



Janice K. Brewer, Governor



2011

**Arizona Behavioral Risk Factor
Surveillance Survey**

**Special Report
New Weighted
Methodology**



Will Humble, Director
Arizona Department of Health Services



Janice K. Brewer, Governor
State of Arizona

Will Humble, Director
Arizona Department of Health Services

Authors:
Judy Bass
Arizona BRFSS Coordinator

James Blackwell, MPH
University of Arizona
Intern

Khaleel Hussaini, PhD
Bureau Chief of Public Health Statistics

Survey Center
Website: <http://www.azdhs.gov/plan/brfs/>

ACKNOWLEDGMENTS

This report could not have been completed without the input and assistance of the following:

Opinion Research Corporation, Macro International
BRFSS Contractor

Centers for Disease Control and Prevention
Gloria Colclough
Bill Garvin

Front Cover Photograph

Copyright ©2012 iStockphoto LP. iStockphoto®, iStock®, iStockaudio®, iStockvideo®, iStockalypse™, Vetta® and CopySpace® are trademarks of iStockphoto LP. All other marks are the property of their respective owners.

A **special thank you** to Arizona residents for participating in the survey and cooperating with the interviewers.

Notice

The Arizona Department of Health Services does not discriminate on the basis of disability in the administration of its programs and services as prescribed by Title II of the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973.

If you need this publication in an alternative format, please contact the ADHS Bureau of Public Health Statistics at (602) 542-7333 or [E-mail: Bassj@azdhs.gov](mailto:Bassj@azdhs.gov) or <http://www.azdhs.gov>.

Funded by the Centers for Disease Control Cooperative Agreement No. U58/DP001956-02

Permission to quote from or reproduce this publication is granted when due acknowledgment is made.

Table of Contents

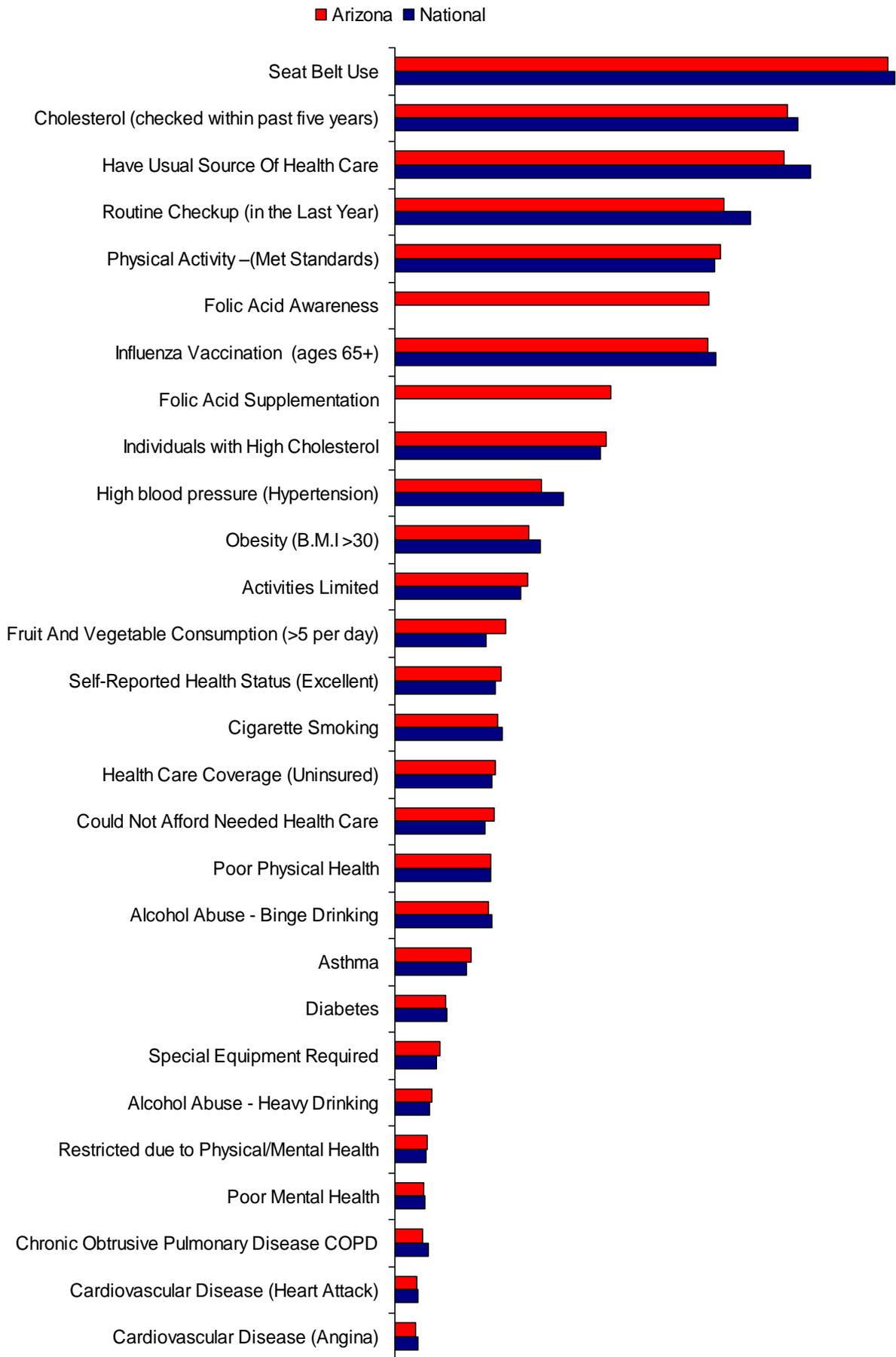
EXECUTIVE SUMMARY	1
INTRODUCTION	3
HEALTH STATUS INDICATORS	7
SELF-REPORTED HEALTH STATUS	9
QUALITY OF LIFE	17
PHYSICAL HEALTH.....	19
MENTAL HEALTH	25
RESTRICTED DUE TO PHYSICAL /MENTAL HEALTH.....	31
HEALTH CONDITIONS AND LIMITATIONS	37
CHOLESTROL	39
HIGH BLOOD PRESSURE.....	45
OBESITY (BMI).....	51
DIABETES	57
LIMITATION OF ACTIVITIES	63
SPECIAL EQUIPMENT REQUIRED.....	69
CARDIOVASCULAR DISEASE - HEART ATTACK	75
CARDIOVASCULAR DISEASE - ANGINA.....	81
CARDIOVASCULAR DISEASE - STROKE.....	87
ASTHMA.....	93
CHRONIC OBSTRUCTIVE PULMONARY DISEASE	99
HEALTH RISKS, BEHAVIORS AND AWARENESS	107
PHYSICAL ACTIVITY	109
FRUIT AND VEGETABLE CONSUMPTION.....	115
FOLIC ACID AWARENESS	121
FOLIC ACID SUPPLEMENTAL	127
CIGARETTE SMOKING	133
INFLUENZA VACCINATION	139
ALCOHOL ABUSE- BINGE DRINKING	145
ALCOHOL ABUSE-HEAVY DRINKING	151
SEATBELT USE	157
HEALTH CARE COVERAGE AND HEALTH CARE UTILIZATION	163
HEALTH CARE COVERAGE	165
USUAL SOURCE OF HEALTH CARE	171
TIME SINCE LAST ROUTINE CHECKUP	177
COULD NOT AFFORD NEEDED HEALTH CARE.....	183
APPENDICES	189
2011 ARIZONA RESPONDENT PROFILE	190
RISK FACTORS/CHRONIC DISEASE GLOSSARY OF TERMS.....	191
METHODS.....	196
REFERENCES	199

Executive Summary

This report represents estimates from the 2011 Arizona BRFSS, a state-wide landline and cellular telephone survey. The data below has been weighted using raking methodology. This summary also provides data on health status indicators, quality of life, health risk behaviors and awareness, clinical preventive practices and health conditions and limitations as reported by Arizonans. Core questions provide information on high-risk behaviors and chronic diseases that are surveyed each year. The optional modules provide information on high-risk behaviors and chronic diseases that may or may not be surveyed each year. State-added questions supply information on high-risk behaviors. The Behavioral Risk Factor Surveillance System (BRFSS) program is a rich source of state-level public health data. These data have become integral to health promotion, disease prevention, and intervention planning throughout Arizona.

Highlights of the 2011 Behavioral Risk Factors Survey		
Risk Factors	Arizona (Percent)	National (Median Percent)
Seat Belt Use	92.7	93.9
Cholesterol (checked within past five years)	73.7	75.8
Have Usual Source of Health Care	73.2	78
Routine Checkup (in the Last Year)	61.8	66.9
Physical Activity-(Met Standards)	61.2	60
Folic Acid Awareness	59	N/A
Influenza Vaccination (ages 65+)	58.8	60.2
Folic Acid Supplementation	40.5	N/A
Individuals with High Cholesterol	39.7	38.7
High blood pressure (Hypertension)	27.5	31.6
Obesity (B.M.I >30)	25.1	27.4
Activities Limited	24.9	23.7
Fruit and Vegetable Consumption (>5 per day)	20.9	17.1
Self-Reported Health Status (Excellent)	19.9	18.9
Cigarette Smoking	19.3	20.1
Health Care Coverage (Uninsured)	18.8	18.3
Could Not Afford Needed Health Care	18.6	16.9
Poor Physical Health	18.1	18.1
Alcohol Abuse - Binge Drinking	17.6	18.3
Asthma	14.3	13.5
Diabetes	9.5	9.8
Special Equipment Required	8.5	7.9
Alcohol Abuse - Heavy Drinking	6.9	6.6
Restricted due to Physical/Mental Health	6.1	5.8
Poor Mental Health	5.4	5.6
Chronic Obtrusive Pulmonary Disease COPD	5.3	6.3
Cardiovascular Disease (Heart Attack)	4.2	4.3
Cardiovascular Disease (Angina)	3.8	4.3

Executive Summary



Introduction

The Arizona Department of Health Services (ADHS) promotes and protects the health of Arizonans. The Department operates numerous programs, dedicated to the improvement of public health outcomes for all of Arizona.

ADHS Mission

*To promote, protect, and improve the health and wellness
of individuals and communities in Arizona*

ADHS Vision

Health and Wellness for all Arizonans

The Arizona Behavioral Risk Factor Surveillance Survey (BRFSS) provides Arizona with a tool to monitor health status as well as assess public health interventions and programs. To realize the vision of health and wellness for all Arizonans, ADHS utilizes a strategic map (see page 6) with five strategic priorities:

- Impact Arizona's Winnable Battles (Section A)
- Integration of Physical and Behavioral Health Services (Section B)
- Promote and Protect Public Health and Safety (Section C)
- Strengthen Statewide Public Health System (Section D)
- Maximize ADHS Effectiveness (Section E)

Within these broad strategic priorities, there are key focus elements that accentuate "winnable public health battles." The 2011 annual BRFSS report utilizes the ADHS Strategic Map as one tool to link the data collected to the Department's Strategic direction.¹

Background

The BRFSS is a collaborative project of the Centers for Disease Control and Prevention (CDC), the U. S. and territories. The BRFSS was initiated in 1982, with 15 states collecting surveillance data on risk behaviors through monthly telephone interviews. Over time, the number of states participating in the survey increased so that by 2001, 50 states, the District of Columbia, Puerto Rico, Guam and the Virgin Islands were participating in the BRFSS. In this document, the term "state" is used to refer to all areas participating in the surveillance system, including the District of Columbia, Guam, the U.S. Virgin Islands, and the Commonwealth of Puerto Rico.

