

Apache County Public Health Services District

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COMMUNITY HEALTH IMPROVEMENT PLAN FINAL ANALYSIS

Profile and Demographics

Apache County is located in the northeastern quadrant of the State of Arizona and borders Utah, Colorado and New Mexico.

On February 24, 1879 the Tenth Territorial Legislature created Apache County out of Yavapai County, one of the four original Arizona Counties. The newly created county encompassed all of the present day Navajo and Apache Counties as well as parts of Graham and Greenlee Counties.

The original 20,940 square miles of the County in 1879 were mostly inhabited by the Navajo and Apache tribes, along with a few Texas cattlemen and Hispanic shepherders from New Mexico. For the most part the County was wild and empty country.

Snowflake was designated the first County Seat. After the first election in the fall of 1879, the County Government was set up in St. Johns. In 1880 the County Seat was moved to Springerville. In 1882 St. Johns again became the County Seat and has remained so until the present time.

The land area assigned to Apache County was not to remain undisturbed for long. In 1881 the part of the County between the Black and Gila Rivers was taken to form part of what is now Graham County. The County also lost significant territory when Navajo County was formed. Apache County's present area is 11,197.52 square miles.

Apache County is unique among all counties in the United States in many ways. Particularly because it is the longest county in the country, 211 miles from the Utah border to just south of Alpine. Almost seventy-three percent (72.9%) of the population are American Indian (52,154) and about sixty-eight percent (68.34%) of the land area (7,666.96 square miles) is Navajo Nation—the largest Native American tribe in the United States.

It is a County of contrasts, starting from the blue spruce and aspen covered mountains near Alpine and Nutrioso, to the Greer Valley with the clear, cold waters of the Little Colorado River flowing northward to Round Valley and St. Johns. The Navajo Nation begins near Sanders and is a world apart. It is a country of long, pinon covered mesas, red sandstone cliffs, huge open valleys and hidden canyons. The main population

centers are Window Rock and Fort Defiance in the South, Ganado in the center and Chinle in the north, with many small towns in between.

The 2010 census indicated there were 71,518 people, 22,771 households, and 16,331 families residing in the county. The population density is 6.4 people per square mile (2/km²). There were 32,514 housing units at an average density of 3 per square mile (1/km²). The racial makeup of the county was 72.9% Native American, 23.3% White, 0.2% Black or African American, 0.3% Asian, 1.3% from other races, and 2.0% from two or more races. 5.8% of the population were Hispanic or Latino of any race, 56.4% (estimated) speak Navajo at home, while 39.8% speak English and 3.8% Spanish.

There were 22,771 households out of which 42.3% had children under the age of 18 living with them, 42.8% were married couples living together, 21.2% had a female householder with no husband present, and 28.3% were non-families, 24.8% of all households were made up of the householder living alone and 3.6% had someone living alone who was 65 years of age or older. The average household size was 3.10 and the average family size was 3.76.

In the county the population was spread out with 31.68% under the age of 18, 10.09% from 18 to 24, 28.98% from 25 to 49, 17.69% from 50 to 64, and 11.56% who were 65 years of age or older. The median age was 32.4 years. For every 100 females there were 99.37 males. For every 100 females age 18 and over, there were 97.83 males.

The median income for a household in the county was \$31,011, and the median income for a family was \$38,290. Males had a median income of \$39,718 versus \$32,592 for females. The per capita income for the county was \$12,626. About 28.4% of families and 34.7% of the population were below the poverty line, including 41.9% of those under age 18 and 28.3% of those age 65 or over. The county's per-capita income (\$12,626) makes it one of the poorest counties in the United States.

Apache County is one of a few counties in the United States where the most spoken language is not English. The predominant language is Navajo, followed by English and then Spanish.

Overview of the Methodology and Approach

Working with the community members and stakeholders in a collaborative effort to identify health needs and perceived health needs in southern Apache County was essential to the Community Health Assessment.

Developing a survey to capture perceived health needs, access to care, preventative care and other health parameters of the community was a collaborative effort of our partners and stakeholders.

Analysis of our primary data (community health survey) for southern Apache County and comparison with Apache County data and State data for selected indicators was a logical way to evaluate health need of southern Apache County.

To assemble a collaborative group with wide representation from the community, the health department and White Mountain Regional Medical Center sent meeting invitations to community leaders, faith-based leaders, service organizations, school administrators, business people, businesses, police, physicians and first responders. (Appendix 1)

Meetings were scheduled to receive input from partners, stakeholders and community members. Key indicators were selected, survey questions developed and survey results were reviewed with the partners, stakeholders, and community members.

Using Survey Monkey, the survey was placed online for the public to complete; also surveys were conducted by personal contact, sent home with students and left at medical offices for clients to complete and then collected periodically and entered in Survey Monkey. Results were categorized; charts and graphs developed using a tool in Survey Monkey to aide in analyzing survey results.

Documentation of Findings and Assessment Results

Seventy-five (75) percent of the surveys were submitted by females and 24.9% by males. The age group 55 years old to 64 years old submitted the most surveys followed by the 25 years old to 34 years old, 35 years old to 44 years old, 45 years old to 54 years old, 65 years old to 74 years old, 75 years and older, and the least number of surveys were submitted by the 18 years old to 24 years old.

Of our sample the majority of responses came from people declaring themselves to be white, followed by Hispanics and American Indians. The predominant race in southern Apache County is white and it appears from census data the African American population is under represented in our survey results.

Our surveys indicate that the majority of the respondents were married and the majority of respondents owned their homes. Some respondents were living with friends or relatives either sharing space or sharing rent with friends or relatives. No respondent indicated they were homeless.

Most respondents have lived in Apache County for more than five (5) years.

Only 17.9% of those surveyed were unemployed while 65.1% indicated they were self-employed, working full-time or part-time.

Survey results regarding income indicated 25.5% of those surveyed make over \$50,000.00; 19.5% make \$20,001-\$30,000; and 16.9% make \$0.00 -\$10,000. Fifty-one (51.1) percent of the respondents make \$30,000.00 or less per year and 48.9% make more than \$30,000.00 per year.

The vast majority (85.5%) of those surveyed have a primary care physician and their physician is in Apache County. When asked if anyone in their household had seen a physician in the past twelve months 97.5% answered yes.

General check-up for self, spouse/partner or child was the number one reason given for the visit to the doctor followed by “other”. Allergies were the number three reason stated for a doctor visit.

However, when asked if they or anyone in their household had been diagnosed with a specific condition, high blood pressure was the most common then asthma, anxiety, high cholesterol, depression, arthritis, chronic pain, diabetes, ADD/ADHD and cancer.

Just over one-half (54.8%) are taking medication for their medical condition while 35.1% are not taking medication, 7.2% when they can afford the medication and 2.9% stated they could not afford the medication.

Respondents were asked to give the height and weight of children in their household. Body Mass Index (BMI) was calculated from the height and weight. BMI is an indication of a person being overweight or obese, a BMI of 25 or greater is considered overweight and a BMI of 30 or more is considered obese.

Of 215 responses, 78 had a calculated BMI of over 25. Of the 78 with a BMI over 25, 56 were under the age of 18 years old. Twenty-one (21) of the 56 had a BMI of 30 or more. This means that 26.0% of the 215 respondents were overweight or obese adolescents and children.

Dental care for respondents appeared to be regular check-ups (53.8%) and not emergency treatment. “Regular” was not defined in the survey question and a large number of those surveyed had seen a dentist in the last twelve months. Children as well as adults were receiving regular dental check-ups.

Children of respondents are receiving scheduled immunizations. Their primary care physician is where the majority (66.0%) of the children receive their immunizations followed by the health department and then the school. Most children (62.9%) are current on their immunizations. Of those people indicating that their children were not receiving immunizations or were not up to date on their immunizations indicated that they chose not to immunize (63.6%) their children or their children were started late on their immunizations (36.4%).

Regarding well-woman services, 50.8% of the responses indicated that they had not received well-woman service in Apache County in the past twelve months and 25.0% indicated they had received those services in Apache County. The most common place for women to receive well-woman services was at a doctor’s office (68.1%) and 13.8% received those services at the health department and 18.1% some place other than the health department or a doctor’s office. Only 29.7% receive well-woman services in another county while 70.3% receive those services in Apache County.

Regarding their top healthcare need being met, 69.6% responded in the affirmative, 16.4% answered in the negative and 14.0% said it was being met and needed improvement.

Of those participating in the survey 86.7% had health insurance and 13.3% did not have health insurance. AHCCCS is covering 37.3% of those surveyed.

Food stamps are received by 31.4% of the respondents, 6.5% of the respondents have at least one child in Head Start and 0.7% receive TANF.

The majority of the respondents know where to find assistance if they have any needs. They have people in their lives they can count on in tough times and they feel like they belong in their community. Their children feel like they belong in their school community and feel safe in their school environment.

Most are involved in community groups and most feel they can depend on church leaders and members for assistance.

When asked if they are prepared in case of an emergency or evacuation an overwhelming majority (66.8%) responded in the affirmative.

Community Health Improvement Plan

On March 7, 2013, the core committee met to review the findings of the Community Health Assessment and to prioritize the results. Representatives from law enforcement, White Mountain Regional Medical Center, health department and Arizona Cooperative Extension attended.

Four priority areas were chosen as the areas of concern for efforts to improve the health of residents of southern Apache County. The scope of the Community Health Improvement Plan (CHIP) is to describe the priority areas, describe what is currently being done and to point organizations in the direction the core committee believes are priority health issues in southern Apache County at this time.

PRIORITY HEALTH ISSUES

Promoting Healthy Lifestyles

Reduction in Obesity

Diabetes Education

Reduction in Heart Disease

These four priority health issues are related and improvement in one of these issues will most likely result in improvement in at least one other priority health issue.

Promoting Healthy Lifestyles

The core committee chose this health priority based on the fact that if a person develops a healthy lifestyle other health issues will not occur or be minimal in their life. There is a need to educate the public on what they can do to improve their health. The messages need to be consistent, constant and easy to apply in one's life. The health system of southern Apache County needs to embrace this health priority and institute it at every opportunity. The core committee included some non-traditional partners as part of the health system such as church groups and their bulletins, city and town newsletters, libraries and social media. Work place wellness programs are also an area to be encouraged and enlisted to participate in promoting healthy lifestyles.

Concerns were raised about the affordability of and accessibility to wholesome fresh foods.

A critical area of healthy lifestyle is physical activity. The core committee saw a need for communities to publicize walking/biking paths and trails that are available in the community, promote adult sports—youth sports are available in most communities, schools need to publicize or promote use of outdoor facilities when school is not in session—after hours and on the weekends.

Reduction in Obesity

Survey data indicated that obesity in southern Apache County is consistent with the State and National trends. Promoting a healthy and active lifestyle will help reverse the current trend.

Education was viewed as an essential component of reduction in obesity. Education would include nutrition education and how to make better choices in foods as well as information on the benefits of physical activity.

Schools, cities, and towns need to publicize resources that are available to residents for use and workplace wellness programs need to be encouraged.

Nutrition counseling needs to be available for those who are motivated to lose weight or reduce their BMI.

Diabetes Education

Primary survey data indicated that diabetes is prevalent in southern Apache County.

Education on diabetes, the effects of this condition, what can be done, what can happen if the condition is not managed and programs available to help manage diabetes is a need. Existing programs for diabetes need to be advertised. Reliable information needs to be easily accessible and obstacles access to health care providers and nutritionists need to be minimized.

Populations and age groups need to be identified for a marketing campaign.

Opportunities for physical activity in communities need to be publicized.

Heart Disease

Reduction in heart disease will improve quality of life in one's later years.

Education about preventing heart disease is vital for this priority. Nutrition education, physical activity education, importance of check-ups, and effects of smoking on heart disease are vital for this health priority. Reliable, easily accessible information about heart disease and preventing heart disease is vital for this health priority.

Access to cardiologists, affordable nutritious foods and opportunities for physical activity all play an important part in reducing heart disease in Apache County.

Publicizing hiking/biking trails, walking paths after hour use of school facilities are all important in reducing heart disease.

What is currently being done, what needs to be done and barriers

Efforts to improve the health of the community include volunteer and outreach programs and organizations that promote healthy living such as 4-H, schools, local clinics and Boys and Girls clubs. These programs offer low or no cost enrollment, have ease of access and provide acceptance and peer motivation. Annual community events promote and educate to improve health. Grant funding is the primary means of financial support to agencies offering these types of resources. Some local employers sponsor "screening days" (free) for early detection. Some of the barriers to these resources include age limitations, location of services due to sparsely populated rural areas, and costs associated with some services. Many residents rely heavily on early intervention and no cost pre-school options that are available in most Southern Apache County communities.

The Public Health Services District offers in-home services to clients that lack transportation or are otherwise unable to travel to receive services. Services include immunizations, WIC, Well Women Screening, Family Planning Assistance, Early Intervention Education for young and/or expectant mothers and children, and child safety (car seat) programs.

Apache County has reasonable access to outdoor activities during the months of March through October. Most communities have some form of walking/biking/hiking trail system in place. Currently, Round Valley and Saint Johns School Districts have a formal Safe Routes to School Program in place. These programs offer and promote physical activity to adults and children during school and work hours. School campuses have joint use policies in place. This allows residents to use playgrounds, sports fields, and tracks outside of regular school hours. One unfortunate finding is the school day structure in most communities. Schools generally offer Physical Education classes one time per week and recess time is limited and lacks organization.

Supplemental Nutrition Assistance Program (SNAP) Education is offered to students in all Apache County schools. This program strives to teach healthy eating and better food choices. The school lunch program however is lacking in nutritional support and access to fresh fruits and vegetables. Though some changes have been made, improvement is still necessary for optimal nutrition education and intake.

The largest employers in the area offer some type of worksite wellness program. These programs provide incentives for screening participation such as paid days off. Most programs screen for diabetes, heart disease, and bone health and offer mammograms and prostate exams each year. Some employers even offer access to an employee gym. These facilities can be utilized by employees and their spouses. Some gyms offer membership to non-employees for a fee.

Public Information is distributed via church bulletins, community bulletin boards, post office, library, and local newspaper and radio spots. Text messaging and social media have become more popular and an effective form of communication. Libraries offer patrons, who have library cards, access to health data bases and literature pursuant to health priorities. Most of the information can be accessed from home through internet use. This service is available with the use of library computers as well.

Many residents grow fruits and vegetables in Apache County's rural, agrarian communities. U of A Cooperative Extension and the 4-H program have a big influence on residents. Ranching is still a predominant way of life in Apache County. Lots of children grow up in one or more areas of ranching, farming, or general working of the land and animal raising. The annual County Fair and summer rodeos offer a chance for residents to showcase their hard work. Preservation of annual harvests is a skill that can be taught to generations to come and sustain a healthy lifestyle.

School and community led sports programs are offered to youth in all communities. These programs provide opportunity for physical activity and relationship building. Community sports are offered throughout the year for school-aged children. Little League baseball and soccer begin work with children at just 3 years of age. These programs are available for small fees or free of charge to families in need. Coaches and leaders are volunteers from the community. Since most communities are small and close-knit, volunteers are generally community figures with whom children are usually already acquainted.

The Apache County Public Health Services District currently has programs addressing Healthy Lifestyle, Obesity, Diabetes and Heart Disease are as follows:

Chronic Disease Self- Management Program (CDSMP) serves ages 18 and up and has as its goal to assist people with a chronic illness to explore healthy ways to live with a physical or mental condition. The workshops assist a person at working to overcome the physical, mental and emotional problems a Chronic Condition causes. The program consists of 6 workshops, two and a half hours in length each presented one day per week for six weeks. Topics covered include understanding common symptoms, Exercising for flexibility, strength and balance, Relaxation techniques, Healthy Eating (reading food Labels and planning a menu) Managing Medications, Treatment Decisions and communication with Health Care Professionals, weekly Action Plan done by each participant that contain a goal the participant has selected to work on, Pre and Post evaluations completed by participants which help participants and Leaders measure individual progress. This program is also for Caregivers and Family members.

Tomando Control De Su Salud is the Spanish Version of the above CDSMP program. The Spanish CDSMP has one difference; it has more culturally specific dietary information.

Su Corazon Su Vida is a new program that was added in 2012-2013. This program addresses cardiovascular illnesses (specifically the Latino dietary habits since one out of four Latinos die due to some type of heart illness). Topics covered in this program include ; Risks involved in developing a Heart Condition, Symptoms to look for involving Heart Illnesses, Importance of Healthy Eating, Physical Activity/Exercise, Reducing

Stress, Controlling Blood pressure, The role of Family Health History, Diabetes, How Tobacco Affects the Heart and a guide to assist one on understanding your lab results.

One major difference with this program is that it can be presented 'ONE ON ONE' to participants, there is no set number needed for a presentation (unlike the CDSMP program that requires at least 10 participants). Evaluation tools are much the same as those listed above for CDSMP programs the exception being that evaluation is individually done (instead of in a group setting). This program can be an individual's home verses a group setting.

School Health Index (SHI/SHAC) program consists of eight modules covering topics such as School Safety, Nutrition, Exercise, Health for Students, Prevention program topics such as Tobacco, Drugs/Alcohol, Bullying, Health promotion programs for staff (which include CDSMP programs, and ASHLINE). The age groups served are Primary School age to Adult and measurement of goal accomplishment is done through Module Score Cards, Student Evaluation/Survey forms and Policy Changes. Specifically Modules one, two, four and six address Healthy Lifestyle, Obesity, Diabetes, Heart Disease and Asthma. This program also addresses culturally appropriate activities for students.

Health Start is a prenatal program serving women in southern Apache County who are at any stage of their pregnancy and women with children no older than two years of age. In the Health Start program the focus is on the well-being of mom and child, and of course, the entire family. This does include having a healthy lifestyle. A person or family who is having trouble with obesity, diabetes, or heart disease, is referred to other services in the health department or to community providers.

The Teen Pregnancy Prevention Program provides Abstinence-Plus education to high-risk youth ages twelve to nineteen years of age, and parents and/or caregivers of youth ages twelve to nineteen. The program delivers services to youth and parents in various settings appropriate for reaching targeted population. Programs are currently delivered in a classroom setting, during school hours. (Note: Abstinence-plus addresses adolescent sexual health and development from a medically accurate perspective, absent of specific values messages. Abstinence is presented as the only 100% effective way to prevent pregnancy. "Plus" includes presenting additional methods of protection/contraception, with medically accurate information regarding the effectiveness rates and methods of use).

The abstinence-plus programs currently being delivered in Apache County (northern and southern) are as follows:

Core Curricula – Wyman Teen Outreach Program®

Core Curricula (Population Specific) – 1) Native Stand; 2) Smart Girls; 3) Wise Guys

Parent Curricula –Active Parenting of Teens

All curricula are delivered with consistent messages of advantages to living a healthier lifestyle today while thinking of the future. In addition to the abstinence-plus education, programs cover exploration and discussion of: self-esteem, goal-setting, decision-making, refusal skills, values, communication, importance of community service, love, and healthy relationships with others, etc. This is also accomplished by including a number of outside agencies, when appropriate, to speak to the youth in the Wyman Teen Outreach Program® or during the Teen Maze events.

Endnotes:

Profile information taken from the Apache County website and Wikipedia.
Demographic information taken from the 2010 United States Census

Appendix 1:

Apache County Public Health District; Chris Sexton (Director), Bill Worsnop, Judith Pepple, April Blair, Cathy Chustz, Debbie Padilla, Dianne Samarin, Kellie Monterrosa, Kerry Pena, Lee Castillo, Malena Bazurto, Mary Romero, Misty Anderson-Bond, Octavia Thompson, Robin Aguero, Stephanie Hannah and Tomasa Lozoya.

Local Town and City Police Chiefs; Eagar, Springerville and St. John's.

Religious Organizations; Assembly of God Food Bank, LDS Stake Presidents and Relief Society Presidents..

Health Care; North Country HealthCare (Springerville and St. John's), White Mountain Regional Medical Center, Southern Apache County Special Healthcare District.

Organizations; Arizona Cooperative Extension and Boys and Girls Club.



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COMMUNITY HEALTH NEEDS ASSESSMENT

Advancing Community Health and Well Being

CHNA Data Report

Demographics

Report Area: Apache County, Arizona

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

- Total Male Population
- Total Female Population
- Urban and Rural Population

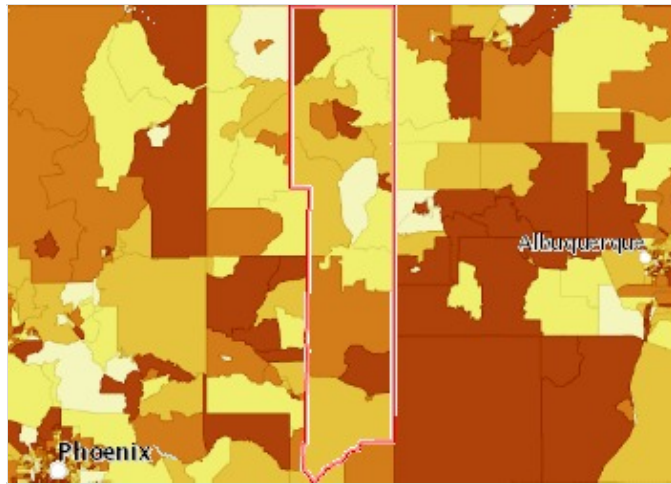
Current population demographics and changes in demographic composition over time play a determining role in the types of health and social services needed by communities.

Total Male Population

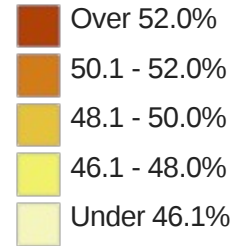
This indicator reports the percentage of males in a specific geographic area. This indicator is relevant because it is important to understand the percentage of males in the community, as males have unique health needs which should be considered separately from female health needs.

