



beta 2.0

COMMUNITY HEALTH NEEDS ASSESSMENT

Advancing Community Health and Well Being

CHNA Data Report

Social & Economic Factors

Report Area: Washington County, Wisconsin

Social & Economic Factors // Clinical Care // Health Behaviors // Health Outcomes

- High School Graduation Rate
- Uninsured Population

Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors. Without a network of support and a safe community, families cannot thrive. Ensuring access to social and economic resources provides a foundation for a healthy community.

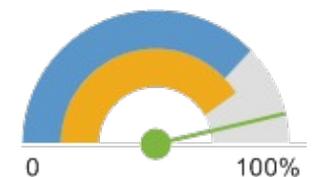
High School Graduation Rate

This indicator reports the average freshman graduate rate, which measures the percentage of students receiving their high school diploma within four years. This indicator is relevant because low levels of education are often linked to poverty and poor health.

Report Area	Average Freshman Base Enrollment	Estimated Number of Diplomas Issued	On-Time Graduation Rate
Washington County, Wisconsin	1,704	1,580	92.70
Wisconsin	72,089	65,410	90.70
United States	4,024,345	3,039,015	75.50
HP 2020 Target			>82.4

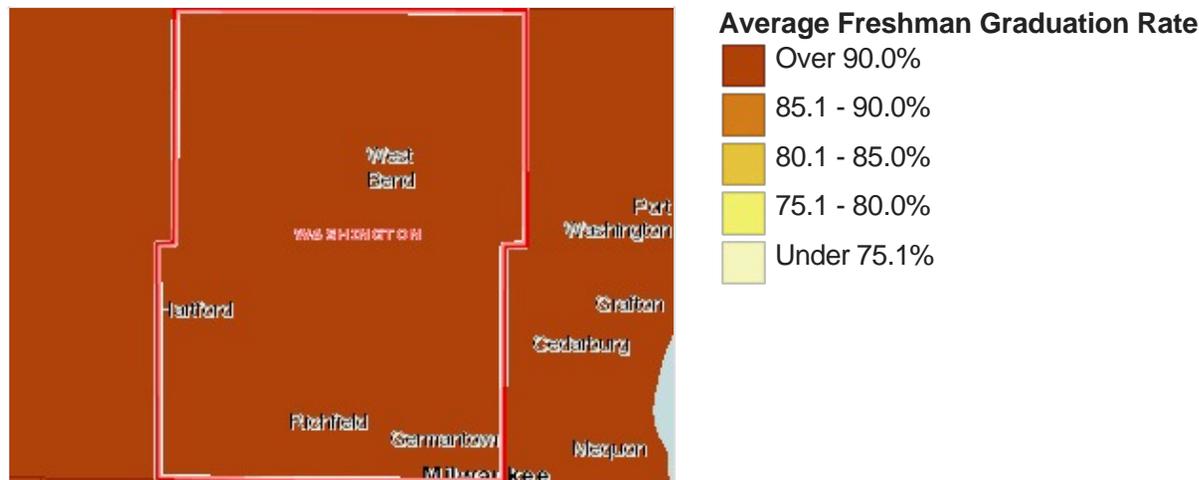
Note: This indicator is compared with the Healthy People 2020 Target. No breakout data available.

On-Time Graduation Rate



- Washington County, Wisconsin
- HP 2020 Target
- United States

Data Source: [The University of Wisconsin, Population Health Institute, County Health Rankings, 2012](#) and the [U.S. Department of Education, National Center for Education Statistics \(NCES\), Common Core of Data, Public School Universe Survey Data, 2005-06, 2006-07 and 2007-08](#).
 Source geography: County.

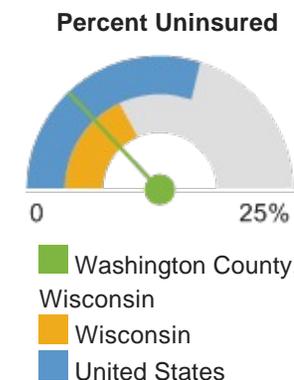


Uninsured Population

The lack of health insurance is considered a *key driver* of health status.

This indicator reports the percentage of the total civilian non-institutionalized population without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

Report Area	Total Population (For Whom Insurance Status is Determined)	Number Uninsured	Percent Uninsured
Washington County, Wisconsin	130,955	8,422	6.43%
Wisconsin	5,587,423	509,634	9.12%
United States	301,501,760	45,368,296	15.05%

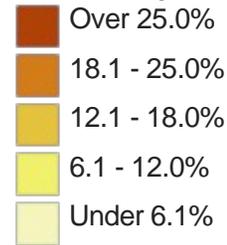


Note: This indicator is compared with the state average.

Data Source: [U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates](#). Source geography: PUMA.



Percent Population, By PUMA, ACS 2008-2010 3-Year Estimate



Uninsured Population, Total by Gender

Report Area	Male	Female	Percent Male	Percent Female	Percent of Males that are Uninsured	Percent of Females that are Uninsured
Washington County, Wisconsin	4,975	3,447	59.07%	40.93%	7.66%	5.22%
Wisconsin	297,017	212,617	58.28%	41.72%	10.76%	7.52%
United States	24,442,600	20,925,698	53.88%	46.12%	16.62%	13.55%

Uninsured Population, Total by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Washington County, Wisconsin	7,834	no data	no data	no data	no data	no data	189
Wisconsin	401,797	45,937	15,917	10,099	no data	24,152	11,704
United States	29,670,864	6,568,259	2,162,975	715,557	81,233	5,065,630	1,103,781

Uninsured Population, Percent by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
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Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Washington County, Wisconsin	93.02%	no data	no data	no data	no data	no data	2.24%
Wisconsin	78.84%	9.01%	3.12%	1.98%	no data	4.74%	2.30%
United States	65.40%	14.48%	4.77%	1.58%	0.18%	11.17%	2.43%

Uninsured Population, Total by Ethnicity Alone

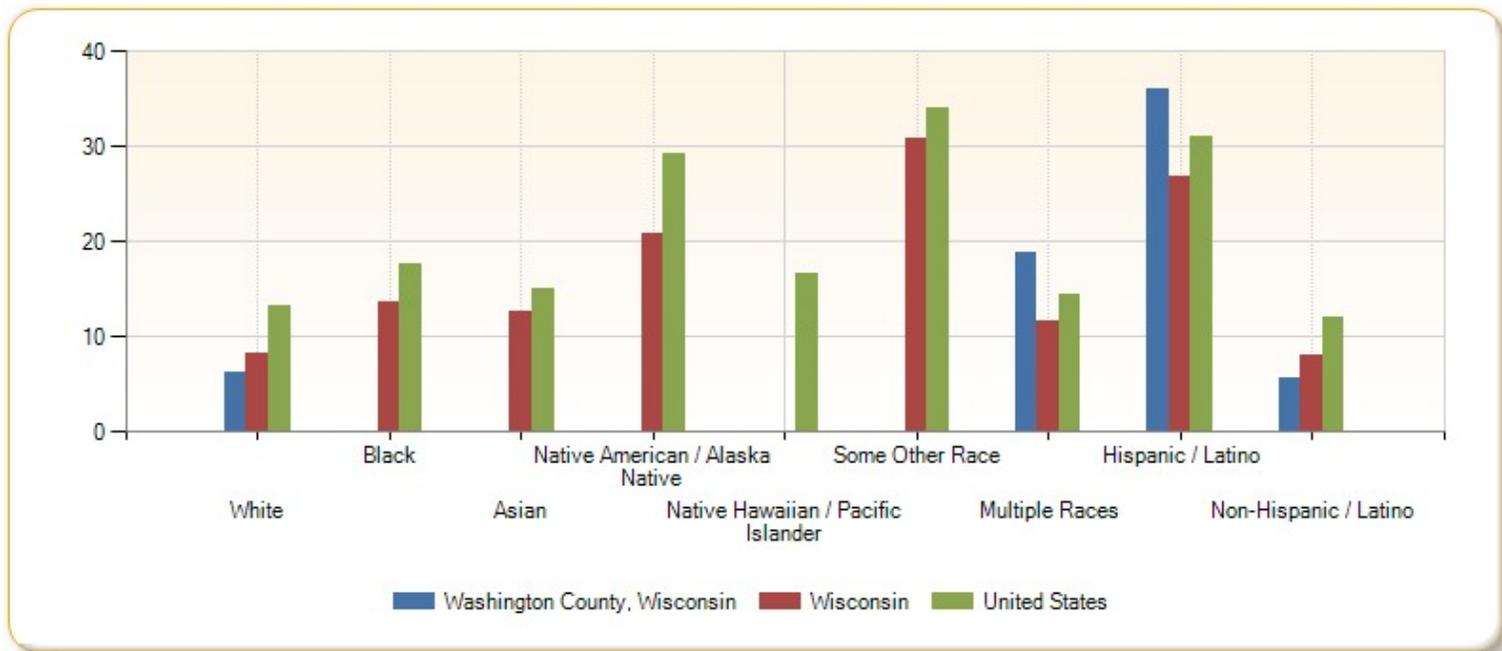
Report Area	Hispanic / Latino	Non-Hispanic / Latino
Washington County, Wisconsin	1,187	7,235
Wisconsin	85,987	423,647
United States	15,043,083	30,325,213

Uninsured Population, Percent by Ethnicity Alone

Report Area	Hispanic / Latino	Non-Hispanic / Latino
Washington County, Wisconsin	14.09%	85.91%
Wisconsin	16.87%	83.13%
United States	33.16%	66.84%

Population by Race/Ethnicity, Percent Uninsured

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races	Hispanic / Latino	Non-Hispanic / Latino
Washington County, Wisconsin	6.22%	no data	no data	no data	no data	no data	18.90%	36.07%	5.67%
Wisconsin	8.20%	13.72%	12.66%	20.84%	no data	30.85%	11.62%	26.77%	8.04%
United States	13.22%	17.69%	14.97%	29.29%	16.72%	34.10%	14.45%	30.97%	11.99%



Clinical Care

A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access.