BRFSS field operations are managed by state health departments that follow guidelines provided by the CDC. These health departments participate in developing the survey instrument and conduct the interviews using a random sample telephone survey. The Arizona BRFSS survey is a random digit dialing survey that utilizes a Computer Assisted Telephone Interviewing (CATI) system and is based on disproportionate sampling strategy.²

BRFSS respondents are identified through telephone-based methods. Telephone coverage varies across states and subgroups. Overall, an estimated 96.3% of U.S. households had telephone service in 2010. According to the National Center for Health Statistics (in a survey conducted between July 2009 and June 2010) 70.6% of Arizona adults older than 18 years use a landline as their primary telephone. These findings indicate that 29.4% of Arizona households do not have a landline and utilize cell-phones as their primary telephone. The increasing percentage of households that are abandoning their landline telephones for cell-phones has significantly eroded the population coverage provided by landline-based surveys to pre-1970s levels. For the first half of 2011, the percentage of cell-phone-only households was 31.6 percent. This is an increase of two percent (2%) over the preceding 6-month period.

Introduction

Furthermore, in households where both landline and wireless phone service is available, there is a trend toward increased use of wireless communication.³

Due to the increasing utilization of cell-phone communication, Arizona's BRFSS marked 2011 as the first calendar year in which the survey collected data for both landline and cell-phone respondents. BRFSS respondents who received 100 percent of their calls on cell-phones were eligible for participation in the cell-phone survey. No direct method of compensating for non-telephone coverage is employed by the BRFSS. According to the CDC, individuals who participate in cell-phone interviews are more likely to be: younger, renters rather than homeowners, Hispanic and single. The findings also showed differences in attitude and behaviors between cell-phone-only users and those with landline phones. Additionally, telephone surveys have had to make adjustments in weighting to account for declining response rates.

The data collected in Arizona are transmitted to the CDC's Office of Surveillance, Epidemiology and Laboratory Services. An edited and weighted data file is provided to each participating health department for each year of data collection, and summary reports of state-specific data are prepared by CDC. In 2011, a new weighting methodology, iterative proportional fitting (or "raking"), replaced the post stratification weighting methodology. Therefore, it is not possible to compare 2011 data with prior's years. Health departments use the data for a variety of purposes, including identifying demographic variations in health-related behaviors, targeting services, addressing emergent and critical health issues, proposing legislation for health initiatives and measuring progress toward state and national health objectives.²

BRFSS Questionnaire

The questionnaire consists of three sections:

1. Core component: a standard set of questions asked by all states. It includes queries about current health-related perceptions, conditions and behaviors (e.g., health status, health insurance, diabetes, tobacco use, disability and obesity), as well as demographic questions.

2. Optional CDC modules: these are sets of questions on specific topics (e.g., cardiovascular disease, arthritis, women's health) that states may elect to use on their questionnaires. In 2011, 34 optional modules were supported by CDC. The module questions are generally submitted by CDC programs and have been selected for inclusion in the editing and evaluation process by CDC. The health characteristics estimated from the BRFSS pertain to the adult population, aged 18 years or older who live in households. In 2011, additional questions were included as optional modules to provide a measure for several childhood indicators, including asthma prevalence and influenza immunization for people aged 17 years or younger. For more information, see <http://apps.nccd.cdc.gov/BRFSSModules/ModByState.asp?Yr=2011>.

3. State-added questions: These are questions developed or acquired by individual participating states and added to their questionnaires. State-added questions are not edited or evaluated by CDC. Each year, the states and CDC agree on the content of the core component and optional modules. Arizona Department of Health Services programs meet annually with the BRFSS Coordinator and other representatives of interested stakeholders to vote on the optional and state-added questions for the following year. Many questions are taken from established national surveys, such as the National Health Interview Survey (NHIS) or the

Introduction

National Health and Nutrition Examination Survey (NHANES). This practice allows the BRFSS to take advantage of questions that may have previously been tested and allows states to compare their data with those from other surveys. Any new questions proposed as additions to the BRFSS must go through cognitive testing and field testing by an Independent Review Board (IRB), also known as an independent ethics committee or ethical review board, to monitor and review the questions to assure the human subject research poses no risk of physical or psychological harm prior to their inclusion on the survey. In short, BRFSS guidelines specify that all states ask the core component questions without modification; they may choose to add any, all or none of the optional modules, and they may add questions of their choosing at the end of the questionnaire.

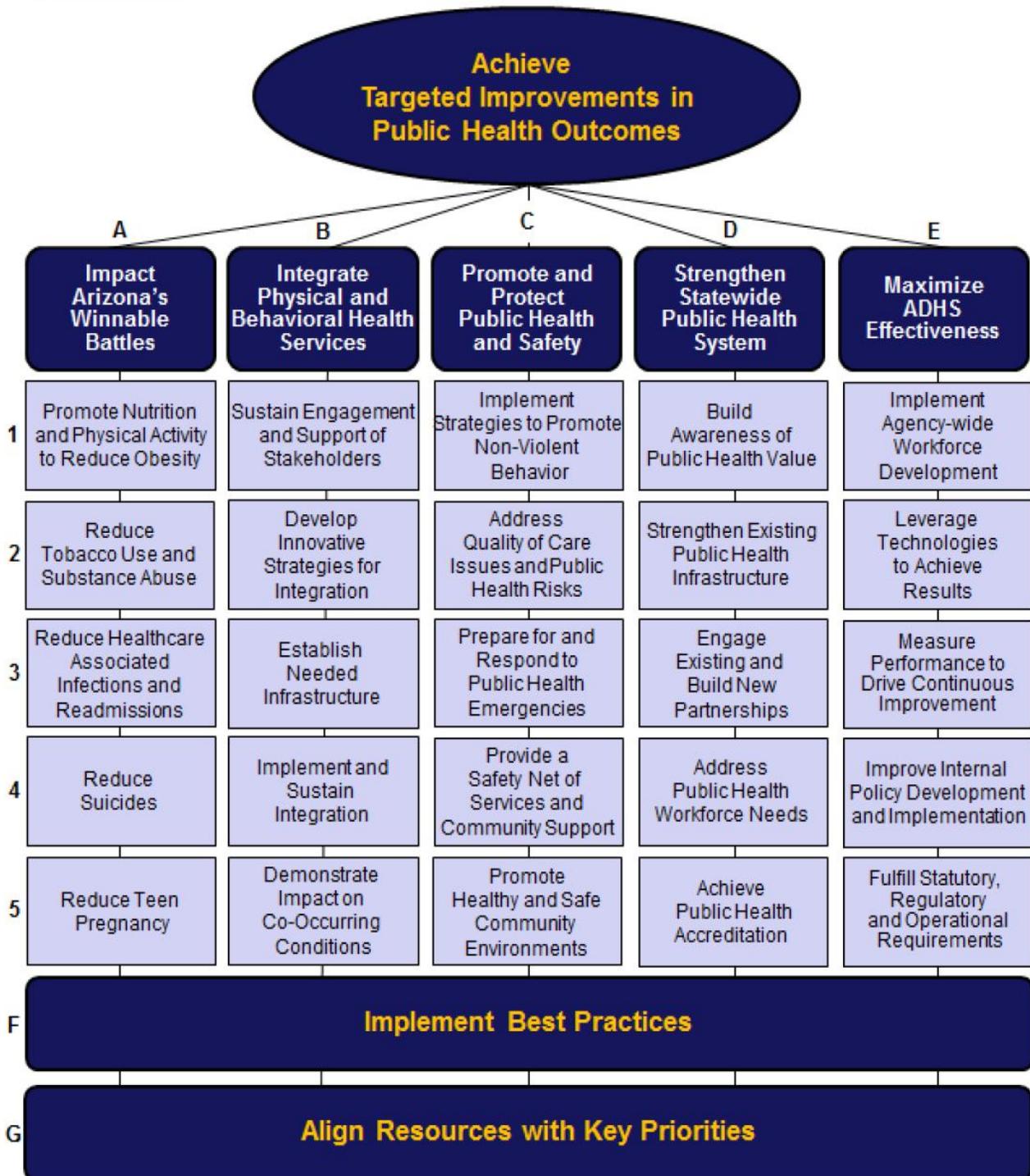
Although CDC supported 34 modules in 2011, it is not feasible for a state to use them all. States are selective about which modules and state-specific questions they add, to ensure the questionnaire is kept at a reasonable length, but there is wide variation across states in the total number of questions in a given year. New questionnaires are implemented in January and usually remain unchanged throughout the year. However, the flexibility of state-added questions does permit additions, changes and deletions at any time during the year. The 2011 list of optional modules used on both the landline and cell-phone surveys is available at <http://apps.nccd.cdc.gov/BRFSSModules/ModByState.asp?Yr=2011>.

BRFSS in Comparison to Other Surveys

Comparison of Surveys			
	Census	BRFSS	NHANES
Participant Selection	All US households are required to Participate	Random Digit dialing	Participants are selected based off Census information
Data Collection Techniques	Questionnaire sent in the mail and direct interviews from Census Workers	Telephone survey, with Computer Assisted Telephone Interviewing (CATI) system	Anthropometric measurements, blood and urine samples are gathered by a health professionals. Interviews are done in person, at the participants home.
Data Gathered	<ul style="list-style-type: none"> • Number of People living in a housing unit • Housing unit type • Telephone number • Name • Gender • Date of Birth • Race and Ethnicity • Other Residences 	Demographic Data asked annually: <ul style="list-style-type: none"> • Race & Ethnicity • Gender • Income • Martial Status • Education achievement • Working status • Household size <p>Other Health Indicator Questions are developed by the CDC. Each state has the ability to generate questions to assess their specific needs.</p>	<ul style="list-style-type: none"> • Anemia • Cardiovascular disease • Diabetes • Environmental exposures • Eye diseases • Hearing loss • Infectious diseases • Kidney disease • Nutrition • Obesity • Oral health • Osteoporosis • Physical fitness and physical functioning • Reproductive history and sexual behavior • Respiratory disease (asthma, chronic bronchitis, emphysema) • Sexually transmitted diseases • Vision • Anthropometrics
Most recent Sample Size	Current US housing Units = 132,312,404	2011 National=504387 2011 Arizona=6489	2009-2010 Survey=10253
Collection Interval	Every 10 years	Annual	Starting in 1999 NHANES began gathering data annually. However, data is only presented in two-year intervals.



**Arizona Department of Health Services
Strategic Map: 2012-2015**



HEALTH STATUS INDICATORS

General Health

Health-related quality of life (HRQOL) questions relating to perceived physical and mental health and function have developed into an important part of health surveillance and are generally considered valid indicators of service needs and intervention outcomes. Self-assessed health status has proved a more dominant predictor of mortality and morbidity than many objective measures of health.⁶ HRQOL measures make it feasible to scientifically demonstrate the effect quality of life has on health, going well beyond the old paradigm that was restricted to what can be viewed under a microscope.⁷

As a health indicator General Health is an umbrella term. By collecting data on health status, the BRFSS is providing Arizona with a tool to evaluate nutrition, physical activity, obesity and infectious diseases and hospital readmissions. The aforementioned indicators are all part of Arizona's Winnable Battles as outlined in A1 and A3 of the ADHS Strategic Map. (See page 6)

Survey Question: Would you say that in general your health is?