Report Area	Total Population	Total Male Population	Percent Male Population
Apache County, Arizona	70,312	35,040	49.84%
Arizona	6,246,816	3,108,234	49.76%
United States	303,965,280	149,398,720	49.15%

Data Source: [U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates](#). Source geography: Tract.



Percent Population, By Tract, ACS 2006-2010 5-Year Estimate

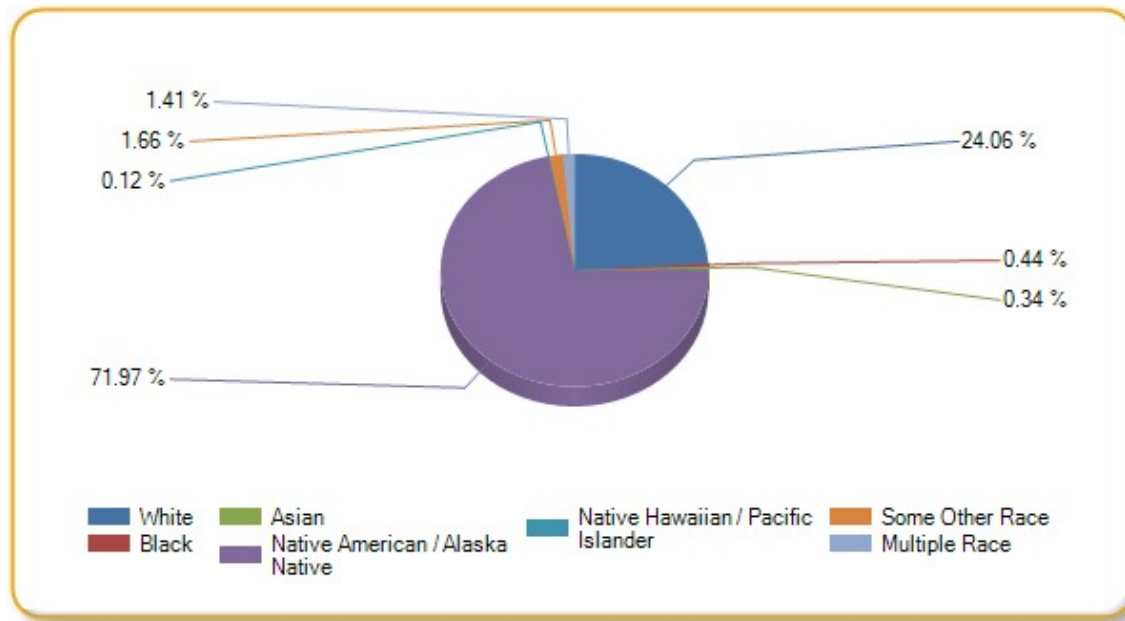


Male Population, Total by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Apache County, Arizona	8,432	154	120	25,218	41	581	494
Arizona	2,427,971	126,853	78,290	135,650	6,695	251,292	81,483
United States	110,893,664	18,076,960	6,759,062	1,230,390	247,008	8,554,810	3,636,832

Male Population, Percent by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Apache County, Arizona	24.06%	0.44%	0.34%	71.97%	0.12%	1.66%	1.41%
Arizona	78.11%	4.08%	2.52%	4.36%	0.22%	8.08%	2.62%
United States	74.23%	12.10%	4.52%	0.82%	0.17%	5.73%	2.43%

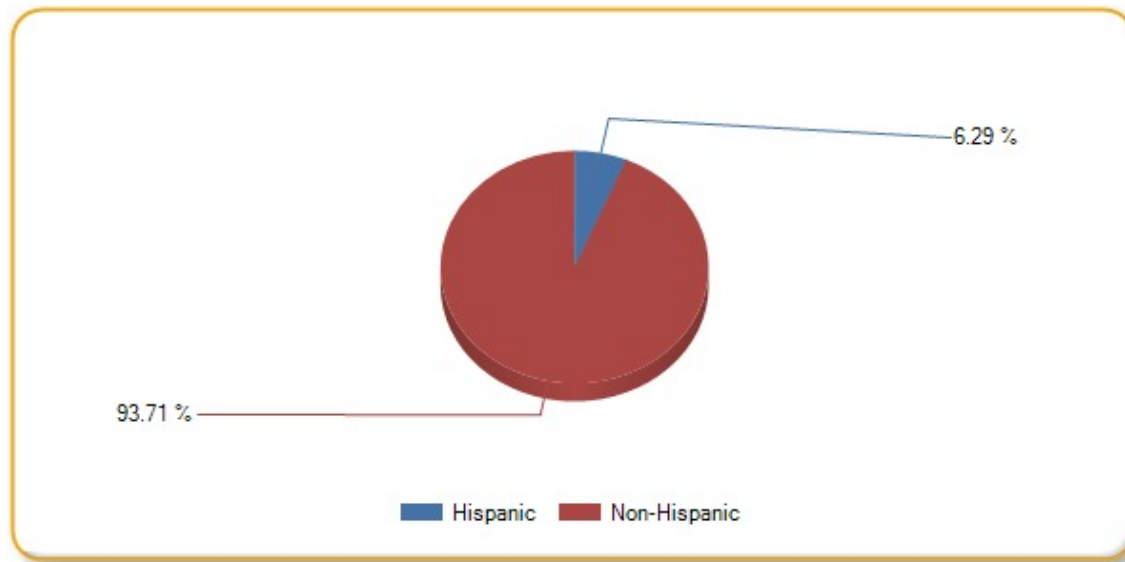


Male Population, Total by Ethnicity Alone

Report Area	Hispanic	Non-Hispanic
Apache County, Arizona	2,204	32,836
Arizona	916,936	2,191,298
United States	24,276,736	125,121,984

Male Population, Percent by Ethnicity Alone

Report Area	Hispanic	Non-Hispanic
Apache County, Arizona	6.29%	93.71%
Arizona	29.50%	70.50%
United States	16.25%	83.75%

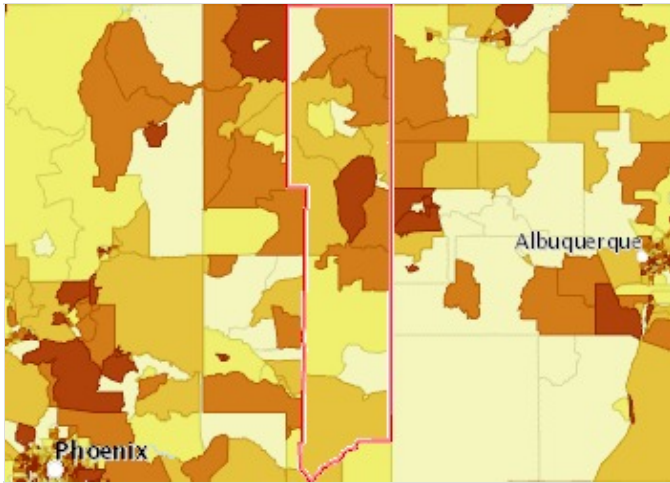


Total Female Population

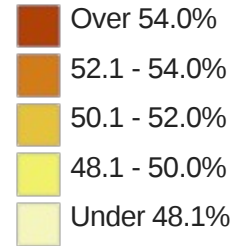
This indicator reports the percentage of females in a specific geographic area. This indicator is relevant because it is important to understand the percentage of females in the community, as females have unique health needs which should be considered separately from male health needs.

Report Area	Total Population	Total Female Population	Percent Female Population
Apache County, Arizona	70,312	35,272	50.16%
Arizona	6,246,816	3,138,582	50.24%
United States	303,965,280	154,566,544	50.85%

Data Source: [U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates](#). Source geography: Tract.



Percent Population, By Tract, ACS 2006-2010 5-Year Estimate

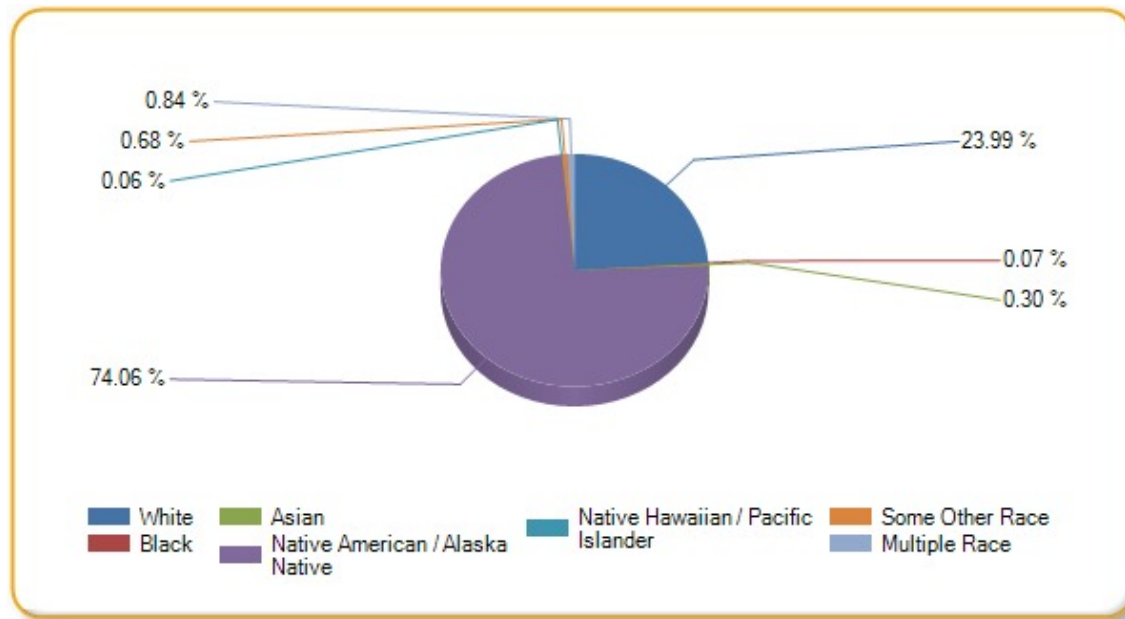


Female Population, Total by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Apache County, Arizona	8,463	25	106	26,121	20	240	297
Arizona	2,455,635	113,802	88,373	142,686	5,343	247,685	85,058
United States	114,002,040	19,901,792	7,426,431	1,250,075	244,665	8,048,998	3,692,549

Female Population, Percent by Race Alone

Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Apache County, Arizona	23.99%	0.07%	0.30%	74.06%	0.06%	0.68%	0.84%
Arizona	78.24%	3.63%	2.82%	4.55%	0.17%	7.89%	2.71%
United States	73.76%	12.88%	4.80%	0.81%	0.16%	5.21%	2.39%

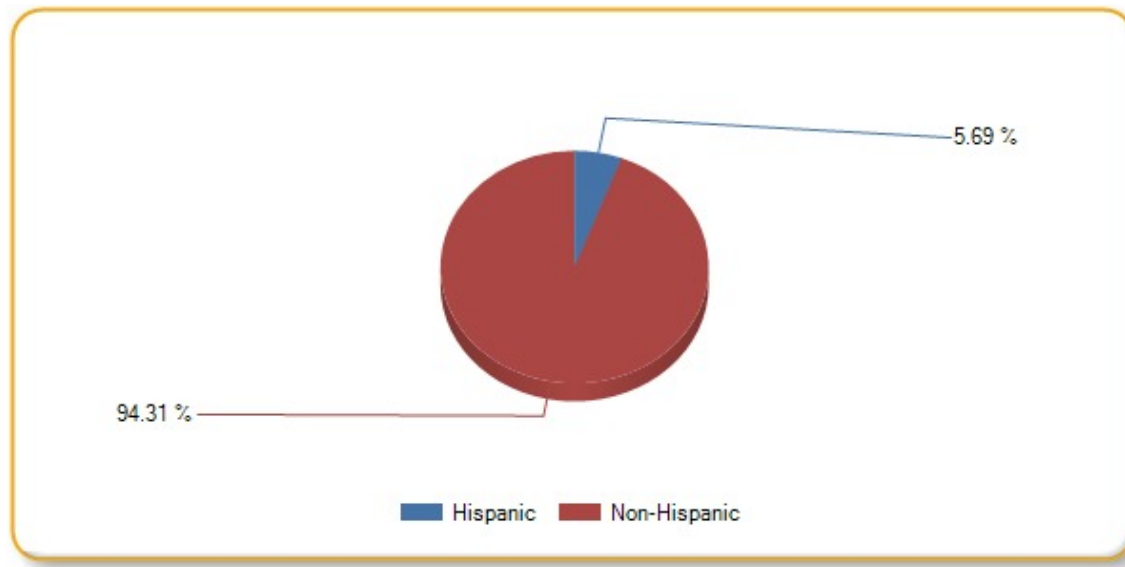


Female Population, Total by Ethnicity Alone

Report Area	Hispanic	Non-Hispanic
Apache County, Arizona	2,006	33,266
Arizona	897,738	2,240,844
United States	23,450,798	131,115,744

Female Population, Percent by Ethnicity Alone

Report Area	Hispanic	Non-Hispanic
Apache County, Arizona	5.69%	94.31%
Arizona	28.60%	71.40%
United States	15.17%	84.83%



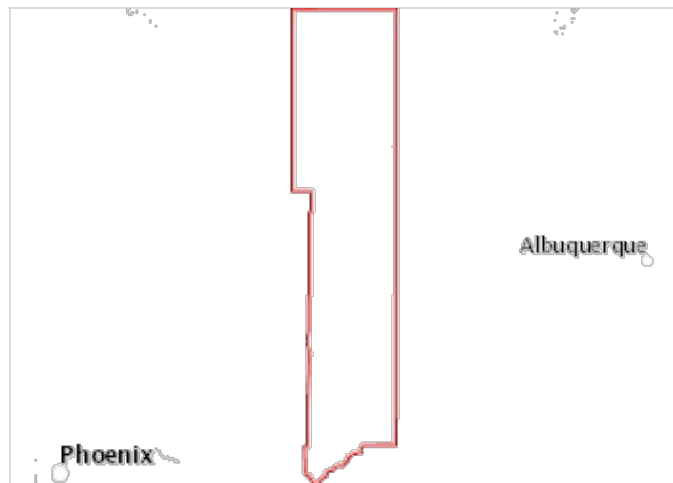
Urban and Rural Population

This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

Report Area	Total Population	Urban Population	Rural Population	Percent Urban	Percent Rural
Apache County, Arizona	71,518	18,551	52,967	25.94%	74.06%
Arizona	6,392,017	5,740,659	651,358	89.81%	10.19%
United States	312,471,327	252,746,527	59,724,800	80.89%	19.11%

Note: No breakout data available.

Data Source: [U.S. Census Bureau, 2000 Census of Population and Housing, Summary File 1](#); [U.S. Census Bureau, 2010 Census of Population and Housing, Summary File 1](#). Source geography: Tract.



Urban Population, Percent

- ▣ 100% Urban Population
- ▣ 90.1 - 99.9%
- ▣ 50.1 - 90.0%
- ▣ Under 50.1%
- ▣ No Urban Population
- ▣ No Data or Data Suppressed

Social & Economic Factors

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.

Supplemental Nutrition Assistance Program (SNAP) Recipients

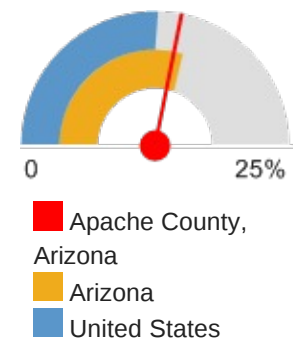
This indicator reports the average percentage of the population receiving the Supplemental Nutrition Assistance Program (SNAP) benefits from the months of July 2008 to July 2009. This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

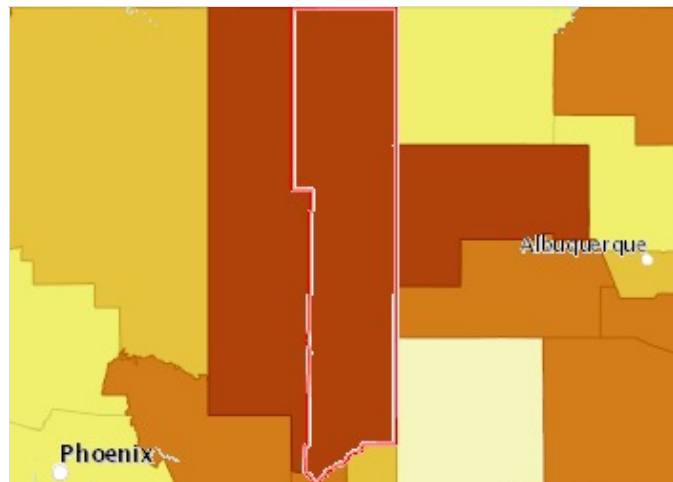
Report Area	Total Estimated Population, 2009	Total Population Receiving SNAP Benefits	Percent Population Receiving SNAP Benefits
Apache County, Arizona	70,591	27,627	39.14%
Arizona	6,595,778	986,413	14.96%
United States	307,006,550	38,701,176	12.60%

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

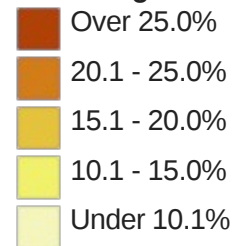
Data Source: [U.S. Census Bureau, Small Area Income and Poverty Estimates \(SAIPE\), 2009](#). Source geography: County.

Percent Population Receiving SNAP Benefits





Percentage of Total Population, By County, SAIPE 2009



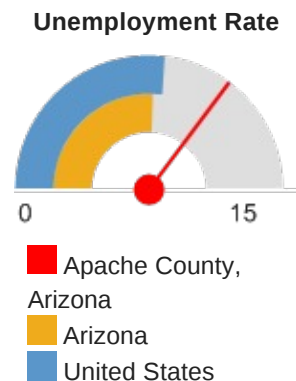
Unemployment Rate

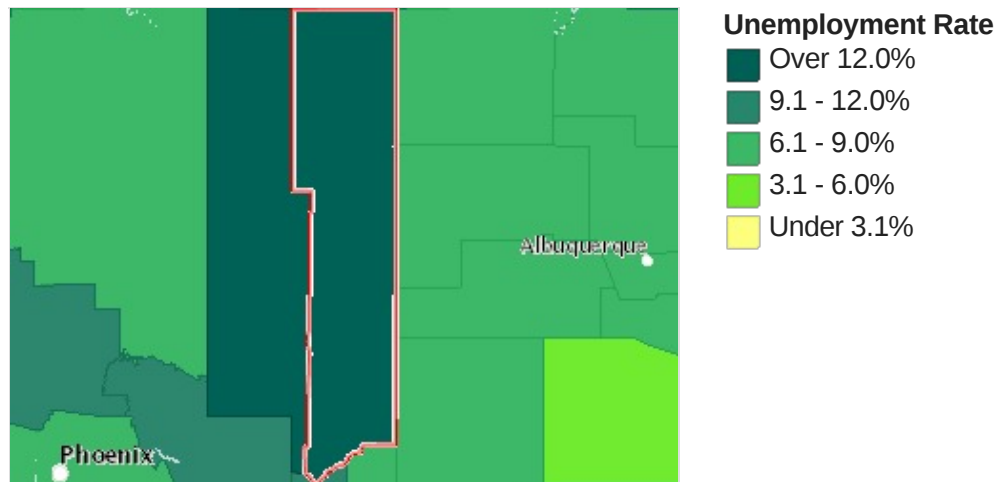
This indicator reports the percentage of the civilian noninstitutionalized population age 16 and older that is unemployed (non-seasonally adjusted). This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

Report Area	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Apache County, Arizona	21,164	17,065	4,099	19.40
Arizona	3,027,734	2,793,805	233,929	7.70
United States	1,065,164,285	978,901,418	86,262,867	8.10

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

Data Source: [U.S. Bureau of Labor Statistics, December, 2012 Local Area Unemployment Statistics](#). Source geography: County.





Uninsured Population

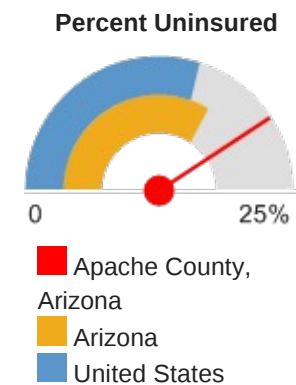
The lack of health insurance is considered a *key driver* of health status.

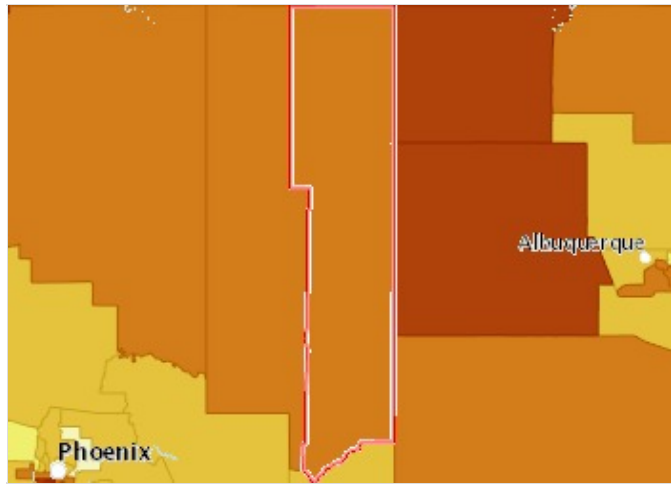
This indicator reports the percentage of the total civilian non-institutionalized population without health insurance coverage. This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that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

Report Area	Total Population (For Whom Insurance Status is Determined)	Number Uninsured	Percent Uninsured
Apache County, Arizona	70,153	20,785	29.63%
Arizona	6,240,052	1,055,772	16.92%
United States	301,501,760	45,368,296	15.05%

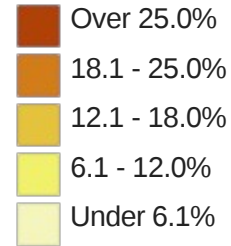
Note: This indicator is compared with the state average.