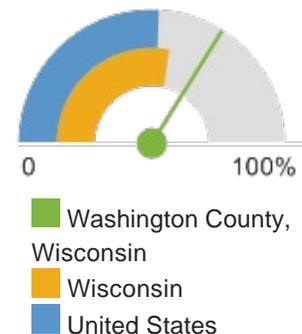
Rates of morbidity, mortality, and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests, and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

Colon Cancer Screening (Sigmoid/Colonoscopy)

This indicator reports the percentage of adult men aged 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

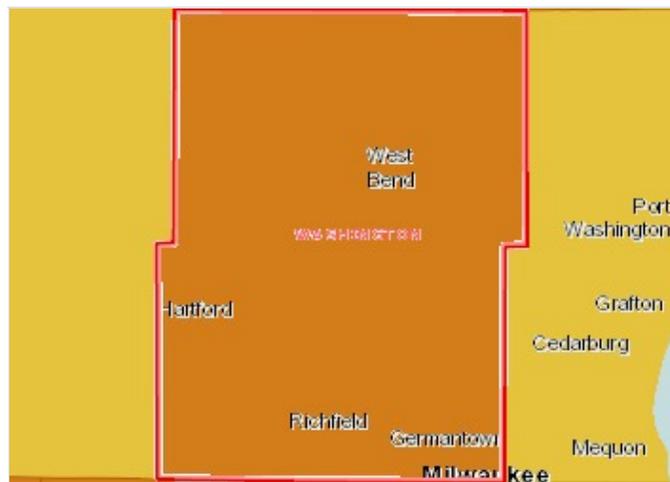
Report Area	Total Population (Men Aged 50)	Number Ever Screened	Percent Ever Screened
Washington County, Wisconsin	19,369	13,132	67.80%
Wisconsin	2,110,267	1,186,994	56.25%
United States	119,567,203	61,919,221	51.79%

Percent Ever Screened



Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.



Pct. of Men (Age 50) Ever Receiving Sigmoid/Colonoscopy, By County, CDC BRFSS 2004-2010

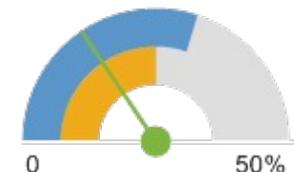
- Over 68.0%
- 60.1 - 68.0%
- 52.1 - 60.0%
- 44.1 - 52.0%
- Under 44.1%

Dental Care Utilization (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Age 18)	Number Adults with No Dental Exam	Percent Adults with No Dental Exam
Washington County, Wisconsin	97,669	15,216	15.58%
Wisconsin	4,294,354	1,077,883	25.10%
United States	232,747,222	70,151,188.94	30.14%

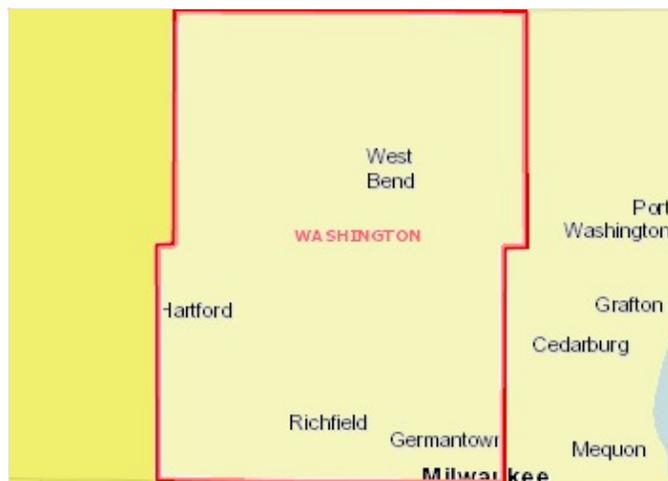
Percent Adults with No Dental Exam



- Washington County, Wisconsin
- Wisconsin
- United States

Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.



Pct. of Population (Age 18) without Dental Exam within Past 1 Year, By County, CDC BRFSS 2006-2010

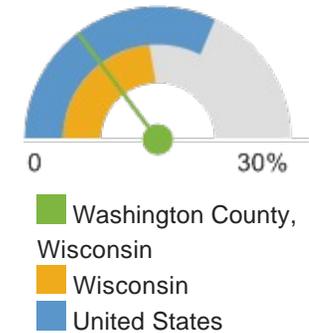
- Over 50.0%
- 40.1 - 50.0%
- 30.1 - 40.0%
- 20.1 - 30.0%
- Under 20.1%

Lack of a Consistent Source of Primary Care

This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. This indicator is relevant because access to regular primary care is important to preventing major health issues and emergency department visits.

Report Area	Total Population (Age 18)	Number Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Washington County, Wisconsin	97,669	8,594	8.80%
Wisconsin	4,294,354	615,381	14.33%
United States	232,747,222	44,961,851.44	19.32%

Percent Adults Without Any Regular Doctor



Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.



Pct. of Adults (Age 18) Without Consistent Source of Primary Care, by County, CDC BRFSS 2006-2010

Health Behaviors

Health behaviors such as poor diet, a lack of exercise, and substance abuse contribute to poor health status.

Heavy Alcohol Consumption

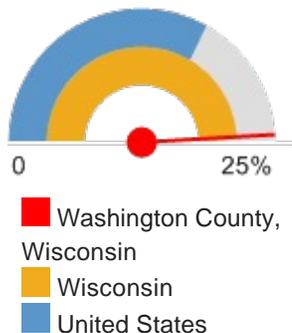
This indicator reports the percentage of adults aged 18 and older who self-report heavy alcohol consumption (defined as more than two drinks per day for men and one drink per day for women). This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs.

Report Area	Total Population (Age 18)	Number Heavy Drinkers	Percent Heavy Drinkers
Washington County, Wisconsin	96,856	24,601.42	25.40%
Wisconsin	1,453,943	360,578	24.80%
United States	111,821,887	18,576,867	16.61%

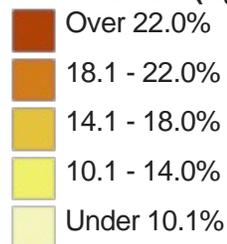
Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.

Percent Heavy Drinkers



Pct. of Adults (Age 18) Drinking Alcohol Heavily, By County, CDC BRFSS 2004-2010

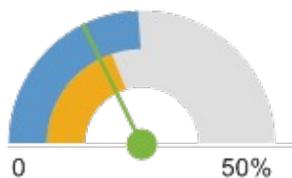


Physical Inactivity (Adult)

This indicator reports the percentage of adults aged 18 and older who self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?". This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

Report Area	Total Population (Age 18)	Number Physically Inactive	Percent Physically Inactive
Washington County, Wisconsin	96,856	17,046.66	17.60%
Wisconsin	1,453,943	292,243	20.10%

Percent Physically Inactive



Report Area	Total Population (Age 18)	Number Physically Inactive	Percent Physically Inactive
United States	111,821,887	27,579,949	24.66%

Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.

- Washington County, Wisconsin
- Wisconsin
- United States



Pct. of Adults (Age 18) Performing No Physical Activity, By County, CDC BRFSS 2004-2010

- Over 32.0%
- 27.1 - 32.0%
- 22.1 - 27.0%
- 17.1 - 22.0%
- Under 17.1%

Tobacco Usage (Adult)

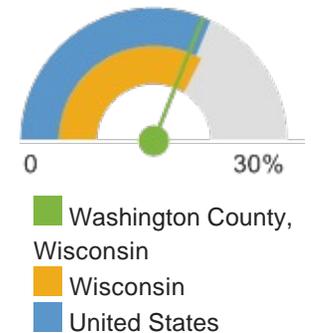
This indicator reports the percentage of adults aged 18 and older who self-report currently smoking cigarettes some days or every day. This indicator is relevant because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease.