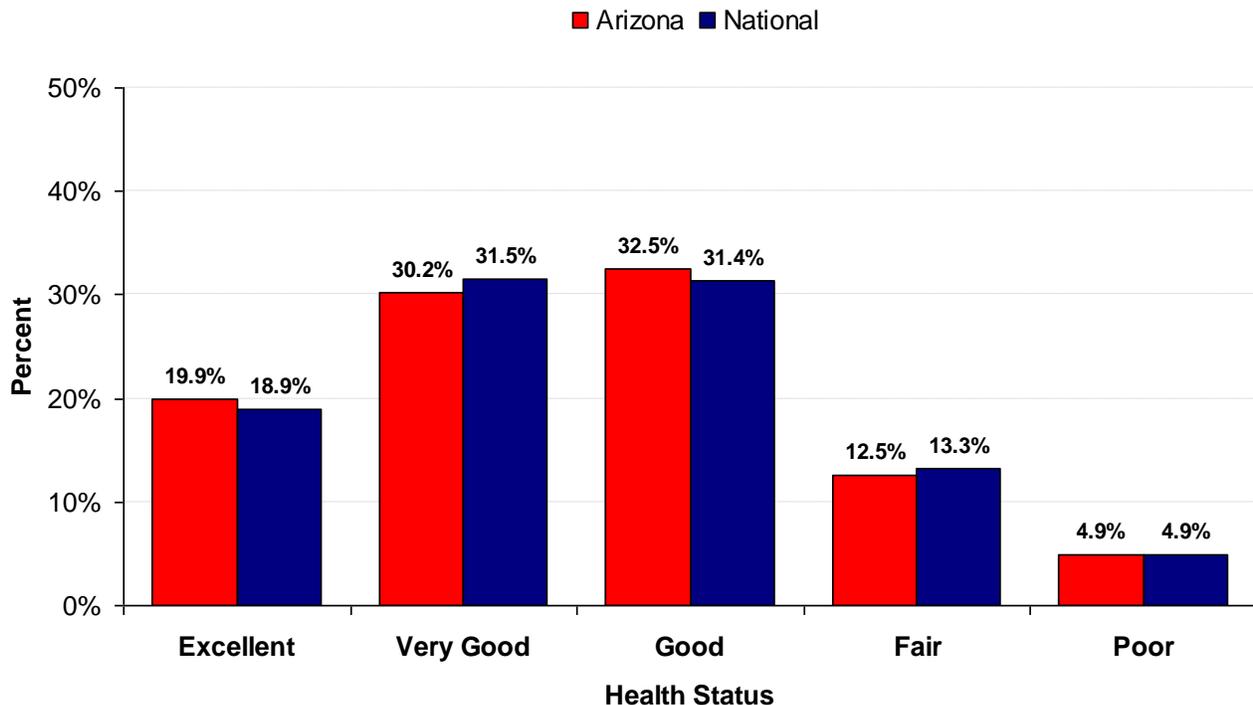


Figure 1A. Arizona and National 2011 BRFSS respondents' self-reported physical health status

Arizona has a slightly higher reported value in the excellent and good categories when compared to the nation as a whole (**Figure 1A**). However, Arizona respondents report that they have poor health status at almost the same rate as the national level.

General Health

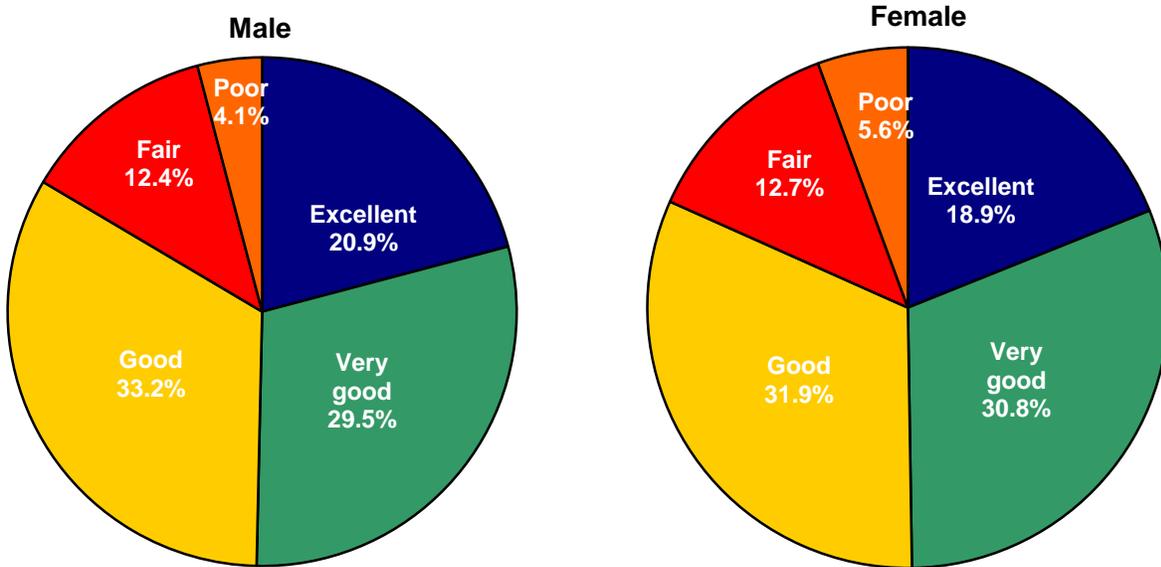


Figure 1B. Arizona 2011 BRFSS respondents’ self-reported physical health status by gender.

Males and females exhibited fairly consistent responses concerning self-reported health status. It appears that females reported poor and fair health status more often than males.

Survey Question: Would you say that in general your health is good?

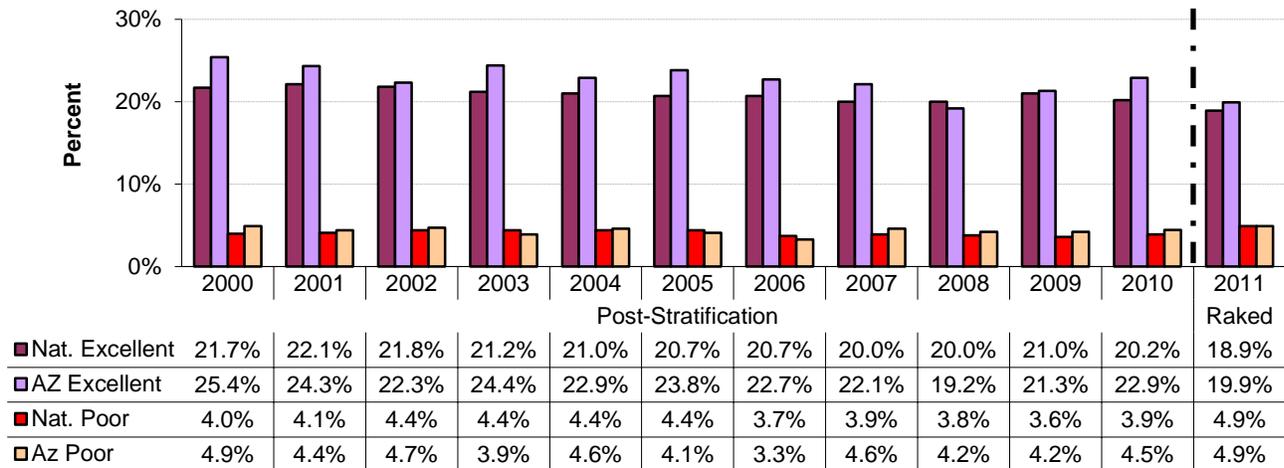


Figure 1C. Arizona and National 2000-2011 BRFSS respondents’ self-reported physical health status. The vertical-dash line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Figure 1C indicates that more Arizonans are reporting that they are in excellent health (19.9%) when compared to the national level (18.9%). Additionally, Arizona has the same percentage of people reporting poor health as the overall national level.

General Health

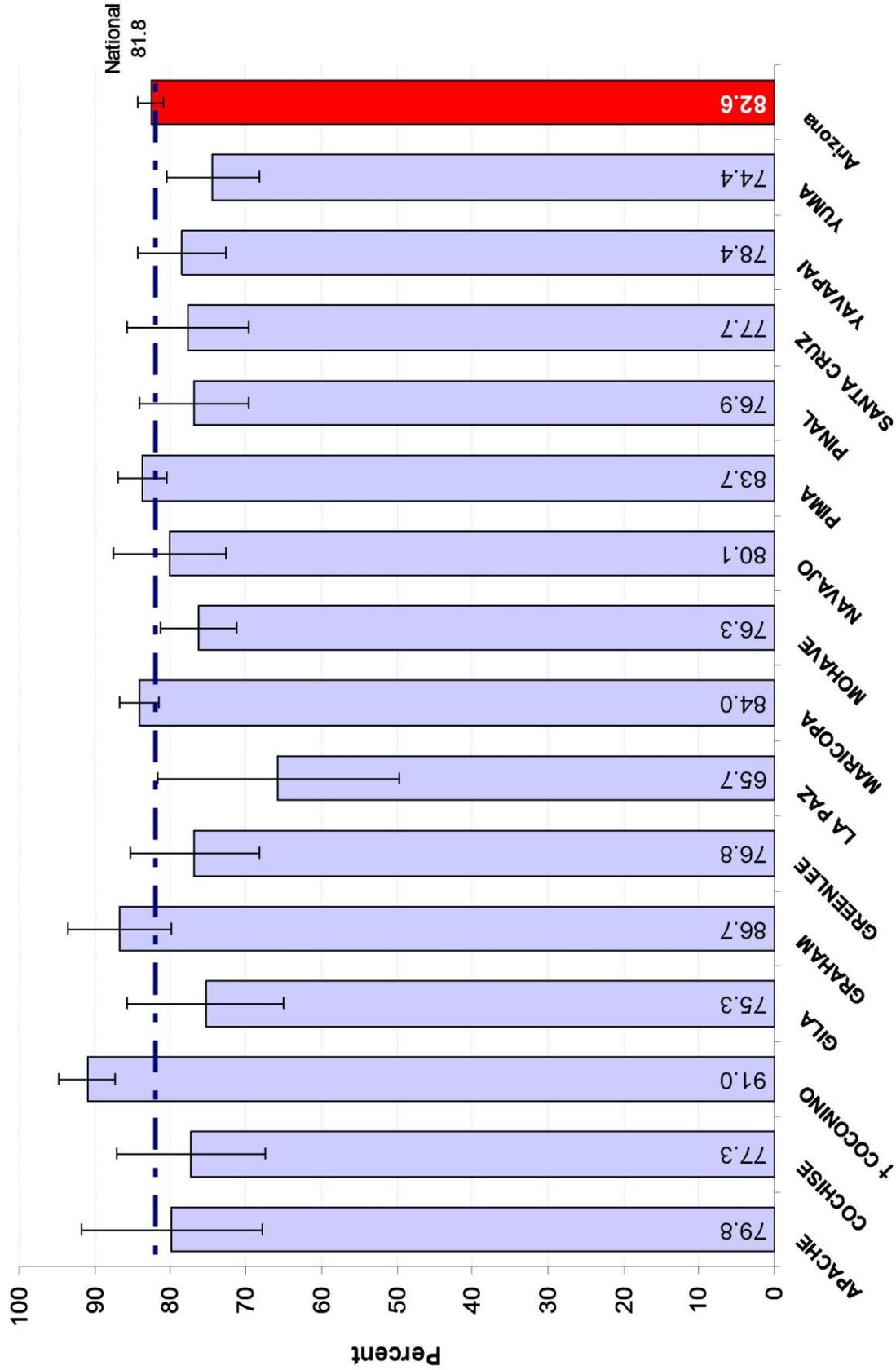
Table 1 indicates that 82.6% of respondents reported their health was good to excellent; which is slightly higher than the national BRFSS response of 81.8%. Some of the highlights of this table include:

- Adults who reported that they were self-employed had the highest percent of individuals reporting good to excellent health (91.2%).
- As education increased so did the likelihood of reporting good to excellent health with 93.5% of college graduates reporting good to excellent health.
- The same pattern was true for individuals with higher income. The percentage of individuals reporting good to excellent health increased with higher incomes.