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
Apache County, Arizona	10,804	9,981	51.98%	48.02%	31.12%	28.16%
Arizona	569,460	486,312	53.94%	46.06%	18.56%	15.34%
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
Apache County, Arizona	1,990	no data	no data	18,508	no data	no data	170
Arizona	779,863	37,597	21,553	86,609	2,040	104,436	23,674
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
Apache County, Arizona	9.57%	no data	no data	89.04%	no data	no data	0.82%
Arizona	73.87%	3.56%	2.04%	8.20%	0.19%	9.89%	2.24%
United States	65.40%	14.48%	4.77%	1.58%	0.18%	11.17%	2.43%

Uninsured Population, Total by Ethnicity Alone

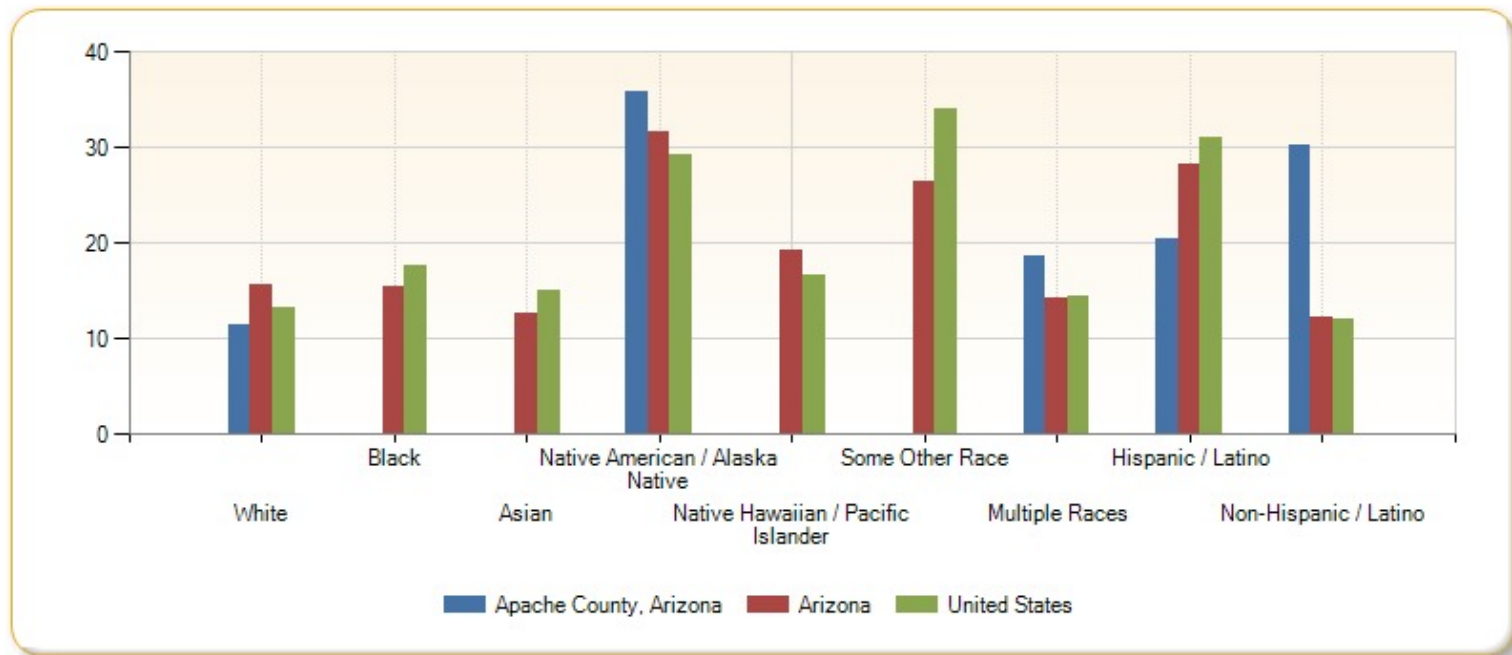
Report Area	Hispanic / Latino	Non-Hispanic / Latino
Apache County, Arizona	808	19,977
Arizona	517,177	538,595
United States	15,043,083	30,325,213

Uninsured Population, Percent by Ethnicity Alone

Report Area	Hispanic / Latino	Non-Hispanic / Latino
Apache County, Arizona	3.89%	96.11%
Arizona	48.99%	51.01%
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
Apache County, Arizona	11.52%	no data	no data	35.95%	no data	no data	18.62%	20.38%	30.18%
Arizona	15.66%	15.49%	12.55%	31.58%	19.21%	26.54%	14.18%	28.24%	12.22%
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.

Access to Primary Care

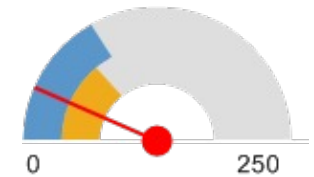
This indicator reports the number of primary care physicians per 100,000 population. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Total Population	Total Primary Care Providers	Primary Care Provider Rate (Per 100,000 Pop.)
Apache County, Arizona	71,518	23	32.15
Arizona	6,392,017	4,522	70.70
United States	312,471,327	264,897	84.70

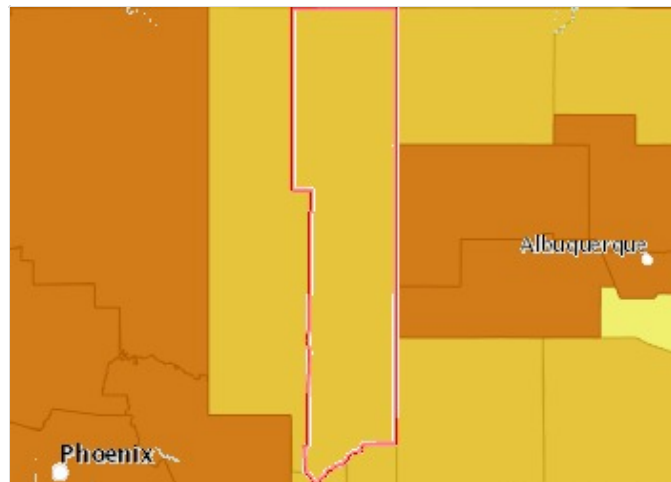
Note: This indicator is compared with the state average. No breakout data available.

Data Source: [U.S. Health Resources and Services Administration Area Resource File, 2011](#). Source geography: County.

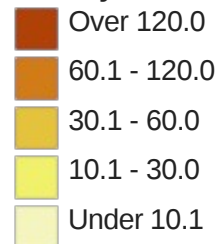
Primary Care Provider Rate (Per 100,000 Pop.)



■ Apache County,
 Arizona
■ Arizona
■ United States



Primary Care Physicians (Per 100,000 Pop.), By County, HRSA 2011



Breast Cancer Screening (Mammogram)

This indicator reports the percentage of female Medicare enrollees, age 67-69 or older, who have received one or more mammograms in the past two years. 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.

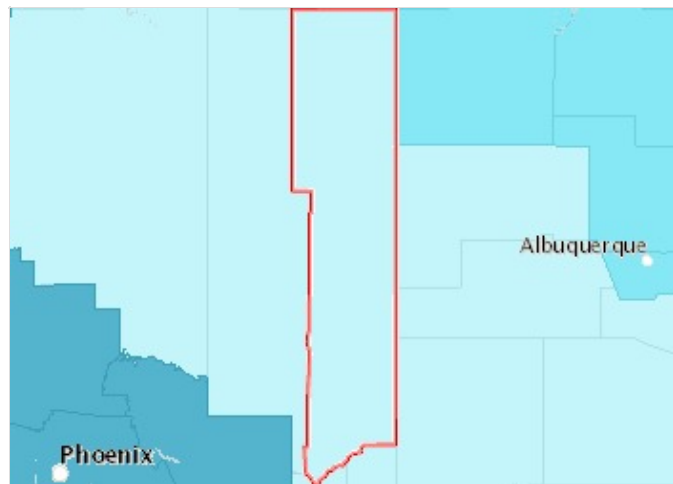
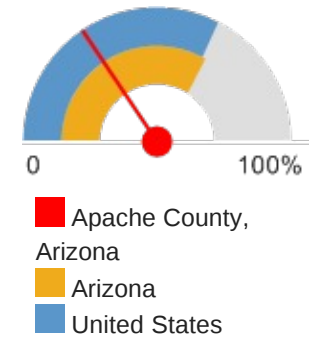
Report Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67-69	Female Medicare Enrollees with Mammogram in Past	Percent Female Medicare Enrollees with Mammogram in
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Percent Female Medicare Enrollees with Mammogram in Past 2 Years

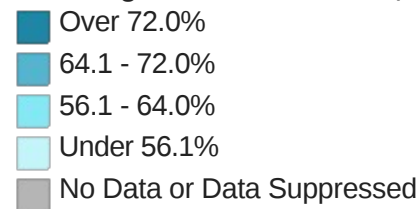
			2 Years	Past 2 Years
Apache County, Arizona	5,962	544	168	31.07%
Arizona	450,724	39,431	26,530	67.28%
United States	51,875,184	4,218,820	2,757,677	65.37%

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

Data Source: [Dartmouth Atlas of Healthcare, Selected Measures of Primary Care Access and Quality, 2010](#). Source geography: County.



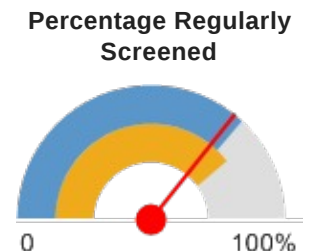
Mammogram in Past 2 Years, Percent of Female Enrollees Age 67-69, 2010



Cervical Cancer Screening (Pap Test)

This indicator reports the percentage of women aged 18 and older who self-report that they have had a Pap test in the past three years. 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.

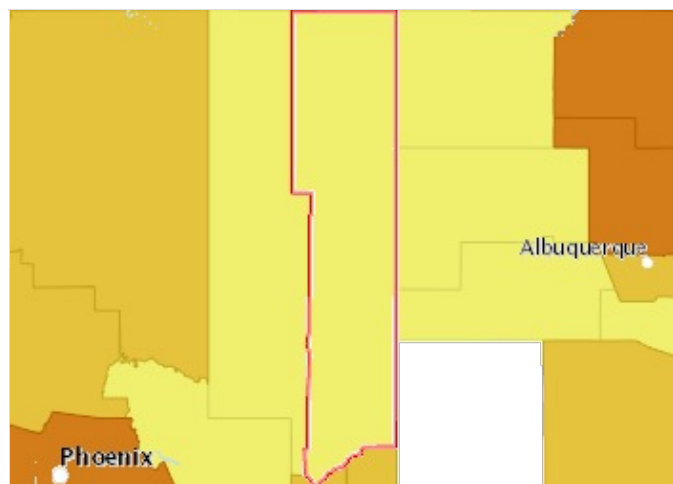
Report Area	Total Population (Women Age 18)	Est. Population Regularly Screened	Percentage Regularly Screened
Apache County, Arizona	23,921	17,104	71.50%
Arizona	2,339,406	1,857,870	79.42%
United States	116,709,909	86,326,160	73.97%



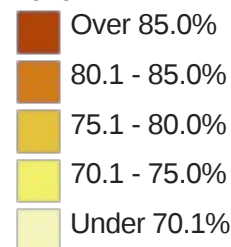
Note: This indicator is compared with the state average. No breakout data available.

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

■ Apache County, Arizona
■ Arizona
■ United States



Pct. of Women (Age 18) with Pap Test in Past 2 Years, By County, CDC BRFSS 2004-2010



Dental Care Utilization (Adult)

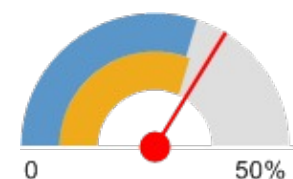
This indicator reports the percentage of adults aged 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. 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
Apache County, Arizona	47,426	16,011	33.76%
Arizona	4,633,315	1,447,448	31.24%
United States	232,747,222	70,151,188.94	30.14%

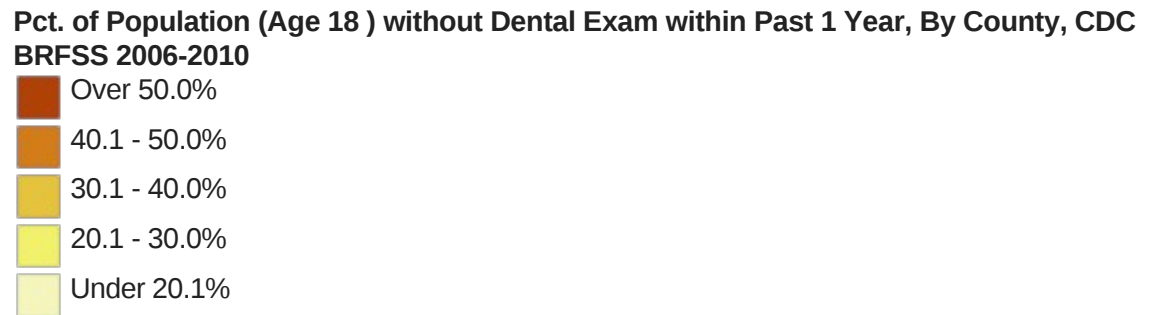
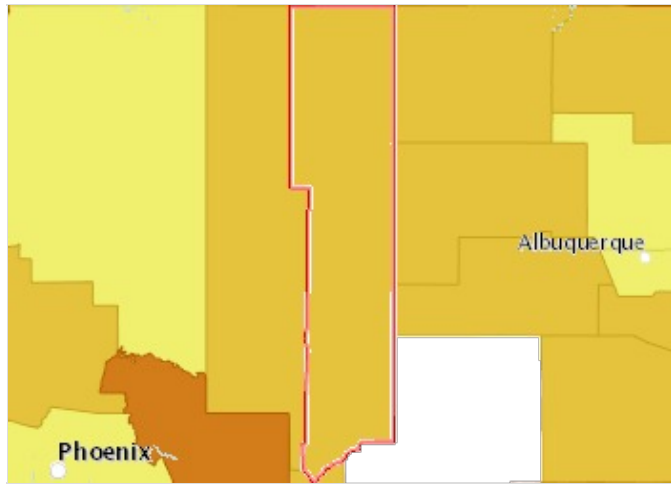
Note: This indicator is compared with the state average. No breakout data available.

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

Percent Adults with No Dental Exam



■ Apache County, Arizona
■ Arizona
■ United States



Diabetes Management (Hemoglobin A1c Test)

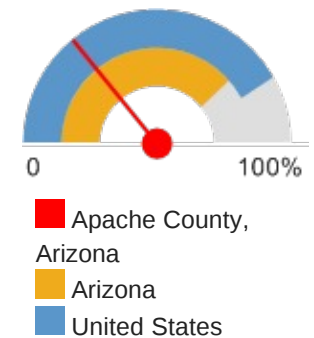
This indicator reports the percentage of diabetic Medicare patients who have had a hemoglobin A1c (hA1c) test, a blood test which measures blood sugar levels, administered by a health care professional in the past year. This indicator is relevant because engaging in preventive behaviors allows for early 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 Medicare Enrollees	Medicare Enrollees with Diabetes	Medicare Enrolles with Diabetes with Annual Exam	Percent Medicare Enrolles with Diabetes with Annual Exam
Apache County, Arizona	5,962	1,018	287	28.29%
Arizona	450,724	48,058	37,211	77.43%
United States	51,875,184	6,218,804	5,212,097	83.81%

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

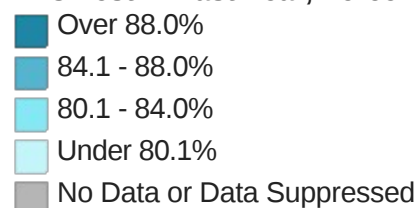
Data Source: [Dartmouth Atlas of Healthcare, Selected Measures of Primary Care Access and Quality, 2010](#). Source geography: County.

Percent Medicare Enrolles with Diabetes with Annual Exam





A1C Test in Past Year, Percent of Medicare Enrollees with Diabetes, 2010



High Blood Pressure Management

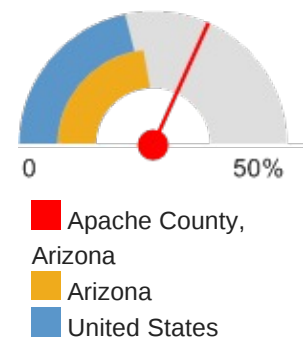
This indicator reports the percentage of adults aged 18 and older who self-report that they are not taking medication for their high blood pressure. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, 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.

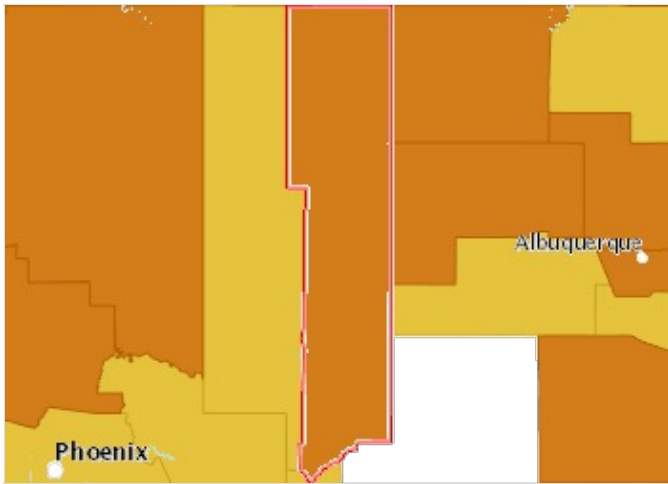
Report Area	Total Population (Age 18)	Number Adults Not Taking Blood Pressure Medication (When Needed)	Percent Adults Not Taking Medication
Apache County, Arizona	47,426	15,129	31.90%
Arizona	4,633,315	1,097,169	23.68%
United States	232,747,222	50,606,335.52	21.74%

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

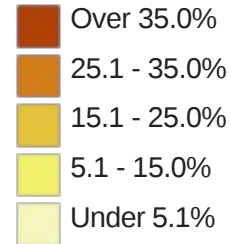
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.

Percent Adults Not Taking Medication





Pct. of Adults (Age 18) Not Taking Medicine for High Blood Pressure (When Present), by County, CDC BRFSS 2006-2010



Lack of a Consistent Source of Primary Care

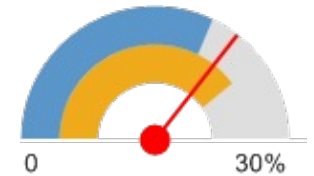
This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. This indicator is relevant because access to regular primary care is important to preventing major health issues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

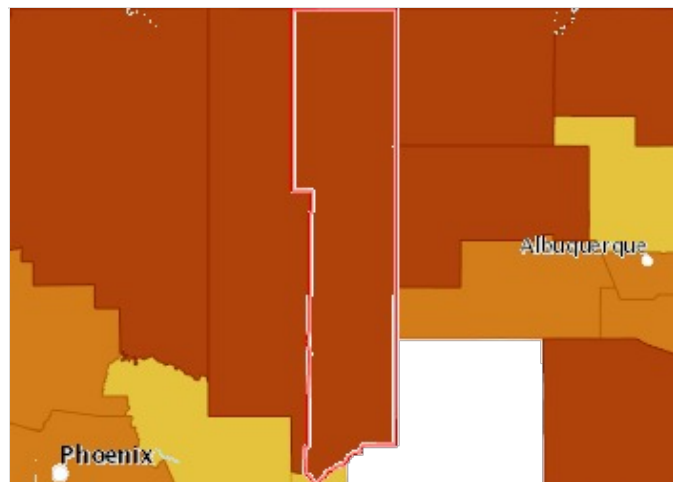
Report Area	Total Population (Age 18)	Number Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Apache County, Arizona	47,426	18,363	38.72%
Arizona	4,633,315	1,114,776	24.06%
United States	232,747,222	44,961,851.44	19.32%

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

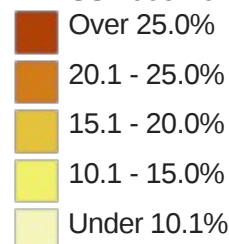
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.