Report Area	Total Population (Age 18)	Number Cigarette Smokers	Percent Cigarette Smokers
Washington County, Wisconsin	96,856	18,015	18.60%
Wisconsin	1,453,943	292,243	20.10%
United States	111,821,887	21,551,350	19.27%

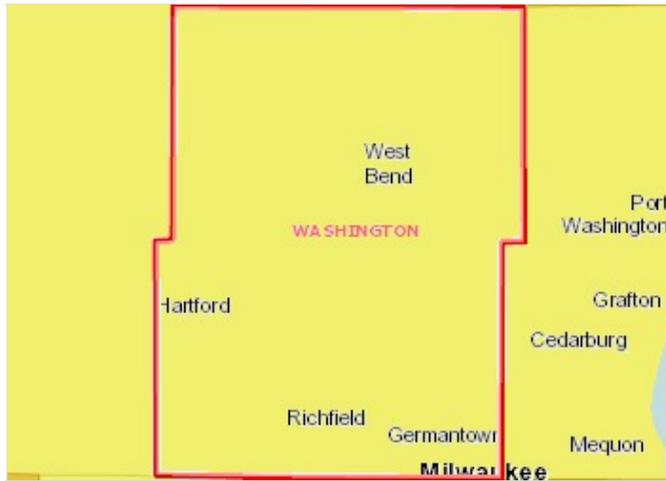
Note: This indicator is compared with the state average. No breakout data available.

Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.

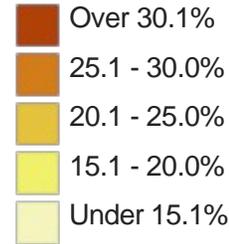
Percent Cigarette Smokers



- Washington County, Wisconsin
- Wisconsin
- United States



Pct. of Adults (Age 18) Smoking Cigarettes, By County, CDC BRFSS 2004-2010



Health Outcomes

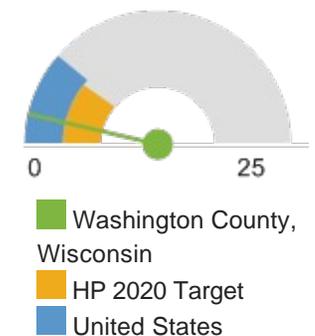
Measuring morbidity and mortality rates allows assessing linkages between social determinants of health and outcomes. By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationships may emerge, allowing a better understanding of how certain community health needs may be addressed.

Homicide

This indicator reports the rate of death due to assault (homicide) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because homicide rate is a measure of poor community safety and is a leading cause of premature death.

Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Washington County, Wisconsin	130,189	2	1.54	1.83
Wisconsin	5,637,135	174	3.09	3.17
United States	303,844,430	17,564	5.78	5.81
HP 2020 Target				<= 5.5

Age-Adjusted Death Rate (Per 100,000 Pop.)



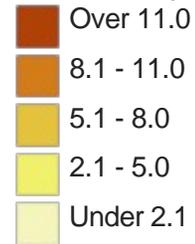
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: [Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2006-2010.](#)

Accessed through [CDC WONDER](#). Source geography: County.

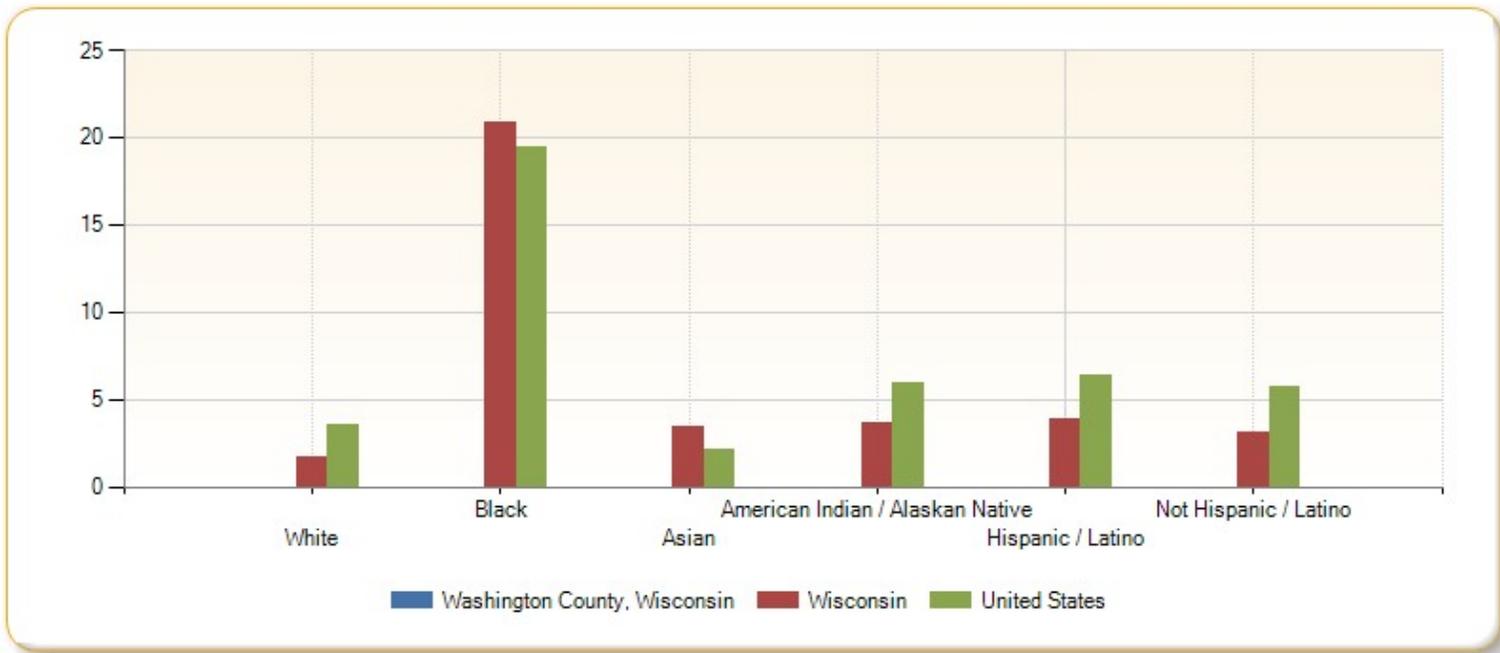


Death Rate (Per 100,000 Pop.), By County, CDC NVSS 2006-2010



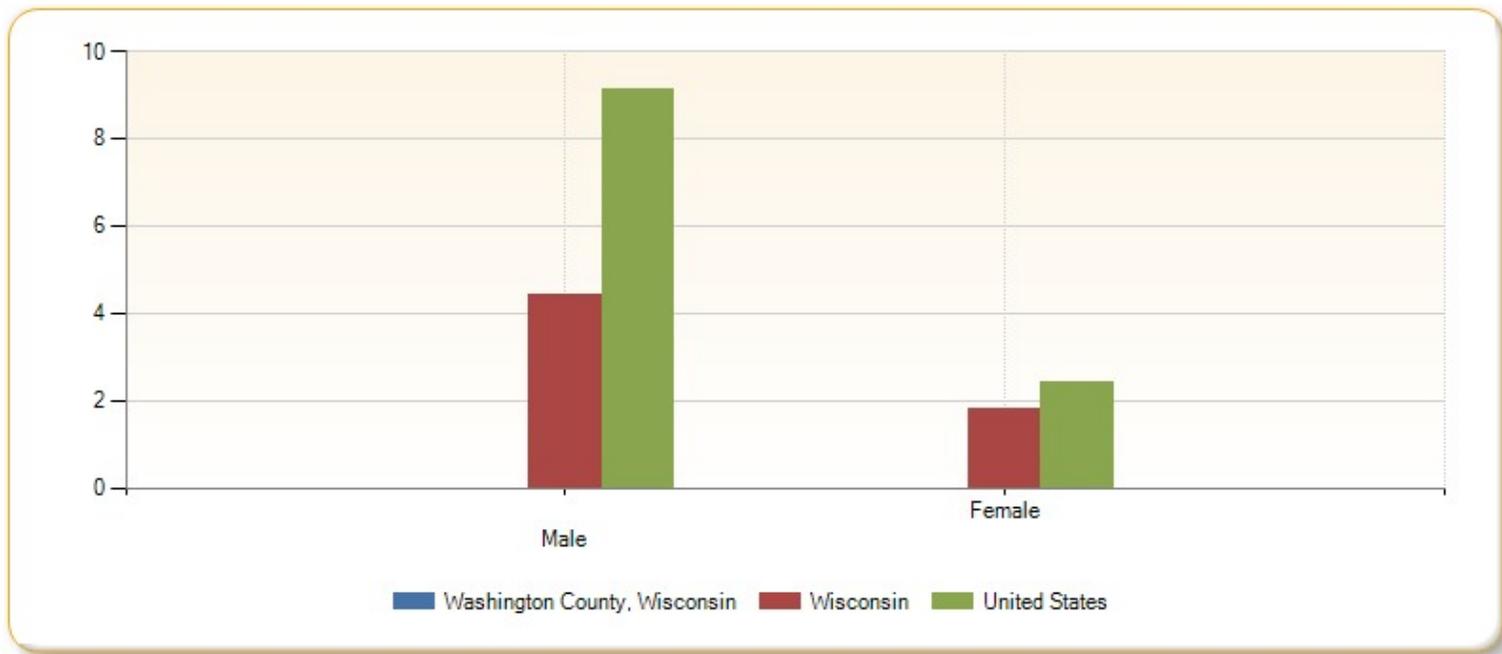
Population by Race / Ethnicity, Homicide, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino	Not Hispanic / Latino
Washington County, Wisconsin	no data	no data	no data	no data	no data	no data
Wisconsin	1.67	20.88	3.49	3.67	3.90	3.12
United States	3.58	19.50	2.16	5.98	6.33	5.68



Population by Gender, Homicide Mortality, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	Male	Female
Washington County, Wisconsin	no data	no data
Wisconsin	4.43	1.83
United States	9.16	2.43



Infant Mortality

This indicator reports the rate of deaths to infants less than one year of age per 1,000 births. This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.

