Urban	69.5	20.2	19.7	42.3	92.5	87.0	16.9	68.1	
	Rural	74.5	28.3	26.2	65.3	82.5	69.3	20.2	51.0	
k Ad	Micro	71.3	22.4	29.8	70.9	81.2	64.5	21.4	27.5	
Blac	Small Adj.	87.1	45.7	22.2	54.6	n/a	n/a	29.7	n/a	
	Remote	71.6	31.9	13.7	n/a	n/a	n/a	n/a	n/a	
<b>.</b>	Urban	75.3	36.9	36.9	49.4	77.0	58.5	1.6	n/a	
Othen	Rural	61.0	19.4	37.4	45.4	54.4	85.6	8.7	33.4	
of C Ethr	Micro	60.4	21.0	42.1	42.1	n/a	89.4	18.0	35.6	
lults ace/_	Small Adj.	69.5	23.9	23.9	32.7	n/a	n/a	n/a	n/a	
Ad Rŝ	Remote	55.2	13.4	41.5	n/a	28.4	70.6	2.4	n/a	
s	Urban	79.9	40.7	29.7	79.8	73.9	n/a	7.0	43.8	
vdult	Rural	76.1	54.6	38.1	81.8	79.1	72.5	9.1	93.6	
nic A	Micro	96.8	70.7	42.2	n/a	n/a	37.9	4.5	85.0	
ispaı	Small Adj.	25.9	n/a	57.6	n/a	n/a	n/a	8.6	57.5	
H	Remote	60.6	46.4	27.7	66.7	67.4	96.7	15.3	n/a	



# Louisiana

			Access	to care	Receipt of Preventive Ser			Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes	Annual Diabetic Foot Exam	
	Urban	80.1	21.3	16.0	64.8	84.9	76.9	9.1	66.8	
lts	Rural	75.9	25.0	21.5	57.3	81.0	70.1	12.2	61.1	
Adu	Micro	75.7	22.4	20.9	55.3	81.3	72.1	12.5	60.5	
All	Small Adj.	77.9	28.1	18.0	61.1 <sup>‡</sup>	78.4	55.3	13.8	62.5	
	Remote	73.3	37.2	32.7	65.3 <sup>‡</sup>	n/a	n/a	6.5	64.0	
	Urban	83.1	17.1	13.2	68.6	84.8	76.1	7.7	58.1	
lults	Rural	76.2 <sup>‡</sup>	22.3	20.1 <sup>‡</sup>	63.4	83.4	71.7	13.8 <sup>‡</sup>	59.8	
te Ac	Micro	77.1 <sup>‡</sup>	20.4	19.2 <sup>‡</sup>	58.0	85.3	73.8 <sup>‡</sup>	14.4 <sup>‡</sup>	57.8	
Whi	Small Adj.	73.4 <sup>‡</sup>	21.1	14.5 <sup>‡</sup>	70.9	73.4	57.4 <sup>‡</sup>	15.9 <sup>‡</sup>	66.8	
	Remote	75.5 <sup>‡</sup>	36.7	35.8 <sup>‡</sup>	94.8	n/a	n/a	6.2 <sup>‡</sup>	57.5	
lults	Urban	76.2	30.3	19.1	56.1	89.1	82.1	11.6	78.2	
	Rural	75.3	28.8	25.8	27.9	$78.8^{\ddagger}$	65.1 <sup>‡</sup>	10.6	61.7	
lk Ac	Micro	75.0	24.0	23.8	35.7	77.6	$68.8^{\ddagger}$	10.6	63.6	
Blac	Small Adj.	84.6	45.4	31.5	n/a	92.1	29.6 <sup>‡</sup>	11.3	49.1	
	Remote	56.9	35.4	31.7	18.3	n/a	n/a	9.0	75.0	
<b>u</b> .	Urban	71.3	20.6	23.6	48.5	69.9	69.1	14.0	84.5	
Othen	Rural	83.3	17.7	12.6	87.0	79.5	59.7	6.7	n/a	
of ( Ethr	Micro	79.0	16.1	15.9	87.0	76.2	55.9	8.4	n/a	
lults ace/	Small Adj.	n/a	32.3	n/a	n/a	n/a	n/a	n/a	n/a	
Ac R	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
s	Urban	68.4	18.7	32.5	64.6	71.6	66.0	7.9	53.1	
Adult	Rural	62.0	57.4	30.8	n/a	61.4	90.2 <sup>‡</sup>	3.5	n/a	
nic A	Micro	54.8	53.5	36.6	n/a	61.4	88.2	4.2	n/a	
ispa	Small Adj.	n/a	50.8	n/a	n/a	n/a	n/a	n/a	n/a	
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	



# Maine

			Access	to care	Receipt of	Preventiv	e Services	Diabete	es Care
	Residence	Self- Reported Health Status	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost	Flu Vaccine <sup>†</sup>	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	86.7	9.5	10.9	72.5	82.7	90.9	7.9	68.6
ılts	Rural	85.0	15.5	11.8	63.4	80.4	91.3	8.9	78.8
Adı	Micro	86.5	13.1	10.2	75.0	78.5	89.1	8.4	70.4
III	Small Adj.	85.3	16.3	11.9	59.0	80.1	92.7	8.2	81.7
	Remote	81.8	16.6 <sup>‡</sup>	14.0	60.6	83.9	90.4	11.4	80.1
	Urban	87.1	9.2	10.9	72.2	83.0	92.1	7.6	69.2
dults	Rural	85.3	15.4	11.4	63.4 <sup>‡</sup>	80.8	90.7	8.8	79.8
te Ac	Micro	86.7	12.6 <sup>‡</sup>	9.5	74.5 <sup>‡</sup>	79.8	88.4	8.6	69.5
Whi	Small Adj.	85.6	16.2 <sup>‡</sup>	11.6	58.6 <sup>‡</sup>	80.3	92.3	7.9	81.4
	Remote	82.4	17.3 <sup>‡</sup>	14.0	61.9 <sup>‡</sup>	83.4	89.1	11.5	85.3
ck Adults	Urban	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blae	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
T A	Urban	79.5	25.9	15.0	n/a	62.0	66.9	16.0	69.4
Othe	Rural	73.7	12.7 <sup>‡</sup>	16.4	n/a	63.7	n/a	11.8	69.9
of e Eth	Micro	74.3	19.8	19.8	n/a	36.5	n/a	5.9	n/a
dults ace/	Small Adj.	77.3	16.1	16.8	n/a	71.9	n/a	16.1	n/a
A R	Remote	67.5	n/a	12.4	n/a	80.3	n/a	10.2	n/a
ts	Urban	56.8	n/a	n/a	59.8	n/a	85.6	20.6	26.6
Adult	Rural	85.7	n/a	n/a	36.1	n/a	n/a	11.4	43.4
nic /	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
lispa	Small Adj.	79.4	n/a	n/a	n/a	n/a	n/a	20.6	66.3
H	Remote	84.2	n/a	n/a	26.8	n/a	n/a	9.2	n/a

*†* Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05

"n/a" indicates too few observations to display a stable estimate.



# Maryland

			Access	to care	Receipt	of Preventive	Services	
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes**
	Urban	88.3	10.7	9.9	59.8	87.2	79.4	7.9
dults	Rural	85.9 <sup>‡</sup>	12.0 <sup>‡</sup>	10.4	60.6	87.4	78.7	9.0 <sup>‡</sup>
AII A	Micro	85.9 <sup>‡</sup>	10.3	10.1	59.0	90.2	79.5	$8.2^{\ddagger}$
T	Small Adj.	85.8	16.6	11.3 <sup>‡</sup>	65.5	80.9	76.7	11.1
ts	Urban	89.2	7.0	7.2	64.3	86.7	78.5	7.5
Adul	Rural	88.0	10.5 <sup>‡</sup>	10.2	64.4	89.6	78.5	8.4
hite.	Micro	88.2	7.9 <sup>‡</sup>	9.3 <sup>‡</sup>	64.5	91.3	80.0	7.3
M	Small Adj.	87.6	16.6 <sup>‡</sup>	12.3 <sup>‡</sup>	64.1	85.8	75.3	10.8
lts	Urban	85.3	17.1	13.9	43.4	88.8	80.3	9.4
Adul	Rural	72.9	22.2	13.0	42.6	75.1	78.5	16.0
ack .	Micro	73.6	22.4	14.1	38.3	81.3	76.1	14.4
B	Small Adj.	65.3	19.5	n/a	n/a	56.4	92.7	34.7
ner ity	Urban	88.4	13.3	13.8	66.7	87.5	83.1	5.7
Oth hnic	Rural	71.1	18.7	4.8	50.4	82.6	77.4	1.7
lts of e/Et	Micro	81.6	16.6	6.7	50.4	85.9	81.0	2.4
Adu Rac	Small Adj.	44.3	24.1	n/a	n/a	66.8	62.7	n/a
ults	Urban	93.2	19.1	17.0	44.9	84.3	84.5	7.7
c Ad	Rural	n/a	n/a	10.7	n/a	78.3	n/a	n/a
pani	Micro	n/a	n/a	15.8	n/a	n/a	n/a	n/a
His	Small Adj.	n/a	n/a	n/a	n/a	41.7	n/a	n/a

\*Maryland does not contain any remote rural counties. Thus, the display has been edited to reflect only categories relevant to this state.

\*\*Maryland did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.



### Massachusetts

			Access	to care	Receipt	of Preventive	Services	
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes**
ılts	Urban	86.7	10.4	8.9	70.0	n/a	n/a	7.3
Ŋ	Rural	86.4	10.9	15.5	75.2	n/a	n/a	n/a
ΠV	Remote	86.4	10.9	15.5	75.2	n/a	n/a	n/a
a s	Urban	87.7	7.8	7.4	71.3	n/a	n/a	6.9
Whit Adult	Rural	84.7	4.7	15.8	72.0	n/a	n/a	n/a
	Remote	84.7	4.7	15.8	72.0	n/a	n/a	n/a
lults	Urban	86.0	16.3	13.1	43.5	n/a	n/a	11.6
sk Ac	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blac	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
of	Urban	88.0	16.1	15.4	45.5	n/a	n/a	7.3
ults of the r	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ad C	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
iic s	Urban	76.6	29.3	18.3	61.0	n/a	n/a	9.3
span dult:	Rural	90.5	37.2	11.5	n/a	n/a	n/a	n/a
Hi A	Remote	90.5	37.2	11.5	n/a	n/a	n/a	n/a

\*Massachusetts does not contain any micropolitan or small adjacent rural counties. Thus, the display has been edited to reflect only categories relevant to this state.

\*\*Massachusetts did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.



# Michigan

			Access	to care	Receipt of	of Preventive	Mammo- gram   Mammo- gram     84.9   78.6     90.7   89.1     90.7   89.1     90.7   89.1     90.7   89.1     90.7   89.1     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     91.1   90.5     1   1.4     1.4   1.4     1.5   1.4     1.6   1.4	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup>†</sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes <sup>†</sup> *
	Urban	85.4	11.8	12.9	66.0	84.9	78.6	8.7
ilts	Rural	83.4	15.2	13.0	70.9	90.7	89.1	8.8
Adu	Micro	84.8	14.5	12.3	71.7	90.7	89.1	$7.2^{\ddagger}$
IIV	Small Adj.	82.5	12.2	13.5	69.9	n/a	n/a	13.6
	Remote	81.0	18.2	14.0	70.1	n/a	n/a	9.3 <sup>‡</sup>
	Urban	87.3	10.0	10.6	68.6	84.5	79.0	8.1
lults	Rural	83.7 <sup>‡</sup>	13.9 <sup>‡</sup>	11.8	71.6	91.1	90.5	9.1
te Ac	Micro	85.1 <sup>‡</sup>	13.3 <sup>‡</sup>	10.9	72.4	91.1	90.5	7.5 <sup>‡</sup>
Whi	Small Adj.	82.6‡	11.0 <sup>‡</sup>	11.9	71.5	n/a	n/a	13.2 <sup>‡</sup>
	Remote	81.6 <sup>‡</sup>	16.7 <sup>‡</sup>	13.5	70.5	n/a	n/a	9.9 <sup>‡</sup>
	Urban	76.6	16.3	19.4	48.0	89.1	80.4	12.5
lults	Rural	93.1	44.9	24.8	24.8	n/a	n/a	n/a
ik Ac	Micro	87.0	13.7	42.7	39.7	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	22.6	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>4</b> 5	Urban	82.8	15.6	22.6	70.7	78.0	64.0	6.9
<b>Othe</b> nicity	Rural	81.9	26.0	25.5	52.7	45.6	45.6	4.8
of ( Ethr	Micro	83.9	25.7	19.5	55.2	45.6	45.6	2.1
lults ace/	Small Adj.	74.0	33.7	38.8	33.3	n/a	n/a	26.4
Ac R:	Remote	81.7	23.4	29.7	56.1	n/a	n/a	0.8
s	Urban	85.8	24.5	18.4	63.0	87.0	82.7	8.7
Adult	Rural	73.4	28.4	25.5	65.2	63.3	71.4	8.6
nic /	Micro	79.8	32.0	32.5	n/a	63.3	71.4	5.8
ispa	Small Adj.	90.4	20.9	31.0	n/a	n/a	n/a	9.6
H	Remote	48.4	22.8	4.8	71.8	n/a	n/a	15.2

\*Michigan did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

 $\ddagger$  Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05

"n/a" indicates too few observations to display a stable estimate.



## Minnesota

			Access	to care	<b>Receipt of Preventive Service</b>		e Services	<b>Diabetes Care</b>	
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	89.5	6.6	8.7	76.3	86.1	82.1	6.2	79.9
ılts	Rural	$86.6^{\ddagger}$	7.8	8.6	81.2	87.0	86.7	7.4	78.4
Adu	Micro	86.7	6.4	7.4	78.7	88.9	87.5	7.2	77.9
ЧI	Small Adj.	87.7	10.6	11.8	87.9	77.5	84.7	6.9	75.0
	Remote	84.4	7.7	7.2	80.0	n/a	n/a	9.1	85.7
	Urban	89.9	4.9	6.8	76.5	86.5	82.1	5.9	81.4
lults	Rural	87.3	7.1	7.7	81.4	87.5	86.5	7.5	76.9
te Ac	Micro	87.0	5.7	6.8	79.3	88.0	87.5	7.2	76.3
Whi	Small Adj.	89.0	9.2	9.5	87.3	85.3	83.5	7.2	73.4
	Remote	85.1	8.2	7.6	80.0	n/a	n/a	9.1	84.6
k Adults	Urban	84.8	19.4	34.7	65.1	72.2	79.3	4.3	80.1
	Rural	n/a	14.7	14.7	n/a	n/a	n/a	n/a	n/a
	Micro	n/a	14.7	14.7	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>.</b>	Urban	89.4	18.6	9.6	80.2	92.6	81.0	12.5	44.2
Othe	Rural	90.4	26.4	29.6	73.5	81.0	n/a	4.6	n/a
of ( Ethr	Micro	89.0	26.8	21.1	33.3	n/a	n/a	4.9	n/a
lults ace/	Small Adj.	88.8	34.1	48.3	n/a	n/a	n/a	5.7	n/a
Ac R:	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	83.0	27.5	36.2	49.4	93.0	93.9	8.3	n/a
Aduli	Rural	51.6	n/a	5.1	n/a	n/a	n/a	9.5	n/a
nic /	Micro	66.0	n/a	8.9	n/a	n/a	n/a	10.9	n/a
ispa	Small Adj.	31.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a
H	Remote	33.6	n/a	n/a	n/a	n/a	n/a	22.3	n/a