Percent Adults Without Any Regular Doctor





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

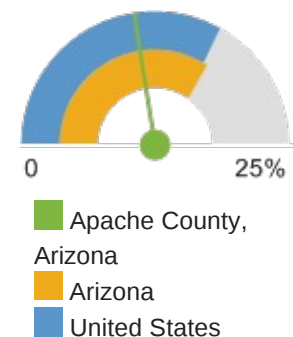
This indicator reports the percentage of adults aged 18 and older who self-report heavy alcohol consumption (defined as more than two drinks per day for men and one drink per day for women). This indicator is relevant because current behaviors are determinants of future health and this indicator may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

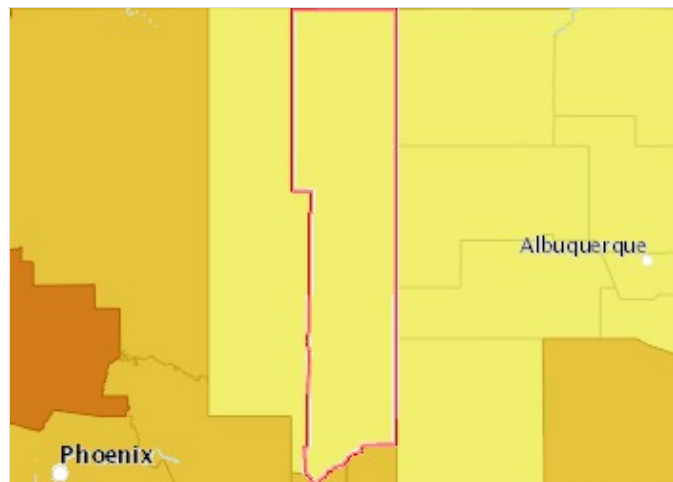
Report Area	Total Population (Age 18)	Number Heavy Drinkers	Percent Heavy Drinkers
Apache County, Arizona	46,442	5,247.95	11.30%
Arizona	85,992	14,791	17.20%
United States	111,821,887	18,576,867	16.61%

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

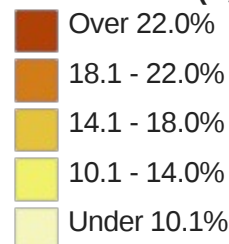
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.

Percent Heavy Drinkers





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



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 relationship may emerge, allowing a better understanding of how certain community health needs may be addressed.

Asthma Prevalence

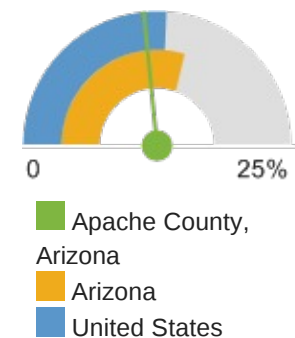
This indicator reports the percentage of adults aged 18 and older who self-report that they have ever been told by a doctor, nurse, or other health professional that they had asthma. This indicator is relevant because asthma is a prevalent problem in the U.S. that is often exacerbated by poor environmental conditions.

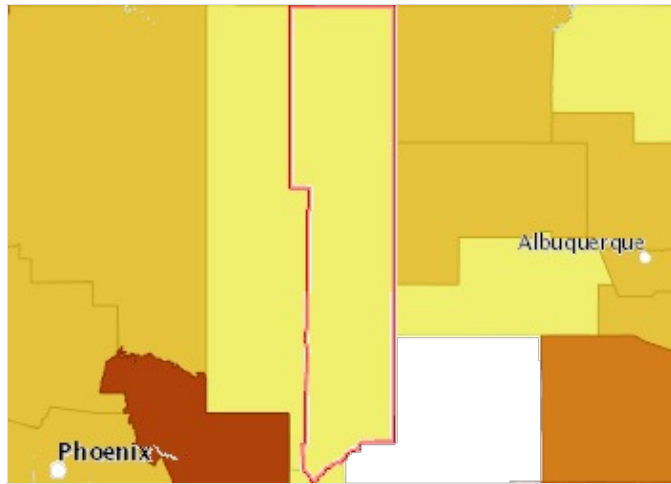
Report Area	Total Population (Age 18)	Number Adults with Asthma	Percent Adults with Asthma
Apache County, Arizona	47,426	5,568	11.74%
Arizona	4,633,315	692,681	14.95%
United States	232,747,222	30,473,296.44	13.09%

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

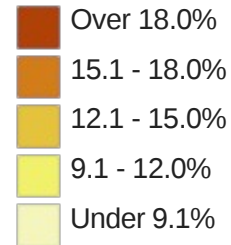
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.

Percent Adults with Asthma





Pct. of Population (Age 18) Ever Diagnosed with Asthma, By County, CDC BRFSS 2006-2010



Breast Cancer Incidence

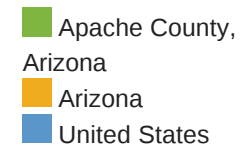
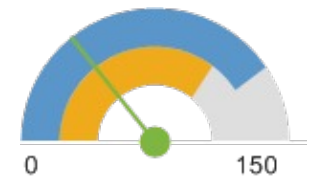
This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of females with breast cancer adjusted to 2000 U.S. standard population age groups (Under Age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

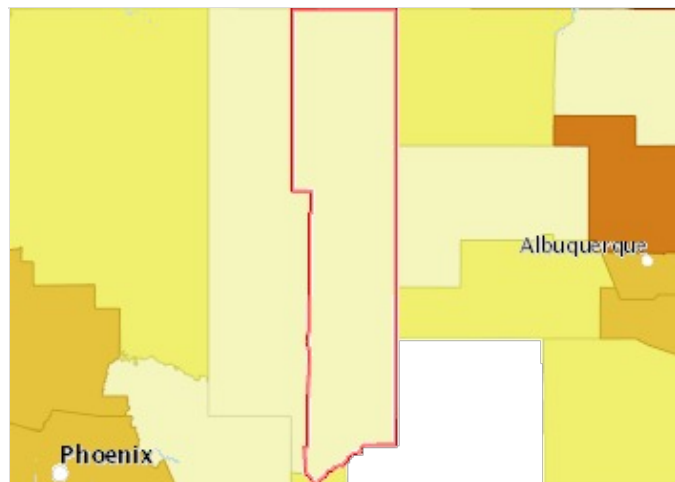
Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Apache County, Arizona	69,341	30	42.90
Arizona	6,324,865	6,749	106.70
United States	301,461,536	367,783	122

Note: This indicator is compared with the state average.

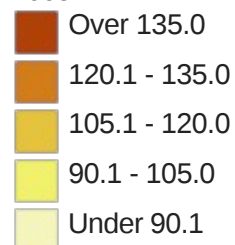
Data Source: [The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009](#). Source geography: County.

Annual Incidence Rate (Per 100,000 Pop.)





Breast Cancer Age Adjusted Incidence Rate (Per 100,000 Pop.), By County, NCI 2005-2009

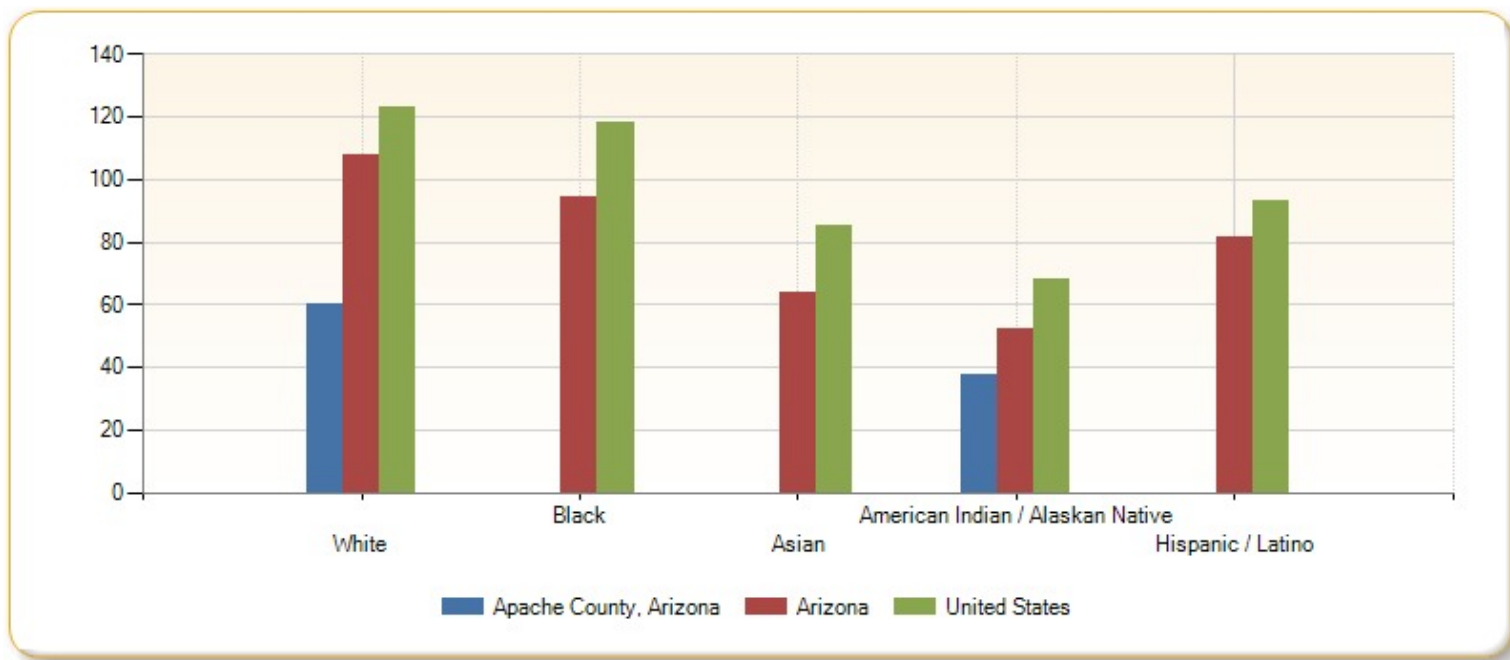


Population by Race / Ethnicity, New Breast Cancer Incidence (Count)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	10	no data	no data	19	no data
Arizona	5,304	215	97	148	1,532
United States	276,098	43,972	11,261	1,655	280,661

Population by Race / Ethnicity, Breast Cancer Incidence Rate (Per 100,000)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	60.10	no data	no data	37.60	no data
Arizona	108.10	94.40	63.60	52.20	81.40
United States	123	118	85.30	68.30	93.10



Cancer Mortality

This indicator reports the rate of death due to malignant neoplasm (cancer) 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 cancer is a leading cause of death in the United States.

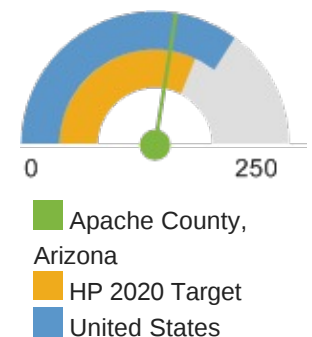
Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Apache County, Arizona	70,280	83	118.38	137.63
Arizona	6,242,471	10,217	163.66	155.58
United States	303,844,430	566,121	186.32	176.66
HP 2020 Target				<= 160.6

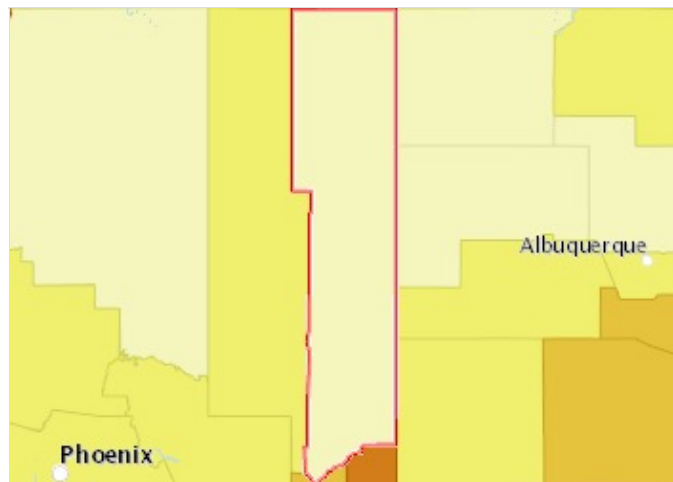
Note: This indicator is compared with the Healthy People 2020 Target.

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

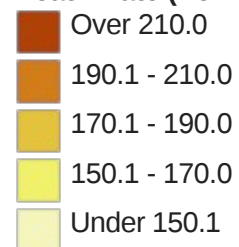
Accessed through [CDC WONDER](#). Source geography: County.

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



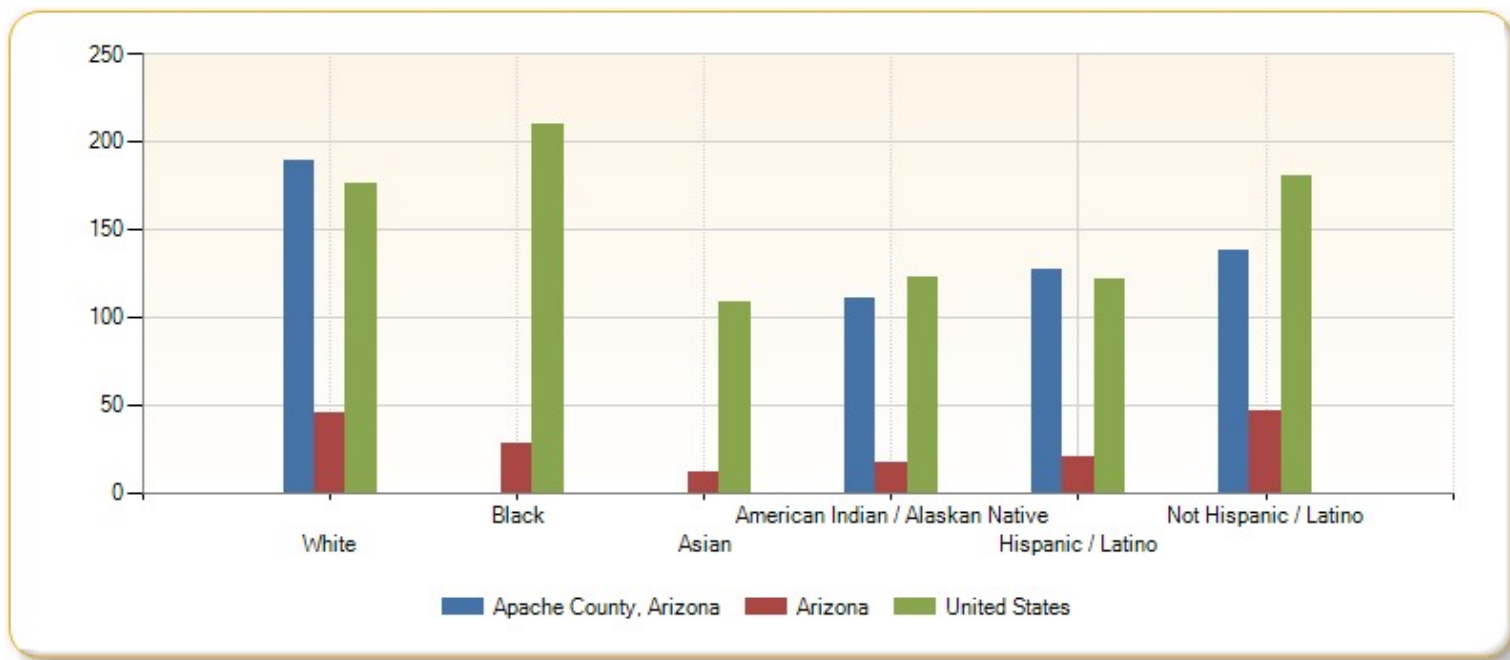


Death Rate (Per 100,000 Pop.), By County, CDC NVSS 2006-2010



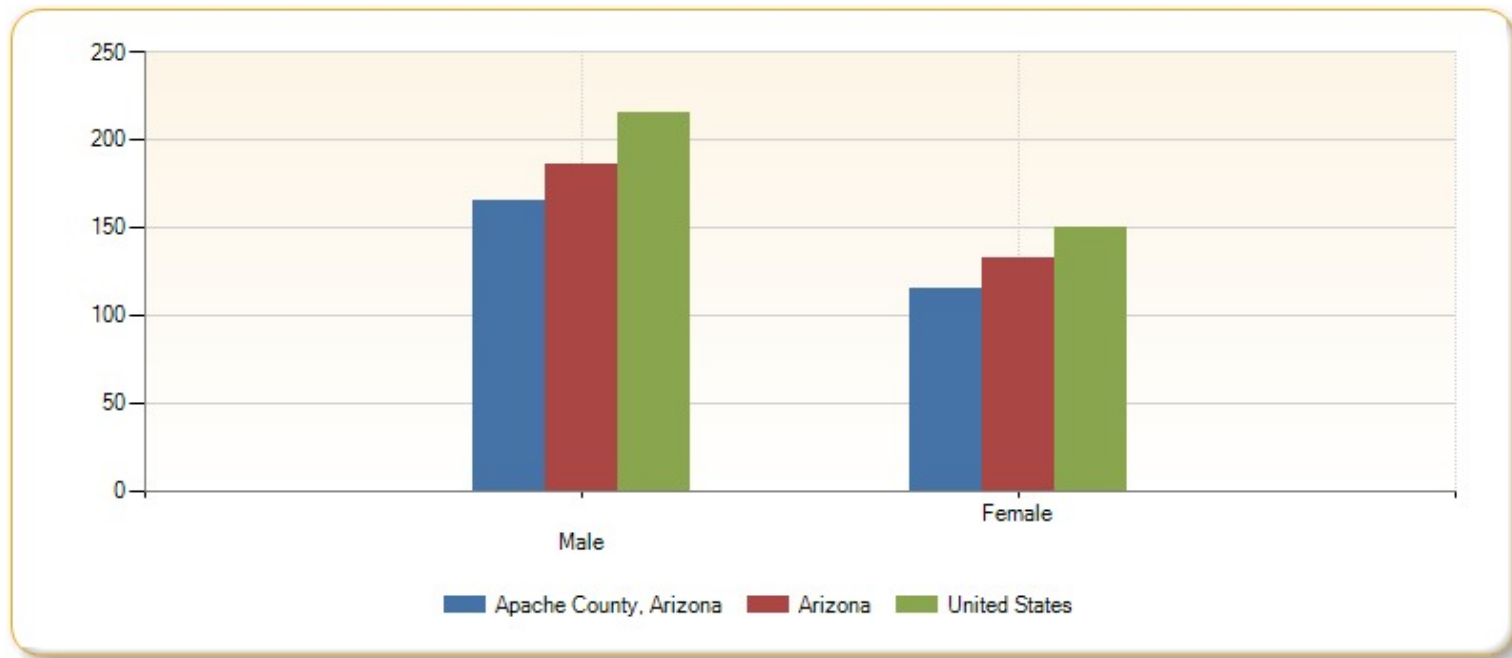
Population by Race / Ethnicity, Cancer Mortality, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino	Not Hispanic / Latino
Apache County, Arizona	188.96	no data	no data	110.90	127.10	138.01
Arizona	45.58	27.90	11.91	16.87	19.77	46.87
United States	176.12	209.70	108.72	122.20	121.09	180.92



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

Report Area	Male	Female
Apache County, Arizona	165.33	115.59
Arizona	186.16	132.07
United States	215.04	150.05

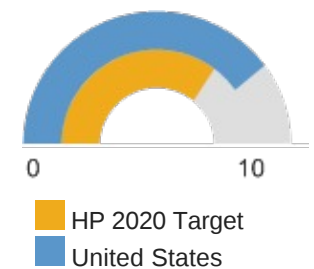


Cervical Cancer Incidence

This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of females with cervical cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

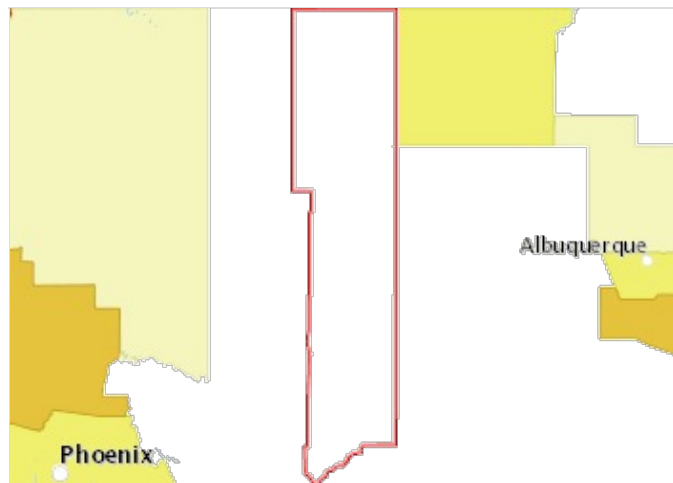
Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Apache County, Arizona	69,341	no data	no data
Arizona	6,324,865	443	7
United States	301,461,536	24,117	8
HP 2020 Target			<= 7.1

Annual Incidence Rate (Per 100,000 Pop.)

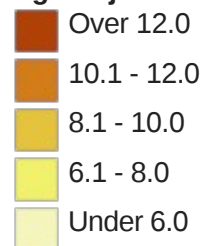


Note: This indicator is compared with the Healthy People 2020 Target.

Data Source: [The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009](#). Source geography: County.