Report Area	Total Births	Total Infant Deaths	Infant Mortality Rate (Per 1,000 Births)
Washington County, Wisconsin	10,367	42	4.05
Wisconsin	499,398	3,211	6.43
United States	58,600,996	393,074	6.71
HP 2020 Target			<= 6.0

Infant Mortality Rate (Per 1,000 Births)

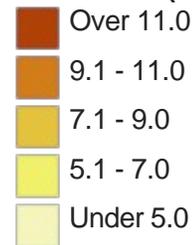


Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: [Centers for Disease Control and Prevention, National Vital Statistics System, 2003-2009](#). Source geography: County.

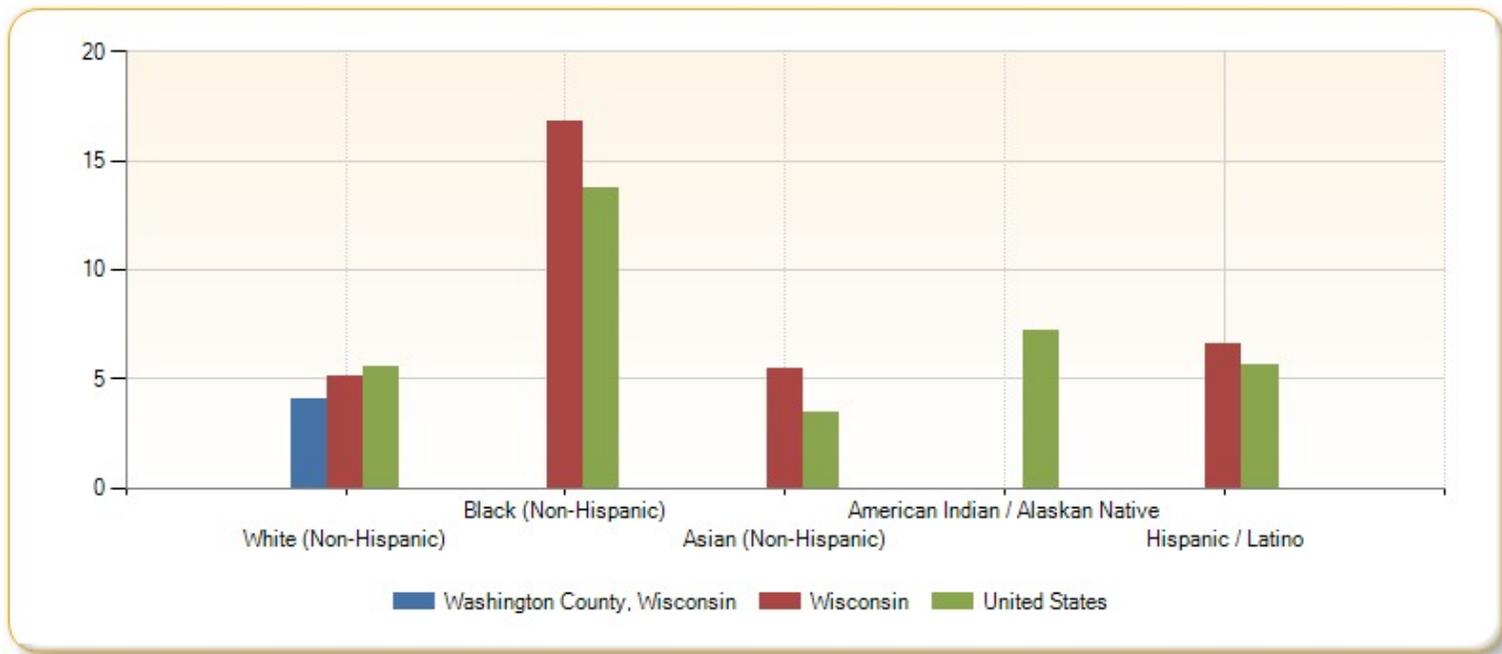


Death Rate (Per 1,000 Births), By County, CDC NVSS 2003-2009



Population by Race / Ethnicity, Infant Mortality Rate (Per 1,000 Live Births)

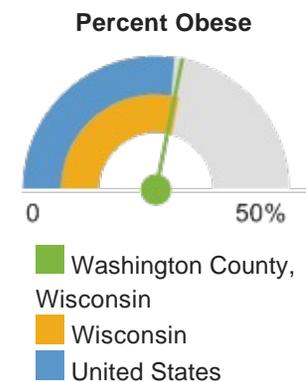
Report Area	White (Non-Hispanic)	Black (Non-Hispanic)	Asian (Non-Hispanic)	American Indian / Alaskan Native	Hispanic / Latino
Washington County, Wisconsin	4.02	no data	no data	no data	no data
Wisconsin	5.11	16.83	5.45	no data	6.57
United States	5.58	13.76	3.44	7.17	5.65



Obesity (Adult)

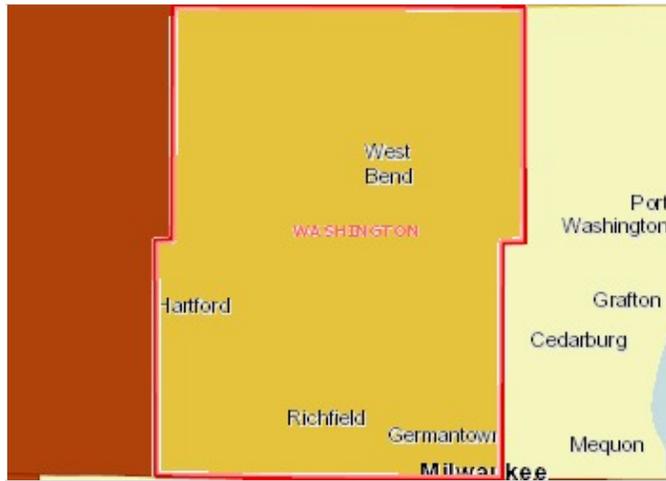
This indicator reports the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese). This indicator is relevant because excess weight is a prevalent problem in the U.S.; it indicates an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population (Age 20)	Number Obese	Percent Obese
Washington County, Wisconsin	97,811.39	27,485	28.10%
Wisconsin	4,194,280.65	1,220,019	29.09%
United States	224,690,904.71	61,460,308	27.35%

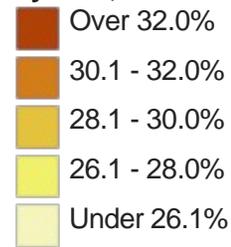


Note: This indicator is compared with the state average.

Data Source: [Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009](#). Source geography: County.