# Mississippi

			Access	to care	Receipt	Pap Smear Mammogram   70.2 92.4   65.8 89.6   68.5 89.7 <sup>‡</sup> 64.0 88.6   61.2 <sup>‡</sup> 90.4   70.3 91.8   65.6 87.2   68.5 <sup>‡</sup> 85.6   59.2 <sup>‡</sup> 88.2   71.2 93.1   64.8 92.5   66.9 93.2   59.1 90.3   64.1 92.8   50.3 95.9   73.3 96.2   65.4 93.7   73.8 n/a   n/a n/a		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes
	Urban	78.0	16.9	17.0	58.6	70.2	92.4	9.9
ilts	Rural	75.3 <sup>‡</sup>	19.1 <sup>‡</sup>	19.2 <sup>‡</sup>	reReceipt of Preventive Servicesferred ost $^{\dagger}$ Flu VaccinePap SmearMammo- gramSelf- Report Diabeta7.058.670.292.49.9 $9.2^t$ $63.4^t$ $65.8$ 89.6 $10.7^t$ $7.2^t$ $63.6^t$ $68.5$ $89.7^t$ $9.7^t$ $1.6^t$ 59.7 $64.0$ $88.6$ $13.3$ $22.4$ $65.7$ $61.2^t$ $90.4$ $11.2^t$ $4.3$ $65.7$ $70.3$ $91.8$ $84$ $5.1$ $70.2$ $65.6$ $87.2$ $8.9$ $2.6$ $72.3$ $68.9^t$ $87.3$ $6.4^t$ $5.5$ $65.0$ $65.6^t$ $85.6$ $11.9^t$ $20.8$ $69.7$ $59.2^t$ $88.2$ $12.6^t$ $21.3$ $39.7$ $71.2$ $93.1$ $12.4$ $25.4$ $42.7$ $64.8$ $92.5$ $13.2$ $24.5$ $39.6$ $66.9$ $93.2$ $14.0$ $27.6$ $46.1$ $59.1$ $90.3$ $15.7$ $22.7$ $73.5$ $73.3$ $96.2$ $21.4$ $22.7$ $73.5$ $73.3$ $96.2$ $21.4$ $29.7$ $74.4$ $65.4$ $93.7$ $33.3$ $36.6$ $n/a$ $73.8$ $n/a$ $10.5$ $85.5$ $70.9$ $n/a$ $n/a$ $10.2$ $20.1$ $36.9$ $75.8$ $n/a$ $15.0$ $30.5$ $58.8$ $77.1$ $90.8$ $10.6$	$10.7^{\ddagger}$		
Adu	Micro	78.0 <sup>‡</sup>	18.4 <sup>‡</sup>	17.2 <sup>‡</sup>	63.6 <sup>‡</sup>	68.5	89.7 <sup>‡</sup>	9.7 <sup>‡</sup>
ИI	Small Adj.	73.0	20.1 <sup>‡</sup>	21.6 <sup>‡</sup>	59.7	64.0	88.6	13.3
	Remote	70.5	20.3	22.4	65.7	61.2 <sup>‡</sup>	90.4	11.2 <sup>‡</sup>
	Urban	79.9	13.3	14.3	65.7	70.3	91.8	8.4
dults	Rural	78.0	15.0	15.1	70.2	65.6	87.2	8.9
te Ac	Micro	82.4 <sup>‡</sup>	13.2	12.6	72.3	68.9 <sup>‡</sup>	87.3	6.4 <sup>‡</sup>
Whi	Small Adj.	74.2 <sup>‡</sup>	20.4	15.5	65.0	65.6 <sup>‡</sup>	85.6	11.9 <sup>‡</sup>
	Remote	70.0 <sup>‡</sup>	15.7	20.8	69.7	59.2 <sup>‡</sup>	88.2	12.6 <sup>‡</sup>
6	Urban	74.1	23.7	21.3	39.7	71.2	93.1	12.4
dults	Rural	71.7	26.9	25.4	42.7	64.8	92.5	13.2
ck Ac	Micro	71.7	28.8	24.5	39.6	66.9	93.2	14.0
Blac	Small Adj.	74.3	18.2	27.6	46.1	59.1	90.3	15.7
	Remote	69.7	29.2	25.9	48.9	64.1	92.8	9.5
нь	Urban	80.9	28.3	32.7	33.4	50.3	95.9	15.5
Othe nicit	Rural	66.7	26.0	22.7	73.5	73.3	96.2	21.4
of ( Ethi	Micro	66.1	15.6	12.9	77.4	65.4	93.7	33.3
lults ace/	Small Adj.	63.3	41.5	36.6	n/a	73.8	n/a	10.5
A R	Remote	78.2	25.8	18.5	70.9	n/a	n/a	10.2
ts	Urban	70.3	17.6	20.1	36.9	75.8	n/a	15.0
Adul	Rural	67.4	4.7	30.5	58.8	77.1	90.8	10.6
nic /	Micro	61.8	3.8	37.3	53.4	83.9	68.9	12.6
ispa	Small Adj.	58.8	n/a	34.4	n/a	79.6	n/a	16.4
H	Remote	88.1	10.0	13.3	70.3	65.2	n/a	n/a

\*Mississippi did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

 $\ddagger$  Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05

"n/a" indicates too few observations to display a stable estimate.



# Missouri

			Access	to care	Receipt of Preventive Service			<b>Diabetes</b> Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam	
	Urban	84.4	11.7	12.7	59.0	81.6	73.6	7.6	75.5	
ilts	Rural	77.5 <sup>‡</sup>	16.1 <sup>‡</sup>	15.0	66.8	79.3	72.8	10.4 <sup>‡</sup>	67.7	
Adu	Micro	80.2 <sup>‡</sup>	14.8 <sup>‡</sup>	16.4	65.8	79.3	72.8	9.3	64.1	
ΠI	Small Adj.	74.6	18.7 <sup>‡</sup>	14.6	66.8	n/a	n/a	13.0	67.8	
	Remote	75.2	16.1	12.7	68.3	n/a	n/a	9.9	73.9	
	Urban	85.2	10.5	11.6	59.8	80.7	73.2	7.1	73.8	
lults	Rural	77.7	15.5 <sup>‡</sup>	14.0	67.8 <sup>‡</sup>	79.5	74.0	10.0‡	66.8	
te Ac	Micro	80.3 <sup>‡</sup>	14.8 <sup>‡</sup>	15.5	65.9	79.5	74.0	9.6	64.0	
Whit	Small Adj.	74.5 <sup>‡</sup>	17.4‡	13.2	66.6	n/a	n/a	12.2	70.4	
	Remote	$76.0^{\ddagger}$	15.1 <sup>‡</sup>	12.1	71.9	n/a	n/a	8.7	68.2	
lults	Urban	81.9	15.7	14.4	48.1	86.8	80.6	12.4	80.2	
	Rural	75.5	24.0	31.8	28.0	82.5	35.4	20.8	95.8	
k Ad	Micro	78.6	22.7	42.4	37.0	82.5	35.4	5.4	n/a	
Blac	Small Adj.	27.1	54.0	84.3	54.5	n/a	n/a	18.5	n/a	
	Remote	75.9	22.7	1.6	n/a	n/a	n/a	54.0	n/a	
<u>ب</u>	Urban	72.8	16.8	20.1	68.9	70.4	54.4	8.3	77.1	
Othen	Rural	65.7	25.0	24.8	61.5	73.9	46.0	16.3	70.6	
of ( Ethr	Micro	70.3	18.2	20.9	66.3	73.9	46.0	7.8	46.7	
lults ace/_	Small Adj.	70.4	17.6	30.1	73.5	n/a	n/a	28.5	72.2	
Ac R	Remote	57.0	38.1	25.3	51.6	n/a	n/a	16.9	80.9	
s	Urban	86.4	21.1	22.5	47.9	97.0	83.8	4.4	n/a	
vdult	Rural	90.0	17.9	22.2	45.5	n/a	n/a	5.9	33.6	
nic A	Micro	90.8	3.0	17.0	66.1	n/a	n/a	2.1	n/a	
ispaı	Small Adj.	n/a	81.1	40.6	73.6	n/a	n/a	21.1	n/a	
H	Remote	83.2	4.2	19.3	19.1	n/a	n/a	2.9	n/a	



# Montana

			Access	to care	<b>Receipt of Preventive Services</b>		<b>Diabetes Care</b>		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost	Flu Vaccine <sup>†</sup>	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes	Annual Diabetic Foot Exam
Adults	Urban	87.5	16.4	12.3	72.7	80.8	73.8	6.4	72.4
	Rural	84.6 <sup>‡</sup>	23.4 <sup>‡</sup>	15.1 <sup>‡</sup>	68.3	82.1	72.5	$6.4^{\ddagger}$	72.5
	Micro	86.2	23.2	14.4	74.3	82.6	74.8	5.7	72.6
IIA	Small Adj.	84.0	25.0	16.1	60.6	79.9	63.5	$7.0^{\ddagger}$	71.7
	Remote	82.8	$22.7^{\ddagger}$	15.3 <sup>‡</sup>	66.5	82.2	71.3	6.9 <sup>‡</sup>	72.9
	Urban	87.5	16.0	11.6	72.7	79.9	73.3	5.9	70.4
dults	Rural	85.7	22.0 <sup>‡</sup>	13.9	68.9	81.7	72.9	5.6	74.1
te Ac	Micro	87.3	$22.2^{\ddagger}$	12.9	74.3	82.1	74.9	5.5	73.2
Whi	Small Adj.	84.8	$23.4^{\ddagger}$	16.2	61.4	80.0	64.9	4.8	77.2
	Remote	83.9	21.0 <sup>‡</sup>	14.0	67.5	81.6	71.6	6.4	73.9
	Urban	n/a	42.1	42.1	n/a	n/a	n/a	n/a	n/a
dults	Rural	87.3	12.7	n/a	n/a	n/a	n/a	n/a	n/a
sk Ac	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	85.2	14.8	n/a	n/a	n/a	n/a	n/a	n/a
нь	Urban	85.2	19.3	21.0	71.4	93.2	80.3	15.9	83.8
Othe nicity	Rural	76.5	34.3	24.2	64.3	87.2	65.2	15.2	70.7
of ( Ethi	Micro	74.9	37.1	38.6	n/a	90.0	74.2	9.3	82.2
lults ace/	Small Adj.	79.7	31.7	15.9	54.8	80.1	55.4	21.5	67.9
Ac R:	Remote	74.9	34.8	22.9	63.9	n/a	24.7	13.3	69.4
s	Urban	95.1	27.2	20.5	n/a	89.6	89.2	3.9	n/a
Adult	Rural	70.6	40.3	28.2	37.0	82.6	68.1	7.0	45.4
nic /	Micro	66.4	37.7	29.2	59.3	72.9	38.6	9.9	49.4
ispa	Small Adj.	77.0	49.1	15.5	n/a	n/a	n/a	9.4	33.5
Ηi	Remote	74.1	39.5	35.0	n/a	89.6	89.2	n/a	n/a



## Nebraska

			Access	to care	Receipt			
_	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes*
	Urban	88.4	13.2	10.8	73.0	82.9	75.8	7.2
All Adults	Rural	84.7 <sup>‡</sup>	14.4 <sup>‡</sup>	12.0 <sup>‡</sup>	72.1	76.9	70.5	$8.3^{\ddagger}$
	Micro	85.1 <sup>‡</sup>	13.5 <sup>‡</sup>	12.1 <sup>‡</sup>	73.8	77.6	71.2	8.4
	Small Adj.	87.9 <sup>‡</sup>	13.7	10.7	70.4	77.8	75.2	$6.6^{\ddagger}$
	Remote	83.6	15.7 <sup>‡</sup>	11.9	70.6	59.1	54.3	$8.6^{\ddagger}$
White Adults	Urban	90.0	10.0	9.3	73.4	82.5	76.0	7.3
	Rural	85.4 <sup>‡</sup>	12.8 <sup>‡</sup>	10.9	72.1	77.3	71.7	$8.6^{\ddagger}$
	Micro	86.3 <sup>‡</sup>	11.4 <sup>‡</sup>	10.6	73.8	78.3	72.0	8.6
	Small Adj.	87.1 <sup>‡</sup>	11.8 <sup>‡</sup>	10.0	69.6	76.0	76.4	7.1
	Remote	84.0 <sup>‡</sup>	14.5 <sup>‡</sup>	11.3	70.7	59.1	59.8	8.8
dults	Urban	76.6	19.9	11.3	74.2	89.3	82.1	8.9
	Rural	96.9	n/a	67.4	n/a	94.2	n/a	n/a
ck A	Micro	95.8	n/a	58.1	n/a	94.2	n/a	n/a
Bla	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	91.7	n/a	n/a	n/a	n/a
r y	Urban	88.7	12.0	11.0	34.3	91.8	81.2	5.4
Othe	Rural	79.0	24.9	30.3	79.7	46.9	66.3	7.9
e of ( Ethu	Micro	72.4	12.7	32.7	78.4	46.9	66.3	8.9
dults ace/	Small Adj.	94.4	63.6	6.6	85.5	n/a	n/a	1.3
A R	Remote	78.0	20.7	35.1	79.7	n/a	n/a	9.1
ts	Urban	76.2	48.7	28.5	90.7	79.3	55.4	7.2
Adul	Rural	75.3	37.9	20.9	67.5	75.9	47.1	4.9
mic /	Micro	74.1 <sup>‡</sup>	35.6	23.6	67.5	74.8	55.1	6.1 <sup>‡</sup>
lispa	Small Adj.	n/a	15.6	27.2	n/a	n/a	n/a	n/a
H	Remote	72.3 <sup>‡</sup>	52.2	10.0	60.6	n/a	n/a	$2.3^{\ddagger}$

\*Nebraska did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.