Age Adjusted Rate (Per 100,000 Pop.), By County, NCI 2005-2009

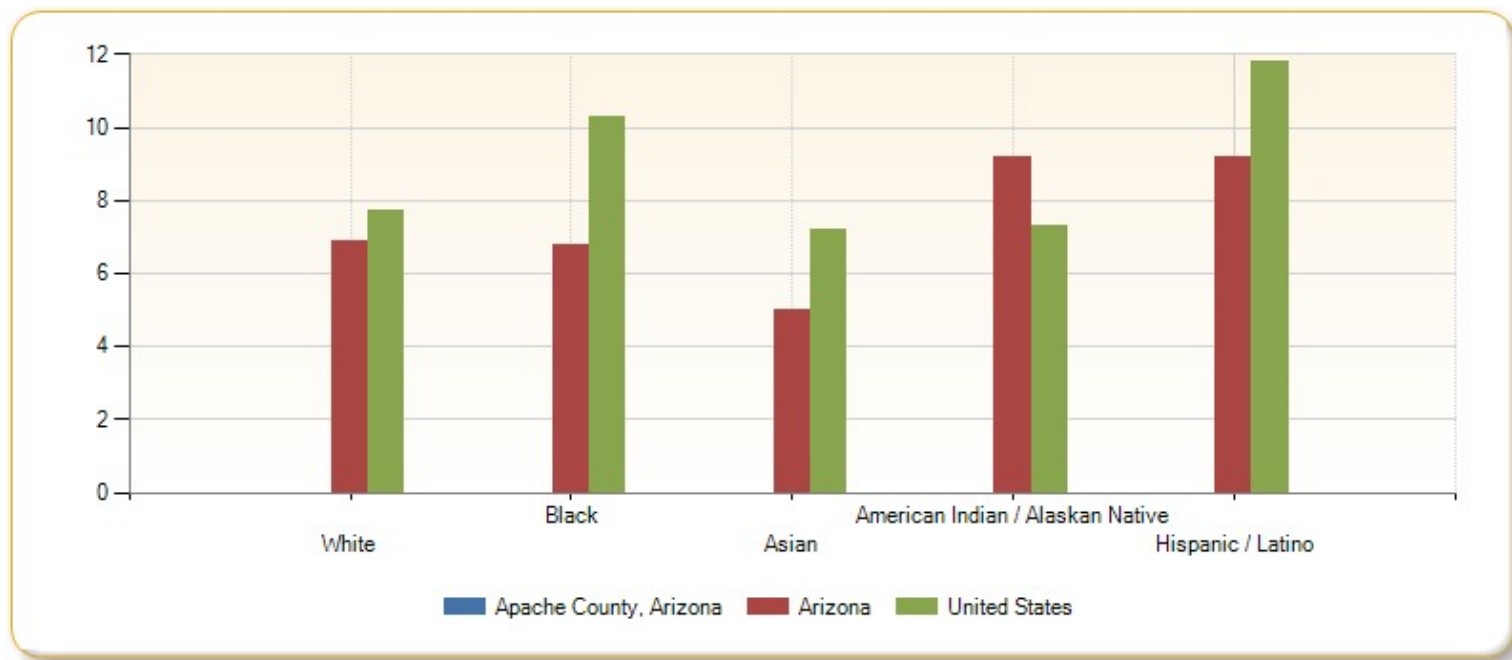


Population by Race / Ethnicity, New Cervical Cancer Incidence (Count)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	no data	no data	no data	no data	no data
Arizona	339	15	8	26	173
United States	17,284	3,838	950	177	35,572

Population by Race / Ethnicity, Cervical Cancer Incidence Rate (Per 100,000)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	no data	no data	no data	no data	no data
Arizona	6.90	6.80	5	9.20	9.20
United States	7.70	10.30	7.20	7.30	11.80



Colon and Rectum Cancer Incidence

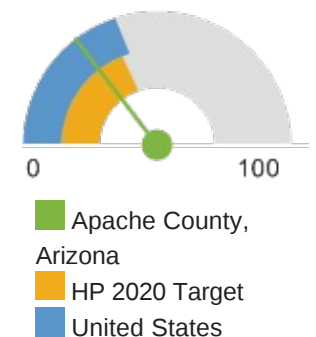
This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of colon and rectum cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

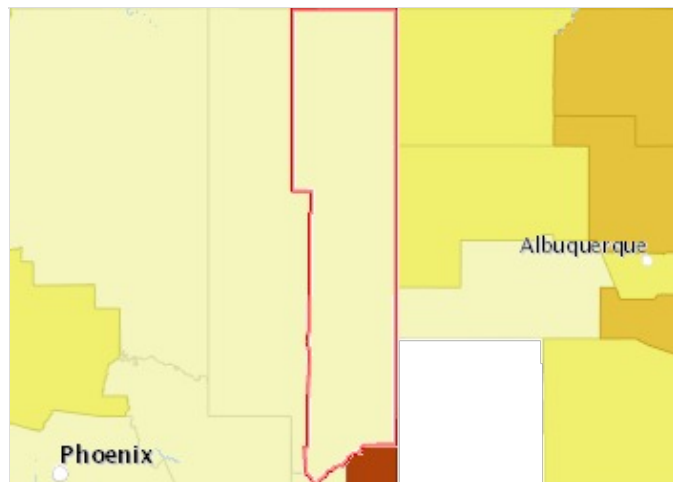
Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Apache County, Arizona	69,341	20	29.20
Arizona	6,324,865	2,309	36.50
United States	301,461,536	121,188	40.20
HP 2020 Target			<= 38.6

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

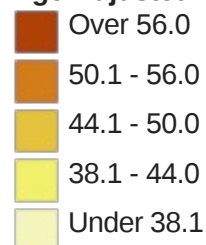
Data Source: [The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009](#). Source geography: County.

Annual Incidence Rate (Per 100,000 Pop.)





Age Adjusted Incidence Rate (Per 100,000 Pop.), By County, NCI 2005-2009

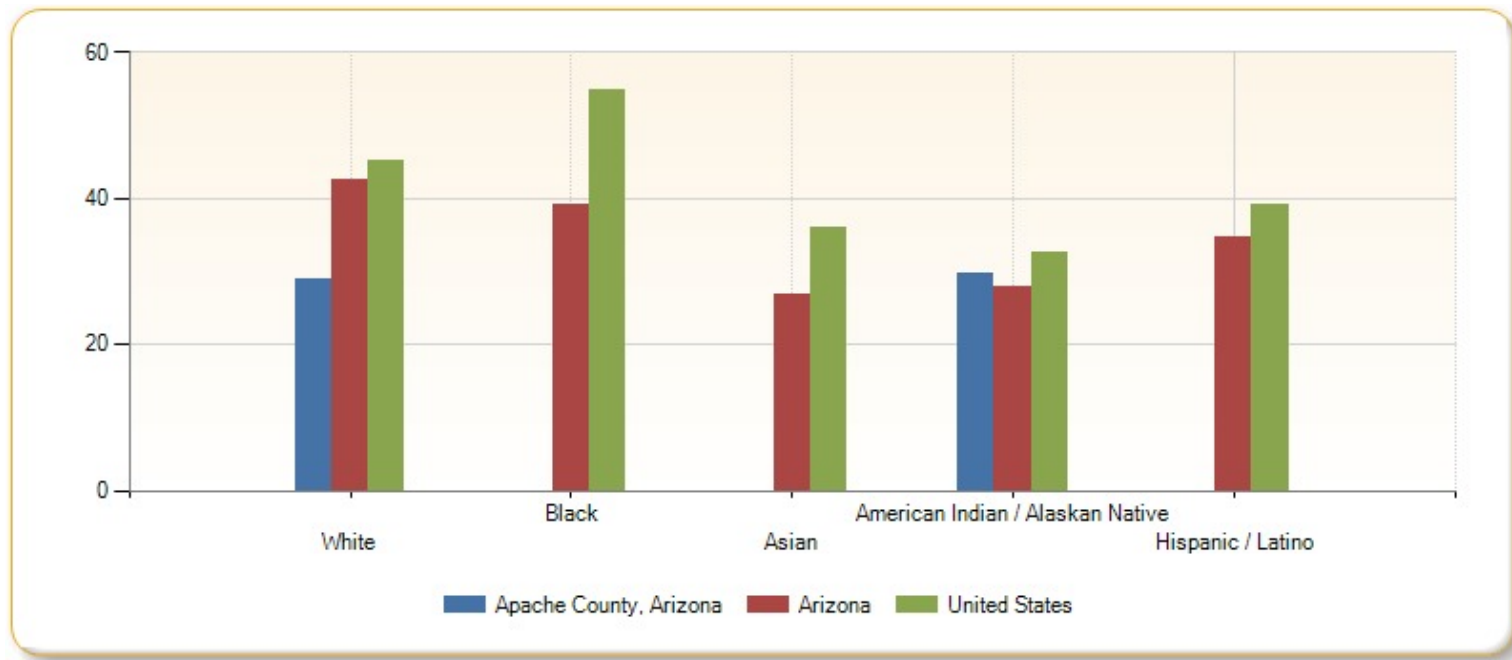


Population by Race / Ethnicity, New Colon and Rectum Cancer Incidence (Count)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	5	0	0	15	0
Arizona	2,090	89	41	79	651
United States	101,236	20,421	4,752	788	118,173

Population by Race / Ethnicity, Colon and Rectum Cancer Incidence Rate (Per 100,000)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	28.90	0	0	29.60	0
Arizona	42.60	39.20	26.80	27.90	34.60
United States	45.10	54.80	36	32.50	39.20



Diabetes Prevalence

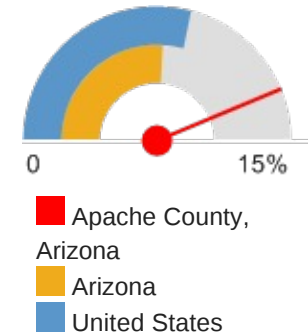
This indicator reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes. This indicator is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

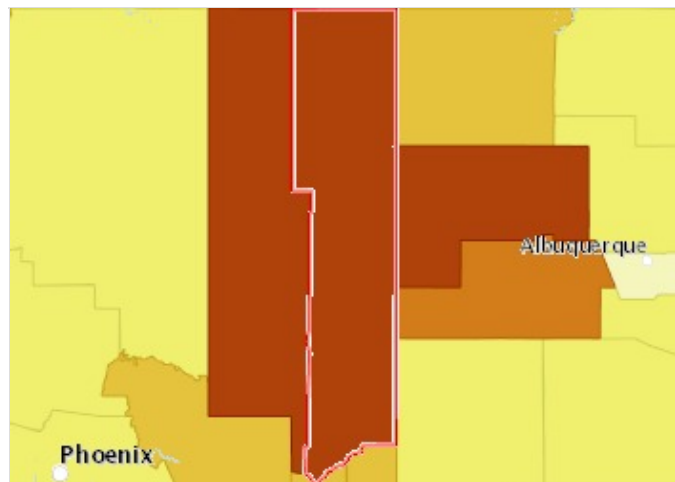
Report Area	Total Population (Age 20)	Population with Diabetes	Percent with Diabetes
Apache County, Arizona	48,290.08	6,326	13.10%
Arizona	4,911,483.45	382,775	7.79%
United States	239,583,791.97	21,015,523	8.77%

Note: This indicator is compared with the state average.

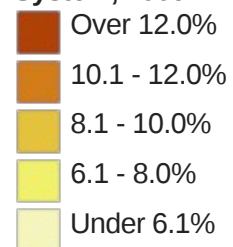
Data Source: [Centers for Disease Control and Prevention, National Diabetes Surveillance System, 2009](#). Source geography: County.

Percent with Diabetes



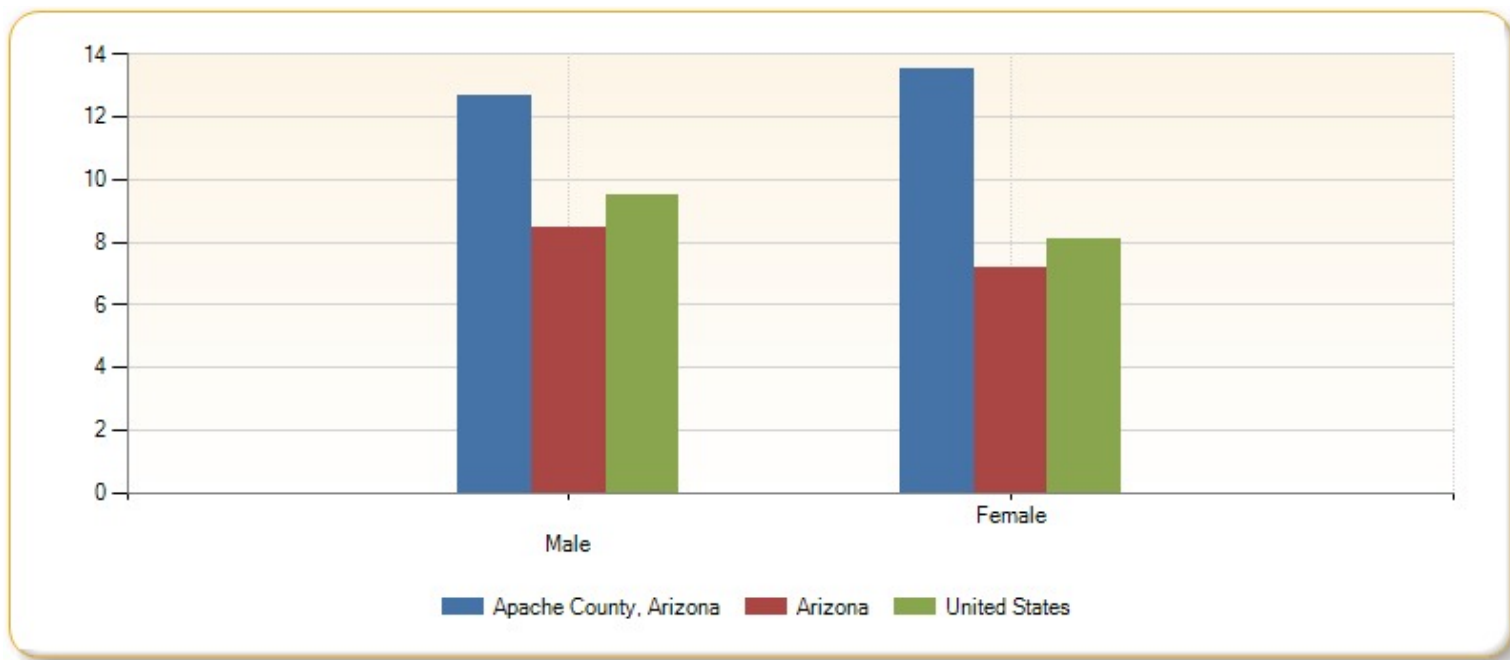


Pct. Adults Diagnosed with Diabetes, By County, CDC National Diabetes Surveillance System, 2009



Population by Gender, Adults with Diabetes, Percentage (Age-Adjusted)

Report Area	Male	Female
Apache County, Arizona	12.70%	13.50%
Arizona	8.47%	7.19%
United States	9.48%	8.08%



Heart Disease Mortality

This indicator reports the rate of death due to coronary heart disease 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 heart disease is a leading cause of death in the United States.

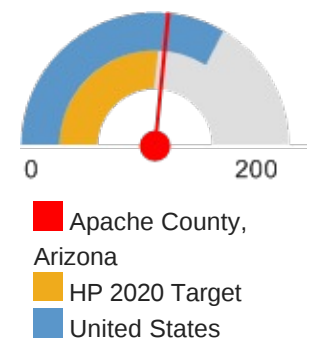
Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Apache County, Arizona	70,280	61	86.23	106.73
Arizona	6,242,471	8,107	129.87	126.31
United States	303,844,430	432,552	142.36	134.65
HP 2020 Target				<= 100.8

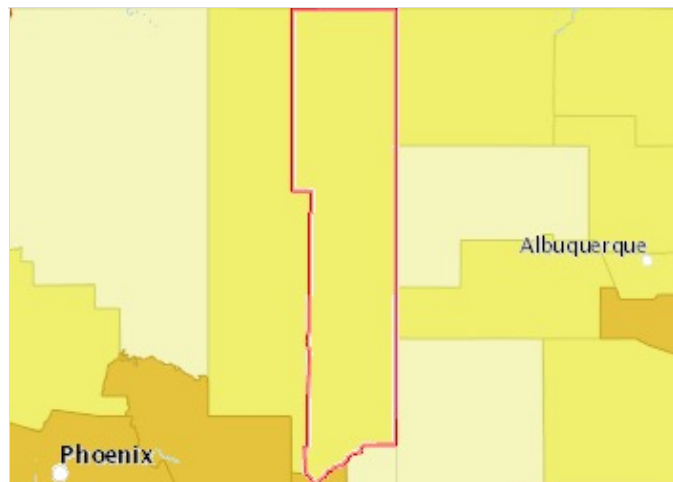
Note: This indicator is compared with the Healthy People 2020 Target.

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

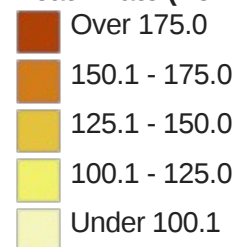
Accessed through [CDC WONDER](#). Source geography: County.

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



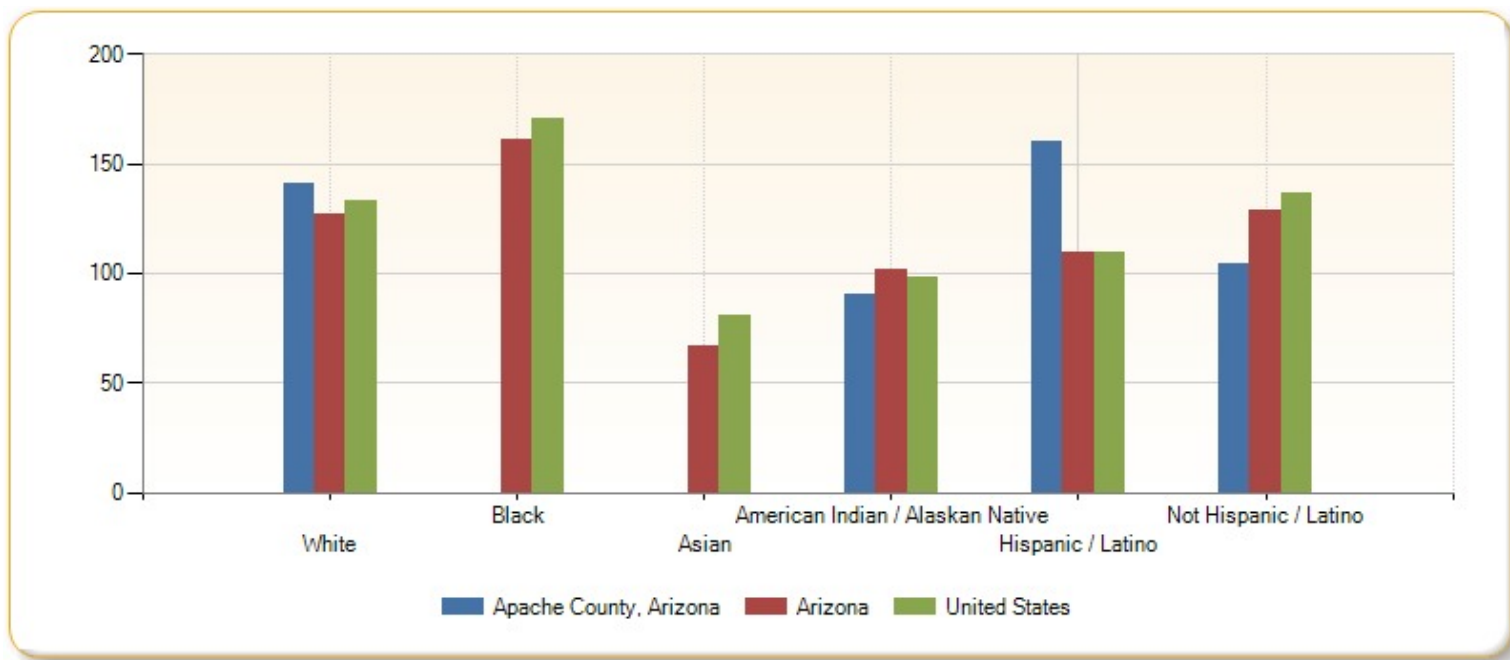


Death Rate (Per 100,000 Pop.), By County, CDC NVSS 2006-2010



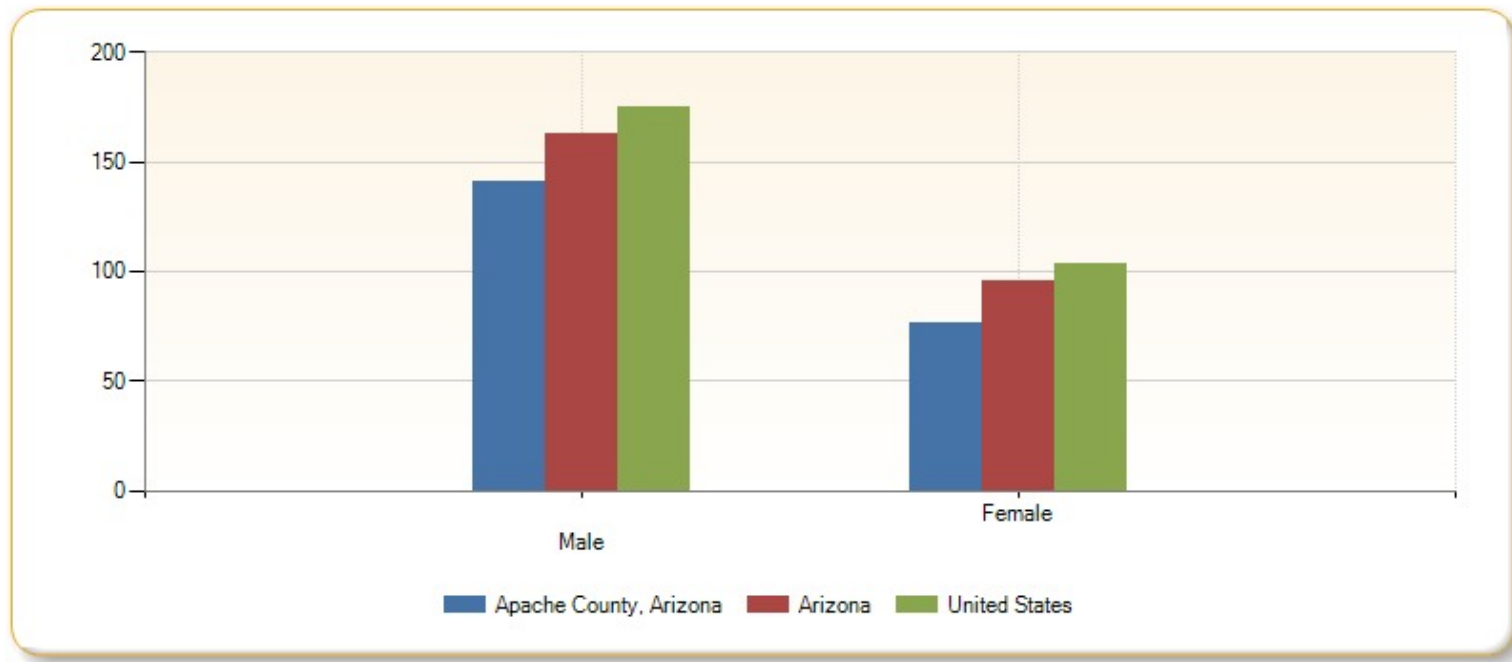
Population by Race / Ethnicity, Coronary Heart Disease Mortality, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino	Not Hispanic / Latino
Apache County, Arizona	140.81	no data	no data	90.52	159.92	104.69
Arizona	126.87	161.41	67.11	102.05	109.28	128.48
United States	132.80	170.35	80.47	98.48	109.88	136.45



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

Report Area	Male	Female
Apache County, Arizona	140.56	76.54
Arizona	162.50	95.88
United States	175	103.44



Heart Disease Prevalence

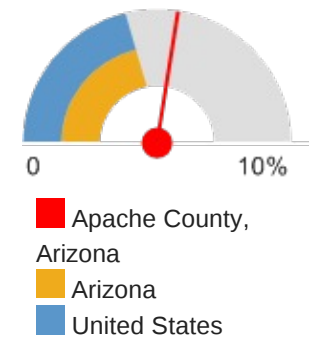
This indicator reports the percentage of adults aged 18 and older who have ever been told by a doctor that they have coronary heart disease or angina. This indicator is relevant because coronary heart disease is a leading cause of death in the U.S. and is also related to high blood pressure, high cholesterol, and heart attacks.