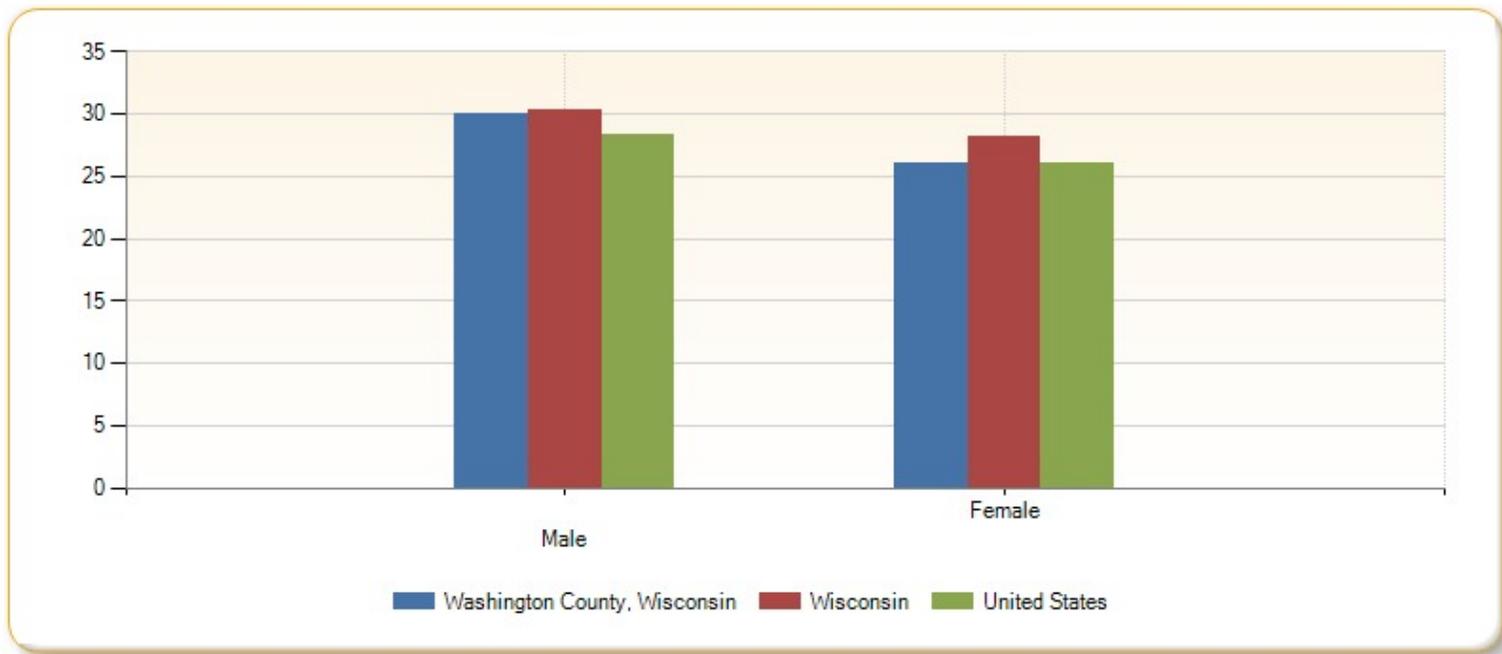


Pct. Adults Obese (BMI >25.0), By County, CDC National Diabetes Surveillance System, 2009



Population by Gender, Adults Obese, Percentage (Age-Adjusted)

Report Area	Male	Female
Washington County, Wisconsin	30%	26.10%
Wisconsin	30.37%	28.22%
United States	28.30%	26.03%

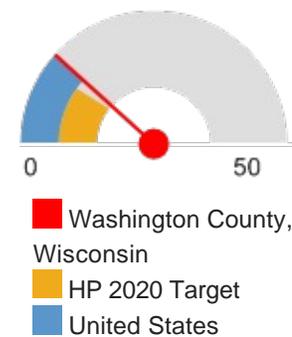


Suicide

This indicator reports the rate of death due to intentional self-harm (suicide) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are resummarized for report areas from county level data, only where data is available. This indicator is relevant because suicide is an indicator of poor mental health.

Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Washington County, Wisconsin	130,189	15	11.83	11.71
Wisconsin	5,637,135	732	12.98	12.70
United States	303,844,430	35,841	11.80	11.57
HP 2020 Target				<= 10.2

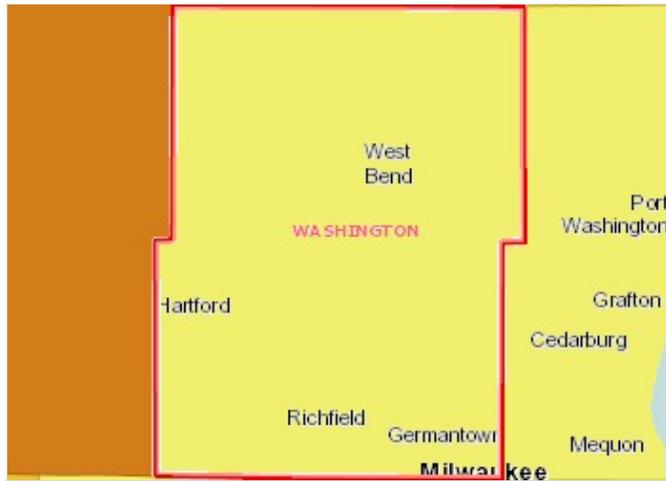
Age-Adjusted Death Rate (Per 100,000 Pop.)



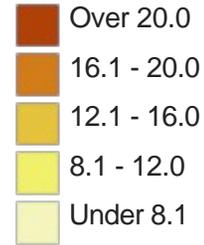
Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: [Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death, 2006-2010.](#)

Accessed through [CDC WONDER](#). Source geography: County.