# Nevada

			Access	to care	<b>Receipt of Preventive Services</b>			Diabetes Care		
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam	
All Adults	Urban	84.7	19.1	13.1	53.1	82.4	71.2	8.3	71.7	
	Rural	$82.2^{\ddagger}$	19.1 <sup>‡</sup>	15.7	49.8	77.3	62.6	9.3	63.2	
	Micro	79.7 <sup>‡</sup>	19.4	14.9	47.3	76.7 <sup>‡</sup>	61.2	9.3	63.0	
	Small Adj.	87.0	19.1	18.1	60.2	79.8	65.3	10.3	73.0	
	Remote	84.4 <sup>‡</sup>	17.5	14.7	44.8	74.1	72.1	7.8	38.4	
	Urban	87.8	10.8	12.0	55.5	82.3	71.5	8.4	70.5	
dults	Rural	84.9	16.5 <sup>‡</sup>	13.5	51.5	76.3	63.5	9.4	57.6	
te A	Micro	83.0	15.5 <sup>‡</sup>	11.9	50.4	72.4	62.0	9.9	61.5	
Whi	Small Adj.	89.3	15.4 <sup>‡</sup>	17.1	58.5	90.2	64.4	8.3	62.3	
	Remote	84.8	22.7	13.6	44.4	70.0	79.0	9.5	28.6	
	Urban	88.5	28.8	10.8	24.0	91.1	83.4	11.5	88.7	
dults	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
ck A	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Bla	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
y I	Urban	87.5	17.9	14.3	50.1	76.0	71.1	6.4	77.8	
Othe	Rural	$66.7^{\ddagger}$	21.3	19.7	42.7	80.3	52.4	10.0	89.3	
e of ( Ethu	Micro	65.6 <sup>‡</sup>	22.9	19.3	38.9	83.6	49.7	5.6	67.7	
dults ace/	Small Adj.	70.7 <sup>‡</sup>	21.1	19.1	56.4	60.1	66.3	21.4	n/a	
A R	Remote	63.4 <sup>‡</sup>	15.6	23.0	n/a	n/a	n/a	7.1	n/a	
ts	Urban	70.8	47.0	17.2	55.9	85.5	65.2	8.7	65.8	
Adul	Rural	80.4	58.0	28.2	63.4	80.1	68.2	7.9	71.7	
mic 1	Micro	70.5	43.5	33.2	40.6	n/a	66.2	9.3	81.3	
lispa	Small Adj.	90.6	36.2	28.5	73.2	36.7	n/a	13.1	61.3	
H	Remote	n/a	41.2	13.8	n/a	n/a	n/a	n/a	n/a	



# New Hampshire

			Access	to care	<b>Receipt of Preventive Services</b>		<b>Diabetes</b> Care		
	Residence	Self- Reported Health Status	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
All Adults	Urban	88.5	9.1	9.1	72.3	87.0	78.9	7.4	81.5
	Rural	89.6	12.6	$10.0^{\ddagger}$	70.4	87.2	78.5	7.1	80.0
	Micro	90.0 <sup>‡</sup>	11.9	9.5	70.9	86.7	78.8	7.1	80.1
	Small Adj.	85.9	19.1	14.4 <sup>‡</sup>	71.0	90.8	78.1	5.3	86.0
	Remote	89.4	11.9	9.6	65.2	87.0	78.9	8.7	74.2
	Urban	88.7	8.9	8.8	72.5	87.5	79.2	7.3	81.2
lults	Rural	89.5 <sup>‡</sup>	12.5 <sup>‡</sup>	9.7	70.6	87.8	78.7	7.0 <sup>‡</sup>	81.7
te Ac	Micro	89.9	11.9 <sup>‡</sup>	9.1	70.7	87.5	79.1	7.0 <sup>‡</sup>	81.9
Whi	Small Adj.	85.8	19.2 <sup>‡</sup>	14.0	71.9	90.6	77.9	5.1 <sup>‡</sup>	89.2
	Remote	89.5	10.4 <sup>‡</sup>	9.8	67.8	88.3	75.5	9.0 <sup>‡</sup>	74.2
	Urban	79.5	12.8	21.9	51.0	n/a	n/a	23.9	n/a
lults	Rural	n/a	n/a	n/a	n/a	n/a	n/a	24.6	n/a
ck Ac	Micro	n/a	n/a	n/a	n/a	n/a	n/a	28.5	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
нь	Urban	86.3	5.9	7.4	23.4	76.0	80.6	2.6	79.1
Othe nicity	Rural	87.7	16.5	25.3	59.0	50.8	65.3	9.3	n/a
of ( Ethi	Micro	87.6	11.2	27.4	75.6	44.6	57.5	9.1	91.2
dults ace/	Small Adj.	86.9	21.8	30.9	58.2	n/a	n/a	15.9	53.1
A	Remote	89.1	44.1	8.7	21.4	49.1	88.9	5.7	n/a
ts	Urban	84.7	26.3	29.2	n/a	73.2	29.6	17.3	80.0
Adul	Rural	96.7	10.7	3.3	n/a	n/a	n/a	8.1	32.6
nic /	Micro	98.0	11.7	3.6	n/a	n/a	n/a	8.8	32.6
ispa	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ηi	Remote	67.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a



# New Jersey

			Access	to care	<b>Receipt of Preventive Services</b>		Diabetes Care		
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
All Adults	Urban	84.7	12.4	12.4	63.8	89.4	76.2	8.5	70.6
White Adults	Urban	87.1	7.1	8.2	66.7	91.7	75.9	7.7	74.3
Black Adults	Urban	83.0	13.4	16.0	43.8	88.9	79.7	13.4	77.5
Other Race/Ethnic	Urban	85.5	16.1	15.7	72.4	79.5	68.3	7.5	69.9
Hispanic Adults	Urban	74.0	35.0	28.0	54.8	84.8	79.3	9.0	44.2

\*New Jersey does not contain any rural counties. The display has been edited to show only relevant categories.



# New Mexico

			Access	to care	<b>Receipt of Preventive Services</b>			Diabetes Care		
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam	
All Adults	Urban	84.4	21.0	15.2	69.6	83.8	71.6	6.9	67.0	
	Rural	77.9 <sup>‡</sup>	23.7 <sup>‡</sup>	$18.2^{\ddagger}$	64.8	81.8	67.5	10.0 <sup>‡</sup>	71.8	
	Micro	77.5 <sup>‡</sup>	24.1 <sup>‡</sup>	$18.1^{\ddagger}$	64.4	81.2	67.9	9.9 <sup>‡</sup>	73.2	
	Small Adj.	71.8	$22.2^{\ddagger}$	24.1	58.4	76.2	52.9	15.0	84.6	
	Remote	83.3	22.0 <sup>‡</sup>	15.9	70.1	92.5	72.9	8.2	46.5	
	Urban	86.1	10.3	11.3	70.1	82.0	73.9	6.8	66.9	
lults	Rural	82.6 <sup>‡</sup>	14.8 <sup>‡</sup>	13.7	66.0	81.8	69.1	7.5	68.2	
te Ac	Micro	83.1	15.1 <sup>‡</sup>	13.5	66.4	81.4	$69.5^{\ddagger}$	7.5	70.8	
Whi	Small Adj.	73.6	10.6 <sup>‡</sup>	19.9	52.1	69.2	45.7 <sup>‡</sup>	10.4	87.5	
	Remote	83.3	14.8 <sup>‡</sup>	12.7	69.9	92.0	77.6 <sup>‡</sup>	6.3	39.5	
	Urban	89.0	23.4	10.7	35.8	83.2	78.5	11.2	71.6	
dults	Rural	78.9	32.1	9.7	6.5	76.9	63.1	9.4	69.0	
sk Ac	Micro	78.9	32.1	9.7	6.5	76.9	63.1	9.4	69.0	
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
тъ	Urban	86.3	33.6	12.4	68.6	80.7	72.2	7.4	88.3	
Othe	Rural	76.1	31.4	14.3	66.8	78.7	61.2	16.7 <sup>‡</sup>	79.5	
of C Ethi	Micro	76.7	31.5	13.5	66.4	77.5	60.6	16.6	81.4	
dults ace/	Small Adj.	19.4	26.1	54.5	n/a	72.5	50.0	26.1	n/a	
Ac	Remote	84.3	31.8	16.4	70.3	n/a	n/a	15.8	39.1	
ts	Urban	81.8	32.8	20.7	69.0	86.4	67.2	6.8	63.1	
Adult	Rural	72.2 <sup>‡</sup>	32.9	25.2	64.2	82.7	66.7	11.4 <sup>‡</sup>	71.8	
nic /	Micro	71.1 <sup>‡</sup>	32.5	25.4	62.7	82.0	67.3	10.9 <sup>‡</sup>	71.6	
ispa	Small Adj.	74.0 <sup>‡</sup>	33.4	26.2	71.0	87.5	63.9	19.0 <sup>‡</sup>	81.3	
H	Remote	83.1 <sup>‡</sup>	36.4 <sup>‡</sup>	23.1	71.2	90.9	61.6	11.0 <sup>‡</sup>	59.6	

 $\dagger$  Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05

"n/a" indicates too few observations to display a stable estimate.


# New York

			Access	to care	Receipt of Preventive Service		e Services	s Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	83.2	13.2	12.0	62.9	84.8	78.8	9.0	75.4
ilts	Rural	84.2	15.2	11.2	62.3	75.9	85.4	9.6	65.0
Adu	Micro	83.4	14.3	11.9	64.6	75.9	85.4	9.5	61.7
ЧI	Small Adj.	84.6	18.3	$8.8^{\ddagger}$	57.4	n/a	n/a	10.9	70.0
	Remote	96.2	8.2	13.8	60.	n/a	n/a	4.2	n/a
	Urban	87.3	7.7	7.7	68.0	85.4	78.3	7.2	80.2
lults	Rural	86.8	13.5 <sup>‡</sup>	9.8	64.6	75.4	84.6	9.0	61.5 <sup>‡</sup>
te Ac	Micro	86.4	12.5 <sup>‡</sup>	9.8	65.1	75.4	84.6	9.5	62.1
Whit	Small Adj.	86.4	17.1 <sup>‡</sup>	9.2	62.8	n/a	n/a	8.4	56.2
	Remote	96.1	8.4 <sup>‡</sup>	14.2	67.9	n/a	n/a	4.3	n/a
	Urban	81.0	13.9	14.1	47.0	87.0	78.8	14.5	79.9
lults	Rural	79.6	34.1	39.5	n/a	69.2	n/a	20.4	50.3
k Ac	Micro	81.8	n/a	34.3	n/a	69.2	n/a	18.2	n/a
Blac	Small Adj.	76.9	69.2	46.1	n/a	n/a	n/a	23.1	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>.</b>	Urban	84.9	17.9	15.2	56.1	69.8	69.4	9.7	68.3
Othe	Rural	78.7	11.6	13.4	40.4	n/a	n/a	21.3	82.8
of ( Ethr	Micro	77.5	15.7	18.1	50.8	n/a	n/a	16.3	61.1
lults ace/	Small Adj.	80.6	n/a	n/a	31.8	n/a	n/a	38.2	n/a
Ac R:	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	70.6	27.8	22.2	49.1	88.4	85.3	9.9	61.7
Adult	Rural	57.0	35.1	21.3	55.0	n/a	n/a	7.7	n/a
nic /	Micro	52.8	36.6	29.4	n/a	n/a	n/a	2.8	n/a
ispa	Small Adj.	68.2	31.2	n/a	n/a	n/a	n/a	20.3	n/a
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

 $\dagger$  Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05



## North Carolina

			Access	to care	Receipt of Preventive Servic		e Services	Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam
	Urban	83.1	17.5	14.4	66.6	87.6	79.9	8.5	78.1
lts	Rural	78.1 <sup>‡</sup>	21.3 <sup>‡</sup>	17.6 <sup>‡</sup>	$63.5^{\ddagger}$	83.7	75.9	10.8	71.8 <sup>‡</sup>
Adu	Micro	79.5 <sup>‡</sup>	20.8 <sup>‡</sup>	17.1 <sup>‡</sup>	63.8 <sup>‡</sup>	84.6	75.9	10.2 <sup>‡</sup>	71.5
ЧI	Small Adj.	75.5 <sup>‡</sup>	21.9 <sup>‡</sup>	19.4	62.1	79.9	75.1	12.1 <sup>‡</sup>	75.9 <sup>‡</sup>
	Remote	71.5	23.7	18.2	63.5	79.8	78.2	13.2	66.6
	Urban	85.5	11.1	11.8	70.1	87.8	80.3	8.1	77.6
lults	Rural	80.9 <sup>‡</sup>	15.8 <sup>‡</sup>	15.4 <sup>‡</sup>	67.2	83.4 <sup>‡</sup>	76.6 <sup>‡</sup>	10.0 <sup>‡</sup>	67.0 <sup>‡</sup>
te Ac	Micro	81.7 <sup>‡</sup>	14.7 <sup>‡</sup>	14.8 <sup>‡</sup>	66.7	84.4	76.8	$9.7^{\ddagger}$	$68.7^{\ddagger}$
Whi	Small Adj.	81.1 <sup>‡</sup>	16.6 <sup>‡</sup>	17.5 <sup>‡</sup>	66.8	79.1	75.2	9.5 <sup>‡</sup>	59.5 <sup>‡</sup>
	Remote	74.9 <sup>‡</sup>	22.8 <sup>‡</sup>	15.7 <sup>‡</sup>	71.0	78.7	77.3	12.6 <sup>‡</sup>	$66.6^{\ddagger}$
	Urban	78.6	19.0	19.2	48.5	89.5	80.3	13.3	81.8
lults	Rural	72.0 <sup>‡</sup>	22.7	22.2	49.3	85.9	77.0	17.2 <sup>‡</sup>	84.2
ik Ac	Micro	73.3 <sup>‡</sup>	24.2	22.4	49.7	88.8	75.6	14.9 <sup>‡</sup>	83.4
Blac	Small Adj.	71.2 <sup>‡</sup>	20.5	22.4	52.0	75.8	79.1	22.8 <sup>‡</sup>	92.3
	Remote	63.4 <sup>‡</sup>	15.8	19.6	40.5	82.2	84.6	20.4 <sup>‡</sup>	63.3
<b>.</b>	Urban	84.6	17.5	16.9 <sup>‡</sup>	66.0	79.1	74.5	6.6	73.1
Othe	Rural	76.5	29.0	30.6	44.8	84.9	71.5	11.1	69.3
of ( Ethr	Micro	78.5	29.6	29.1	49.0	83.7	72.9	10.2	58.6
lults ace/	Small Adj.	64.4	19.5	30.9	37.0	90.6	61.3	19.4	n/a
Ac R:	Remote	71.5	37.5	47.7	32.7	n/a	n/a	8.0	n/a
ts	Urban	71.3	64.9	25.6	64.0	85.3	74.5	3.7	64.4
Adult	Rural	65.4	66.6	21.1	68.6	80.6	50.4	4.4	65.7
nic f	Micro	73.0	67.9	19.7	69.9	78.6	54.4	4.7	63.2
ispa	Small Adj.	47.1	64.1	23.3	n/a	87.8	38.3	4.2	73.1
H	Remote	38.1	57.7	31.5	24.6	73.5	23.9	n/a	n/a

 $\dagger$  Significantly different, by race,  $p < 0.05 \ddagger$  Significantly different from urban, p < 0.05



## North Dakota

			Access	to care	Receipt of Preventive Service		e Services	s Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	90.8	9.4	6.6	68.4	85.3	78.5	7.1	81.7
ılts	Rural	86.4	12.9 <sup>‡</sup>	7.3	72.0	82.8	77.7	7.3	78.8
Adu	Micro	87.4	11.9	7.2	71.1	82.8	77.7	6.4	77.7
IIA	Small Adj.	$86.7^{\ddagger}$	11.1 <sup>‡</sup>	8.2	72.1	n/a	n/a	7.6	90.8
	Remote	85.1	15.1 <sup>‡</sup>	6.8	72.7	n/a	n/a	8.0	72.6
	Urban	90.8	9.1	6.0	68.3	86.0	78.7	7.1	84.4
lults	Rural	$86.7^{\ddagger}$	11.4	6.8	72.0	83.3	78.4	6.9	78.3
te Ac	Micro	87.3 <sup>‡</sup>	11.8	6.7	70.5	83.3	78.4	6.2	78.7
Whi	Small Adj.	87.7 <sup>‡</sup>	10.4	7.8	72.3	n/a	n/a	7.1	89.8
	Remote	85.4 <sup>‡</sup>	11.6	6.3	73.2	n/a	n/a	7.5	70.3
dults	Urban	n/a	7.1	10.7	n/a	94.9	n/a	n/a	n/a
	Rural	n/a	n/a	n/a	n/a	64.8	24.9	25.7	n/a
sk Ac	Micro	n/a	n/a	n/a	n/a	64.8	24.9	32.0	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
нь	Urban	90.8	21.6	22.9	n/a	75.1	64.0	8.5	13.4
Othe nicity	Rural	81.1	32.6	11.5	88.0	77.1	66.5	11.6	84.3
of ( Ethi	Micro	93.5	14.6	20.8	n/a	77.1	66.5	8.2	n/a
lults ace/	Small Adj.	63.0	28.3	18.6	n/a	n/a	n/a	17.4	n/a
Ac R:	Remote	82.2	38.3	7.4	80.4	n/a	n/a	11.1	79.6
s	Urban	84.3	6.2	4.5	35.5	62.4	n/a	11.0	n/a
Adult	Rural	89.1	22.7	18.4	38.7	83.3	63.1	11.8	n/a
nic /	Micro	76.2	23.8	23.8	n/a	83.3	63.1	8.9	n/a
ispa	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	14.3	n/a
H	Remote	89.3	31.6	24.0	29.3	n/a	n/a	11.9	n/a

*† Significantly different, by race,* p < 0.05 *‡ Significantly different from urban,* p < 0.05*"n/a" indicates too few observations to display a stable estimate.* 