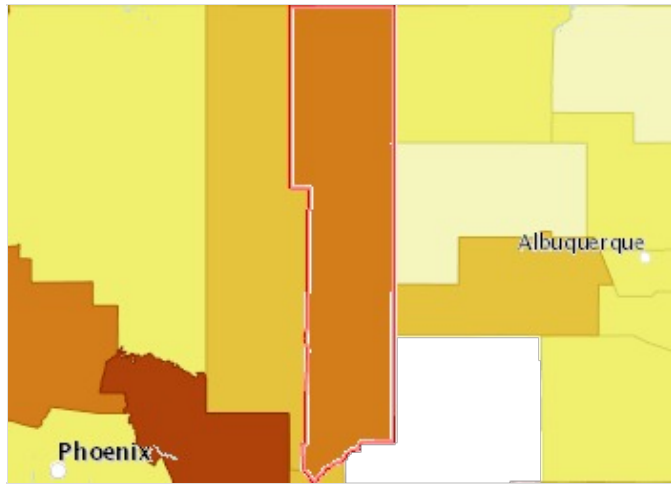
Report Area	Total Population (Age 18)	Number Adults with Heart Disease	Percent Adults with Heart Disease
Apache County, Arizona	47,426	2,599	5.48%
Arizona	4,633,315	201,086	4.34%
United States	232,747,222	9,911,760.85	4.26%

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

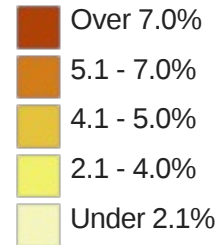
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.

Percent Adults with Heart Disease





Pct. of Population (Age 18) Ever Diagnosed with Cardiovascular Disease, By County, CDC BRFSS 2006-2010



Lung Cancer Incidence

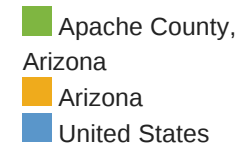
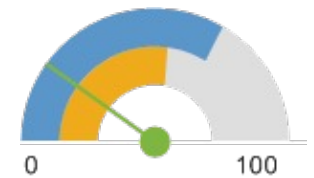
This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of lung cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Apache County, Arizona	69,341	14	19.90
Arizona	6,324,865	3,453	54.60
United States	301,461,536	202,582	67.20

Note: This indicator is compared with the state average.

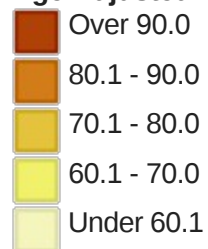
Data Source: [The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009](#). Source geography: County.

Annual Incidence Rate (Per 100,000 Pop.)





Age Adjusted Incidence Rate (Per 100,000 Pop.), By County, NCI 2005-2009

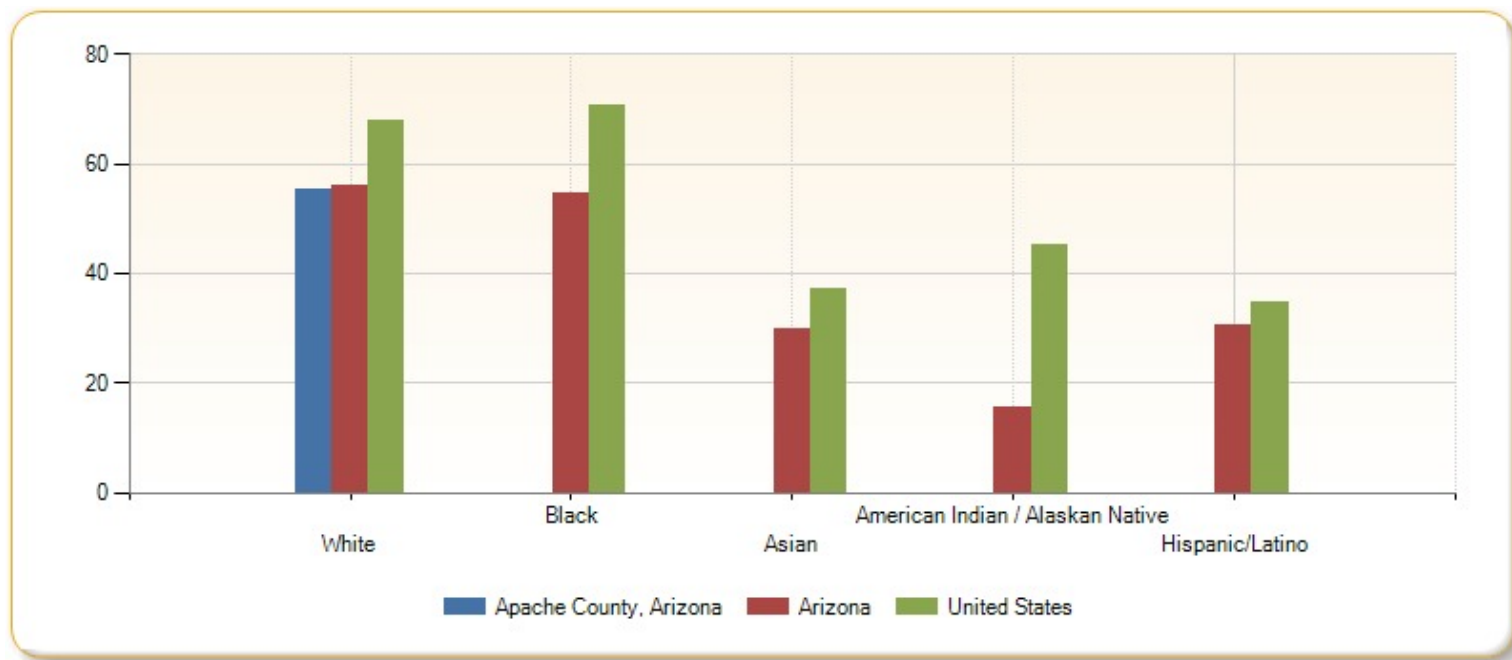


Population by Race / Ethnicity, New Lung Cancer Incidence (Count)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	9	no data	no data	no data	no data
Arizona	2,743	124	46	44	578
United States	152,415	26,309	4,884	1,093	104,607

Population by Race / Ethnicity, Lung Cancer Incidence Rate (Per 100,000)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	55.20	no data	no data	no data	no data
Arizona	55.90	54.70	29.90	15.40	30.70
United States	67.90	70.60	37	45.10	34.70



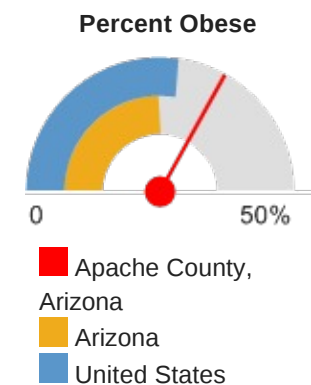
Obesity (Adult)

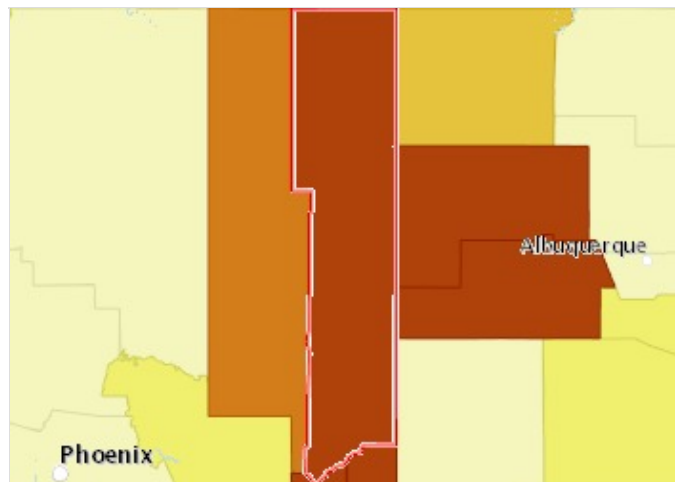
This indicator reports the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese). This indicator is relevant because excess weight is a prevalent problem in the U.S.; it indicates an unhealthy lifestyle and puts individuals at risk for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

Report Area	Total Population (Age 20)	Number Obese	Percent Obese
Apache County, Arizona	45,673.72	15,118	33.10%
Arizona	4,680,888.96	1,165,468	24.90%
United States	224,690,904.71	61,460,308	27.35%

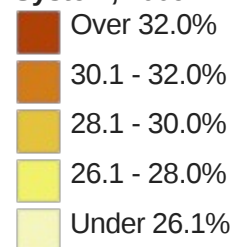
Note: This indicator is compared with the state average.

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



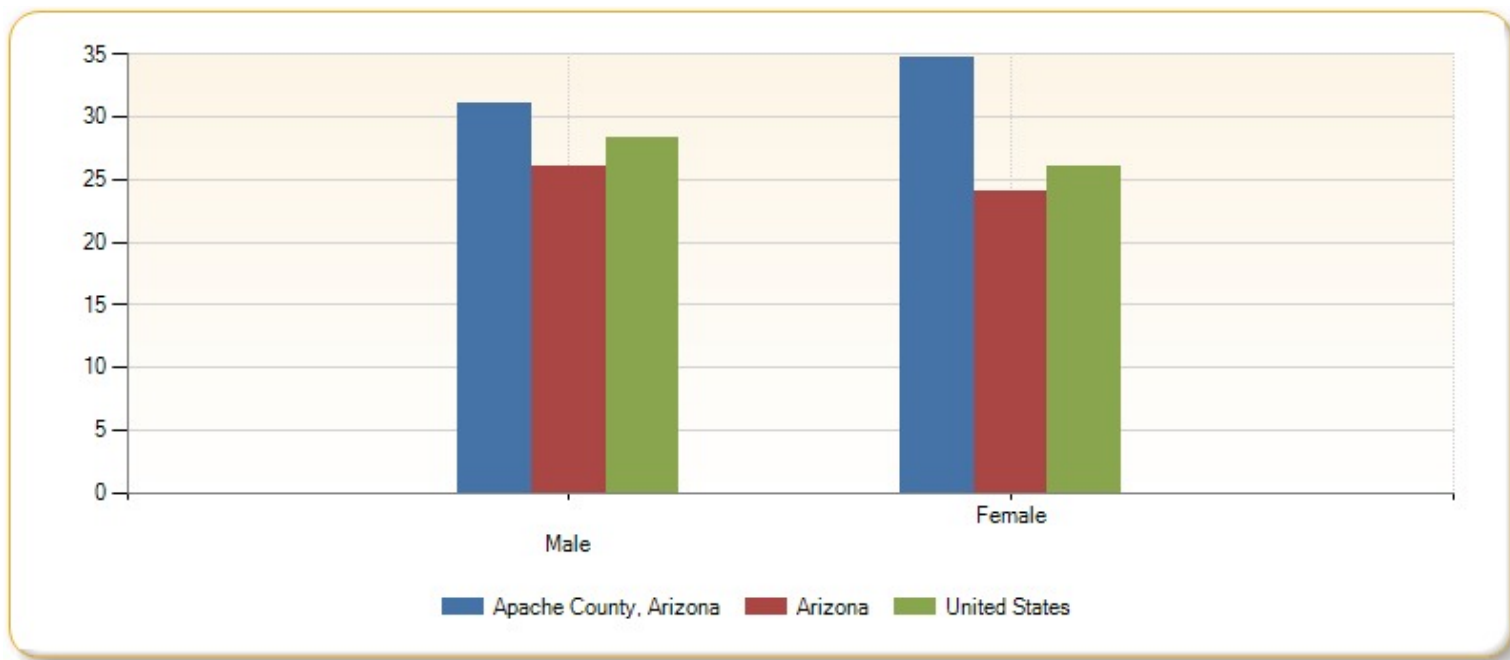


Pct. Adults Obese (BMI >25.0), By County, CDC National Diabetes Surveillance System, 2009



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

Report Area	Male	Female
Apache County, Arizona	31%	34.80%
Arizona	26.01%	24.09%
United States	28.30%	26.03%



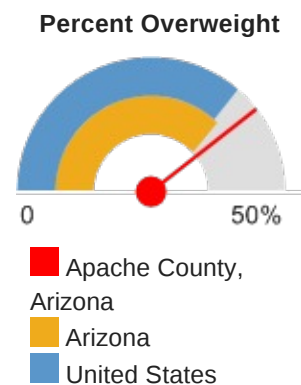
Overweight (Adult)

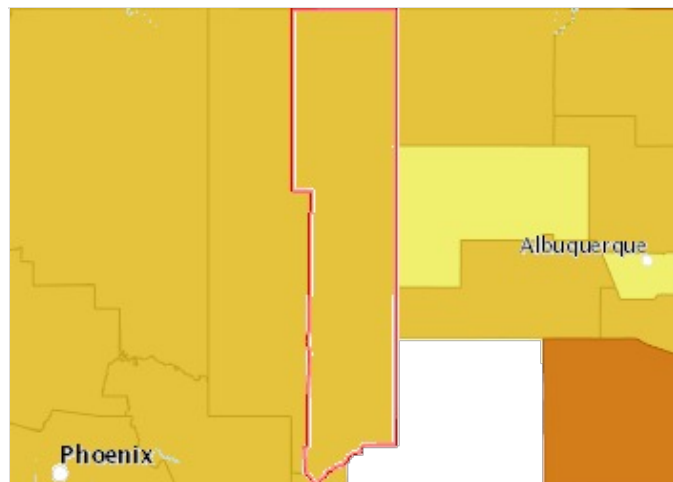
This indicator reports the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) between 25.0 and 30.0 (overweight). This indicator is relevant because excess weight is a prevalent problem in the U.S.; it indicates an unhealthy lifestyle and puts individuals at risk for further health issues.

Report Area	Total Population (Age 18)	Number Overweight	Percent Overweight
Apache County, Arizona	47,426	18,672	39.37%
Arizona	4,633,315	1,737,493	37.50%
United States	232,747,222	84,521,271.09	36.31%

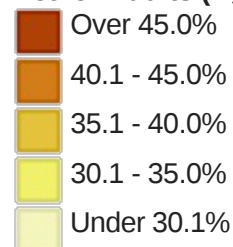
Note: This indicator is compared with the state average. No breakout data available.

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





Pct. of Adults (Age 18) Overweight (BMI 25.0-29.9), by County, CDC BRFSS 2006-2010



Poor Dental Health

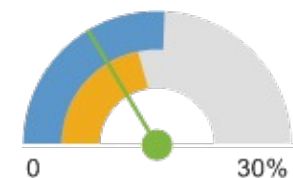
This indicator reports the percentage of adults age 18 and older who self-report that six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection. This indicator is relevant because it indicates lack of access to dental care and/or social barriers to utilization of dental services.

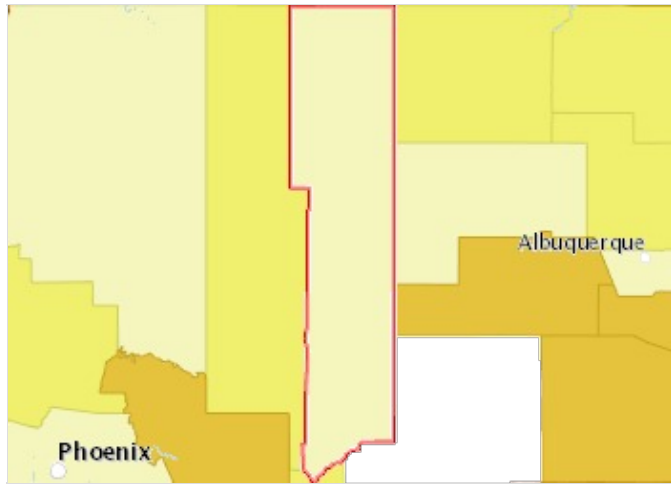
Report Area	Total Population (Age 18)	Number Adults with Poor Dental Health	Percent Adults with Poor Dental Health
Apache County, Arizona	47,426	4,705	9.92%
Arizona	4,633,315	612,988	13.23%
United States	232,747,222	36,229,520	15.57%

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

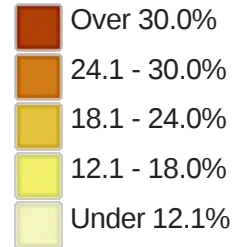
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010](#). Source geography: County.

Percent Adults with Poor Dental Health





Pct. of Population (Age 18) with 6 or More Permanent Teeth Removed, By County, CDC BRFSS 2006-2010



Poor General Health

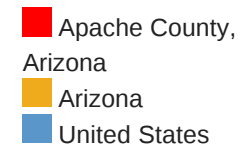
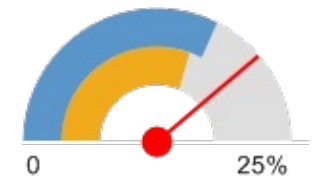
This indicator reports the percentage of adults age 18 and older who self-report having poor or fair health. This indicator is relevant because it is a measure of general poor health status. The source of this indicator is the Centers for Disease Control and Prevention, Behavioral Risk Factors Surveillance System (BRFSS) 2010.

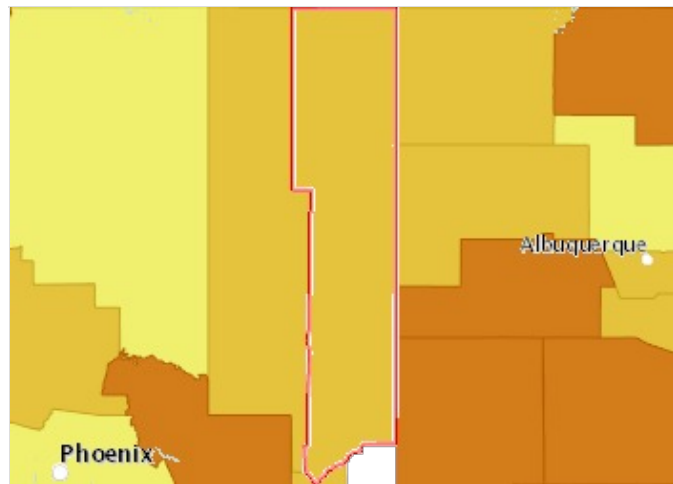
Report Area	Total Population (Age 18)	Number Reporting Poor General Health	Percent Reporting Poor General Health
Apache County, Arizona	46,442	9,010	19.40%
Arizona	85,992	13,243	15.40%
United States	111,821,887	18,188,242	16.27%

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

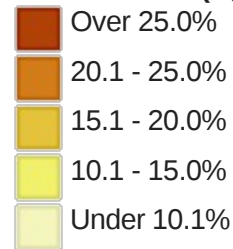
Data Source: [Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2004-2010](#). Source geography: County.

Percent Reporting Poor General Health





Pct. of Adults (Age 18) with Poor or Fair Health, By County, CDC BRFSS 2004-2010



Population with Any Disability

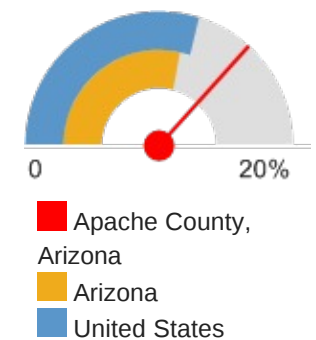
This indicator reports the percentage of the total civilian noninstitutionalized population with a disability. This indicator is relevant because disabled individuals comprise a vulnerable population that requires targeted services and outreach by providers.