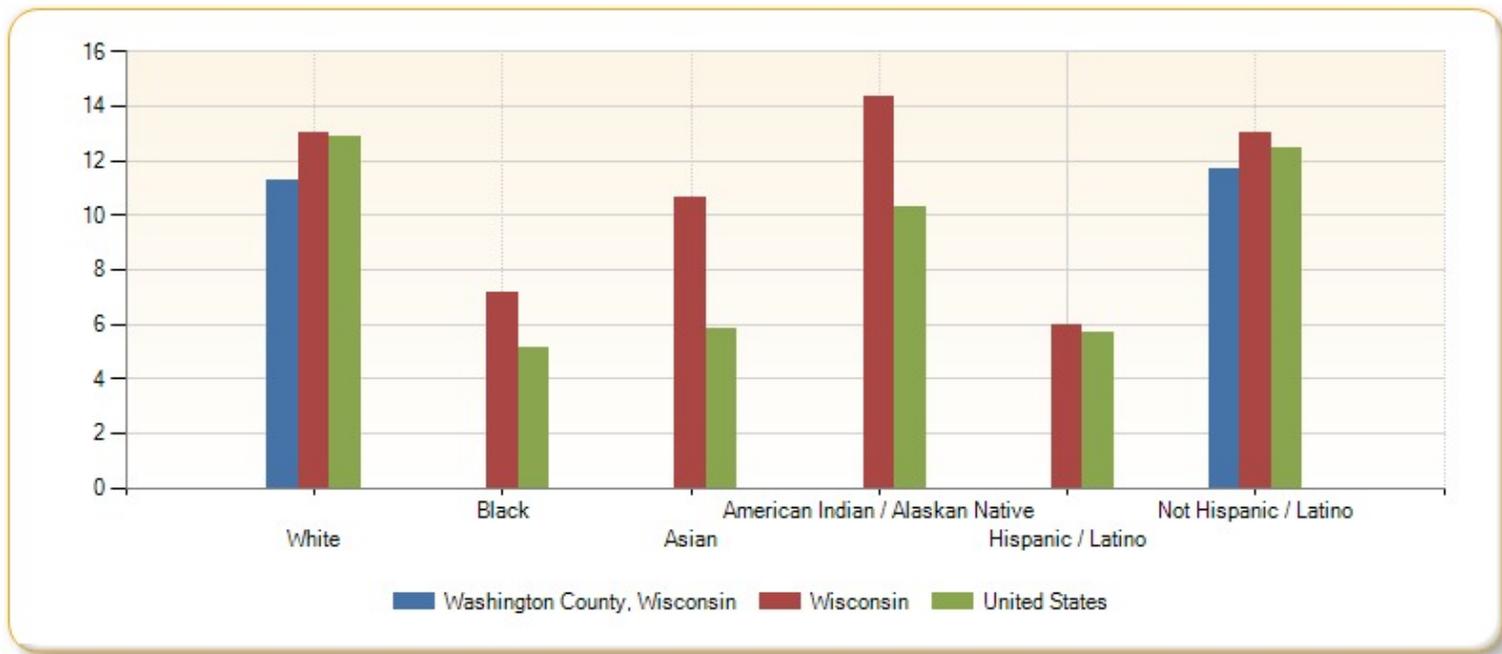


Death Rate (Per 100,000 Pop.), By County, CDC NVSS 2006-2010



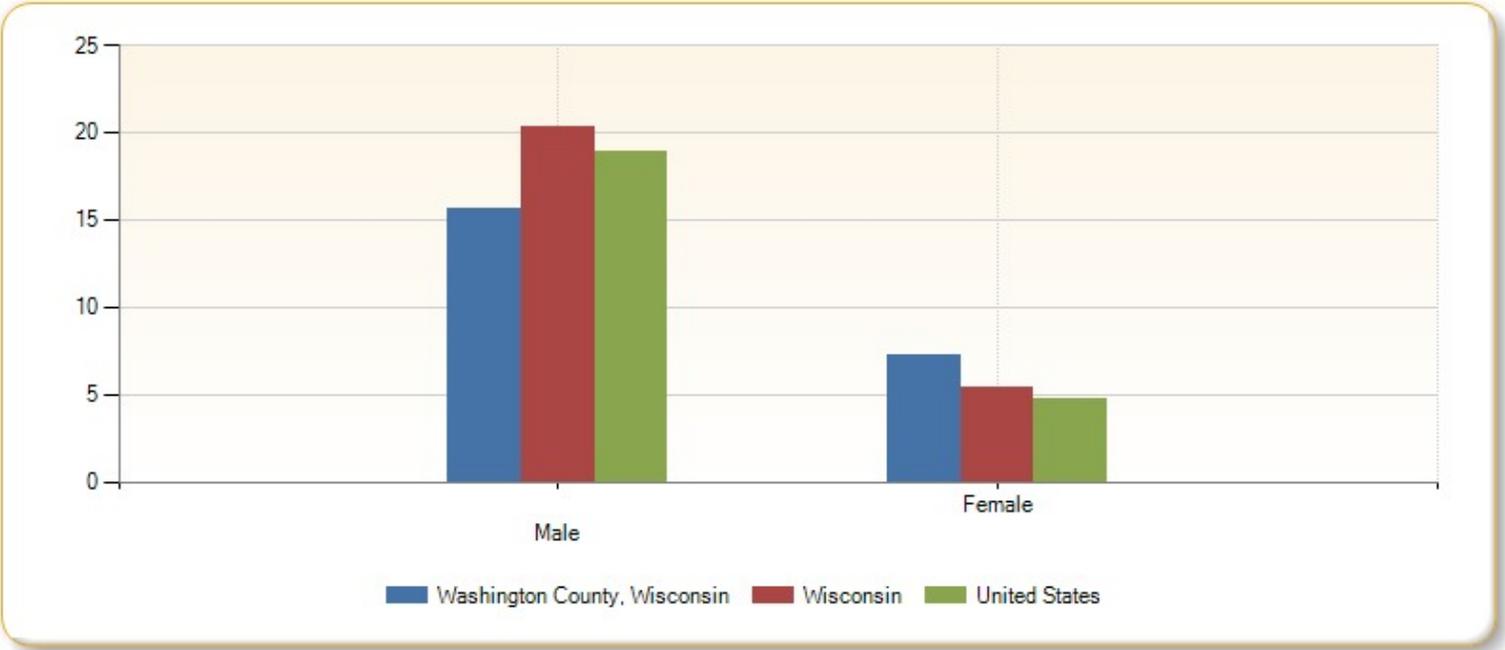
Population by Race / Ethnicity, Suicide, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino	Not Hispanic / Latino
Washington County, Wisconsin	11.29	no data	no data	no data	no data	11.72
Wisconsin	13.05	7.17	10.63	14.34	5.94	13.03
United States	12.89	5.11	5.80	10.30	5.71	12.44



Population by Gender, Suicide Mortality, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	Male	Female
Washington County, Wisconsin	15.69	7.25
Wisconsin	20.34	5.35
United States	18.96	4.77



FOOTNOTES

High School Graduation Rate

Data Background:

The County Health Rankings (CHR) is a data service of the [University of Wisconsin Population Health Institute](#) which measures the health of nearly all counties in the nation and ranks them within states. CHR has been published for the nation's counties annually since 2010, expanding on similar work specific to Wisconsin since 2003. Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights. County Health Rankings is a free public service, providing their wealth of their rankings and source data to the public for download. For more information and to explore the original data, please visit the [County Health Rankings](#) website.

Methodology:

Graduation rates are acquired for all US counties from the 2012 County Health Rankings (CHR). The 2011 County Health Rankings (CHR) used graduation rates calculated from the National Center for Education Statistics (NCES) using an estimated cohort. This measure is generally known as the Averaged Freshman Graduation Rate (AFGR). Starting in 2012, CHR reports cohort graduation rates collected from State Department of Education websites. These rates are an improvement over the AFGR rates previously reported due to student-level outcomes tracking that accounts better for transfers, early and late completers. For 12 states, CHR continues to use NCES-based AFGRs. These states are: AL, AK, AR, CT, HI, ID, MT, NJ, ND, OK, SD and TN.

Total freshmen cohorts were compiled for all counties from school-level data, provided by NCES for academic years 2005-06 through 2007-08. Using the graduation rates from the 2012 CHR and these class sizes, the number of graduates* was estimated for each county. On-time graduation rate, or average freshman graduation rate, is re-calculated for unique service areas and aggregated county groupings using the following formula:

$$\text{Graduation Rate} = \frac{[\text{Estimated Number of Graduates}]}{[\text{Average Base Freshman Enrollment}]} * 100.$$

*Average freshman graduation rate is a measure of on-time graduation only. It does not include 5th year high school completers, or high-school equivalency completers such as GED recipients. For more information on average freshman graduation rates, please review the information on page 4 of the [NCES Common Core of Data Public-Use Local Education Agency Dropout and Completion Data File](#)

Notes:

1. Data is collected from individual state departments of education, which may use different methods for assessing high school dropouts and completers. Comparison of data across states is not advised.
2. Data is summarized to counties based on school location, and not attendance zones. For example, data for all students attending a school in county X are assigned to county X, even if they reside in county Y.

Uninsured Population

Data Background:

The American Community Survey (ACS) is a nationwide, continuous survey designed to provide communities with reliable and timely demographic, housing, social, and economic data. The ACS samples nearly 3 million addresses each year, resulting in nearly 2 million final interviews. The ACS replaces the long-form decennial census; however, the number of household surveys reported annually for the ACS is significantly less than the

number reported in the long-form decennial census. As a result, the ACS combines detailed population and housing data from multiple years to produce reliable estimates for small counties, neighborhoods, and other local areas. Negotiating between timeliness and accuracy, the ACS annually releases current, one-year estimates for geographic areas with large populations; three-year, and five-year estimates are also released each year for additional areas based on minimum population thresholds.

Citation: [U.S. Census Bureau: A Compass for Understanding and Using American Community Survey Data \(2008\)](#).

For more information about this source, including data collection methodology and definitions, refer to the [American Community Survey](#) website.

Methodology:

Population counts for socio-economic groups and total area population data are acquired from the U.S. Census Bureau's American Community Survey. Data represent estimates for the 5 year period 2006-2010. Data are summarized to 2010 census tract boundaries. Health insurance coverage status is classified in the ACS according to yes/no responses to questions (16a - 16h) representing eight categories of health insurance, including: Employer-based, Directly-purchased, Medicare, Medicaid/Medical Assistance, TRICARE, VA health care, Indian Health Service, and Other. An eligibility edit was applied to give Medicaid, Medicare, and TRICARE coverage to individuals based on program eligibility rules. People were considered insured if they reported at least one "yes" to Questions 16a - 16f. Indicator statistics are measured as a percentage of the total population using the following formula:

$$\text{Percentage} = [\text{Subgroup Population}] / [\text{Total Population}] * 100$$

For more information on the data reported in the American Community Survey, please see the complete [American Community Survey 2010 Subject Definitions](#).

Notes:

Race and Ethnicity

Indicator race and ethnicity statistics are generated from self-identified survey responses. Race and ethnicity (Hispanic origin) are collected as two separate categories in the American Community Survey (ACS) based on methods established by the U.S. Office of Management and Budget (OMB) in 1997. Using the OMB standard, the race categories reported in the ACS are: White, Black, American Indian/Alaskan Native, Asian, and Other. An ACS survey respondent may identify as one race alone, or may choose multiple races. Respondents selecting multiple categories are racially identified as "Two or More Races". The minimum ethnicity categories reported are: Hispanic or Latino, and Not Hispanic or Latino. Respondents may only choose one ethnicity. For more information, please review the documentation provided in the CHNA *Data and Indicators* FAQs.

Data limitations

The universe for most health insurance coverage estimates is the civilian noninstitutionalized population, which excludes active-duty military personnel and the population living in correctional facilities and nursing homes. Some noninstitutionalized GQ populations have health insurance coverage distributions that are different from the household population (e.g., the prevalence of private health insurance among residents of college dormitories is higher than the household population). The proportion of the universe that is in the noninstitutionalized GQ populations could therefore have a noticeable impact on estimates of the health insurance coverage. Institutionalized GQ populations may also have health insurance coverage distributions that are different from the civilian noninstitutionalized population, the distributions in the published tables may differ slightly from how they would look if the total population were represented.

Comparability

Health insurance coverage was added to the 2008 ACS and so no equivalent measure is available from previous ACS surveys or Census 2000. Health insurance estimates for geographies with less than 100,000 population will not be available until the 2012 ACS release, after 5-years of data

have been collected on the subject. For more information, please review the documentation provided on pages 68 - 70 of the [American Community Survey 2010 Subject Definitions](#).