# Ohio

			Access	to care	Receipt	of Preventiv	e Services	Diabete	es Care
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam <sup>†</sup>
	Urban	86.4	12.0	11.3	65.2	n/a	n/a	8.1	66.9
ılts	Rural	81.6	15.8	13.5	65.6	n/a	n/a	9.4	52.4 <sup>‡</sup>
Adu	Micro	81.5	16.2	13.1	64.8	n/a	n/a	9.6	52.5
IIV	Small Adj.	84.1	15.9	16.9	91.8	n/a	n/a	9.7	35.2
	Remote	77.7	12.0	10.8	41.8	n/a	n/a	6.1	n/a
	Urban	88.1	10.5	9.8	64.8	n/a	n/a	7.6	63.8
dults	Rural	81.3 <sup>‡</sup>	16.0 <sup>‡</sup>	13.0	65.9	n/a	n/a	9.1	52.7 <sup>‡</sup>
te Ao	Micro	81.1 <sup>‡</sup>	16.3 <sup>‡</sup>	13.2	64.7 <sup>‡</sup>	n/a	n/a	9.2	53.0 <sup>‡</sup>
Whi	Small Adj.	83.6 <sup>‡</sup>	16.2 <sup>‡</sup>	14.5	94.8 <sup>‡</sup>	n/a	n/a	10.2	34.2
	Remote	79.0	12.4	9.1	38.8	n/a	n/a	6.3	n/a
dults	Urban	78.3	18.7	16.4	64.3	n/a	n/a	13.1	76.0
	Rural	95.1	22.1	35.9	18.9 <sup>†</sup>	n/a	n/a	3.9	n/a
ck A	Micro	87.5	n/a	n/a	n/a	n/a	n/a	1.6	n/a
Blae	Small Adj.	95.9	24.4	39.6	n/a	n/a	n/a	4.1	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
T A	Urban	80.0	19.6	21.0	70.0	n/a	n/a	8.1	76.7
Othe nicit	Rural	89.2	8.1	10.1	66.2	n/a	n/a	7.4	n/a
of e Eth	Micro	94.4	9.4	6.9 <sup>‡</sup>	72.9	n/a	n/a	8.4	n/a
dults ace/	Small Adj.	66.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
A R	Remote	37.5	n/a	62.5	62.5	n/a	n/a	n/a	n/a
ts	Urban	69.5	23.0	21.8	77.2	n/a	n/a	9.1	82.0
Adul	Rural	79.8	19.2	32.5	n/a	n/a	n/a	23.2	20.8
nic /	Micro	76.7	22.1	22.1	n/a	n/a	n/a	26.8	20.8
lispa	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ξ	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*† Significantly different, by race,* p < 0.05 *‡ Significantly different from urban,* p < 0.05*"n/a" indicates too few observations to display a stable estimate.* 



## Oklahoma

			Access	to care	Receipt	of Preventive	Services	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes*
	Urban	83.6	80.2	16.6	74.0	80.7	69.7	9.1
lts	Rural	77.6 <sup>‡</sup>	77.8 <sup>‡</sup>	19.3	72.0	77.0	66.5	10.9 <sup>‡</sup>
Adu	Micro	79.5 <sup>‡</sup>	78.7	18.9 <sup>‡</sup>	73.0	75.8	65.9	10.7 <sup>‡</sup>
All	Small Adj.	76.0 <sup>‡</sup>	77.4 <sup>‡</sup>	17.3 <sup>‡</sup>	73.1	81.6	68.7	11.0
	Remote	74.5	75.8	22.4	68.2	79.1	69.1	11.1
	Urban	85.9	85.3	15.0	73.7	80.6	69.2	8.1
lults	Rural	78.5 <sup>‡</sup>	79.6 <sup>‡</sup>	18.9 <sup>‡</sup>	72.0	77.8	68.2	9.8
te Ac	Micro	80.2 <sup>‡</sup>	80.7 <sup>‡</sup>	18.5 <sup>‡</sup>	73.4	77.5	67.7	10.0
Whit	Small Adj.	78.0 <sup>‡</sup>	79.8 <sup>‡</sup>	16.9‡	73.9	79.3	68.6	9.3
	Remote	74.9 <sup>‡</sup>	76.6 <sup>‡</sup>	22.0 <sup>‡</sup>	66.3	73.4	80.2	9.7
	Urban	83.0	73.9	17.4	64.9	85.3	69.9	11.7
lults	Rural	67.7 <sup>‡</sup>	67.7	29.4	60.3 <sup>‡</sup>	62.7	43.7	16.8
lk Ac	Micro	71.7	68.3	26.9	45.5 <sup>‡</sup>	60.5	52.8	17.3
Blac	Small Adj.	36.2	60.7	36.3	$82.6^{\ddagger}$	73.0	30.6	13.7
	Remote	81.9	71.8	31.7	n/a	n/a	n/a	18.1
L .	Urban	77.9	79.9	19.2	80.8	79.6	76.1	14.1
Othen	Rural	72.1 <sup>‡</sup>	80.3	19.0	73.8	75.6	69.0	17.6
of ( Ethr	Micro	74.0	80.6	19.8	76.9	69.3	66.2	15.9
lults ace/	Small Adj.	71.1	78.2	18.0	66.6	91.1	79.7	18.6
Ac R	Remote	68.5	83.3	18.6	75.3	n/a	66.4	20.4
s	Urban	73.9	44.7	24.2	65.4	79.2	59.9	6.8
Adult	Rural	84.1	51.8	21.1	68.3	77.5	38.7	5.1
nic f	Micro	87.7	54.4	19.1	57.8	82.8	38.2	4.6
ispa	Small Adj.	78.7	49.9	14.6	83.3	83.5	40.6	4.8
H	Remote	80.3	46.5	34.9	n/a	n/a	n/a	6.5

\*Oklahoma did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

 $\ddagger$  Significantly different, by race, p < 0.05  $\ddagger$  Significantly different from urban, p < 0.05



# Oregon

			Access to	o care Re	ceipt of Prev	entive Service	es	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine <sup>†</sup>	Pap Smear	Mammo- gram	Self- Reported Diabetes*
	Urban	85.3	17.0	16.1	71.3	83.6	78.3	6.9
lts	Rural	80.4 <sup>‡</sup>	19.7 <sup>‡</sup>	16.3 <sup>‡</sup>	64.6	81.6	73.3 <sup>‡</sup>	8.5
Adu	Micro	80.6 <sup>‡</sup>	19.2 <sup>‡</sup>	16.0 <sup>‡</sup>	64.2	81.3	73.8	8.4
ИI	Small Adj.	78.5	21.5 <sup>‡</sup>	18.6	61.7	85.3	67.1	9.4 <sup>‡</sup>
	Remote	80.5	23.2 <sup>‡</sup>	16.1	72.	n/a	n/a	8.8 <sup>‡</sup>
	Urban	87.0	12.5	14.0	71.7	83.6	78.9	6.8
lults	Rural	81.9 <sup>‡</sup>	15.6 <sup>‡</sup>	13.9	65.7	80.5	73.1 <sup>‡</sup>	8.4
te Ac	Micro	82.4 <sup>‡</sup>	15.6 <sup>‡</sup>	13.6	$64.8^{\ddagger}$	80.0	73.3	8.2
Whit	Small Adj.	76.9 <sup>‡</sup>	13.9‡	16.6	67.6 <sup>‡</sup>	89.0	69.6	9.7
	Remote	83.1 <sup>‡</sup>	17.9 <sup>‡</sup>	14.1	71.2 <sup>‡</sup>	n/a	n/a	8.3
	Urban	75.7	26.4	14.3	47.4	92.0	81.1	11.5
lults	Rural	87.8	20.2	39.5	38.0 <sup>‡</sup>	n/a	n/a	5.5
sk Ac	Micro	84.4	9.5	34.1	61.2	n/a	n/a	7.0
Blac	Small Adj.	n/a	59.4	59.4	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
нь	Urban	82.8	23.6	25.9	70.0	81.4	71.5	7.3
Othe nicity	Rural	74.3 <sup>‡</sup>	23.2	26.8	46.2	81.3	$88.8^{\ddagger}$	11.9 <sup>‡</sup>
of ( Ethi	Micro	71.5	21.4	23.2	55.5	89.8	88.6	13.8
dults ace/	Small Adj.	84.4	22.6	31.1	n/a	18.3	n/a	n/a
A. R	Remote	74.1	47.4	57.5	n/a	n/a	n/a	28.8
ts	Urban	72.7	49.2	27.0	62.2	84.9	66.8	7.1
Adul	Rural	70.3	56.1	29.3	42.0	92.9	50.3	7.7
nic /	Micro	70.1	51.1 <sup>‡</sup>	32.3	37.8	91.5	55.3	6.7
lispa	Small Adj.	82.8	83.6	15.7	n/a	n/a	n/a	19.9
H	Remote	48.9	77.0	12.0	n/a	n/a	n/a	n/a

\*Oregon did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

*†* Significantly different, by race, p < 0.05 *‡* Significantly different, by race, p < 0.05

.05  $\ddagger$  Significantly different from urban, p < 0.05



# Pennsylvania

			Access	to care	Receipt of Preventive Servic		e Services	Diabete	es Care
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	86.0	10.5	9.8	59.1	82.7	76.5	8.9	77.6
llts	Rural	84.1	11.3 <sup>‡</sup>	10.0	60.4	80.4	73.7	9.0 <sup>‡</sup>	77.4
Adu	Micro	84.8	11.1 <sup>‡</sup>	9.8	61.9	81.1	73.6	9.2	76.1
All	Small Adj.	80.5	11.2	11.1	54.1	68.3	74.1	8.9	91.5
	Remote	83.8	17.0	9.7	54.4	n/a	n/a	5.3	41.1
	Urban	86.6	8.7	8.4	59.5	83.4	77.5	8.6	77.4
lults	Rural	84.2 <sup>‡</sup>	11.7 <sup>‡</sup>	9.8	60.5	79.9	72.4	9.3	78.0
te Ac	Micro	84.7	11.7	9.9	61.9	80.5	72.3	9.5	76.9
Whi	Small Adj.	81.1	10.8	9.6	55.0	68.2	74.1	8.9	91.4
	Remote	85.2	15.6	8.2	54.4	n/a	n/a	5.4	41.1
	Urban	80.8	20.0	16.0	50.4	81.2	67.2	12.8	
lults	Rural	93.3	8.5	3.4 <sup>‡</sup>	1.4	n/a	n/a	2.5	5.8
lk Ac	Micro	92.5	9.6	3.6	n/a	n/a	n/a	2.7	n/a
Blac	Small Adj.	98.9	1.2	1.8	n/a	n/a	n/a	1.1	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
r -	Urban	91.3	21.8	17.6	81.9	69.4	69.4	8.6	80.8
Othe	Rural	75.5	2.3	17.9 <sup>‡</sup>	49.2	49.8	94.6	9.1	70.6
of ( Ethr	Micro	76.1	2.1	12.7	56.7	50.0	n/a	8.0	62.7
lults ace/	Small Adj.	72.4	3.3	43.7	13.3	44.9	54.2	14.5	92.9
Ac R	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	79.7	13.1	16.2	40.0	83.1	83.4	7.5	62.9
Adult	Rural	84.3	7.2	14.8	83.7	99.8	99.8	2.6	n/a
nic f	Micro	90.4	0.5	8.7	84.2	n/a	n/a	2.8	n/a
ispa	Small Adj.	17.6	80.7	81.2	26.1	91.6	91.8	n/a	n/a
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*† Significantly different, by race,* p < 0.05 *‡ Sa* 

 $\ddagger$  Significantly different from urban, p < 0.05



# Rhode Island

			Access to	care	Receipt o	of Preventive	Services	
	Residence*	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes**
All Adults	Urban	86.7	11.5	9.4	67.6	n/a	n/a	7.3
White Adults	Urban	87.4	7.9	7.5	67.8	n/a	n/a	7.2
Black Adults	Urban	90.1	16.7	10.7	65.3	n/a	n/a	9.0
Other Race/Ethnic	Urban	85.1	23.2	18.0	59.5	n/a	n/a	8.0
Hispanic Adults	Urban	79.7	37.0	22.2	63.5	n/a	n/a	7.6

\*Rhode Island does not contain any rural counties. Thus, the display has been edited to reflect only categories relevant to this state.

\*\*Rhode Island did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

*† Significantly different, by race,* p < 0.05 *‡ Significantly different from urban,* p < 0.05*"n/a" indicates too few observations to display a stable estimate.* 



## South Carolina

			Access	to care	Receipt of Preventive Servic		e Services	s Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	84.5	17.9	15.1	62.9	86.8	74.7	10.7	73.6
ilts	Rural	79.9 <sup>‡</sup>	<b>22</b> .0 <sup>‡</sup>	18.7 <sup>‡</sup>	59.2 <sup>‡</sup>	83.3	71.7 <sup>‡</sup>	12.2 <sup>‡</sup>	70.6
Adu	Micro	81.2 <sup>‡</sup>	22.5 <sup>‡</sup>	19.8 <sup>‡</sup>	59.9 <sup>‡</sup>	83.0	72.7 <sup>‡</sup>	11.9	71.6
ЧI	Small Adj.	76.4	19.6	15.3 <sup>‡</sup>	58.8 <sup>‡</sup>	85.0	69.3	12.7	66.1
	Remote	67.4	29.3	19.9	32.8	78.0	61.5	18.6	86.8
	Urban	86.5	14.3	12.9	65.6	86.1	73.7	9.1	68.8
lults	Rural	82.3 <sup>‡</sup>	17.3 <sup>‡</sup>	15.2	65.6	83.0	70.3	9.8	70.8
te Ac	Micro	82.9 <sup>‡</sup>	17.2	16.5 <sup>‡</sup>	64.6	82.2	72.1	9.6	72.2
Whit	Small Adj.	79.6 <sup>‡</sup>	17.8	10.0 <sup>‡</sup>	72.6	86.5	62.3	9.6	59.5
·	Remote	82.9 <sup>‡</sup>	16.8	20.4 <sup>‡</sup>	22.0	93.9	76.5	23.4	100.0
	Urban	79.7	26.7	20.8	52.9	92.1	78.6	14.7	n/a
lults	Rural	75.9	26.4	23.6	43.4	84.5 <sup>‡</sup>	75.9	16.9	70.5
lk Ac	Micro	77.1	29.9 <sup>‡</sup>	25.4	42.5	85.3 <sup>‡</sup>	75.8	16.7	70.2
Blac	Small Adj.	74.9	17.1 <sup>‡</sup>	19.8	44.1	83.0 <sup>‡</sup>	78.7	17.7	71.1
	Remote	56.0	38.5 <sup>‡</sup>	19.6	53.8	$80.5^{\ddagger}$	51.9	15.1	71.7
<b>u</b> .	Urban	80.9	17.9	15.5	47.0	71.1	72.7	14.8	80.2
Othen	Rural	74.4	45.6	25.2	52.1	73.5	53.5	9.3	68.7
of ( Ethr	Micro	82.4	41.2	24.9	60.1	73.4	52.7	12.3	85.6
lults ace/	Small Adj.	57.7	54.6	25.9	n/a	n/a	57.9	3.4	n/a
Ac R	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
s	Urban	80.0	35.4	21.4	67.1	84.9	69.9	10.1	69.5
Adult	Rural	96.5	42.2	23.4	36.3	90.2	83.9	n/a	n/a
nic f	Micro	97.6	43.5	22.0	36.3	91.3	91.8	n/a	n/a
ispa	Small Adj.	88.8	32.9	32.9	0.0	86.3	70.6	n/a	n/a
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05