Arizona 2011 BRFSS: Self-Reported Good to Excellent General Physical Health Status							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	82.6	5035	3918381	EMPLOYMENT			
SEX				Employed for wages	89.1	1748	1862920
Male	83.5	1965	1964189	Self employed	91.2	413	342757
Female	81.6	3070	1954192	Out of work	77.7	328	371575
AGE				Homemaker	81.2	464	354354
18-24	89.2	221	529834	Student	88.6	119	214718
25-34	92.3	465	838613	Retired	78.3	1819	651765
35-44	84.0	597	717441	Unable to Work	38.8	127	104454
45-54	76.7	782	641693	INCOME			
55-64	76.7	1045	528824	<\$25,000	68.9	1194	945081
65+	76.7	1925	661976	\$25,000-\$34,999	81.9	530	441510
MARITAL STATUS				\$35,000-\$49,999	85.8	704	503576
Married	83.9	2833	2023656	\$50,000-\$74,999	91.5	770	543203
Divorced	73.1	676	379869	\$75,000+	95.3	1119	977705
Widowed	70.7	718	231516	RACE			
Separated	73.5	72	66964	White Non-Hispanic	85.8	3767	2448351
Never Married	87.3	571	955260	Black	83.6	88	141830
Unmarried Couple	86.9	140	245358	Asian/PI	92.1	70	106665
EDUCATION				American Indian	70.1	204	120012
Less than High School	62.1	308	458348	Other	87.5	102	81572
High School Graduate/GED	80.6	1290	991231	Hispanic	76.3	740	975571
Some College/Tech School	85.7	1557	1400907				
College Grad	93.5	1867	1057135				

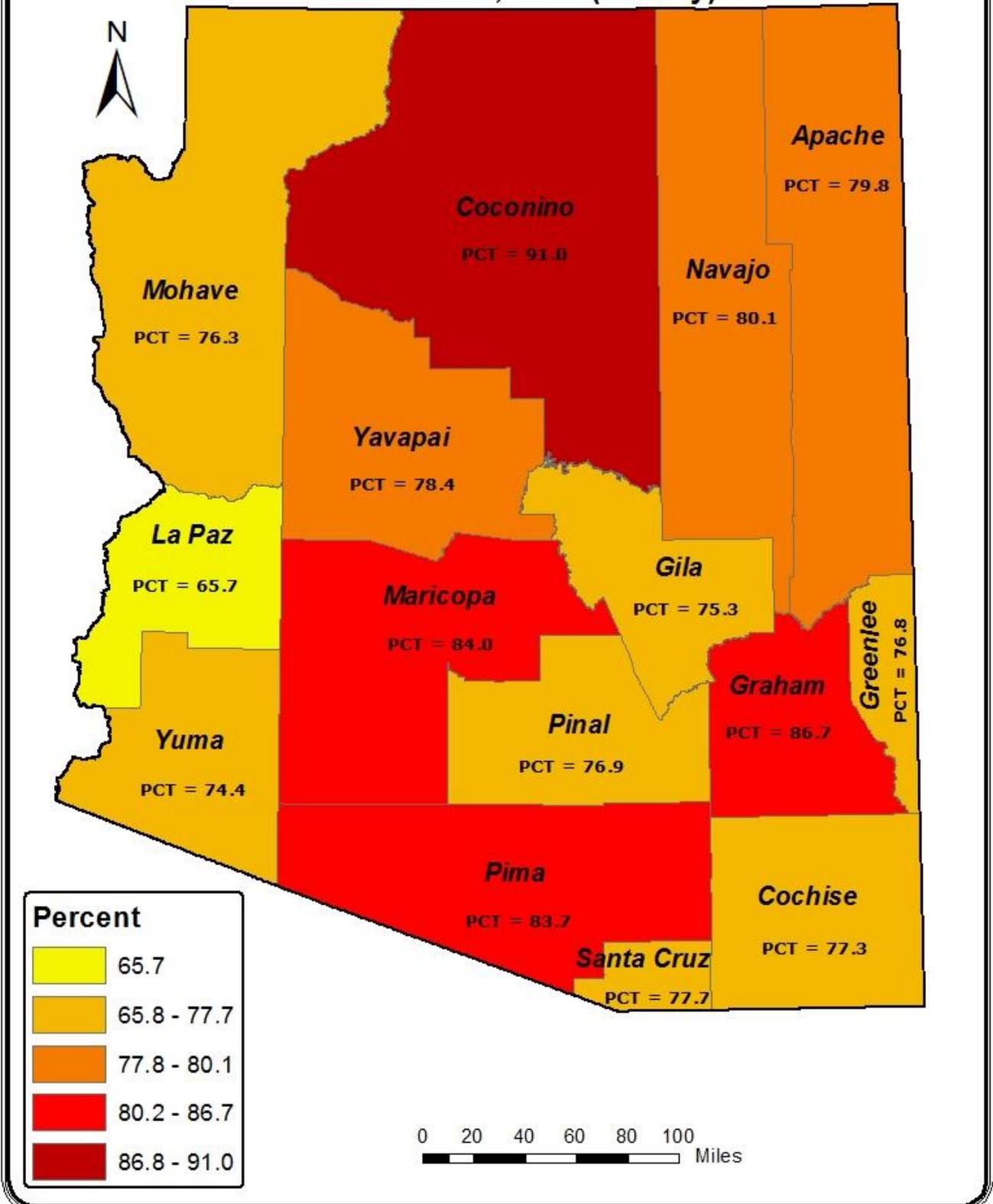
Table 1. N* is unweighted. The variable GENHLTH was used to generate all tables and charts.

Arizonans Who Reported Excellent, Very Good, or Good Health, 2011 (County)

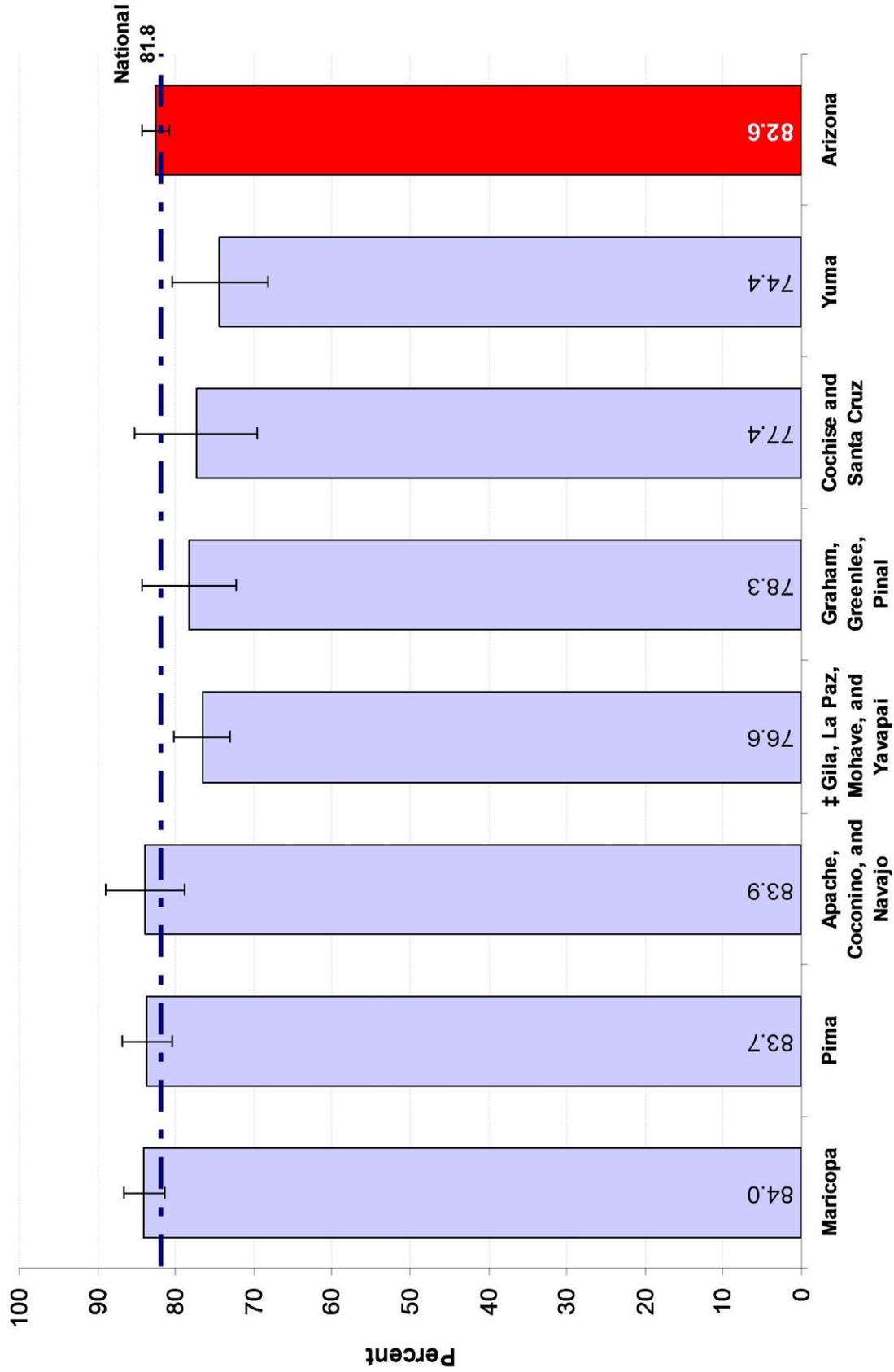


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported having excellent to good health status when compared to the state level