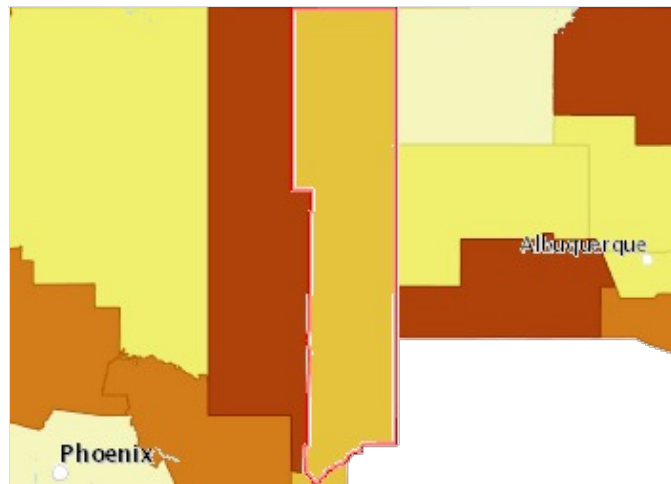
Report Area	Population for Whom Disability Status Is Determined	Total Population with a Disability	Percent Population with a Disability
Apache County, Arizona	70,153	10,267	14.64%
Arizona	6,240,052	715,833	11.47%
United States	301,501,760	36,180,124	12%

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

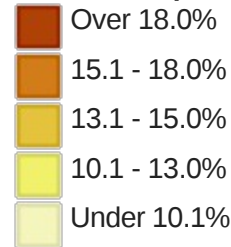
Data Source: [U.S. Census Bureau, 2008-2010 American Community Survey 3-Year Estimates](#). Source geography: Tract.

Percent Population with a Disability





Disabled Population, By County, 2008-2010 3-Year ACS



Premature Death

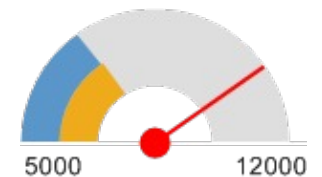
This indicator reports Years of Potential Life Lost (YPLL) before age 75 per 100,000 population for all causes of death, age-adjusted to the 2000 standard. YPLL measures premature death and is calculated by subtracting the age of death from the 75 year benchmark. This indicator is relevant because a measure of premature death can provide a unique and comprehensive look at overall health status.

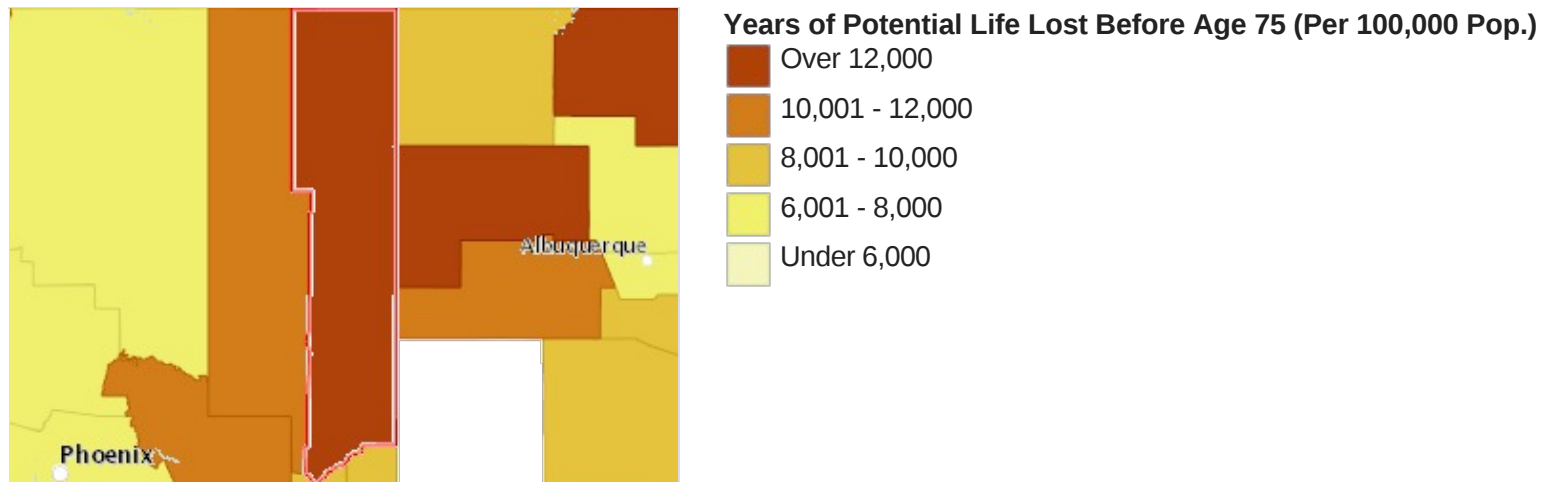
Report Area	Total Population, 2006-2008 Average	Annual Premature Deaths, 2006-2008 Average	Years of Potential Life Lost (Rate per 100,000 Pop.)
Apache County, Arizona	66,844	327	13,361
Arizona	5,795,774	21,110	7,243
United States	283,115,015	1,058,493	7,131

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

Data Source: [Centers for Disease Control and Prevention, National Vital Statistics System, 2008-2010 \(As Reported in the 2012 County Health Rankings\)](#). Source geography: County.

**Years of Potential Life Lost
(Rate per 100,000 Pop.)**





Prostate Cancer Incidence

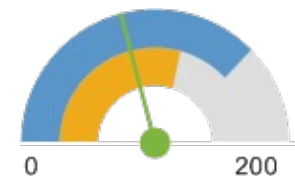
This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of males with prostate cancer adjusted to 2000 U.S. standard population age groups (Under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

Report Area	Total Population, ACS 2005-2009	Annual Incidence, 2005-2009 Average	Annual Incidence Rate (Per 100,000 Pop.)
Apache County, Arizona	69,341	57	83.20
Arizona	6,324,865	7,469	118.10
United States	301,461,536	456,412	151.40

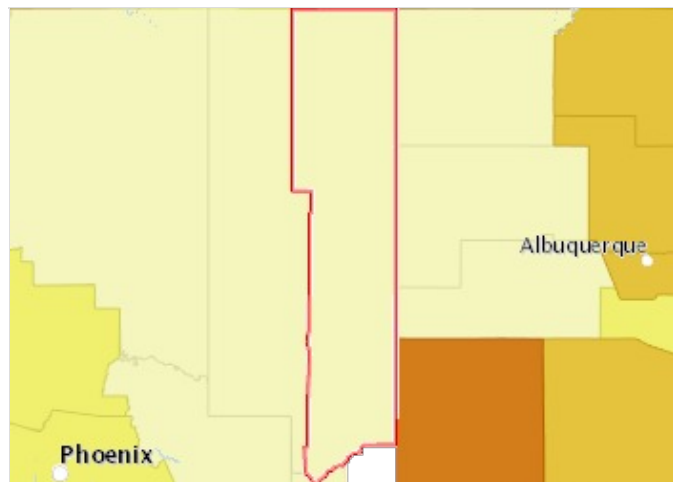
Note: This indicator is compared with the state average.

Data Source: [The Centers for Disease Control and Prevention, and the National Cancer Institute: State Cancer Profiles, 2005-2009](#). Source geography: County.

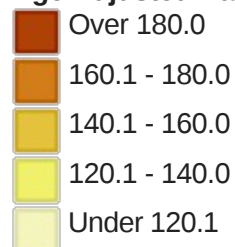
Annual Incidence Rate (Per 100,000 Pop.)



■ Apache County,
Arizona
■ Arizona
■ United States



Age Adjusted Rate (Per 100,000 Pop.), By County, NCI 2004-2008

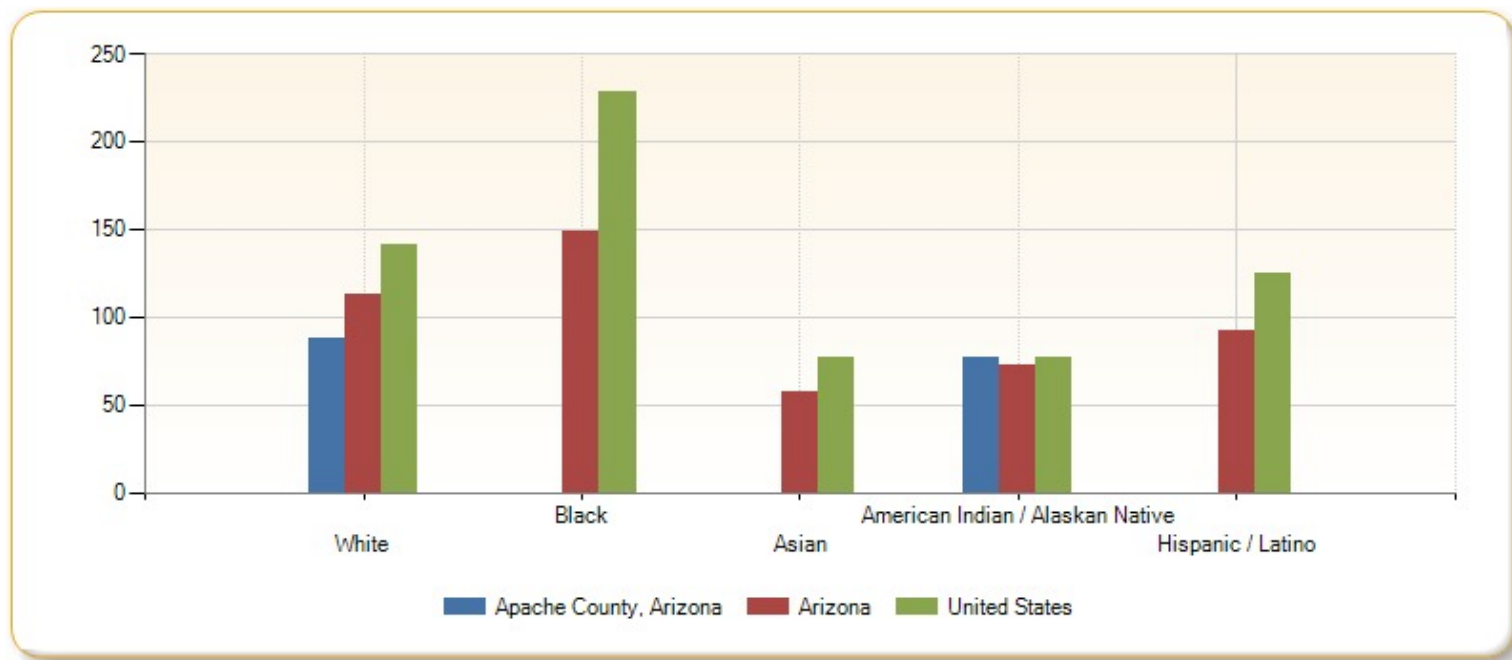


Population by Race / Ethnicity, New Prostate Cancer Incidence (Count)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	14	no data	no data	39	no data
Arizona	5,530	337	88	207	1,731
United States	316,053	85,187	10,151	1,861	375,018

Population by Race / Ethnicity, Prostate Cancer Incidence Rate (Per 100,000)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino
Apache County, Arizona	87.30	no data	no data	77.30	no data
Arizona	112.70	148.70	57.50	72.90	92
United States	140.80	228.60	76.90	76.80	124.40



Stroke Mortality

This indicator reports the rate of death due to cerebrovascular disease (stroke) 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 stroke is a leading cause of death in the United States.

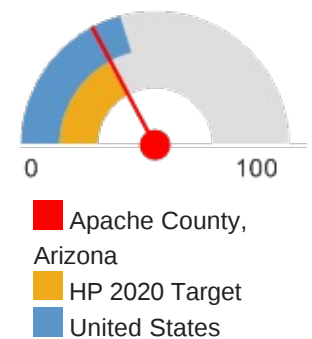
Report Area	Total Population, 2006-2010 Average	Annual Deaths, 2006-2010 Average	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Apache County, Arizona	70,280	17	24.76	34.21
Arizona	6,242,471	2,158	34.57	34.08
United States	303,844,430	133,107	43.81	41.78
HP 2020 Target				<= 33.8

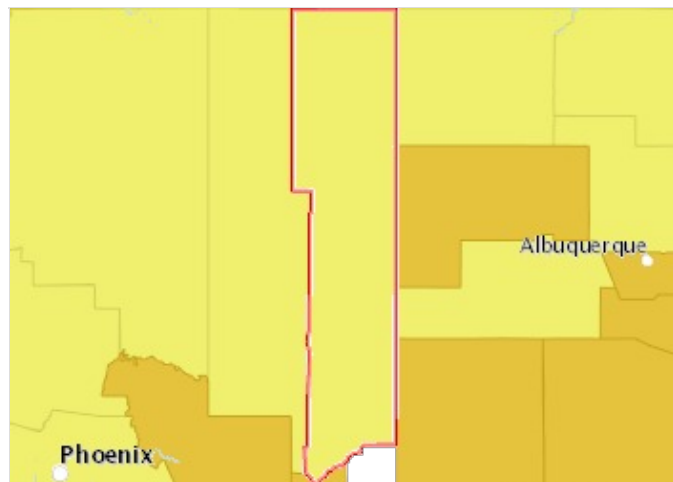
Note: This indicator is compared with the Healthy People 2020 Target.

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

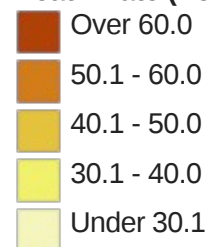
Accessed through [CDC WONDER](#). Source geography: County.

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



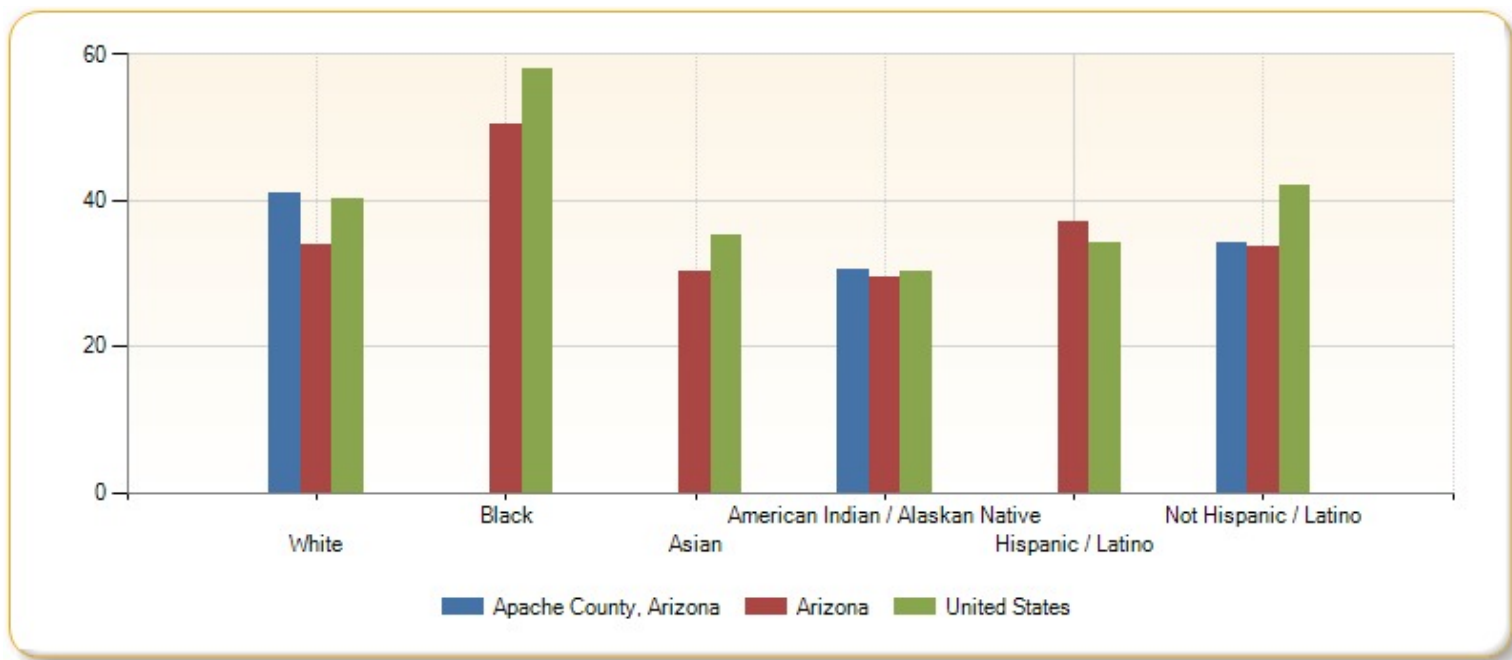


Death Rate (Per 100,000 Pop.), By County, CDC NVSS 2006-2010



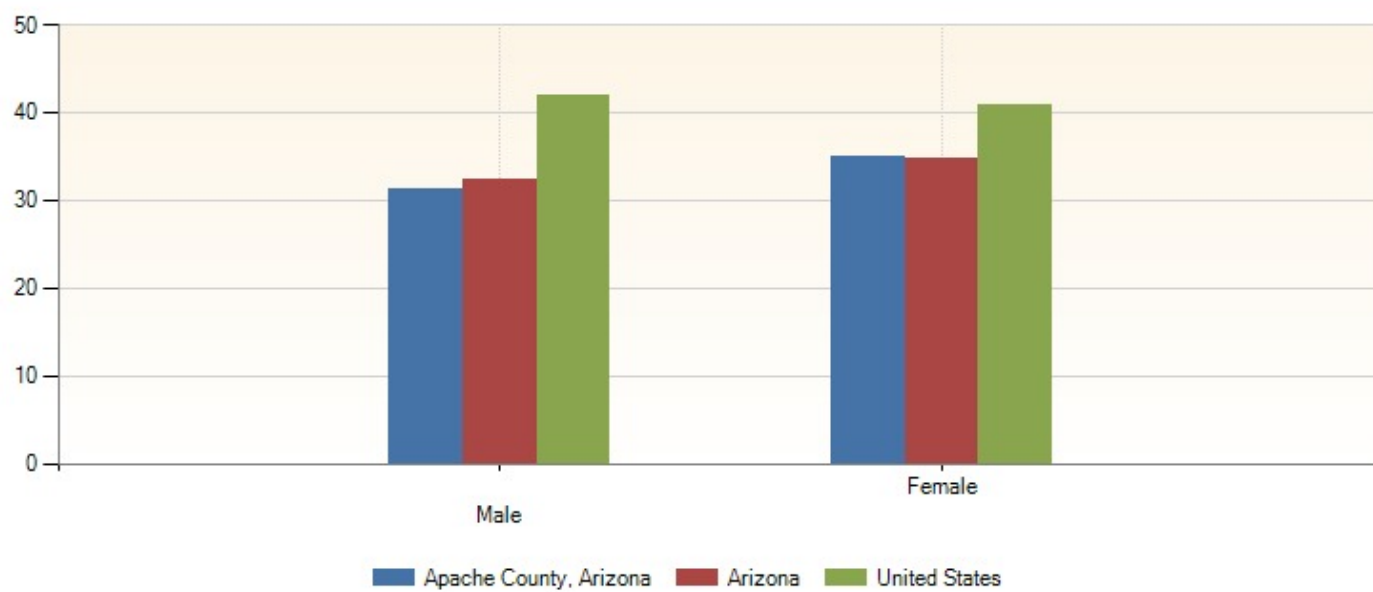
Population by Race / Ethnicity, Stroke Mortality, Age-Adjusted Rate (Per 100,000 Pop.)

Report Area	White	Black	Asian	American Indian / Alaskan Native	Hispanic / Latino	Not Hispanic / Latino
Apache County, Arizona	41.09	no data	no data	30.51	no data	34.20
Arizona	33.84	50.48	30.32	29.43	37.07	33.52
United States	40.10	57.97	35.27	30.36	34.20	42.14



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

Report Area	Male	Female
Apache County, Arizona	31.32	34.99
Arizona	32.45	34.76
United States	41.95	40.96



FOOTNOTES

Total Male 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 demographic 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. Area demographic 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

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have sex distributions that are very different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the sex distribution. This is particularly true for areas with a substantial GQ population (like areas with military bases, colleges, or jails). For more information, please review the documentation provided on pages 16 and 17 of the [American Community Survey 2010 Subject Definitions](#).

Total Female 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 demographic 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. Area demographic 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

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have sex distributions that are very different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the sex distribution. This is particularly true for areas with a substantial GQ population (like areas with military bases, colleges, or jails). For more information, please review the documentation provided on pages 16 and 17 of the [American Community Survey 2010 Subject Definitions](#).

Urban and Rural Population

Data Background:

The U.S. Census counts every resident in the United States. It is mandated by Article I, Section 2 of the Constitution and takes place every 10 years. The census collects information about the age, sex, race, and ethnicity of every person in the United States. The data collected by the decennial census determine the number of seats each state has in the U.S. House of Representatives and is also used to distribute billions in federal funds to

local communities. For more information about this source, refer to the [United States Census 2010](#) website.

Supplemental Nutrition Assistance Program (SNAP) Recipients

Data Background:

The U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) provides estimates at the state, county, and school district level of income and poverty statistics for the administration of federal programs. This data is modeled using estimates of income or poverty from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS).

Methodology:

The data on SNAP recipients is downloaded from the U.S. Census Bureau's SAIPE website and is uploaded into the SQL environment. The number of SNAP recipients and the percentage are taken directly from the data. The total population for each county is calculated as: $\text{Total Recipients} / (\text{Percent} / 100) = \text{Estimated Total Populations}$.

Unemployment Rate

Data Background:

The United States Department of Labor, Bureau of Labor Statistics (BLS) tracks unemployment information monthly for the U.S. government. The BLS releases a report on the total labor force, employed, and unemployed each month for the nation, states, and local geographic entities.