# South Dakota

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	89.2	9.7	10.0	77.1	90.0	77.9	6.3	70.1
ilts	Rural	85.9 <sup>‡</sup>	12.8 <sup>‡</sup>	$7.8^{\ddagger}$	76.1 <sup>‡</sup>	81.5	75.9	$7.5^{\ddagger}$	71.3
Adu	Micro	$88.6^{\ddagger}$	11.1 <sup>‡</sup>	6.4	76.4 <sup>‡</sup>	81.5	75.9	6.0 <sup>‡</sup>	70.0
ЧI	Small Adj.	85.7	12.3	7.5	76.7 <sup>‡</sup>	n/a	n/a	8.4 <sup>‡</sup>	71.2
	Remote	82.9	14.8	9.4	75.5	n/a	n/a	9.1	72.3
	Urban	89.1	8.8	9.7	76.9	89.7	77.6	6.4	70.2
lults	Rural	86.5 <sup>‡</sup>	11.2 <sup>‡</sup>	6.9	76.7	81.6	76.4	6.9	68.3
te Ac	Micro	88.7 <sup>‡</sup>	10.8	5.8 <sup>‡</sup>	76.6	81.6	76.4	5.9	70.1
Whi	Small Adj.	86.1 <sup>‡</sup>	11.2	7.1 <sup>‡</sup>	76.5	n/a	n/a	8.1	70.9
	Remote	83.5 <sup>‡</sup>	11.6	8.2 <sup>‡</sup>	76.9	n/a	n/a	7.8	65.5
	Urban	n/a	31.3	15.0	n/a	n/a	n/a	1.8	
dults	Rural	n/a	n/a	2.3	n/a	n/a	n/a	14.7	n/a
ck A	Micro	n/a	n/a	n/a	n/a	n/a	n/a	27.7	n/a
Blae	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	4.9	n/a	n/a	n/a	n/a	n/a
нь	Urban	89.2	22.6	12.3	85.2	96.0	82.8	4.0	44.5
Othe nicit	Rural	80.4	26.7	16.3	59.6	77.7	43.2	15.1	85.7
of Certh	Micro	83.0	13.8	27.6	66.4	77.7	43.2	12.8	63.7
dults ace/	Small Adj.	82.3	26.2	11.6	n/a	n/a	n/a	16.2	81.6
Ac	Remote	80.0	28.5	15.0	57.7	n/a	n/a	15.3	88.7
ts	Urban	89.2	20.2	18.6	73.5	88.0	91.0	6.0	n/a
Adul	Rural	81.9 <sup>‡</sup>	39.9	17.8	65.6	n/a	n/a	3.8	36.9
nic /	Micro	85.9	40.1	21.1	62.6	n/a	n/a	n/a	n/a
ispa	Small Adj.	62.4	60.0	37.6	n/a	n/a	n/a	3.5	n/a
H	Remote	83.5	33.9	8.7	67.5	n/a	n/a	7.8	44.7

*†* Significantly different, by race, p < 0.05 *‡* Significantly different, by race, p < 0.05

<u>*‡*</u> Significantly different from urban, p < 0.05



## Tennessee

			Access	to care	Receipt of	of Preventive	e Services	Diabete	es Care
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost <sup>†</sup>	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam
	Urban	83.4	13.8	13.7	63.7	90.8	79.0	9.5	68.1
ılts	Rural	73.8 <sup>‡</sup>	14.3 <sup>‡</sup>	12.2	58.0	88.4	68.0	10.2 <sup>‡</sup>	59.8
Adu	Micro	74.2	13.2	13.0 <sup>‡</sup>	56.8	88.1	69.3	10.5 <sup>‡</sup>	61.6
IIA	Small Adj.	73.3	15.5	11.1	61.6	90.3	65.9	9.2	52.7
	Remote	72.7	16.4 <sup>‡</sup>	12.0	51.2	82.2	68.2	12.4 <sup>‡</sup>	75.4 <sup>‡</sup>
	Urban	83.4	11.7	12.7	66.2	91.6	78.2	9.3	66.9
dults	Rural	74.0 <sup>‡</sup>	14.1	12.0 <sup>‡</sup>	58.3	88.9	67.5	9.7	63.0
te Ac	Micro	74.8 <sup>‡</sup>	12.5	12.7 <sup>‡</sup>	56.4	90.4	69.0	9.9	68.1
Whi	Small Adj.	73.7 <sup>‡</sup>	15.8	11.0 <sup>‡</sup>	64.0	88.3	64.6	8.4	50.9
	Remote	70.3 <sup>‡</sup>	16.7	12.6 <sup>‡</sup>	49.0	80.5	70.5	13.5	75.4
	Urban	80.7	18.6	15.8	49.7	96.4	83.1	11.1	72.8
dults	Rural	76.3	10.7	12.7	62.7	92.5	68.1	14.4	51.0
ck A	Micro	77.9	15.6	20.3	72.6	80.0	61.7	13.5	19.6
Blac	Small Adj.	69.0	6.8	6.1	54.8	n/a	84.7	18.9	71.0
	Remote	n/a	n/a	n/a	35.2	n/a	35.2	n/a	n/a
нь	Urban	90.2	25.2	25.6	53.8	76.4	75.6	6.2	64.3
Othe nicity	Rural	$68.0^{\ddagger}$	17.5	18.3	46.9	n/a	81.3	18.8	23.0
of ( Ethi	Micro	61.0	14.0	22.5	65.3	n/a	86.8	26.6	n/a
lults ace/	Small Adj.	69.6	17.3	15.3	n/a	n/a	90.6	15.1	50.9
Ac R	Remote	n/a	39.8	14.7	n/a	n/a	50.9	n/a	n/a
s	Urban	93.1	25.7	9.5	40.2	49.5	94.1	4.9	64.6
Adult	Rural	61.1	36.0	5.6	35.8	46.7	72.7	9.7	62.9
nic f	Micro	55.0	38.5	n/a	n/a	31.3	73.3	10.6	77.9
ispa	Small Adj.	78.3	28.8	21.7	n/a	n/a	71.1	7.2	n/a
H	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05



# Texas

			Access	to care	Receipt of Preventive Service		e Services	s Diabetes Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam
	Urban	81.7	26.3	18.2	61.7	78.4	71.0	8.4	70.8
ilts	Rural	76.6 <sup>‡</sup>	31.0 <sup>‡</sup>	21.2 <sup>‡</sup>	61.0	74.9	57.7	10.9	60.1
Adu	Micro	76.9 <sup>‡</sup>	$28.4^{\ddagger}$	20.6 <sup>‡</sup>	57.1 <sup>‡</sup>	74.9	57.7	11.5	51.0
ЧI	Small Adj.	79.3	27.1 <sup>‡</sup>	21.8	64.7	n/a	n/a	11.9	70.2
	Remote	71.6	42.5 <sup>‡</sup>	21.6	64.2	n/a	n/a	8.0	63.3
	Urban	86.1	13.1	12.0	65.9	79.8	72.1	7.8	71.8
lults	Rural	81.1 <sup>‡</sup>	19.1 <sup>‡</sup>	17.5 <sup>‡</sup>	63.8	71.8	50.6	9.4	61.2
te Ac	Micro	81.9 <sup>‡</sup>	18.1 <sup>‡</sup>	16.4 <sup>‡</sup>	59.8	71.8	50.6	9.1	50.0
Whit	Small Adj.	80.6 <sup>‡</sup>	20.8 <sup>‡</sup>	18.9 <sup>‡</sup>	68.1	n/a	n/a	10.6	72.4
·	Remote	80.0 <sup>‡</sup>	17.6 <sup>‡</sup>	16.7 <sup>‡</sup>	66.1	n/a	n/a	7.4	59.5
	Urban	75.9	23.8	24.8	34.9	77.9	76.7	14.1	74.8
lults	Rural	68.4	32.1	31.0	26.9	82.7	87.7	10.7	92.1
lk Ac	Micro	55.4	27.5	32.7	6.1	82.7	87.7	11.9	89.5
Blac	Small Adj.	78.2	29.5	37.6	42.5	n/a	n/a	14.4	n/a
	Remote	89.0	50.6	13.6	n/a	n/a	n/a	n/a	n/a
L L	Urban	86.1	25.6	21.1	73.9	77.1	76.7	7.6	67.4
Othen	Rural	74.3	26.6	13.3	45.8	n/a	n/a	8.7	66.4
of ( Ethr	Micro	69.0	20.3	9.4	n/a	n/a	n/a	7.2	n/a
lults ace/	Small Adj.	74.9	41.4	17.5	42.2	n/a	n/a	15.9	n/a
Ac R	Remote	88.1	17.4	16.4	n/a	n/a	n/a	n/a	n/a
s	Urban	74.1	52.6	27.9	46.4	76.7	64.4	8.3	66.9
Adult	Rural	67.9	58.3	29.1	57.8	79.3	32.7	14.6 <sup>‡</sup>	53.2
nic f	Micro	70.8	52.1	28.9	64.4	n/a	n/a	17.4 <sup>‡</sup>	47.5
ispa	Small Adj.	74.5	52.4	31.7	52.2	n/a	n/a	16.6 <sup>‡</sup>	50.0
H	Remote	60.1	69.8	27.8	52.4	n/a	n/a	$9.7^{\ddagger}$	67.0

*†* Significantly different, by race, p < 0.05 *‡* Significantly

 $\ddagger$  Significantly different from urban, p < 0.05



# Utah

			Access	to care	<b>Receipt of Preventive Services</b>		Diabetes Care		
	Residence	Self- Reported Health Status	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	87.5	14.5	13.0	69.8	74.6	68.2	6.1	73.2
llts	Rural	83.9	20.3 <sup>‡</sup>	15.6	70.5	71.9 <sup>‡</sup>	70.1	7.1	79.0
Adu	Micro	84.8	19.7 <sup>‡</sup>	14.3	73.8	75.1	74.4	6.9	81.4
ИI	Small Adj.	79.9	17.2	19.8	71.5	$66.2^{\ddagger}$	63.8	$5.8^{\ddagger}$	76.9
	Remote	85.9	23.9 <sup>‡</sup>	14.3	65.4	69.0	60.9	8.6	76.6
	Urban	88.6	11.8	11.9	70.2	75.0	68.7	5.8	72.5
lults	Rural	85.5 <sup>‡</sup>	17.9 <sup>‡</sup>	14.0	70.0	69.0	69.3	6.5	74.6
te Ac	Micro	86.0	18.5 <sup>‡</sup>	13.0	73.4	71.4	72.7	5.6	74.0
Whit	Small Adj.	83.3	15.6 <sup>‡</sup>	17.2	69.8	64.0	65.0	6.7	78.6
	Remote	86.5	18.9 <sup>‡</sup>	13.1	65.3	70.6	62.6	7.9	73.1
	Urban	90.8	39.2	10.3	75.7	n/a	85.6	4.8	n/a
lults	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
lk Ac	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
L L	Urban	87.5	12.5	7.8	46.2	68.6	45.8	7.0	70.5
<b>Othe</b> <b>nicity</b>	Rural	71.2	40.9	29.3	88.6	86.4	65.2	20.4	97.5
of ( Ethr	Micro	69.4	44.3	37.2	85.5	96.5	76.6	25.9	n/a
lults ace/	Small Adj.	67.7	11.2	28.7	n/a	14.3	16.3	2.2	n/a
Ac R	Remote	77.2	57.3	16.3	82.1	n/a	n/a	23.2	n/a
s	Urban	74.4	42.1	27.8	65.4	73.4	71.5	8.1	78.7
Adult	Rural	73.1	35.1	27.6	48.5	96.4 <sup>‡</sup>	86.6	2.8	n/a
nic A	Micro	83.8	1.8	7.9	n/a	97.7 <sup>‡</sup>	94.1	6.0	n/a
ispa	Small Adj.	59.4	33.1	36.1	n/a	n/a	69.4	0.5	n/a
H	Remote	86.2	61.1	28.5	41.2	n/a	n/a	4.0	n/a

*† Significantly different, by race,* p < 0.05 *\ddagger S* 

<u>*‡*</u> Significantly different from urban, p < 0.05



## Vermont

			Access	to care	Receipt of	of Preventiv	e Services	<b>Diabetes</b> Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to $\cos t^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	91.0	9.1	9.2	67.4	84.5	76.7	5.1	78.7
llts	Rural	87.6 <sup>‡</sup>	13.5 <sup>‡</sup>	10.3 <sup>‡</sup>	66.3	84.2	78.2	6.4	77.4
Adu	Micro	87.5 <sup>‡</sup>	12.4 <sup>‡</sup>	<b>8.</b> 7 <sup>‡</sup>	67.5	84.1	79.3	6.1	78.4
All	Small Adj.	$88.6^{\ddagger}$	14.5 <sup>‡</sup>	$12.5^{\ddagger}$	64.8	85.1	78.3	6.0	83.3
	Remote	$86.0^{\ddagger}$	16.6 <sup>‡</sup>	12.7 <sup>‡</sup>	63.7	80.6	73.3	8.6	n/a
	Urban	91.5	9.0	8.8	68.3	84.9	77.1	5.1	77.2
dults	Rural	87.9 <sup>‡</sup>	13.0	9.7 <sup>‡</sup>	66.0	83.7	79.2	$6.0^{\ddagger}$	78.5
te Ac	Micro	87.7 <sup>‡</sup>	12.0 <sup>‡</sup>	8.4 <sup>‡</sup>	67.5	84.2	79.8	5.8 <sup>‡</sup>	77.2
Whi	Small Adj.	88.1 <sup>‡</sup>	13.7 <sup>‡</sup>	12.3 <sup>‡</sup>	64.3	82.7	79.4	5.5 <sup>‡</sup>	82.3
	Remote	87.1 <sup>‡</sup>	16.2 <sup>‡</sup>	11.0 <sup>‡</sup>	62.0	n/a	76.4	7.7 <sup>‡</sup>	n/a
	Urban	n/a	n/a	n/a	n/a	89.7	n/a	n/a	n/a
dults	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ck A	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Blae	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
T A	Urban	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Othe nicit	Rural	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
e of ( Ethu	Micro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
dults ace/	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
A R	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ts	Urban	90.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Adul	Rural	86.3 <sup>‡</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
mic 1	Micro	87.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a
lispa	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ħ	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*† Significantly different, by race,* p < 0.05 *‡ Significantly different, by race,* p < 0.05

<u>*‡*</u> Significantly different from urban, p < 0.05



# Virginia

			Access	to care	Receipt of	Preventiv	e Services	<b>Diabetes Care</b>	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage $^{\dagger}$	Deferred care due to cost <sup>†</sup>	Flu Vaccine <sup>†</sup>	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam
	Urban	88.3	9.9	8.9	70.0	91.7	77.4	6.7	72.6
ults	Rural	82.1	16.4	16.0	57.9	84.5	74.1	11.1	68.9
ΙAdı	Micro	83.8	17.0	16.3	71.6	87.9	83.5	9.5	90.3
II	Small Adj.	83.6	16.1	15.8	48.1	83.5 <sup>‡</sup>	72.9	10.6	62.3
	Remote	77.4	16.4	16.0	64.2	82.5	69.1	13.5 <sup>‡</sup>	69.0 <sup>‡</sup>
	Urban	89.0	8.0	6.9	73.1	92.9	77.2	6.7	72.2
dults	Rural	82.1 <sup>‡</sup>	15.4 <sup>‡</sup>	16.1 <sup>‡</sup>	58.0 <sup>‡</sup>	84.4	74.1	10.5 <sup>‡</sup>	65.1
te A	Micro	84.0 <sup>‡</sup>	17.6 <sup>‡</sup>	17.0 <sup>‡</sup>	$68.8^{\ddagger}$	87.0	82.6 <sup>‡</sup>	9.8 <sup>‡</sup>	91.8 <sup>‡</sup>
Whi	Small Adj.	83.5 <sup>‡</sup>	14.1 <sup>‡</sup>	16.0 <sup>‡</sup>	48.1 <sup>‡</sup>	85.3	73.3 <sup>‡</sup>	9.7 <sup>‡</sup>	56.0 <sup>‡</sup>
	Remote	77.5 <sup>‡</sup>	15.7 <sup>‡</sup>	15.6 <sup>‡</sup>	66.2 <sup>‡</sup>	79.2	69.3 <sup>‡</sup>	13.0 <sup>‡</sup>	63.2 <sup>‡</sup>
	Urban	83.7	14.3	12.4	48.5	93.1	81.9	8.8	76.5
dults	Rural	84.5	23.6 <sup>‡</sup>	15.4	42.0	90.6	74.5	16.2	81.5
ck A	Micro	86.1	11.1	8.4	73.8	n/a	n/a	14.0	71.8
Blae	Small Adj.	86.7	25.0	15.7	36.6	85.8	73.8	14.5	73.5
	Remote	78.2	24.0	17.0	40.1	n/a	62.1	21.5	96.7
T A	Urban	89.5	16.3	17.0	59.9	81.5	69.3	4.4	56.9
Othe nicit	Rural	77.4	10.5	12.8	94.5	70.0	67.7	9.3	81.8
t of C	Micro	90.1	9.9	9.9	n/a	n/a	59.1	n/a	n/a
dults ace/	Small Adj.	76.7	9.9	11.1	91.9	65.6	64.9	14.6	81.8
A R	Remote	61.9	13.7	24.3	n/a	n/a	n/a	n/a	n/a
ts	Urban	88.6	21.1	22.7	52.3	83.3	72.9	2.6	n/a
Adul	Rural	77.0	40.4	16.6	63.6	54.3	87.3	12.1	n/a
nic /	Micro	31.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a
lispa	Small Adj.	82.9	57.0	17.1	n/a	n/a	69.9	17.1	n/a
H	Remote	89.9	6.8	30.2	n/a	n/a	n/a	4.8	n/a