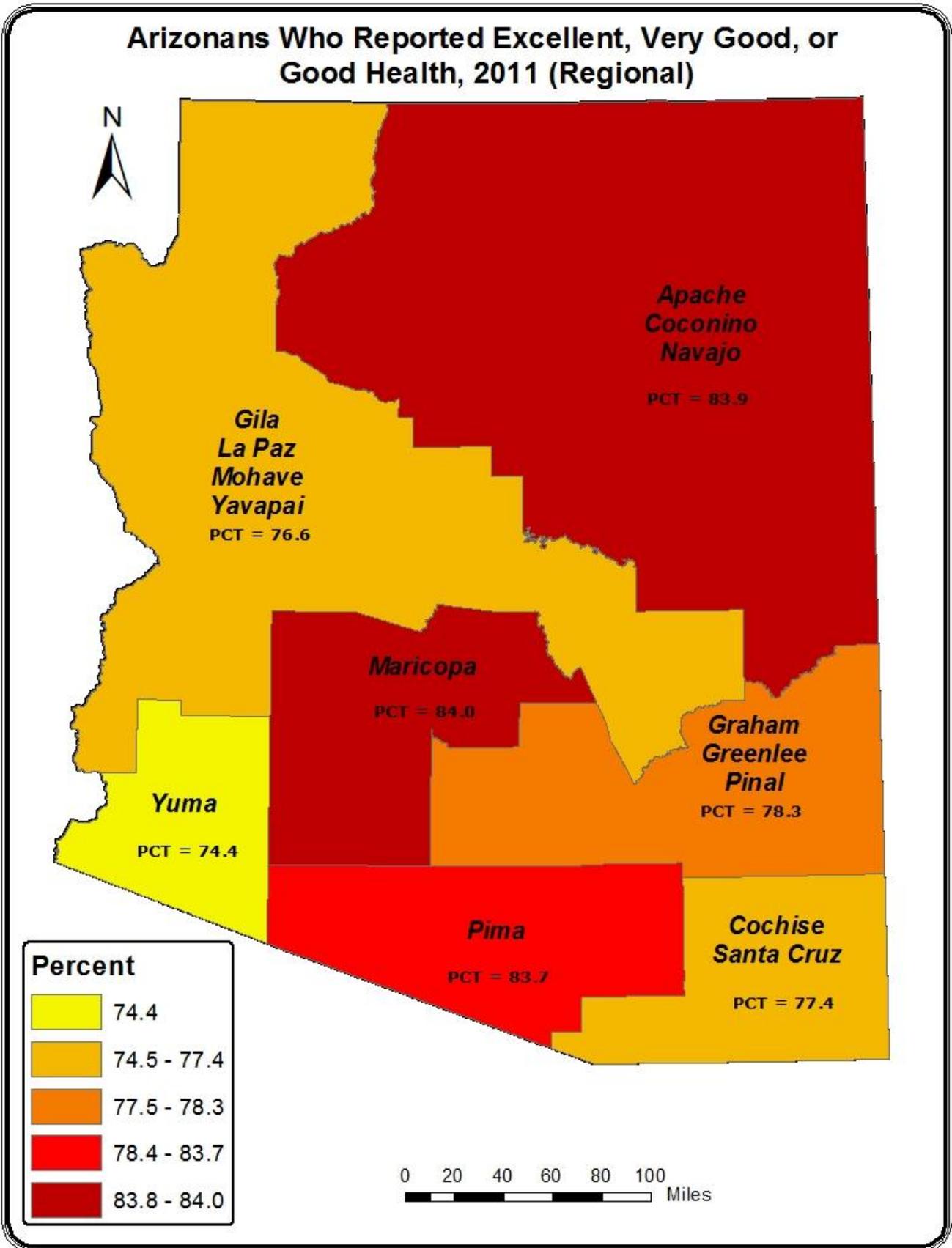
Arizonans Who Reported Excellent, Very Good, or Good Health, 2011 (County)



Arizonans Who Reported Excellent, Very Good, or Good Health, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly lower percentage of individuals who reported having excellent to good health status when compared to the state level



Quality of Life

Quality of life has been established as a key component in medical and public health research.⁸ This is especially true with chronic diseases, where a cure is unavailable and/or when available places an extra-ordinary cost burden on the individual and the system. Although, research has embraced the use of quality of life as an endpoint, it is difficult to ascertain an individual's quality of life. Quality of life is complex and can encompass a large number of different topics, variables and situations. Quality of life typically covers three different domains—physical health, mental health and social functioning.⁹ The 2011 BRFSS asked respondents three questions encompassing physical health, mental health and social functioning.

As a health indicator Quality of Life is an umbrella term. Quality of Life incorporates physical health status, mental health status, and social functioning to gauge health. Therefore, by collecting data on Quality of Life, the BRFSS provides Arizona with a tool to evaluate nutrition, physical activity, obesity, infectious diseases and hospital readmissions. The aforementioned indicators are all part of Arizona's Winnable Battles as outlined in A1 and A3 of the ADHS Strategic Map. (See Page 6)

Survey Question: Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

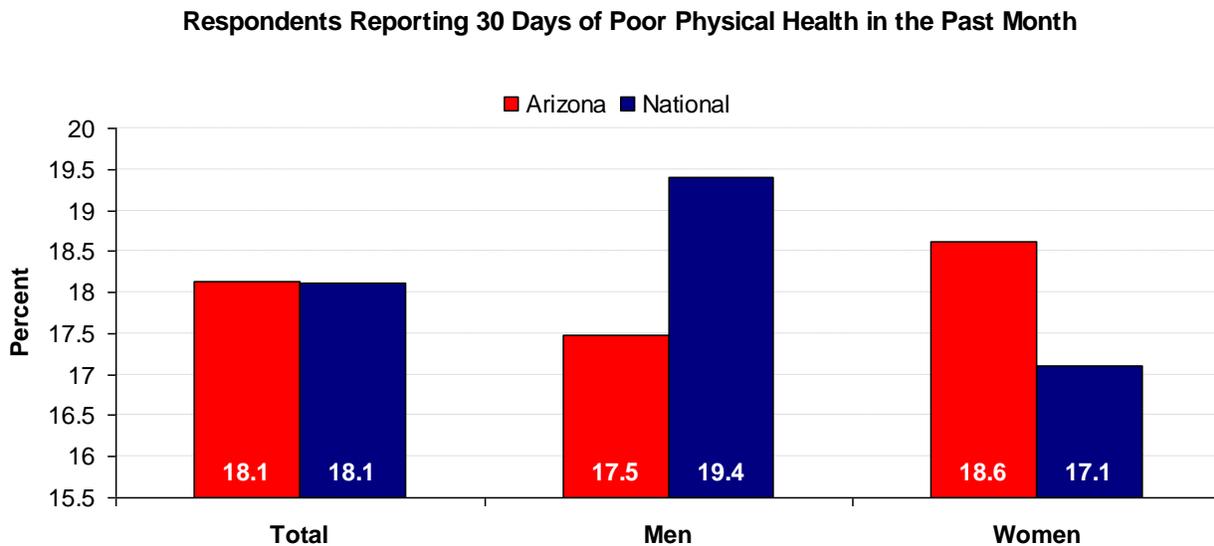


Figure 2A. Arizona and National 2011 BRFSS binary physical health response. The response was measured by categorizing those who reported poor physical health every day within the past 30 days.

Survey Question: Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good?

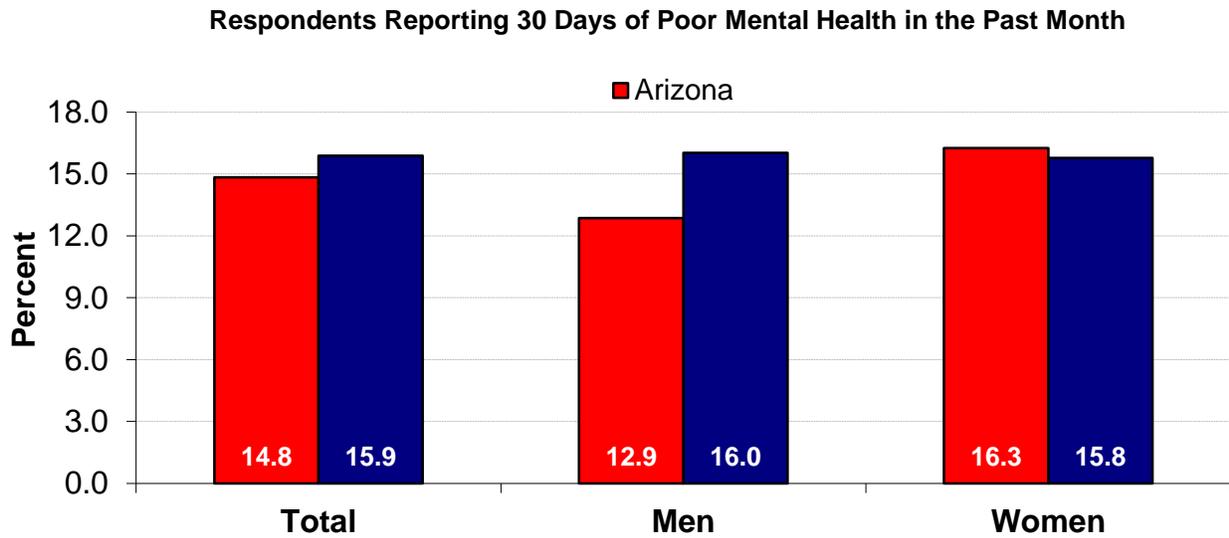


Figure 2B. Arizona and National 2011 BRFSS binary mental health response. The response was measured by categorizing those who had poor mental health within the past 30 days.

Survey Question: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work or recreation?

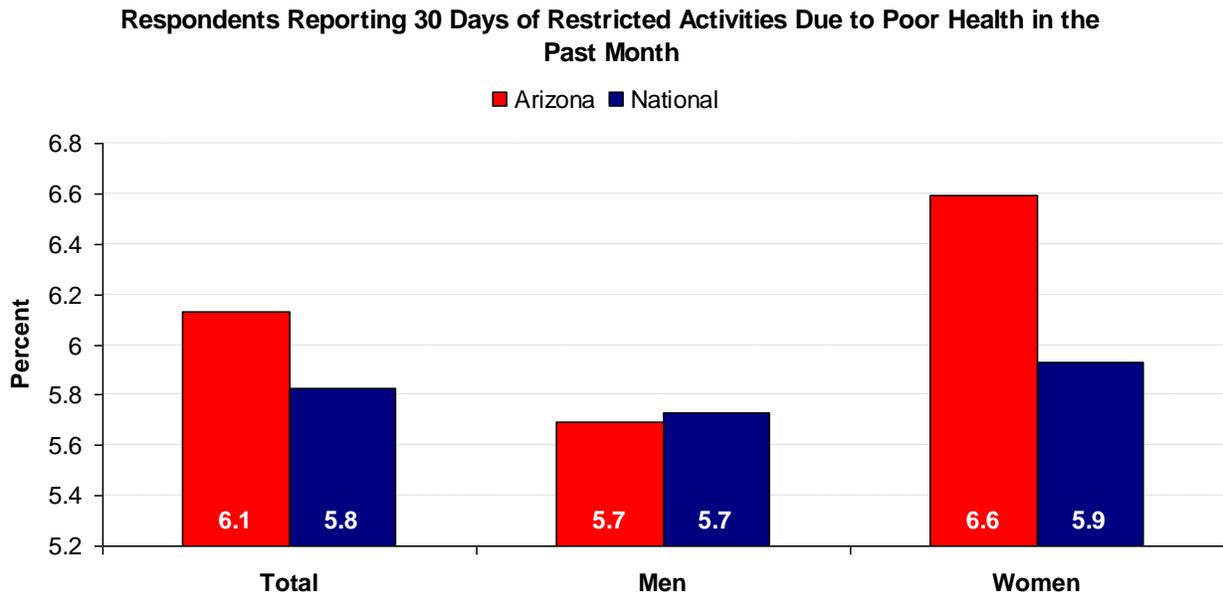


Figure 2C. Arizona and National 2011 BRFSS binary restricted activities due to poor health. Respondents who reported poor physical or mental health restricted their usual activities within the past 30 days.