Colon Cancer Screening (Sigmoid/Colonoscopy)

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. BRFSS survey data are analyzed by the CDC's National Center for Health Statistics (NCHS). Annual risk factor prevalence data are released for those geographic areas with 50 or more survey results and 10,000 or more total population (50 States, 170 Cities and Counties) in order to maintain the accuracy and confidentiality of the data. Multi-year estimates are produced by the NCHS to expand the coverage of data to approximately 2500 counties. These estimates are maintained in the [Health Indicator Warehouse](#), the official repository of the nation's health data. For more information on the BRFSS survey methods, or to obtain a copy of the 2010 questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired for years 2004-2010 from Behavioral Risk Factor Surveillance System (BRFSS) prevalence data, which is housed in the Health Indicator Warehouse. Percentages are generated based on the valid responses to the following questions:

"Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams? For a SIGMOIDOSCOPY, a flexible tube is inserted into the rectum to look for problems. A COLONOSCOPY is similar but uses a longer tube, and you are usually given medication through a needle in your arm to make you sleepy and told to have someone else drive you home after the test. Was your MOST RECENT exam a sigmoidoscopy or a colonoscopy? How long has it been since you had your last sigmoidoscopy or colonoscopy?"

Respondents are considered to have had a Sigmoidoscopy/Colonoscopy if they answer that they had ever had a test. Percentages are age-adjusted and only pertain to the non-institutionalized population aged 50 and up. Population numerators (number of adults) are not provided in the Health Indicator Warehouse data tables and were generated using the following formula:

$$\text{[Persons having a Sigmoidoscopy/Colonoscopy]} = \left(\frac{\text{[Indicator Percentage]}}{100} \right) * \text{[Total Population]} .$$

Adult population figures used in the data tables are acquired from the American Community Survey (ACS) 2006-2010 five year estimates. Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the BRFSS web site. For additional information about the multi-year estimates, please visit the [Health Indicator Warehouse](#).

Dental Care Utilization (Adult)

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. For more information on the BRFSS survey methods, or to obtain a copy of the 2010 questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired from analysis of annual survey data from the Behavioral Risk Factor Surveillance System (BRFSS) for years 2006-2010. Percentages are generated based on valid responses to the following questions:

>"How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists." and "How long has it been since you had your teeth cleaned by a dentist or dental hygienist?" This indicator represents the percentage of respondents who indicated that they had not seen any dentist or dental hygienist within the past year. Data only pertain to the non-institutionalized population aged 18 and up and are weighted to reflect the total county population, including non-respondents, using the methods described in the BRFSS Comparability of Data documentation. Population numerators (estimated number of adults exercising each risk behavior) are not provided in the annual survey data and were generated for the data tables using the following formula:

Adults Without Recent Dental Exam = ([Indicator Percentage] / 100) * [Total Population] .

The population figures used for these estimates are acquired from the American Community Survey (ACS) 2006-2010 five year estimates.

Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the Behavioral Risk Factor Surveillance System home page.

Lack of a Consistent Source of Primary Care

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. For more information on the BRFSS survey methods, or to obtain a copy of the 2010 questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired from analysis of annual survey data from the Behavioral Risk Factor Surveillance System (BRFSS) for years 2006-2010. Percentages are generated based on valid responses to the following questions:

"Do you have one person you think of as your personal doctor or health care provider? (If "No" ask "Is there more than one or is there no person who you think of as your personal doctor or health care provider?")"

This indicator represents the percentage of those persons who answered "no" to both parts of the question, indicating that they do not see any regular doctor. Data only pertain to the non-institutionalized population aged 18 and up and are weighted to reflect the total county population, including non-respondents, using the methods described in the BRFSS Comparability of Data documentation. Population numerators (estimated number of adults exercising each risk behavior) are not provided in the annual survey data and were generated for the data tables using the following formula:

$$\text{Adults Without Any Regular Doctor} = \left(\frac{\text{Indicator Percentage}}{100} \right) * \text{Total Adult Population}$$

The population figures used for these estimates are acquired from the American Community Survey (ACS) 2006-2010 five year estimates.

Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the Behavioral Risk Factor Surveillance System home page.

Heavy Alcohol Consumption

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. BRFSS survey data are analyzed by the CDC's National Center for Health Statistics (NCHS). Annual risk factor prevalence data are released for those geographic areas with 50 or more survey results and 10,000 or more total population (50 States, 170 Cities and Counties) in order to maintain the accuracy and confidentiality of the data. Multi-year estimates are produced by the NCHS to expand the coverage of data to approximately 2500 counties. These estimates are maintained in the [Health Indicator Warehouse](#), the official repository of the nation's health data. For more information on the BRFSS survey methods, or to obtain a copy of the 2010

questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired for years 2004-2010 from Behavioral Risk Factor Surveillance System (BRFSS) prevalence data, which is housed in the Health Indicator Warehouse. Percentages are generated based on the valid responses to the following question:

"One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?"

Respondents are considered heavy drinkers if they were male and reported having more than 2 drinks per day, or females that reported having more than 1 drink per day. Percentages are age-adjusted and only pertain to the non-institutionalized population aged 18 and up. Population numerators (number of adults) are not provided in the Health Indicator Warehouse data tables and were generated using the following formula:

$$[\text{Heavy Drinkers}] = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

Adult population figures used in the data tables are acquired from the American Community Survey (ACS) 2006-2010 five year estimates. Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the BRFSS web site. For additional information about the multi-year estimates, please visit the [Health Indicator Warehouse](#).

Physical Inactivity (Adult)

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. BRFSS survey data are analyzed by the CDC's National Center for Health Statistics (NCHS). Annual risk factor prevalence data are released for those geographic areas with 50 or more survey results and 10,000 or more total population (50 States, 170 Cities and Counties) in order to maintain the accuracy and confidentiality of the data. Multi-year estimates are produced by the NCHS to expand the coverage of data to approximately 2500 counties. These estimates are maintained in the [Health Indicator Warehouse](#), the official repository of the nation's health data. For more information on the BRFSS survey methods, or to obtain a copy of the 2010 questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired for years 2005-2009 from Behavioral Risk Factor Surveillance System (BRFSS) prevalence data, which is housed in the Health Indicator Warehouse. Percentages are generated based on the valid responses to the following question:

"During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

Respondents are considered to be physically inactive if they answer no to the question. Percentages are age-adjusted and only pertain to the non-institutionalized population aged 18 and up. Population numerators (number of adults) are not provided in the Health Indicator Warehouse data tables and were generated using the following formula:

$$[\text{Inactive Persons}] = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

Adult population figures used in the data tables are acquired from the American Community Survey (ACS) 2006-2010 five year estimates. Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the BRFSS web site. For additional information about the multi-year estimates, please visit the [Health Indicator Warehouse](#).

Tobacco Usage (Adult)

Data Background:

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 Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for 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.”

Citation: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. [Overview: BRFSS 2010](#).

The health characteristics estimated from the BRFSS pertain to the adult non-institutionalized population (age 18 years or older and living in households) and includes data pertaining to health behaviors, chronic conditions, access and utilization of healthcare, and general health. Surveys are administered to populations at the state level and then delivered to the CDC. BRFSS survey data are analyzed by the CDC’s National Center for Health Statistics (NCHS). Annual risk factor prevalence data are released for those geographic areas with 50 or more survey results and 10,000 or more total population (50 States, 170 Cities and Counties) in order to maintain the accuracy and confidentiality of the data. Multi-year estimates are produced by the NCHS to expand the coverage of data to approximately 2500 counties. These estimates are maintained in the [Health Indicator Warehouse](#), the official repository of the nation’s health data. For more information on the BRFSS survey methods, or to obtain a copy of the 2010 questionnaire, please visit [the Behavioral Risk Factor Surveillance System](#) home page.

Methodology:

Indicator percentages are acquired for years 2004-2010 from Behavioral Risk Factor Surveillance System (BRFSS) prevalence data, which is housed in the Health Indicator Warehouse. Data are based on the percentage of respondents answering the following question:

"Do you now smoke cigarettes every day, some days, or not at all?"

Respondents are considered smokers if they reported smoking every day or some days. Percentages are age-adjusted and only pertain to the non-institutionalized population aged 18 and up. Population numerators (number of adult smokers) are not provided in the Health Indicator Warehouse data tables and were generated using the following formula:

$$[\text{Adults Smokers}] = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

Adult population figures used in the data tables are acquired from the American Community Survey (ACS) 2006-2010 five year estimates. Additional detailed information about the BRFSS, including questionnaires, data collection procedures, and [data processing methodologies](#) are available on the BRFSS web site. For additional information about the multi-year estimates, please visit the [Health Indicator Warehouse](#).

Homicide

Data Background:

The CDC WONDER (Wide-ranging Online Data for Epidemiologic Research) is a query tool which provides public access to the information resources of the Centers for Disease Control and Prevention (CDC). The Underlying Cause of Death data available on WONDER are county-level mortality and population data spanning the years 1999-2010. Data are based on death certificates for U.S. residents. Each death certificate identifies a single underlying cause of death and demographic data. The number of deaths, crude death rates and age-adjusted death rates, can be obtained by place of residence, age group, race, Hispanic ethnicity, gender, and cause-of-death (when minimum sample size thresholds are met).