*† Significantly different, by race,* p < 0.05 *‡* 

 $\ddagger$  Significantly different from urban, p < 0.05



# Washington

			Access	to care	Receipt of	of Preventive	e Services	<b>Diabetes Care</b>	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage <sup><math>\dagger</math></sup>	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram <sup><math>\dagger</math></sup>	Self- Reported Diabetes <sup>†</sup>	Annual Diabetic Foot Exam
	Urban	87.1	14.4	13.1	68.1	83.5	76.3	6.8	75.8
llts	Rural	84.2 <sup>‡</sup>	16.7 <sup>‡</sup>	13.8 <sup>‡</sup>	66.0	80.3 <sup>‡</sup>	71.8	8.4	68.6
Adu	Micro	84.6 <sup>‡</sup>	15.0 <sup>‡</sup>	13.2 <sup>‡</sup>	64.8	79.9	73.3	8.3	66.4
All	Small Adj.	83.1 <sup>‡</sup>	21.2 <sup>‡</sup>	15.1 <sup>‡</sup>	66.9	81.0 <sup>‡</sup>	68.0	8.8	72.9
	Remote	84.7	18.0	14.0	73.8	81.3	68.3	8.3	74.0
	Urban	88.4	10.8	11.3	68.6	83.8	76.7	6.5	74.6
lults	Rural	88.4 <sup>‡</sup>	10.8 <sup>‡</sup>	11.3	68.6	80.0 <sup>‡</sup>	72.3 <sup>‡</sup>	6.5 <sup>‡</sup>	74.6
te Ac	Micro	86.1 <sup>‡</sup>	11.5 <sup>‡</sup>	11.5	65.1	80.0	73.7 <sup>‡</sup>	8.2 <sup>‡</sup>	67.8
Whit	Small Adj.	84.7 <sup>‡</sup>	16.0 <sup>‡</sup>	13.6	67.2	79.5	69.5 <sup>‡</sup>	8.8 <sup>‡</sup>	70.2
	Remote	85.9 <sup>‡</sup>	17.2 <sup>‡</sup>	12.8	73.9	81.3	67.0 <sup>‡</sup>	7.8 <sup>‡</sup>	72.5
	Urban	83.5	18.4	14.0	51.4	81.1	78.2	15.8	n/a
lults	Rural	85.3	23.4	6.7	n/a	n/a	82.6	n/a	n/a
lk Ac	Micro	82.7	17.7	7.9	n/a	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	54.8	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	54.2	n/a	n/a
L L	Urban	87.3	14.4	15.9	65.4	77.2	73.2	8.6	76.5
<b>Othe</b> <b>nicity</b>	Rural	81.3 <sup>‡</sup>	21.4 <sup>‡</sup>	18.0	63.1	73.9	64.1	10.3	78.7
of ( Ethr	Micro	83.1	18.8 <sup>‡</sup>	16.1	56.6	73.1	$68.2^{\ddagger}$	9.9	71.8
lults ace/	Small Adj.	76.8	32.5 <sup>‡</sup>	26.6	74.9	76.1	47.2 <sup>‡</sup>	10.8	91.0
Ac R:	Remote	80.8	9.3 <sup>‡</sup>	7.7	70.7	70.0	92.8 <sup>‡</sup>	11.6	84.8
s	Urban	74.9	46.9	27.3	57.3	88.4	71.6	5.5	88.6
Adult	Rural	71.3	51.1	27.1	56.2	85.9	71.7	7.8	57.4
nic A	Micro	71.6	46.1	27.8	63.6	82.9	71.0	7.6	45.4
ispa	Small Adj.	70.6	65.6	22.3	33.7	94.9	76.0	7.8	87.1
His	Remote	68.4	47.8	46.4	n/a	85.8	67.9	13.1	n/a

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05



# West Virginia

			Access	to care	Receipt of	of Preventive	e Services	<b>Diabetes</b> Care	
	Residence	Self- Reported Health Status <sup>†</sup>	No Health Insurance Coverage	Deferred care due to $\cot^{\dagger}$	Flu Vaccine	Pap Smear	Mammo -gram	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	77.9	16.7	16.2	61.7	75.2	83.8	11.2	67.9
ılts	Rural	71.9	19.9	21.2 <sup>‡</sup>	65.9	72.5	81.2	11.1	71.8
Adu	Micro	76.0	19.2	17.5 <sup>‡</sup>	72.8	74.0 <sup>‡</sup>	81.1	10.0	63.4
IIA	Small Adj.	70.8	21.9	21.4	58.9	69.1	78.1	10.4	79.8
	Remote	66.5	18.9	26.8	62.7	73.4	87.8	13.7	74.6
	Urban	78.1	16.0	15.7	61.9	75.7	84.4	11.3	68.4
dults	Rural	72.7 <sup>‡</sup>	18.8	19.9 <sup>‡</sup>	64.8 <sup>‡</sup>	72.0	80.3	10.8	71.0
te Ac	Micro	76.4 <sup>‡</sup>	18.0	15.8 <sup>‡</sup>	72.5 <sup>‡</sup>	73.8	79.7	9.7	61.6
Whi	Small Adj.	71.3 <sup>‡</sup>	21.0	20.5 <sup>‡</sup>	58.5 <sup>‡</sup>	68.3	76.9	9.8	78.2
	Remote	$68.4^{\ddagger}$	17.7	25.8 <sup>‡</sup>	60.1 <sup>‡</sup>	72.9	89.0	13.6	75.2
	Urban	76.7	26.1	22.8	50.8	76.6	82.3	14.6	65.6
lults	Rural	74.7	30.0	9.1	83.5	78.2	93.8	14.1	75.4
sk Ac	Micro	81.8	31.6	6.2	79.9	73.0	n/a	13.5	77.3
Blac	Small Adj.	50.7	n/a	n/a	n/a	n/a	n/a	8.1	n/a
	Remote	56.9	58.8	42.3	n/a	75.0	43.2	26.6	n/a
H L	Urban	69.5	13.4	20.0	59.7	62.6	69.9	5.3	66.7
Othe	Rural	58.6	30.6	47.0	85.7	76.2	77.9	21.6	80.6
of ( Ethr	Micro	83.4	19.1	56.6	90.4	71.6	71.0	15.8	60.6
lults ace/	Small Adj.	42.7	38.9	41.3	84.6	n/a	n/a	44.4	n/a
Ac R:	Remote	36.7	40.1	38.4	83.0	n/a	n/a	16.1	75.5
s	Urban	89.1	49.8	24.0	60.3	67.4	82.1	9.3	44.0
Adult	Rural	54.3	41.9	48.2‡	61.1	n/a	n/a	7.1	68.2
nic /	Micro	38.7	49.7	44.2	40.7	n/a	n/a	9.9	n/a
ispa	Small Adj.	93.8	62.1	60.7	n/a	n/a	n/a	n/a	n/a
H	Remote	47.2	8.9	44.2	n/a	n/a	n/a	8.6	n/a

*† Significantly different, by race, p < 0.05 \ddagger S* 

 $\ddagger$  Significantly different from urban, p < 0.05



## Wisconsin

			Access	to care	Receipt			
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo- gram	Self- Reported Diabetes*
	Urban	88.9	10.1	9.0	74.1	85.9	79.5	6.6
lts	Rural	85.8	11.6 <sup>‡</sup>	10.5	67.9	84.4	73.2	6.7
Adu	Micro	87.3	8.9	10.0	65.2	84.4	73.5	6.5 <sup>‡</sup>
ЧI	Small Adj.	85.0	12.1	9.0	68.9	84.3	71.0	$7.2^{\ddagger}$
	Remote	82.8	20.4	18.2	72.4	n/a	n/a	5.7
	Urban	89.1	9.1	7.5	74.8	86.7	79.9	6.5
lults	Rural	86.4 <sup>‡</sup>	11.1	10.0	68.1 <sup>‡</sup>	84.0	73.9	6.8
te Ac	Micro	87.7	8.5	9.9	65.3	84.0	74.3	6.5
Whit	Small Adj.	85.2	11.9	8.9	68.9	84.3	71.0	7.5
-	Remote	85.7	19.4	14.8	74.2	n/a	n/a	5.6
	Urban	83.9	24.3	21.4	65.6	90.8	82.6	5.8
lults	Rural	58.6	37.8	41.4	n/a	n/a	n/a	n/a
k Ad	Micro	60.8	39.2	39.2	n/a	n/a	n/a	n/a
Blac	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
-	Urban	91.9	11.6	18.8	47.5	75.2	71.6	7.9
Othen	Rural	72.8 <sup>‡</sup>	28.0	19.9	59.3	n/a	28.9	2.8
of ( Ethr	Micro	72.1	22.1	6.9	n/a	n/a	28.9	n/a
lults ace/	Small Adj.	73.1	24.2	16.4	69.0	n/a	n/a	n/a
Ac R:	Remote	73.0	37.0	34.2	n/a	n/a	n/a	8.3
s	Urban	86.5	16.7	24.0	78.1	68.6	64.5	10.3
Adult	Rural	68.5	1.6	31.5	n/a	n/a	n/a	5.9
nic A	Micro	85.0	4.2	15.0	n/a	n/a	n/a	15.0
ispa	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
H	Remote	10.0	n/a	90.0	n/a	n/a	n/a	n/a

\*Wisconsin did not use the Diabetes Module of the BRFSS in 2005, thus information on diabetes quality of care (annual foot exam) is not available.

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05



# Wyoming

			Access	to care	Receipt of	of Preventive	e Services	<b>Diabetes Care</b>	
	Residence	Self- Reported Health Status	No Health Insurance Coverage	Deferred care due to cost	Flu Vaccine	Pap Smear	Mammo -gram <sup>†</sup>	Self- Reported Diabetes	Annual Diabetic Foot Exam
	Urban	86.8	16.4	12.1	75.8	87.1	75.9	8.4	69.9
ılts	Rural	87.0	$18.5^{\ddagger}$	13.7 <sup>‡</sup>	72.4	84.8	65.5	6.9 <sup>‡</sup>	65.6
Adu	Micro	87.7	18.2 <sup>‡</sup>	14.6 <sup>‡</sup>	73.1	84.9 <sup>‡</sup>	66.7	6.9 <sup>‡</sup>	62.0
IIA	Small Adj.	83.4	15.2	14.1	85.7	79.3	75.5	7.5	55.0
	Remote	86.4	19.3	12.6	70.5	85.0	62.8	6.8	71.8
	Urban	87.6	14.1	10.9	76.0	86.3	77.6	8.0	65.2
dults	Rural	87.6	17.3 <sup>‡</sup>	12.4	72.6	84.8	$65.9^{\ddagger}$	7.1	64.4
te Ac	Micro	88.3	17.0	13.0	73.7	84.5	$67.6^{\ddagger}$	7.2	61.0
Whi	Small Adj.	83.5	15.1	14.4	85.7	79.0	75.8 <sup>‡</sup>	7.7	55.0
	Remote	87.0	17.9	11.5	70.4	85.7	62.7 <sup>‡</sup>	7.0	70.2
	Urban	72.9	33.5	38.2	52.4	n/a	84.3	2.6	n/a
dults	Rural	64.9	n/a	n/a	60.0	n/a	40.0	8.5	n/a
ck Ac	Micro	54.2	n/a	n/a	60.0	n/a	40.0	11.1	n/a
Blae	Small Adj.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Remote	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
нь	Urban	81.1	49.4	16.5	77.5	73.4	47.9	12.4	n/a
Othe nicity	Rural	83.8	32.8	26.1	61.5	87.7	44.7	2.9	n/a
of ( Ethi	Micro	82.3	34.3	28.3	45.4	92.6	42.9	2.4	n/a
lults ace/	Small Adj.	80.2	n/a	n/a	n/a	n/a	50.0	n/a	n/a
Ac	Remote	86.5	31.6	23.3	75.5	74.4	48.1	3.7	n/a
ts	Urban	81.8	25.7	20.8	71.9	95.0	55.3	12.2	89.5
Aduli	Rural	79.9	30.8	28.5	74.9	82.3	70.7	5.2	82.2
nic /	Micro	84.5	24.8	29.4	76.2	83.2	66.9	4.5	72.8
ispa	Small Adj.	71.5	42.9	n/a	n/a	n/a	n/a	n/a	n/a
H	Remote	71.1	42.3	27.5	74.1	80.4	73.7	6.6	n/a

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05



# **Technical Notes**



### **OVERVIEW:** Data Sources

#### **BRFSS 2005**

### About the Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) is a collaborative project of the Centers for Disease Control and Prevention (CDC) and U.S. states and territories. The BRFSS, administered and supported by CDC's Behavioral Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors in the adult population (18 years of age or older) living in households. The BRFSS was initiated in 1984, with 15 states collecting surveillance data on risk behaviors through monthly telephone interviews. Over time, the number of states participating in the survey increased, so that by 2001, 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands were participating in the BRFSS. In this document, the term *state* is used to refer to all areas participating in the surveillance system, including the District of Columbia, Guam, the U.S. Virgin Islands, and the Commonwealth of Puerto Rico<sup>24</sup>.

The objective of the BRFSS is to collect uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases in the adult population. Factors assessed by the BRFSS include tobacco use, health care coverage, HIV/AIDS knowledge and prevention, physical activity, and fruit and vegetable consumption. Data are collected from a random sample of adults (one per household) through a telephone survey<sup>24.</sup>

BRFSS field operations are managed by state health departments, who follow guidelines provided by the CDC. These health departments participate in developing the survey instrument and conduct the interviews either in-house or through use of contractors. The data are transmitted to the CDC's National Center for Chronic Disease Prevention and Health Promotion's Behavioral Surveillance Branch for editing, processing, weighting, and analysis. An edited and weighted data file is provided to each participating health department for each year of data collection, and summary reports of state-specific data are prepared by CDC. Health departments use the data for a variety of purposes, including identifying demographic variations in health-related behaviors, targeting services, addressing emergent and critical health issues, proposing legislation for health initiatives, and measuring progress toward state and national health objectives<sup>24</sup>.