Quality of Life-Physical Health

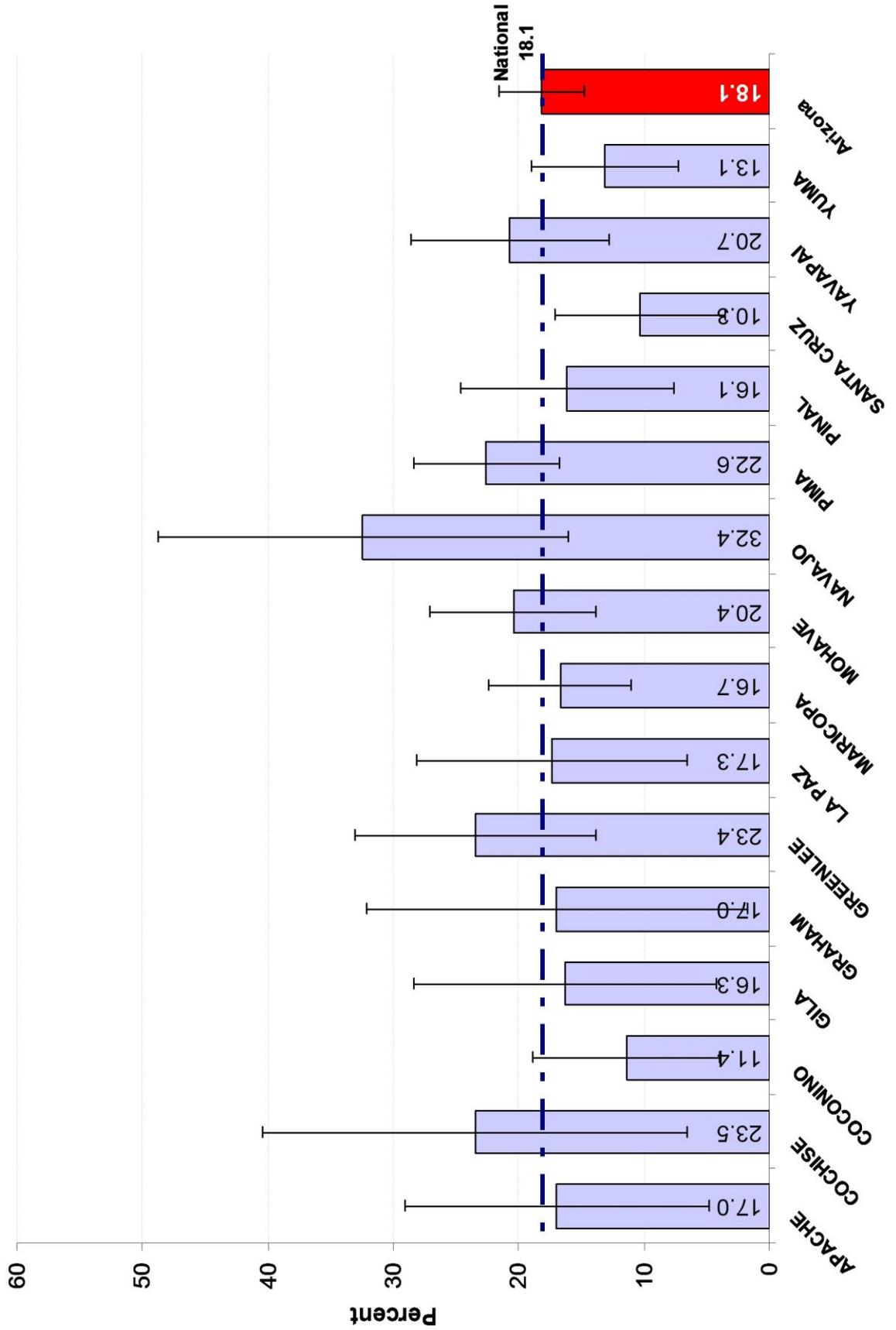
According to the 2011 BRFSS, Arizonans had approximately the same percentage of individuals reporting that they had 30 days of poor physical health in the past 30 days when compared to the nation as a whole. However, upon stratification by gender, Arizona men were less likely to report poor health when compared to the nation (**Figure 2A**). **Table 2A** indicates that 18.1% of respondents reported that they had 30 days of poor physical health each month. Some of the highlights of this table include:

- Men were less likely than women to report 30 days of poor physical health in the past month (17.5%).
- Adult respondents who were separated or married had the lowest percentage reporting 30 days of poor physical health, at 13.2% and 15.6% respectively.
- The likelihood of reporting 30 days of poor physical health decreased with higher levels of education.

Arizona 2011 BRFSS: Individuals Reporting 30 Days of Poor Physical Health in the Past Month							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	18.1	560	299341	EMPLOYMENT			
SEX				Employed for wages	7.3	61	45311
Male	17.5	211	121653	Self employed	10.6	15	12156
Female	18.6	349	177688	Out of work	24.5	41	39274
AGE				Homemaker	11.2	34	16962
18-24	6.0	5	11991	Student	0.5	2	441.6
25-34	18.0	14	45528	Retired	24.4	220	71145
35-44	13.5	35	37807	Unable to Work	51.0	186	113708
45-54	19.1	98	67861	INCOME			
55-64	20.0	143	55936	<\$25,000	24.6	270	162568
65+	28.2	265	80219	\$25,000-\$34,999	19.0	65	29603
MARITAL STATUS				\$35,000-\$49,999	12.4	60	24949
Married	15.6	235	124678	\$50,000-\$74,999	10.4	39	18981
Divorced	25.5	129	60201	\$75,000+	7.9	32	20701
Widowed	26.6	115	33950	RACE			
Separated	13.2	17	6152	White Non-Hispanic	20.7	405	211949
Never Married	16.9	47	58934	Black	23.7	10	11648
Unmarried Couple	16.7	14	14661	Asian/PI	9.6	4	2823
EDUCATION				American Indian	26.5	36	17591
Less than High School	27.7	80	96498	Other	16.8	13	4481
High School Graduate/GED	18.2	179	81234	Hispanic	10.9	82	47174
Some College/Tech School	16.8	183	89864				
College Grad	9.9	115	31075				

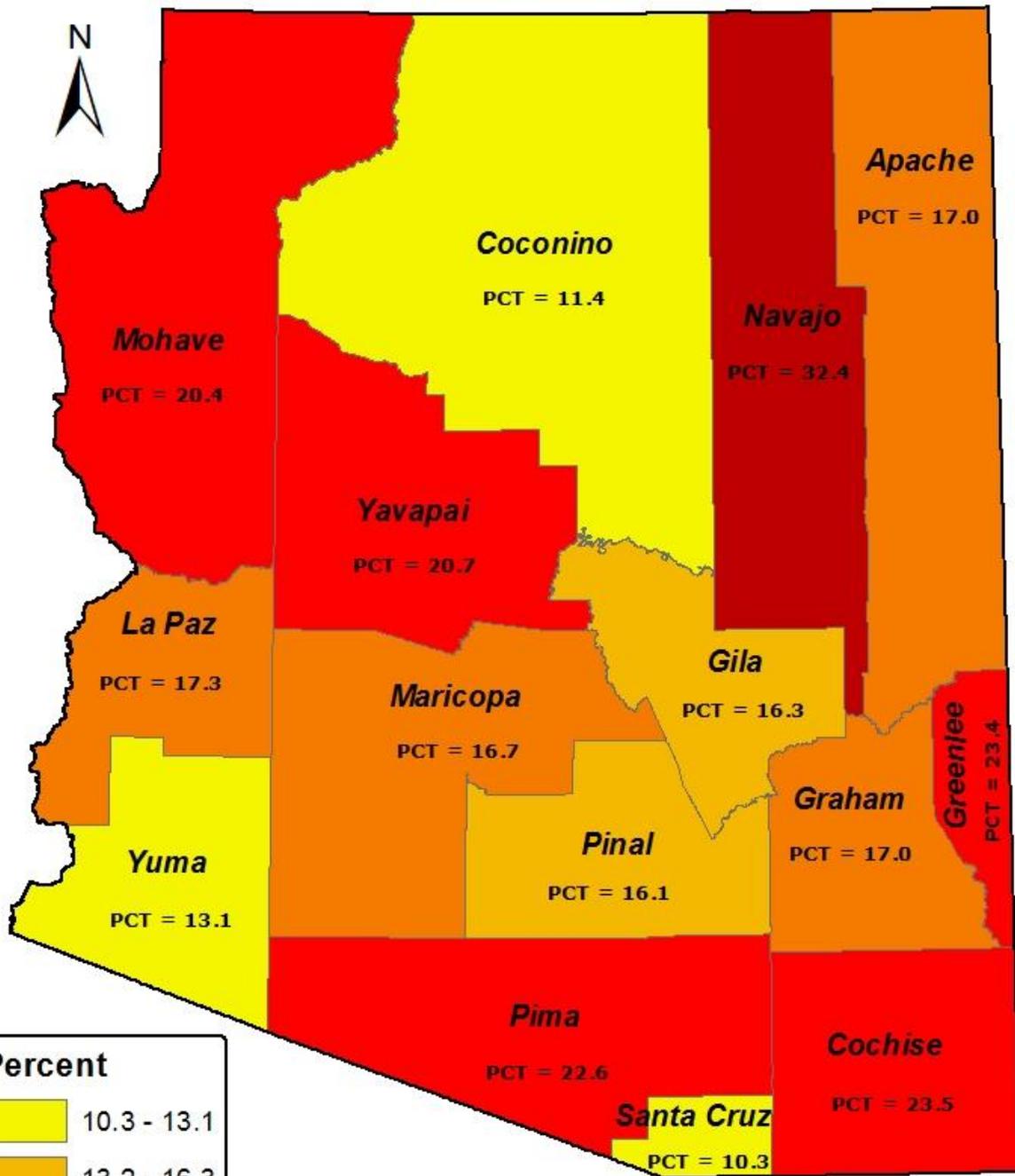
Table 2A. N* is unweighted. The variable **PHYSHLTH** was used to generate all tables and charts.

Respondents Reporting 30 Days of Poor Physical Health in the Past Month, 2011 (County)

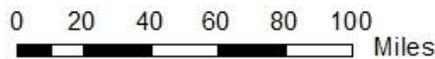


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

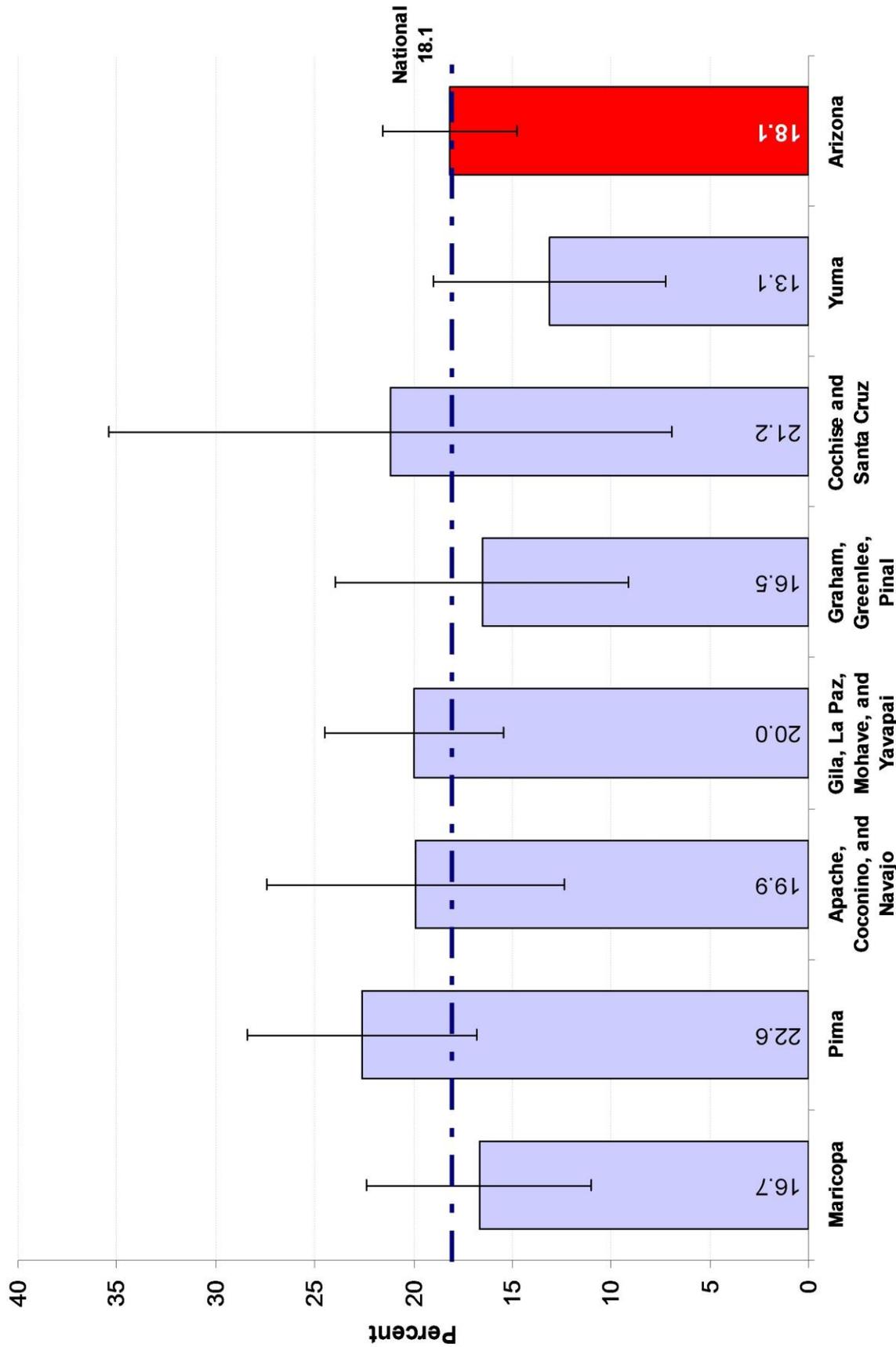
Respondents Reporting 30 Days of Poor Physical Health in the Past Month, 2011 (County)