Methodology:

Unemployment statistics are downloaded from the US Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics (LAUS) database. The LAUS dataset consists of modeled unemployment estimates. It is described by the BLS as follows:

The concepts and definitions underlying LAUS data come from the Current Population Survey (CPS), the household survey that is the official measure of the labor force for the nation. State monthly model estimates are controlled in "real time" to sum to national monthly labor force estimates from the CPS. These models combine current and historical data from the CPS, the Current Employment Statistics (CES) program, and State unemployment insurance (UI) systems. Estimates for seven large areas and their respective balances of State are also model-based. Estimates for the remainder of the substate labor market areas are produced through a building-block approach known as the "Handbook method." This procedure also uses data from several sources, including the CPS, the CES program, State UI systems, and the decennial census, to create estimates that are adjusted to the statewide measures of employment and unemployment. Below the labor market area level, estimates are prepared using disaggregation techniques based on inputs from the decennial census, annual population estimates, and current UI data.

From the LAUS estimates, unemployment is recalculated as follows:

$$\text{Unemployment Rate} = [\text{Total Unemployed}] / [\text{Total Labor Force}] * 100$$

For more information, please visit the Bureau of Labor Statistics [Local Area Unemployment Statistics](#) web page.

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](#).

Access to Primary Care

Data Background:

The Area Resource File (ARF) is a database of information about the U.S. health care system, maintained and released annually by the U.S. Health and Human Services (HHS) Health Resources and Services Administration (HRSA). The ARF contains more than 6,000 variables, aggregated for each of the nation's counties. The ARF contains information on health facilities, health professions, health status, economic activity, health training programs, measures of resource scarcity, 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.

The ARF integrates data from numerous primary data sources including: the American Hospital Association, the American Medical Association, the American Dental Association, the American Osteopathic Association, the Bureau of the Census, the Centers for Medicare and Medicaid Services (formerly Health Care Financing Administration), Bureau of Labor Statistics, National Center for Health Statistics and the Veteran's Administration. For more information, please visit HRSA's [Area Resource File](#) website.

Methodology:

Counts of primary care providers are acquired from the Health Resources and Services Administration (HRSA) 2011 [Area Resource File](#), and population data from the U.S. Census Bureau 2010 decennial census. Primary care provider rates are then calculated using the following formula:

$$\text{Provider Rate} = \left[\frac{\text{Number of Primary Care Physicians}}{\text{Total Population}} \right] * 100,000$$

For more information and to view the original data used for this calculation, please visit the HRSA [Area Resource File](#) website.

Notes:

**Data represents county-level summaries only. When assessing rates, consider the following:*

- 1) Rates assume uniform distribution of both physicians and population throughout a county and may not detect disparities in access for rural or minority populations.
- 2) Rates may over-represent or under-represent county primary care rates when populations or physicians are highly concentrated on county border lines.
- 3) Rates do not describe quality of care or utilization practices.

Breast Cancer Screening (Mammogram)

Data Background:

The Dartmouth Atlas of Healthcare is an online repository of health data and maps based on information included in the massive Medicare database maintained by the Center for Medicare and Medicaid Services (CMS). The project uses Medicare claims data in conjunction with other demographic data to provide information and analysis about national, regional, and local markets, as well as hospitals and their affiliated physicians. The Dartmouth Atlas of Health Care is produced and maintained by The Dartmouth Institute for Health Policy and Clinical Practice.

Citation: [*The Dartmouth Atlas of Healthcare \(2012\).*](#)

The Centers for Medicare and Medicaid Services paid claims files contain information from adjudicated medical service related claims and capitation payments. Four types of claims files representing inpatient, long term care, prescription drugs and non-institutional services are submitted by the states. These are claims that have completed the state's payment processing cycle for which the state has determined it has a liability to reimburse the provider from Title XIX funds. Claims records contain information on the types of services provided, providers of services, service dates, costs, types of reimbursement, and epidemiological variables.

Citation: [*Centers for Medicare and Medicaid Services: Medicaid Statistical Information Statistics \(2012\).*](#)

Methodology:

The data are drawn from the enrollment and claims data of the Medicare program and are restricted to the fee-for-service population over age 65; HMO patients are not included. The indicator is expressed as a proportion using the following formula:

$$\text{Percentage Screened} = [\text{Number Females Tested}] / [\text{Total Females}] * 100$$

When appropriate, statistical adjustments are carried out to account for differences in age, race and sex.

Access to the complete methodology is available in the Dartmouth Institute's [*Report of the Dartmouth Atlas Project.*](#)

Cervical Cancer Screening (Pap Test)

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:

"A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?"

Respondents are considered to have had a Pap test if they answer that they had ever had a test. Percentages are age-adjusted and only pertain to the non-institutionalized female 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:

$$\text{[Persons having a Pap test]} = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

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](#).

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:

$$\text{Adults Without Recent Dental Exam} = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

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.

Diabetes Management (Hemoglobin A1c Test)

Data Background:

The Dartmouth Atlas of Healthcare is an online repository of health data and maps based on information included in the massive Medicare database maintained by the Center for Medicare and Medicaid Services (CMS). The project uses Medicare claims data in conjunction with other demographic data to provide information and analysis about national, regional, and local markets, as well as hospitals and their affiliated physicians. The Dartmouth Atlas of Health Care is produced and maintained by The Dartmouth Institute for Health Policy and Clinical Practice.

Citation: [The Dartmouth Atlas of Healthcare \(2012\)](#).

The Centers for Medicare and Medicaid Services paid claims files contain information from adjudicated medical service related claims and capitation payments. Four types of claims files representing inpatient, long term care, prescription drugs and non-institutional services are submitted by the states. These are claims that have completed the state's payment processing cycle for which the state has determined it has a liability to reimburse the provider from Title XIX funds. Claims records contain information on the types of services provided, providers of services, service dates, costs, types of reimbursement, and epidemiological variables.

Citation: [Centers for Medicare and Medicaid Services: Medicaid Statistical Information Statistics \(2012\)](#).

Methodology:

The data are drawn from the enrollment and claims data of the Medicare program and are restricted to the fee-for-service population over age 65; HMO patients are not included. The indicator is expressed as a proportion using the following formula:

$$\text{Percentage Tested} = [\text{Number Diabetics Tested}] / [\text{Total Diabetics}] * 100$$

When appropriate, statistical adjustments are carried out to account for differences in age, race and sex.

Access to the complete methodology is available in the Dartmouth Institute's [Report of the Dartmouth Atlas Project](#).

High Blood Pressure Management

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:

"Have you EVER been told by a doctor, nurse or other health professional that you have high blood pressure?" and "Are you currently taking medicine for your high blood pressure?"

This indicator represents the percentage of those persons who answered that 'yes' they have high blood pressure who also answered 'no', that they are not currently taking medication to control it. 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:

$$\text{Adults Not Taking Blood Pressure Medication} = ([\text{Indicator Percentage}] / 100) * [\text{Total Adult Population}]$$

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.

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:

$$\text{Adults Without Any Regular Doctor} = ([\text{Indicator Percentage}] / 100) * [\text{Total Adult Population}]$$

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](#).

Asthma Prevalence

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:

"Have you ever been told by a doctor, nurse, or health professional that you have Asthma?"

This indicator represents the percentage of those persons who answered “yes”. 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 Diagnosed with Asthma = ([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.

Breast Cancer Incidence

Data Background:

The State Cancer Profiles website provides statistics to help guide and prioritize cancer control activities at the state and local levels. It is step one of Cancer Control P.L.A.N.E.T., a portal that provides access to data and research-tested resources for the design, implementation, and evaluation of evidence based cancer control programs. State Cancer Profiles are a collaborative effort of the National Cancer Institute and the Centers for Disease Control and Prevention. The incidence rates tables accessed through the State Cancer Profiles web site provide incidence statistics compiled from **state and local cancer registries**. Statistics are available for those states with cancer registries whose data have met the criteria required for inclusion in the US Cancer Statistics. Data is provided for use in assessing the burden and risk for a major cancer site for the US overall

or for a selected state and its counties.

Citation: [National Cancer Institute, State Cancer Profiles. \(2010\).](#)

State-based cancer registries are data systems that collect, manage, and analyze data about cancer cases and cancer deaths. In each state, medical facilities (including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories) report these data to a central cancer registry. State cancer registries receive funding and program guidance through the CDC's National Program of Cancer Registries and the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

For more information, please visit the [State Cancer Profiles](#) or the [National Program of Cancer Registries](#) websites.

Methodology:

Annual incidence rates are acquired for all US states and counties as an average for years 2005-2009 from the [State Cancer Profiles: Incidence Rates](#) data tables. Incidence rates provided from this source are age adjusted to the 2000 US standard population. In order to perform aggregate (multi-county or service area) estimates with the data provided, adjusted cancer incidence rates are back-calculated using the following formula:

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

. In compliance with the State Cancer Profiles methodology, population figures are acquired from the U.S. Census Bureau.

The new case counts used to generate the State Cancer Profiles data tables are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), the Centers for Disease Control and Prevention, and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. For more information about the State Cancer Profiles data, including age-adjustment and data suppression, please visit the [SEER*Stat](#) website.

Notes:

1. Incidence rates provided are for invasive cancer only.
2. [Suppression](#) is used to avoid misinterpretation when rates are unstable. Data is suppressed when the number of cases is less than 16 for the time period monitored.
3. Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, [SEER excluded Louisiana cases](#) diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

Cancer Mortality

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 malignant neoplasm (cancer) (**ICD-10 Codes* C00 - C97**) 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.](#)

Cervical Cancer Incidence

Data Background:

The State Cancer Profiles website provides statistics to help guide and prioritize cancer control activities at the state and local levels. It is step one of Cancer Control P.L.A.N.E.T., a portal that provides access to data and research-tested resources for the design, implementation, and evaluation of evidence based cancer control programs. State Cancer Profiles are a collaborative effort of the National Cancer Institute and the Centers for Disease Control and Prevention. The incidence rates tables accessed through the State Cancer Profiles web site provide incidence statistics compiled from **state and local cancer registries**. Statistics are available for those states with cancer registries whose data have met the criteria required for inclusion in the US Cancer Statistics. Data is provided for use in assessing the burden and risk for a major cancer site for the US overall

or for a selected state and its counties.

Citation: [National Cancer Institute, State Cancer Profiles. \(2010\).](#)

State-based cancer registries are data systems that collect, manage, and analyze data about cancer cases and cancer deaths. In each state, medical facilities (including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories) report these data to a central cancer registry. State cancer registries receive funding and program guidance through the CDC's National Program of Cancer Registries and the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

For more information, please visit the [State Cancer Profiles](#) or the [National Program of Cancer Registries](#) websites.

Methodology:

Annual incidence rates are acquired for all US states and counties as an average for years 2005-2009 from the [State Cancer Profiles: Incidence Rates](#) data tables. Incidence rates provided from this source are age adjusted to the 2000 US standard population. In order to perform aggregate (multi-county or service area) estimates with the data provided, adjusted cancer incidence rates are back-calculated using the following formula:

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

. In compliance with the State Cancer Profiles methodology, population figures are acquired from the U.S. Census Bureau.

The new case counts used to generate the State Cancer Profiles data tables are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), the Centers for Disease Control and Prevention, and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. For more information about the State Cancer Profiles data, including age-adjustment and data suppression, please visit the [SEER*Stat](#) website.

Notes:

1. Incidence rates provided are for invasive cancer only.
2. [Suppression](#) is used to avoid misinterpretation when rates are unstable. Data is suppressed when the number of cases is less than 16 for the time period monitored.
3. Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, [SEER excluded Louisiana cases](#) diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

Colon and Rectum Cancer Incidence

Data Background:

The State Cancer Profiles website provides statistics to help guide and prioritize cancer control activities at the state and local levels. It is step one of Cancer Control P.L.A.N.E.T., a portal that provides access to data and research-tested resources for the design, implementation, and evaluation of evidence based cancer control programs. State Cancer Profiles are a collaborative effort of the National Cancer Institute and the Centers for Disease Control and Prevention. The incidence rates tables accessed through the State Cancer Profiles web site provide incidence statistics compiled from **state and local cancer registries**. Statistics are available for those states with cancer registries whose data have met the criteria required for inclusion in the US Cancer Statistics. Data is provided for use in assessing the burden and risk for a major cancer site for the US overall or for a selected state and its counties.

Citation: [National Cancer Institute, State Cancer Profiles. \(2010\).](#)

State-based cancer registries are data systems that collect, manage, and analyze data about cancer cases and cancer deaths. In each state, medical facilities (including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories) report these data to a central cancer registry. State cancer registries receive funding and program guidance through the CDC's National Program of Cancer Registries and the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

For more information, please visit the [State Cancer Profiles](#) or the [National Program of Cancer Registries](#) websites.

Methodology:

Annual incidence rates are acquired for all US states and counties as an average for years 2005-2009 from the [State Cancer Profiles: Incidence Rates](#) data tables. Incidence rates provided from this source are age adjusted to the 2000 US standard population. In order to perform aggregate (multi-county or service area) estimates with the data provided, adjusted cancer incidence rates are back-calculated using the following formula:

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

. In compliance with the State Cancer Profiles methodology, population figures are acquired from the U.S. Census Bureau.

The new case counts used to generate the State Cancer Profiles data tables are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), the Centers for Disease Control and Prevention, and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. For more information about the State Cancer Profiles data, including age-adjustment and data suppression, please visit the [SEER*Stat](#) website.

Notes:

1. Incidence rates provided are for invasive cancer only.
2. [Suppression](#) is used to avoid misinterpretation when rates are unstable. Data is suppressed when the number of cases is less than 16 for the time period monitored.
3. Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, [SEER excluded Louisiana cases](#) diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

Diabetes Prevalence

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 population with diabetes 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. Diabetes prevalence is estimated using the following

formula:

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

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 to have diabetes if they responded "yes" to the question, "Has a doctor ever told you that you have diabetes?" Women who indicated that they only had diabetes during pregnancy were not considered to have diabetes.

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.

Heart Disease Mortality

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 coronary heart disease (**ICD-10 Codes* I11, I20-I25**) 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.](#)

Heart Disease Prevalence

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:

"Has a doctor, nurse, or other health professional ever told you that you had any of the following:

-Ever told you had a heart attack, also called myocardial infarction?

-Ever told you had angina or coronary heart disease?

- Ever told you had a stroke?"

This indicator represents the percentage of those persons who answered that "yes", they have been diagnosed with angina or coronary heart disease. 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:

$$\text{Adults Diagnosed with Heart Disease} = ([\text{Indicator Percentage}] / 100) * [\text{Total Population}] .$$

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.

Lung Cancer Incidence

Data Background:

The State Cancer Profiles website provides statistics to help guide and prioritize cancer control activities at the state and local levels. It is step one of Cancer Control P.L.A.N.E.T., a portal that provides access to data and research-tested resources for the design, implementation, and evaluation of evidence based cancer control programs. State Cancer Profiles are a collaborative effort of the National Cancer Institute and the Centers for Disease Control and Prevention. The incidence rates tables accessed through the State Cancer Profiles web site provide incidence statistics compiled from **state and local cancer registries**. Statistics are available for those states with cancer registries whose data have met the criteria required for inclusion in the US Cancer Statistics. Data is provided for use in assessing the burden and risk for a major cancer site for the US overall or for a selected state and its counties.

Citation: [National Cancer Institute, State Cancer Profiles. \(2010\).](#)

State-based cancer registries are data systems that collect, manage, and analyze data about cancer cases and cancer deaths. In each state, medical facilities (including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories) report these data to a central cancer registry. State cancer registries receive funding and program guidance through the CDC's National Program of Cancer Registries and the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

For more information, please visit the [State Cancer Profiles](#) or the [National Program of Cancer Registries](#) websites.

Methodology:

Annual incidence rates are acquired for all US states and counties as an average for years 2005-2009 from the [State Cancer Profiles: Incidence Rates](#) data tables. Incidence rates provided from this source are age adjusted to the 2000 US standard population. In order to perform aggregate (multi-county or service area) estimates with the data provided, adjusted cancer incidence rates are back-calculated using the following formula:

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

. In compliance with the State Cancer Profiles methodology, population figures are acquired from the U.S. Census Bureau.

The new case counts used to generate the State Cancer Profiles data tables are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), the Centers for Disease Control and Prevention, and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. For more information about the State Cancer Profiles data, including age-adjustment and data suppression, please visit the [SEER*Stat](#) website.

Notes:

1. Incidence rates provided are for invasive cancer only.
2. [Suppression](#) is used to avoid misinterpretation when rates are unstable. Data is suppressed when the number of cases is less than 16 for the time period monitored.
3. Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, [SEER excluded Louisiana cases](#) diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

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.

Overweight (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:

"About how much do you weigh without shoes?" and "About how tall are you without shoes?"

These responses were combined to determine a respondent's Body Mass Index (BMI). BMI is calculated as weight in kilograms divided by height in meters squared. Persons with a BMI from 25.0-29.9 are considered overweight.

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 Overweight = ([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.

Poor Dental Health

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 many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics. (If wisdom teeth are removed because of tooth decay or gum disease, they should be included in the count for lost teeth)."

This indicator represents the percentage of respondents who indicated that they had 6 or more, including all of their permanent teeth extracted. 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 Poor Dental Health = ([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 BRFSS web site.

Poor General Health

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:

"Would you say that in general your health is - Excellent, Very Good, Good, Fair, or Poor?"

Respondents that indicated they had poor overall health are included in the count. Percentages are age-adjusted and only pertain to the non-institutionalized population over age 18. Population numerators (number of adults) are not provided in the Health Indicator Warehouse data tables and were generated using the following formula:

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

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](#).

Population with Any Disability

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:

Counts for population subgroups and total area population data are acquired from the U.S. Census Bureau's American Community Survey (ACS). Data represent estimates for the 5 year period 2006-2010. Data are summarized to 2010 census tract boundaries. Disability status is classified in the ACS according to yes/no responses to questions (17 - 19) about specific physical (hearing, vision, ambulatory) and cognitive statuses, and any other status which, if present, would make living in the absence of accommodations difficult or impossible. Indicator statistics are measured as a percentage of the total non-institutionalized 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 disability data tabulations is the civilian noninstitutionalized population. Some types of GQ populations have disability distributions that are different from the household population. The inclusion of the noninstitutionalized GQ population could therefore have a noticeable impact on the disability distribution. This is particularly true for areas with a substantial noninstitutionalized GQ population.

Comparability

Beginning in 2008, questions on disability represent a conceptual and empirical break from earlier years of the ACS. This change is based on research suggesting that combining the now separate measures of hearing and vision difficulty to generate a sensory difficulty measure does not create a comparable estimate to the old Sensory disability estimates in prior ACS products. The Census Bureau therefore does not recommend comparison of 2010 disability data to 2007 and earlier ACS disability data. For more information, please review the documentation provided on pages 56 - 59 of the [American Community Survey 2010 Subject Definitions](#).

Premature Death

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:

Years of potential life lost (YPLL) data was acquired from the University of Wisconsin's County Health Rankings (CHR). Potential life lost is defined by CHR as a death occurring before the age of 75. CHR uses 2006 - 2008 three year averages from the [National Vital Statistic System](#) (NVSS) as the basis for their calculation. NVSS data is compiled from state death records and maintained by the Centers for Disease Control and Prevention. Age-stratified NVSS data is used to calculate the total years of potential life lost to all persons under age 75, by county, using the following formula:

$$\text{YPLL} = [75 * (\text{Number of Deaths Under Age 75})] - [\text{SUM (Age at Death)}]$$

To further illustrate, a person dying at age 50 would contribute 25 years of life lost to the YPLL index. YPLL is age-adjusted to the 2000 U.S. population to allow comparison between counties and is reported as a rate per 100,000 people. For more information, please review the County Health Rankings [Premature Death](#) indicator information.

Prostate Cancer Incidence

Data Background:

The State Cancer Profiles website provides statistics to help guide and prioritize cancer control activities at the state and local levels. It is step one of Cancer Control P.L.A.N.E.T., a portal that provides access to data and research-tested resources for the design, implementation, and evaluation of evidence based cancer control programs. State Cancer Profiles are a collaborative effort of the National Cancer Institute and the Centers for Disease Control and Prevention. The incidence rates tables accessed through the State Cancer Profiles web site provide incidence statistics compiled from **state and local cancer registries**. Statistics are available for those states with cancer registries whose data have met the criteria required for inclusion in the US Cancer Statistics. Data is provided for use in assessing the burden and risk for a major cancer site for the US overall or for a selected state and its counties.

Citation: [National Cancer Institute, State Cancer Profiles. \(2010\).](#)

State-based cancer registries are data systems that collect, manage, and analyze data about cancer cases and cancer deaths. In each state, medical facilities (including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories) report these data to a central cancer registry. State cancer registries receive funding and program guidance through the CDC's National Program of Cancer Registries and the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

For more information, please visit the [State Cancer Profiles](#) or the [National Program of Cancer Registries](#) websites.

Methodology:

Annual incidence rates are acquired for all US states and counties as an average for years 2005-2009 from the [State Cancer Profiles: Incidence Rates](#) data tables. Incidence rates provided from this source are age adjusted to the 2000 US standard population. In order to perform aggregate (multi-county or service area) estimates with the data provided, adjusted cancer incidence rates are back-calculated using the following formula:

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

. In compliance with the State Cancer Profiles methodology, population figures are acquired from the U.S. Census Bureau.

The new case counts used to generate the State Cancer Profiles data tables are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), the Centers for Disease Control and Prevention, and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. For more information about the State Cancer Profiles data, including age-adjustment and data suppression, please visit the [SEER*Stat](#) website.

Notes:

1. Incidence rates provided are for invasive cancer only.
2. [Suppression](#) is used to avoid misinterpretation when rates are unstable. Data is suppressed when the number of cases is less than 16 for the time period monitored.
3. Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, [SEER excluded Louisiana cases](#) diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

Stroke Mortality

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 cerebrovascular disease (stroke) (**ICD-10 Codes* 160-169**) 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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