The health characteristics estimated from the BRFSS pertain to the adult population, aged 18 years and older, who live in households. In 2005 additional questions were included as optional modules to provide a measure for two health characteristics of the non-adult population aged 17 years and less. (These were childhood asthma prevalence and childhood immunization for influenza.) As noted above, respondents are identified through telephone-based methods. Although overall, approximately 95 percent of U.S. households have telephones, coverage ranges from 87 to 98 percent across states and varies for subgroups as well. For example, people living in the South, minorities, and those in lower socioeconomic groups typically have lower telephone coverage. No direct method of compensating for non-telephone coverage is employed by the BRFSS; however, post-stratification weights are used, which may partially correct for any bias caused by non-telephone coverage. These weights adjust for differences in probability of selection and



nonresponse, as well as noncoverage, and must be used for deriving representative population-based estimates of risk behavior prevalence<sup>24</sup>.

In 2006 additional questions were included as optional modules to provide a measure for two health characteristics of the non-adult population aged 17 years and less (childhood asthma prevalence and childhood immunization for influenza).

## **DESIGN OF THE BRFSS**

## A. The BRFSS Questionnaire

The questionnaire has three parts: 1) the core component; 2) optional modules; and 3) state-added questions.

**Core component.** The *core* is a standard set of questions asked by all states. It includes queries about current health-related perceptions, conditions, and behaviors (e.g., health status, health insurance, diabetes, tobacco use, disability, and HIV/AIDS risks), as well as demographic questions.

**Optional CDC modules.** These are sets of questions on specific topics (e.g., cardiovascular disease, arthritis, women's health) that states elect to use on their questionnaires. In 2005, 26 optional modules were supported by CDC. The module questions are generally submitted by CDC programs and have been selected for inclusion in the editing and evaluation process by CDC. For more information, see 2005 BRFSS Modules Used By States (See http://apps.nccd.cdc.gov/BRFSSModules/ModByState.asp?Yr=2005).

**State-added questions.** These are questions developed or acquired by participating states and added to their questionnaires. State-added questions are not edited or evaluated by CDC.

Each year, the states and CDC agree on the content of the core component and optional modules. Many questions are taken from established national surveys, such as the National Health Interview Survey or the National Health and Nutrition Examination Survey. This practice allows the BRFSS to take advantage of questions that may have been tested and allows states to compare their data with those from other surveys. Any new questions proposed as additions to the BRFSS must go through cognitive testing and field testing prior to their inclusion on the survey. BRFSS guidelines specify that all states ask the core component questions without modification; they may choose to add any, all, or none of the optional modules and may add questions of their choosing at the end of the questionnaire<sup>24</sup>.

## Sample description

In a telephone survey, such as the BRFSS, a sample record is one telephone number in the list of all telephone numbers selected for dialing. In order to meet the BRFSS standard for the participating states' sample designs, sample records must be justifiable as a probability sample of all households with telephones in the state. All participating areas met this criterion in 2005. Fifty-one projects used



a disproportionate stratified sample (DSS) design. Puerto Rico and the U.S. Virgin Islands used a simple random sample design<sup>24</sup>.

## DATA COLLECTION

## **Interviewing Procedures**

There are 356,112 records for 2005 BRFSS. 53 states used computer-assisted telephone interviewing (CATI) for data collection. CDC supports CATI programming using the Ci3 CATI software package. This support includes programming the core and module questions for data collectors, providing questionnaire scripting of state-added questions for states requiring such assistance, and contracting with a Ci3 consultant who is available to assist states. Following guidelines provided by CDC, state health personnel or contractors conduct interviews. The core portion of the questionnaire lasts an average of 10 minutes. Interview time for modules and state-added questions is dependent upon the number of questions used, but generally extend the interview period by an additional 5 to 10 minutes<sup>25</sup>.

Telephone interviewing was conducted during each calendar month, and calls were made seven days per week, during both daytime and evening hours. Standard procedures were followed for rotation of calls over days of the week and time of day. BRFSS procedural rules are described in the *BRFSS User's Guide*, <u>http://www.cdc.gov/brfss/pubrfdat.htm#users</u>. Detailed information on interview response rates and item nonresponse rates are discussed in the 2005 Summary Data Quality Report<sup>25</sup>.

## 2005 Area Resource File

The basic county-specific Area Resource File (ARF) is a database containing more than 6,000 variables for each of the nation's counties with few exceptions (Alaska). Overall, there are 3,080 records on the file. ARF contains information on health facilities, health professions, measures of resource scarcity, health status, economic activity, health training programs, and socioeconomic and environmental characteristics. In addition, the basic file contains geographic codes and descriptors which enable it to be linked to many other files and to aggregate counties into various geographic groupings<sup>26</sup>.

ARF summarizes data from many sources into a single file to facilitate health analysis. The ARF data elements include: Population data (like size, composition, employment, housing, morbidity, natality, mortality by cause, by sex and race, and by age; crime data) and County descriptors (such as names, FIPS codes, city size, Metropolitan Statistical Area Designations (MSA/Non-MSA), Urban Influence Codes). It also contains Health Professions data (for M.D., D.O., DDS, Veterinarians, Pharmacists, Optometrists, Podiatrists, R.N., L.P.N., and Dental Hygienists). Other data present includes Health Facility data, Health Professions Training data (indicating training programs, enrollments, and graduates by type), and expenditure data. Relevant economic data such as total per capita and median income and income distributions are also recorded<sup>26</sup>.



## Data Analysis

Statistical analyses were conducted using SAS-callable SUDAAN, to account for weighting and complex sample design. Sampling weights were assigned to each data record based on all probabilistic factors affecting the selection of a residential phone number by state, with adjustments made to compensate for differences by area codes/regions, number of adults in each household, noncoverage and nonresponse, forcing the sum of the weighted frequencies to equal population estimates for the region or state. Using data from the U.S. Bureau of Census, weights were adjusted by age, sex, race/ethnicity and household size to provide representative state populations of adults aged 18 years and older. In the Chartbook, responses of "don't know" and "refused to answer" were counted as missing data.

Data analysis was conducted separately for the national and state data. Adults' area of residence was classified at the county level using the 2003 Urban Influence Codes for the U.S. Department of

Agriculture's Economic Research Service<sup>27</sup>. The 2003 Urban Influence Codes (UIC) divide the 3,141 counties, county equivalents, and the independent cities in the United States into 12 groups based on population and commuting data from the 2000 Census of the Population, in the case of metropolitan counties, and adjacency to metro area in the case of nonmetropolitan counties. Metro-nonmetro definition is based on the official metro status announced by the Office of Management and Budget on June 1, 2003. The 12 UICs were grouped into two categories for the National and State profiles (see chart at right). UICs of 1 and 2 levels of rurality

Chartbook	UIC	Definitions
Grouping		
Urban	1	In large metro area of 1+ million residents
	2	In small metro area of less than 1 million residents
Micropolitan	3	Micropolitan area (urban cluster of 10,000
Rural		population or more) adjacent to large metro area
	5	Micropolitan area adjacent to small metro area
	8	Micropolitan area not adjacent to a metro area
Small adjacent	4	Noncore adjacent to large metro area
rural	6	Noncore adjacent to small metro area and contains
		a town of at least 2,500 residents
	7	Noncore adjacent to small metro area and no town
		of at least 2,500 residents
Remote rural	9	Noncore adjacent to micro area and contains a
		town of at least 2,500 residents
	10	Noncore adjacent to micro area and no town of at
		least 2,500 residents
	11	Noncore not adjacent to metro or micro area and
		contains a town of at least 2,500 resident
	12	Noncore not adjacent to metro or micro area and
		no a town of at least 2,500 residents

were classified as "Urban", while all other UICs were classified as rural. Analysis across levels of rurality used three groups: "micropolitan rural" (UICs 3, 5, and 8), "small adjacent rural" (UICs 4, 6 and 7) and "small remote rural" (UICs 9, 10, 11 and 12).

There were four general areas of health outcomes considered. The first addressed Health and Health Behaviors: health status, asthma, diabetes, activity limitations, disability leading to need for assistive equipment, overweight, obesity, physical activity, failure to meet moderate and vigorous physical activity. The second area was Access to Health Care: health insurance coverage, provider availability, availability, personal health care provider and deferred care due to cost. The third concept was Quality of Health Care, defined based on receipt of age-appropriate preventive services: recommended check-ups, annual flu and pneumonia vaccinations, recommended age-specific mammogram screening and Pap smear screening; recommended age-specific Colorectal screening and recommended annual dental visits with a cleaning<sup>28-30</sup>. Finally, quality of health care for persons with diabetes was examined, measuring receipt of: annual diabetes exam, annual diabetic foot and eye exams and Hemoglobin A1C Testing.



The prevalence of all outcome variables is presented by race and ethnicity. Race and ethnicity were classified based on the established National Center for Health Statistics categories of white, non-Hispanic African American (hereafter 'blacks'), Hispanic, American Indian/Alaska Native, Asian/Pacific Islander, and other. In situations where the sample sizes of minority populations were simply too small to obtain a valid estimate, race was classified as Non-Hispanic whites (hereafter "whites"), Non-Hispanic blacks (hereafter "blacks"), and Hispanics. All other races were collectively classified as "other". Race/ethnicity was presented in a similar manner for each state.

Quality of health care variables was defined based on a variety of recommendations. Recommendations from the USPSTF 2005 guide to clinical services, the national adult immunization schedule, American Dental Association and the American Diabetes Association were considered in designing reported quality indicators<sup>28-30</sup>. Quality of care for preventive screenings like age-specific mammogram screenings was determined as met when women respondents age 40 years or older reported having had a mammogram in the past two years. Quality of care for preventive screenings like age-specific Pap smear screenings was determined as met when women respondents with an intact cervix aged 21 years to 65 years reported having had a mammogram in the past three years. Annual flu and pneumonia vaccinations for adults aged 65 years and older were categorized as meeting quality recommendations, while an annual dental visit and cleaning met recommended dental quality requirements. Colon cancer screening recommendations for adults aged 50 years or older were considered met with the presence of a colonoscopy or sigmoidoscopy in the past ten years. Annual recommended quality indicators for diabetes were considered met with the presence of at least two Hemoglobin A1C Tests, diabetic foot exams and eye dilation exams. Presence of a quality measure was categorized as yes/no to indicate having being met or not.

Finally, the chartbook presents state-specific "mini-reports" created using a standardized template to present eight selected health indicators by race/ethnicity and levels of rurality. The selected variables include self-reported health status, health insurance coverage, deferred health due to cost, annual flu vaccinations, Pap smears, mammograms, prevalence of self-reported diabetes and annual diabetic foot examinations. Where sample size of respondents was too small for statistical analysis or not a valid estimate ( $\leq$ 50 unweighted BRFSS samples), a not available (n/a) label was reported in the table.

In two special instances where a large number of states did not ask respondents selected variable questions in BRFSS 2005, the 2006 BRFSS was used as a supplement to capture responses by state. The two variables were mammograms and Pap smear screening related questions.

## Accuracy of Results

Data from the BRFSS are subject to the usual variability associated with sample surveys. Small differences between survey estimates may be due to random errors and these do not reflect true differences among adults or across states. It is important to note that any survey will have natural variation across sample sites; therefore, some variation between states is to be expected. The complex sample design and the multiple reporting areas complicate the analysis of the BRFSS. Although CDC works with the states to minimize deviations, in 2005 there were some deviations in sampling and weighting protocols, sample size, response rates, and collection or processing



procedures. In addition, California's questionnaire had a few minor differences in wording of questions. Other data anomalies and deviations from the sampling frame and weighting protocols are reported in the 2005 BRFSS Summary Data Quality Report<sup>25</sup>.

Significant differences were established by statistical methods comparing differences in proportion using SUDAAN. Estimates at the national level will be more precise than estimates at the state level and estimates for all races by levels of rurality will be more precise compared to within race by levels of rurality. While the overall number of respondents in the BRFSS is sufficiently large for statistical inference purposes, subgroup analyses can often lead to estimators that are unreliable. Small sample sizes may produce unstable estimates. Reliability of an estimate depends on the actual unweighted number of respondents in a category, not on the weighted number. Any unweighted estimate with sample size less than 50 was considered unreliable and eliminated from this report. A few states including New Jersey, Massachusetts, and the District of Columbia had no or extremely small rural populations and therefore mostly urban estimates have been presented for them.

Alaska was not reported as a state because its county codes were not reported to BRFSS and were set as 999 values. Their classification by levels of rurality was therefore impossible.

## **Data Limitations**

The findings presented here are based entirely on telephone responses from survey respondents. Telephone surveys may miss more households than face-to-face interviews because some U.S. households cannot be reached by telephone. Approximately 98% of households in the United States are reported to have telephones. A number of studies have shown that the telephone and non-telephone populations are different with respect to demographic, economic, and health characteristics. Although the estimates of characteristics for the total population are unlikely to be substantially affected by the omission of the households without telephones, some of the subpopulation estimates could be biased. Telephone coverage is lower for population subgroups such as blacks in the South, people with low incomes, people in rural areas, people with less than 12 years education, people in poor health, and heads of households under 25 years of age. However, post-stratification adjustments for age, race, and sex, and other weighting adjustments used for the BRFSS data minimize the impact of differences in noncoverage, undercoverage, and nonresponse at the state level<sup>25</sup>.

Despite the above limitations, prevalence estimates from the BRFSS correspond well with findings from surveys based on face-to-face interviews, including studies conducted by the National Institute on Alcohol Abuse and Alcoholism, CDC's National Center for Health Statistics, and the American Heart Association<sup>25</sup>. A summary of methodologic studies of BRFSS is provided in the publication section at <u>mmw.cdc.gov/brfss</u>.

Surveys based on self-reported information may be less accurate than those based on physical measurements. For example, respondents are known to underreport weight. Although this type of potential bias is an element of both telephone and face-to-face interviews, the underreporting should be taken into consideration when interpreting self-reported data. However, when measuring change over time, this type of bias is likely to be constant, and is therefore not a factor in trend analysis.



With ongoing changes in telephone technology, there are more and more households that have cellular telephones and no traditional telephone lines in their homes. These households are presently not in the sampling frame for the BRFSS, which may bias the survey results, especially if the percentage of cellular-telephone-only households increases in the coming years. The BRFSS is continuing to study the impact of cellular phones on survey response and the feasibility of various methods for data collection to complement present survey methods. Other limitations of the 2005 data are reported in the BRFSS 2005 comparability of data report<sup>31</sup>.

## Availability of Data

All data collected on the BRFSS are available to the public on the CDC BRFSS websites except for data suppressed to protect the confidentiality of survey respondents <u>http://www.cdc.gov/brfss/index.htm</u>. The Area Resource File (ARF) is a commercially available data set from the Health Resources and Services Administration Area Resource File website <u>http://www.arfsys.com/</u>. Data documentation and additional details on the methodology are available from the CDC BRFSS website.