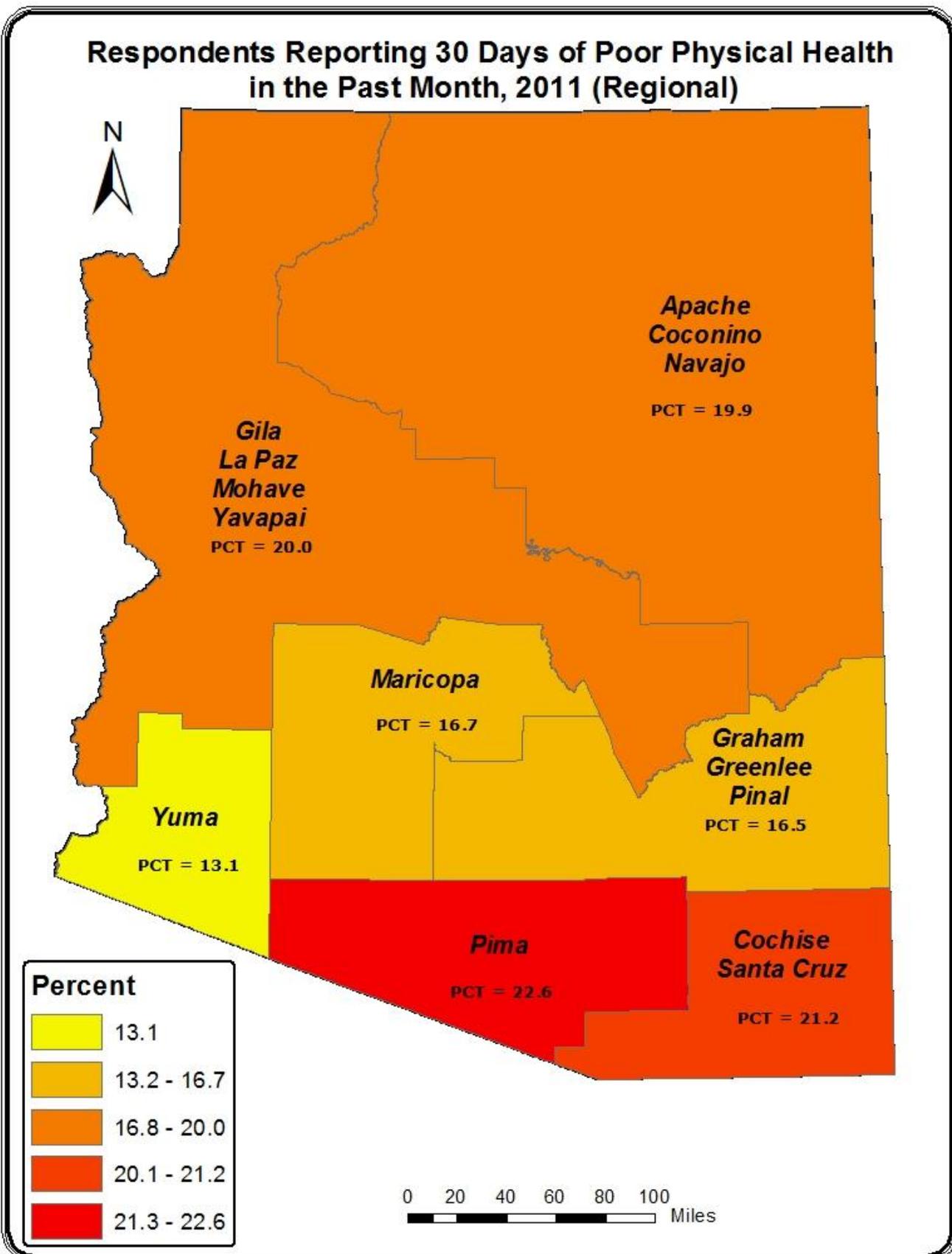
Percent



Respondents Reporting 30 Days of Poor Physical Health in the Past Month, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFFS website is provisional and values are subject to change



Quality of Life-Mental Health

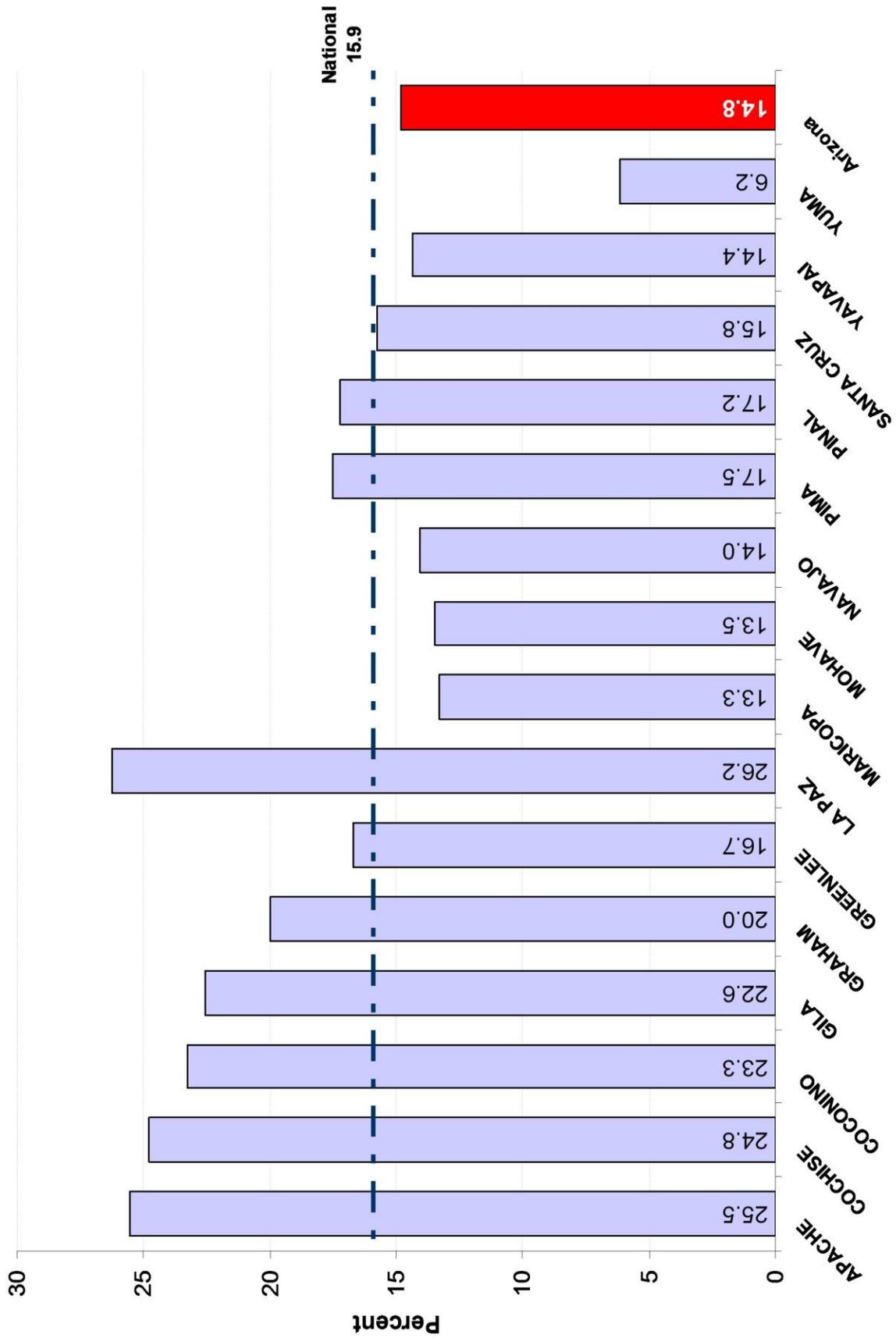
According to the 2011 BRFSS, Arizona had less individuals reporting poor mental health when compared to the nation as a whole (**Figure 2B**). **Table 2B** indicates that 5.4% of respondents reported that they had 30 days of poor mental health each month. Some of the highlights of this table include:

- Men were less likely to report that they had 30 days of poor mental health when compared to women, at 3.9%.
- When looking at Marital Status—Married and never married couples had the lowest percent reporting poor mental health, at 4.4%.
- The likelihood of reporting 30 days of poor mental health decreased with higher levels of education.
- Respondent who were unable to work had the highest percent of people reporting poor physical health, at 26%.

Arizona 2011 BRFSS: Individuals Reporting 30 Days of Poor Mental Health Each Month							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	14.8	356	258387	EMPLOYMENT			
SEX				Employed for wages	7.1	69	55954
Male	12.9	114	93945	Self employed	12.5	20	16657
Female	16.3	242	164443	Out of work	25.6	51	49591
AGE				Homemaker	14.6	30	21373
18-24	11.9	15	29648	Student	3.8	3	4246
25-34	8.5	24	28752	Retired	22.4	79	37729
35-44	10.9	44	40325	Unable to Work	37.7	101	72488
45-54	17.4	78	63196	INCOME			
55-64	23.6	94	57064	<\$25,000	21.4	174	135452
65+	21.8	101	39402	\$25,000-\$34,999	13.5	42	23800
MARITAL STATUS				\$35,000-\$49,999	12.0	42	27758
Married	13.7	145	107868	\$50,000-\$74,999	3.6	13	6787
Divorced	21.0	70	45325	\$75,000+	5.9	21	18811
Widowed	24.3	62	25064	RACE			
Separated	22.0	15	12200	White Non-Hispanic	15.0	231	151010
Never Married	11.1	50	48182	Black	10.6	10	7622
Unmarried Couple	14.3	14	19749	Asian/PI	16.5	4	5324
EDUCATION				American Indian	29.1	26	22953
Less than High School	21.6	64	69478	Other	14.0	10	5285
High School Graduate/GED	18.2	110	78787	Hispanic	12.6	66	62001
Some College/Tech School	12.7	112	79568				
College Grad	8.0	68	28804				