Underlying cause-of-death is defined by the World Health Organization (WHO) as *"the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury."* Underlying cause-of-death is selected from the conditions entered by the physician on the cause of death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of conditions on the certificate, provisions of the International Statistical Classification of Disease and Health Problems (ICD), and associated selection rules and modifications.

The Underlying Cause of Death data are produced and maintained by the Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), United States Department of Health and Human Services (US DHHS).

Citation: Centers for Disease Control and Prevention: CDC WONDER, [Underlying Cause of Death 1999-2009 \(2012\)](#).

For more information about this source, including data inclusion requirements and definitions, please refer to the [CDC WONDER website](#).

Methodology:

County population figures and death statistics for assault/homicide (**ICD-10 Codes* U01-U02, X85-Y09, Y87.1**) are acquired for years 2006-2010 using CDC WONDER from the Underlying Cause of Death database. Mortality rates were acquired from the source already age-adjusted to the year 2000 U.S. standard since single-age mortality data was not available from the source. To recalculate age-adjusted mortality rates for unique service areas and aggregated county groupings, the following formula was used:

$$\text{Mortality Rate} = [\text{SUM}(\text{Total Population}) * ((\text{Age-Adjusted Rate})/100,000)] / [\text{SUM}(\text{Total Population})] * 100,000.$$

*A searchable, detailed list of current ICD-10 Codes (Version 2010) is available from the [World Health Organization](#).

Notes:

*Data is suppressed when the rate is calculated with a numerator or denominator of 10 or less. [More Information.](#)

*Death rates are unreliable when the rate is calculated with a numerator of 20 or less. [More Information.](#)

*The method used to calculate standard age-adjusted rates are documented here: [More Information.](#)

*Deaths for persons of unknown age are included in counts and crude rates, but are not included in age-adjusted rates.

*To accommodate geographic shifts of the Alabama, Louisiana, Mississippi, and Texas populations resulting from Hurricanes Katrina and Rita in 2005, the U.S. Census Bureau developed adjustments in the methodology for state and county population estimates. [More Information.](#)

Infant Mortality

Data Background:

The Division of Vital Statistics is a branch of the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) responsible for maintaining birth and death records for the nation. Data are compiled for the National Vital Statistics System (NVSS) through a joint effort between the NCHS and various state and local health agencies, who are responsible for registering vital events – births, deaths, marriages, divorces, and fetal deaths. In some states, additional information is recorded about each birth. This information includes child's gender and birth weight; mother's race, ethnicity and age; mother's education; gestation period; prenatal care, and more. Vital statistics are analyzed and released annually in various data warehouses, including [CDC WONDER](#), [VitalStats](#), and the [Health Indicator Warehouse](#).

The [Health Indicator Warehouse](#) is the official repository of the nation's health data, providing public access to the information resources of the Centers for Disease Control and Prevention (CDC), the Environmental Protection Agency (EPA), the Health Resources and Services Administration (HRSA), and others.

Methodology:

Counts for this indicator represent the annual average births and deaths over the 7-year period 2003-2009. Original data was tabulated by the CDC based on information reported on birth and death certificates. Rates represent the number of deaths to infants under age 1 per 1,000 total live births, based on the following formula:

$$\text{Rate} = [\text{Total Deaths Under Age 1}] / [\text{Total Births}] * 1,000$$

Data are not linked (birth and death certificates have not been matched) and thus this indicator does not account for population migration. Mortality data was acquired from the CDC WONDER query system. Birth tabulations were acquired from the Health Indicators Warehouse. For more information, about these sources, including data inclusion requirements and subject definitions, please visit the [Health Indicator Warehouse indicator page](#) or refer to the [CDC WONDER Underlying Cause of Death documentation](#).

Obesity (Adult)

Data Background:

The Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Health Promotion monitors the health of the Nation and produces publically available data to promote general health. The division maintains the Diabetes Data and Trends data system, which includes the National Diabetes Fact Sheet and the National Diabetes Surveillance System. These programs provide resources documenting the public health burden of diabetes and its complications in the United States. The surveillance system also includes county-level estimates of diagnosed diabetes and selected risk factors for all U.S. counties to help target and optimize the resources for diabetes control and prevention.

Citation: [Centers for Disease Control and Prevention, Diabetes Data & Trends: Frequently Asked Questions \(FAQ\). \(2012\).](#)

Methodology:

Data for total population and estimated obese population data are acquired from the County Level Estimates of Diagnosed Diabetes, a service of the Centers for Disease Control and Prevention's National Diabetes Surveillance Program. Obesity prevalence is estimated using the following formula:

$$\text{Percent Prevalence} = [\text{Obese Population}] / [\text{Total Population}] * 100.$$

All data are estimates modeled by the CDC using the methods described below:

The National Diabetes Surveillance system produces data estimating the prevalence of diagnosed diabetes and population obesity by county using data from [CDC's Behavioral Risk Factor Surveillance System](#) (BRFSS) and data from the [U.S. Census Bureau's Population Estimates Program](#). The BRFSS is an ongoing, monthly, state-based telephone survey of the adult population. The survey provides state-specific information on behavioral risk factors and preventive health practices. Respondents were considered obese if their body mass index was 30 or greater. Body mass index (weight [kg]/height [m]²) was derived from self-report of height and weight.

Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors. For example, 2003, 2004, and 2005 were used for the 2004 estimate and 2004, 2005, and 2006 were used for the 2005 estimate. Estimates were restricted to adults 20 years of age or older to be consistent with population estimates from the U.S. Census Bureau. The U.S. Census Bureau provides year-specific county population estimates by demographic characteristics—age, sex, race, and Hispanic origin. .

The county-level estimates were based on indirect model-dependent estimates. The model-dependent approach employs a statistical model that “borrows strength” in making an estimate for one county from BRFSS data collected in other counties. Bayesian multilevel modeling techniques were used to obtain these estimates. Separate models were developed for each of the four census regions: West, Midwest, Northeast and South. Multilevel Poisson regression models with random effects of demographic variables (age 20–44, 45–64, 65 ; race; sex) at the county-level were developed. State was included as a county-level covariate.

Citation: [Centers for Disease Control and Prevention, Diabetes Data & Trends: Frequently Asked Questions \(FAQ\). \(2012\).](#)

Rates were age adjusted by the CDC for the following three age groups: 20-44, 45-64, 65 . Additional information, including the complete methodology and data definitions, can be found at the CDC's [Diabetes Data and Trends](#) website.

Suicide

Data Background:

The CDC WONDER (Wide-ranging Online Data for Epidemiologic Research) is a query tool which provides public access to the information resources of the Centers for Disease Control and Prevention (CDC). The Underlying Cause of Death data available on WONDER are county-level mortality and population data spanning the years 1999-2010. Data are based on death certificates for U.S. residents. Each death certificate identifies a single underlying cause of death and demographic data. The number of deaths, crude death rates and age-adjusted death rates, can be obtained by place of residence, age group, race, Hispanic ethnicity, gender, and cause-of-death (when minimum sample size thresholds are met).

Underlying cause-of-death is defined by the World Health Organization (WHO) as *"the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury."* Underlying cause-of-death is selected from the conditions entered by the physician on the cause of death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of conditions on the certificate, provisions of the International Statistical Classification of Disease and Health Problems (ICD), and associated selection rules and modifications.

The Underlying Cause of Death data are produced and maintained by the Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), United States Department of Health and Human Services (US DHHS).

Citation: Centers for Disease Control and Prevention: CDC WONDER, [Underlying Cause of Death 1999-2009 \(2012\).](#)

For more information about this source, including data inclusion requirements and definitions, please refer to the [CDC WONDER website](#).

Methodology:

County population figures and death statistics for intentional self-harm/suicide (**ICD-10 Codes***) are acquired for years 2006-2010 using CDC WONDER from the Underlying Cause of Death database. Mortality rates were acquired from the source already age-adjusted to the year 2000 U.S. standard since single-age mortality data was not available from the source. To recalculate age-adjusted mortality rates for unique service areas and aggregated county groupings, the following formula was used:

$$\text{Mortality Rate} = [\text{SUM}(\text{Total Population}) * ((\text{Age-Adjusted Rate})/100,000)] / [\text{SUM}(\text{Total Population})] * 100,000.$$

*A searchable, detailed list of current ICD-10 Codes (Version 2010) is available from the [World Health Organization](#).

Notes:

*Data is suppressed when the rate is calculated with a numerator or denominator of 10 or less. [More Information.](#)

*Death rates are unreliable when the rate is calculated with a numerator of 20 or less. [More Information.](#)

*The method used to calculate standard age-adjusted rates are documented here: [More Information.](#)

*Deaths for persons of unknown age are included in counts and crude rates, but are not included in age-adjusted rates.

*To accommodate geographic shifts of the Alabama, Louisiana, Mississippi, and Texas populations resulting from Hurricanes Katrina and Rita in 2005, the U.S. Census Bureau developed adjustments in the methodology for state and county population estimates. [More Information.](#)

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