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# **Appendix: National Tables**



	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural <sup>†</sup>
Overall	15.6	19.5	18.6	19.9	21.9
Race/ethnicity					
White	12.7	18.1	17.1	18.8	20.4
Black	19.4	26.3	27.4	22.7	29.2
Hispanic	26.5	28.2	26.7	29.2	32.1
Asian	8.5	11.1	11.0	n/a	n/a
AI / AN	23.4	26.9	25.3	29.8	27.6
Other	16.4	22.3	21.4	23.1	23.8

Adults Reporting Fair to Poor Health, by Race and Level of Rurality, in Percents

Adults with Asthma, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural	Remote Rural†
Overall	7.8	8.1‡	8.4‡	7.6‡	7.9‡
Race/ethnicity					
White	8.1	8.0‡	8.4‡	7.4‡	8.0‡
Black	8.9	8.2	8.1	9.1	6.7
Hispanic	5.7	6.9	7.9‡	5.9 <sup>‡</sup>	4.9‡
Asian	4.3	4.4	3.6	n/a	n/a
Am. In	14.3	10.9	9.8	10.4	15.1
Other	10.8	13.5	13.8	11.8	15.2

Adults with Diabetes, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	8.4	9.6‡	9.5‡	10.1‡	9.4‡
Race/ethnicity					
White	7.7	9.0‡	8.9‡	9.2‡	9.2‡
Black	12.6	15.1‡	14.5‡	17.2 <sup>‡</sup>	13.6‡
Hispanic	9.2	10.1	10.1	12.0	8.4
Asian	5.9	6.2	6.1	n/a	n/a
Am. In	15.2	15.7	15.4	19.4	11.9
Other	8.9	10.8‡	10.4‡	11.5‡	9.4‡

*† Significantly different, by race,* p < 0.05 *‡ Significantly different from urban,* p < 0.05 *"n/a" indicates too few observations to display a stable estimate.* 



_	All Urban <sup>†</sup>	All Rural†	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	21.0	20.6	20.7	20.3	20.4
Race/ethnicity					· ·
White	20.9	20.4	20.6	19.9	20.3
Black	21.8	22.2	23.2	21.3	19.5
Hispanic	20.1	18.2	17.8	17.2	20.7
Asian	17.8	10.7‡	12.1‡	n/a	n/a
Am. In	28.1	26.6	24.4	34.7	22.3
Other	25.5	26.0	25.6	28.1	24.4

Adults with Activity Limitations, by Race and Level of Rurality, in Percents

Adults with Limitation Related Equipment, by Race and Level of Rurality, in Percents

_	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	14.2	18.5	18.0	18.8	19.6
Race/ethnicity					
White	14.1	17.9	17.5	17.8	19.7
Black	19.9	22.0	21.1	25.4	19.2
Hispanic	9.2	14.0‡	14.5	13.0	n/a
Asian	8.7	5.4	n/a	n/a	n/a
Am. In	31.9	22.1	22.5	21.6	22.0
Other	17.8	29.0	28.4	30.1	29.3

*† Significantly different, by race, p* < 0.05 *‡ Significantly different from urban, p* < 0.05 *"n/a" indicates too few observations to display a stable estimate.* 



	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural†	Remote Rural <sup>†</sup>
Overall	23.9	27.4‡	30.0‡	28.9 <sup>‡</sup>	27.0‡
Race/ethnicity					
White	22.4	26.3 <sup>‡</sup>	25.7‡	27.5‡	26.7‡
Black	34.5	39.4‡	38.9‡	40.0‡	40.7‡
Hispanic	26.8	29.3‡	30.8 <sup>‡</sup>	35.8‡	16.2‡
Asian	6.4	13.6	15.5	n/a	n/a
Am. In	30.1	31.7	31.5	31.0	33.2
Other	23.3	31.4‡	30.2‡	31.8‡	35.2‡

Obesity Status among Adults, by Race and Level of Rurality, in Percents

#### Overweight or Obese Status among Adults, by Race and Level of Rurality, in Percents

	All Urban†	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural†	Remote Rural <sup>†</sup>
Overall	60.6	64.4‡	63.7‡	65.4‡	65.2‡
Race/ethnicity					
White	58.9	63.6‡	62.8 <sup>‡</sup>	64.6‡	64.8‡
Black	70.6	74.4‡	73.4‡	73.9‡	79.4‡
Hispanic	67.2	65.7	65.6	68.2	62.9
Asian	36.0	40.0	39.1	n/a	n/a
Am. In	68.7	68.8	73.8	62.1	62.6
Other	58.9	65.5‡	65.1‡	67.3‡	63.8‡

*†* Significantly different, by race, p < 0.05 *‡* Significantly different from urban, p < 0.05*"n/a" indicates too few observations to display a stable estimate.* 



	All Urban <sup>†</sup>	All Rural†	Micropolitan Rural†	Small Adjacent Rural†	Remote Rural†
Overall	45.4	44.0‡	44.8 <sup>‡</sup>	43.4‡	42.4‡
Race/ethnicity					
White	48.0	45.2‡	46.1‡	44.4‡	43.7‡
Black	38.4	32.6‡	33.4‡	29.9‡	34.5‡
Hispanic	39.9	36.6	37.5	39.9	30.6
Asian	36.4	43.0	42.4	n/a	n/a
Am. In	48.4	50.2	52.4	45.9	49.6
Other	46.6	48.2‡	48.1‡	51.2‡	43.5‡

#### Adults who Met Moderate or Vigorous Physical Activity Recommendations, by Race and Level of Rurality, in Percents

#### Adults Who Met Moderate Physical Activity Recommendations, by Race and Level of Rurality, in Percents

T creents							
	All Urban <sup>†</sup>	All Rural†	Micropolitan Rural†	Small Adjacent Rural†	Remote Rural <sup>†</sup>		
Overall	35.7	37.3‡	37.7‡	37.1‡	36.2‡		
Race/ethnicity							
White	38.4	38.7‡	39.2‡	38.1‡	38.0‡		
Black	28.0	25.3 <sup>‡</sup>	26.7 <sup>‡</sup>	23.8 <sup>‡</sup>	21.9‡		
Hispanic	30.2	29.1	28.8	34.8	24.6		
Asian	25.2	35.2‡	34.5	n/a	n/a		
Am. In	41.3	41.6	44.5	36.3	39.8		
Other	35.7	38.6	36.7	43.7	36.9		

#### Adults Who Met Vigorous Physical Activity Recommendations, by Race and Level of Rurality, in Percents

reicents						
	All II shant	All	Micropolitan	Small Adjacent	Remote Rural	
		Rural <sup>†</sup>	Rural <sup>†</sup>	Rural <sup>†</sup>		
Overall	28.5	24.3‡	24.9‡	23.7‡	22.9‡	
Race/ethnicity						
White	29.4	24.7‡	25.5‡	24.0‡	23.0‡	
Black	24.8	17.2‡	16.9‡	16.3 <sup>‡</sup>	20.1‡	
Hispanic	26.7	23.8‡	23.6‡	25.7‡	22.7‡	
Asian	24.5	23.6	24.2	n/a	n/a	
Am. In	32.2	28.3	28.0	26.2	28.4	
Other	28.1	27.4	30.2	26.5	24.0	

*† Significantly different, by race, p* < 0.05 *‡ Significantly different from urban, p* < 0.05 *"n/a" indicates too few observations to display a stable estimate.* 



	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	15.3	17.8‡	16.6‡	18.5‡	21.2‡
Race/ethnicity					
White	9.9	14.9‡	13.9‡	15.9‡	16.9‡
Black	19.1	25.2‡	22.9‡	25.7 <sup>‡</sup>	33.8‡
Asian	36.5	45.2 <sup>‡</sup>	40.8‡	48.0‡	56.1‡
Am. In	13.1	11.7	9.6	n/a	n/a
Other	23.5	24.6	21.4	26.1	32.3
Hispanic	19.7	21.6	20.7‡	20.3‡	28.1‡

Adults Without Health Insurance, by Race and Level of Rurality, in Percents

Provider to Population Ratios, by Race and Level of Rurality

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural <sup>†</sup>
Overall	1:880‡	1:1461	1:1328‡	1:1835‡	1:1277‡
Race/Ethnicity					
≥50% White	1:891‡	1:1456‡	1:1326‡	1:1847‡	1:1518‡
< 50% White	1:733‡	1:1580‡	1:1382‡	1:1970‡	1:1849‡

Adults with a Personal Doctor, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural	Small Adjacent Rural	Remote Rural
Overall	79.4	81.0	81.4	81.6	78.7
Race/ethnicity					
White <sup>‡</sup>	84.3	83.4	83.8	83.6	81.9
Black	78.9	78.4	77.6	79.5	79.4
Hispanic	59.2	57.1	60.4	56.3	47.7
Asian	75.9	71.3	77.0	n/a	n/a
Am. In	76.3	71.9	72.9	69.5	72.4
Other	75.6	79.7	80.0	80.8	77.1

*† Significantly different, by race, p* < 0.05 *‡ Significantly different from urban, p* < 0.05*"n/a" indicates too few observations to display a stable estimate.* 


	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural†	Remote Rural <sup>†</sup>
Overall	13.1	15.1‡	14.5‡	15.6‡	16.2‡
Race/ethnicity					
White	9.9	13.3‡	12.7‡	13.9‡	14.6‡
Black	17.7	23.6‡	23.3‡	24.9‡	22.7‡
Hispanic	23.4	25.3	24.5	27.4	25.9
Asian	10.3	7.9	8.2	n/a	n/a
Am. In	22.4	20.7	21.2	18.7	21.8
Other	19.0	22.1	20.3	23.9	26.3

Adults Reporting a Cost Barriers to Care, by Race and Level of Rurality, in Percents

## Adults who Reported Recommended Checkup, by Race and Level of Rurality, in Percents

_	All Urban	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	87.4	83.9‡	83.6‡	84.1‡	83.6‡
Race/ethnicity					
White	86.1	83.1‡	83.4‡	83.4‡	81.6‡
Black	93.1	92.1	91.9	93.0	91.4
Hispanic	84.5	82.0	80.4	78.9	88.7
Asian	90.2	88.9	86.2‡	99.8‡	99.7‡
Am. In	79.4	87.2	84.9‡	93.1‡	86.5‡
Other	88.8	80.3‡	79.9‡	84.6‡	88.6‡

### Adults over age 65 with an Annual Flu Vaccination, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural <sup>†</sup>	Remote Rural†
Overall	63.8	64.6	64.4	64.2	65.8
Race/ethnicity					
White	66.1	66.1	65.9	66.2	66.9
Black	49.8	42.4‡	42.9	40.9	43.2
Hispanic	54.1	57.3	60.1	50.0	56.5
Asian	61.2	76.6‡	74.7	n/a	n/a
Am. In	65.0	62.2	60.4	60.1	70.4
Other	62.9	57.0	57.1	51.4	65.1

*† Significantly different, by race,* p < 0.05 *‡ Significantly different from urban,* p < 0.05 *"n/a" indicates too few observations to display a stable estimate.* 



# Appendix

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural†	Remote Rural†
Overall	64.6	63.8	64.7‡	62.0‡	63.3 <sup>‡</sup>
Race/ethnicity					
White	67.9	65.6‡	66.1‡	64.8‡	64.9‡
Black	51.7	41.7‡	47.4‡	31.6‡	38.7‡
Hispanic	45.0	47.6	53.1	35.7	42.3
Asian	53.7	70.1‡	68.5	n/a	n/a
Am. In	59.1	57.6	54.1	53.8	74.4
Other	62.9	62.2	65.8	54.0	60.9

# Adults over age 65 with a Pneumonia Vaccination, by Race and Level of Rurality, in Percents

Adult Women over age 40 who Met Mammogram Recommendations, By Race and Level
of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural†	Micropolitan Rural†	Small Adjacent Rural	Remote Rural†
Overall	76.6	70.7‡	71.3‡	70.7‡	69.4‡
Race/ethnicity					
White	76.7	71.3‡	71.2‡	71.1‡	69.5‡
Black	78.5	66.0‡	65.2‡	66.5 <sup>‡</sup>	67.4‡
Hispanic	77.7	71.9	71.4	69.9	75.2
Asian	58.0	79.8‡	59.0‡	n/a	n/a
Am. In	58.5	66.7	70.7	59.5	68.6
Other	75.0	71.2	71.7	70.7	70.9

#### Adult Women over age 21 who Met Pap Smear Recommendations, by Race and Level of Rurality, in Percents

reicents						
	All	All Rural	Micropolitan	Small Adjacent Rural	Remote	
	Urban <sup>†</sup>	An Kurai	Rural		Rural <sup>†</sup>	
Overall	91.4‡	86.3‡	86.8‡	86.5‡	84.8‡	
Race/ethnicity						
White	91.0	86.0‡	86.8 <sup>‡</sup>	86.3 <sup>‡</sup>	83.6‡	
Black	92.9	89.7‡	89.1	89.9	90.6	
Hispanic	91.7	88.2	87.6	87.4	90.8	
Asian	93.3	82.3	n/a	n/a	n/a	
Am. In	83.2	87.8	n/a	n/a	n/a	
Other	90.6	77.2‡	75.4	73.8	n/a	

† Significantly different, by race, p < 0.05 ‡ Significantly different from urban, p < 0.05"n/a" indicates too few observations to display a stable estimate.



# Appendix

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural <sup>†</sup>	Remote Rural <sup>†</sup>
Overall	61.4	57.7‡	54.2‡	58.2 <sup>‡</sup>	53.1‡
Race/ethnicity					
White	62.3	58.4 <sup>‡</sup>	54.6‡	59.0‡	54.0‡
Black	61.0	49.6‡	51.8‡	50.7‡	n/a
Hispanic	56.2	51.5	n/a	n/a	n/a
Asian	n/a	n/a	n/a	n/a	n/a
Am. In	n/a	n/a	n/a	n/a	n/a
Other	58.4	63.8	63.6 <sup>‡</sup>	n/a	n/a

Adults over age 50 with a Colorectal Screening, by Race and Level of Rurality, in Percents

Adults with an Annual Dental Cleaning, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural <sup>†</sup>	Small Adjacent Rural <sup>†</sup>	Remote Rural <sup>†</sup>
Overall	88.8	82.1‡	82.7‡	83.5‡	78.8‡
Race/ethnicity					
White	90.6	85.1 <sup>‡</sup>	86.4‡	86.1‡	81.0‡
Black	82.9	67.4‡	64.0‡	72.7‡	67.9‡
Hispanic	80.3	82.9	80.2	n/a	n/a
Asian	79.6	87.4	n/a	n/a	n/a
Am. In	92.7	71.1	n/a	n/a	n/a
Other	84.4	68.3	82.0	n/a	n/a

# Adults with Diabetes with an Annual Exam, by Race and Level of Rurality, in Percents

	All Urban	All Rural <sup>†</sup>	Micropolitan Rural†	Small Adjacent Rural	Remote Rural
Overall	88.9	89.4	88.2	91.3	90.6
Race/Ethnicity					
White	89.2	89.3	88.2	90.7	90.7
Black	91.4	93.9	94.9	95.4	84.7
Hispanic	87.4	85.0	80.2	91.0	95.3
Other	84.0	88.2	85.4	91.8	91.1



# Appendix

Kuranty, in recents							
	All	All Buralt	Micropolitan Rural	Small Adjacent	Remote Rural		
	Urban†	All Kulai		Rural			
Overall	35.0	33.1	32.7	33.8	33.5		
Race/Ethnicity							
White	36.3	34.5	34.2	34.4	35.5		
Black	32.6	27.7	28.7	28.0	n/a		
Hispanic	33.4	26.3	23.4	32.5	n/a		
Other	33.4	33.3	31.1	n/a	n/a		

#### Adults with Diabetes with Two A1c Tests in Previous 12 Months, By Race and Level of Rurality, in Percents

## Adults with Diabetes with an Annual Foot Exam, by Race and Level of Rurality, in Percents

	All Urban <sup>†</sup>	All Rural <sup>†</sup>	Micropolitan Rural	Small Adjacent Rural <sup>†</sup>	Remote Rural
Overall	69.7	66.4	65.0‡	67.2 <sup>‡</sup>	70.4‡
Race/Ethnicity					
White	71.6	66.0‡	66.1‡	64.1‡	69.3‡
Black	77.0	72.7	67.1	80.6	78.2
Hispanic	55.8	55.9	50.7	54.9	73.8
Other	69.7	72.2	64.4	85.4	n/a

#### Adults with Diabetes with an Annual Eye Exam, by Race and Level of Rurality, in Percents

	All Urban	All Rural <sup>†</sup>	Micropolitan Rural	Small Adjacent Rural	Remote Rural
Overall	74.8	72.4	73.0	68.9	75.7
Race/Ethnicity					
White	76.2	72.1‡	72.8‡	68.4 <sup>‡</sup>	75.7‡
Black	76.0	73.7	73.5	68.9	85.9
Hispanic	67.0	70.8	74.2	67.7	63.1
Other	76.5	74.8	74.0	75.2	n/a