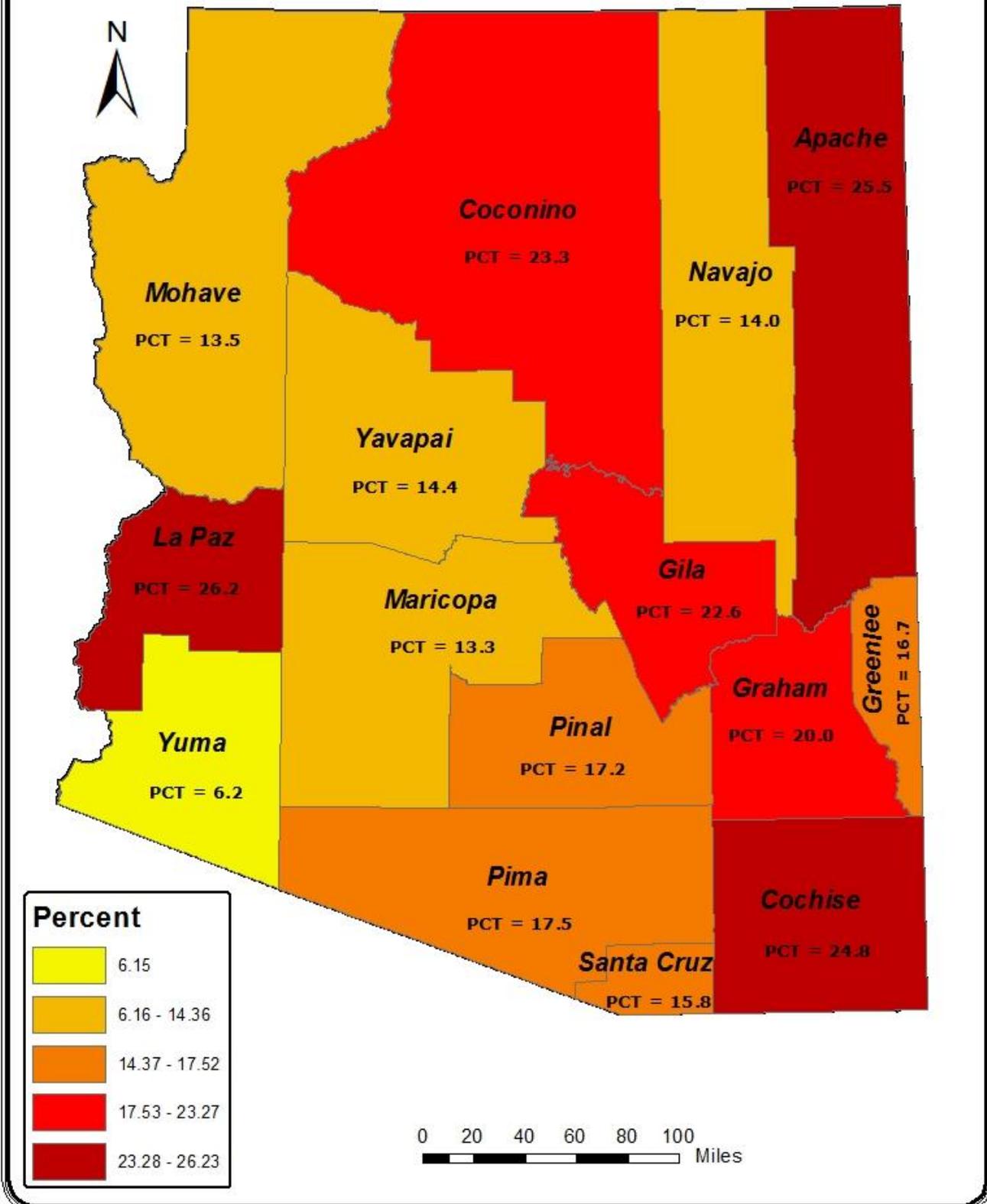
Table 2B. N* is unweighted. The variable MENTHLTH was used to generate all tables and charts.

Percent of Arizonans Reporting 30 Days of Poor Mental Health in the Past Month, 2011 (County)

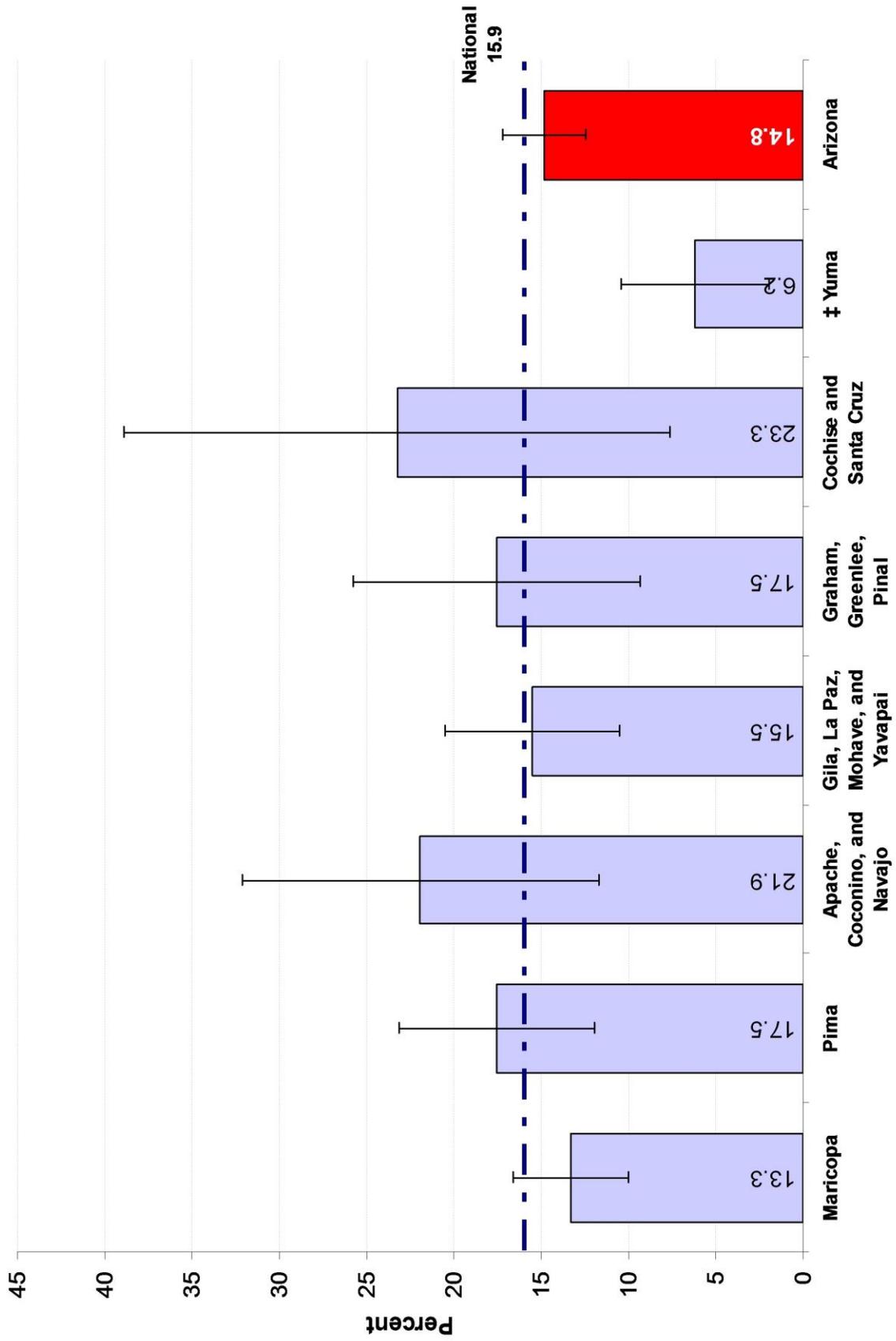


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.

Respondents Reporting 30 Days of Poor Mental Health in the Past Month, 2011 (County)

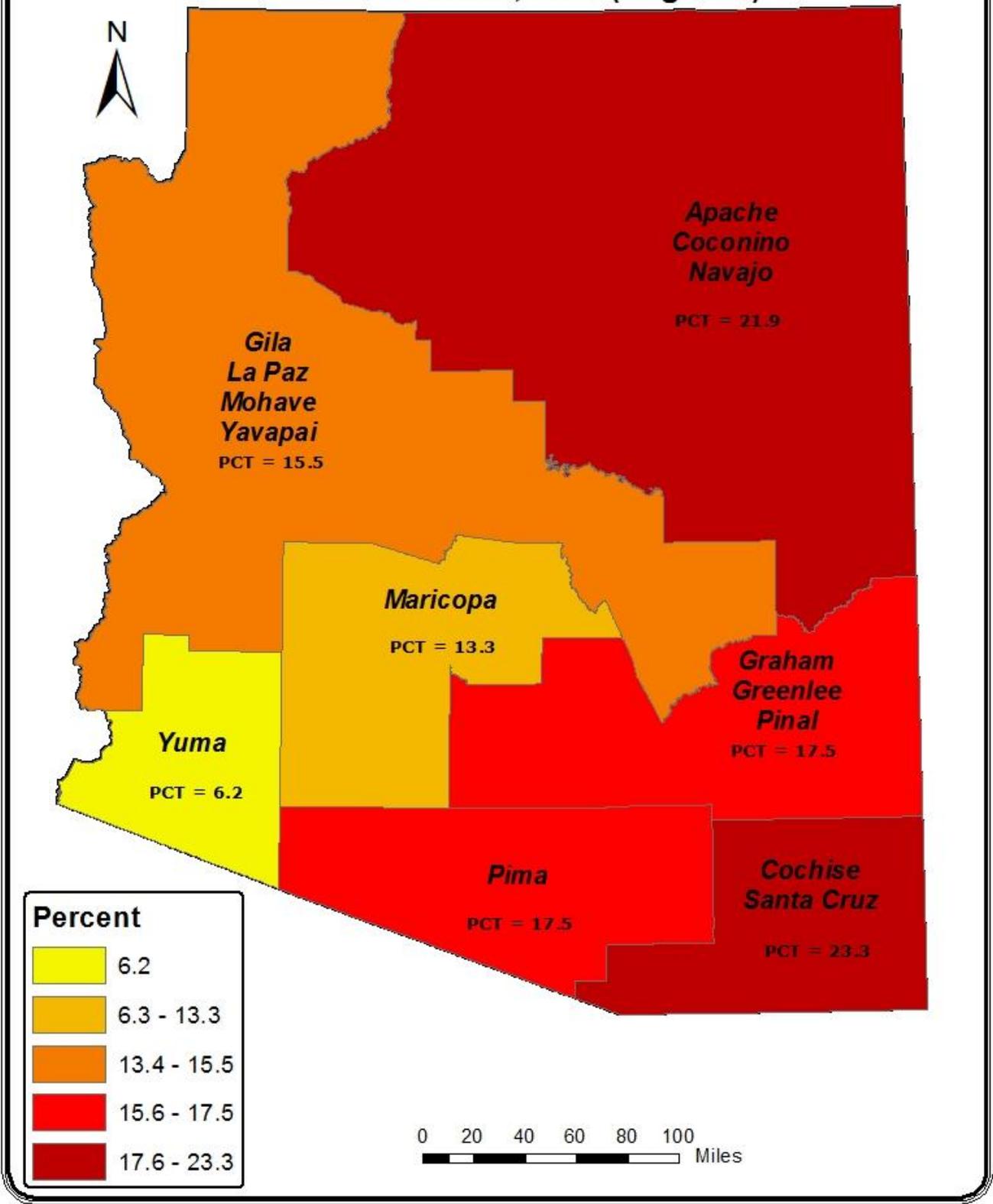


Percent of Arizonans Reporting 30 Days of Poor Mental Health in the Past Month, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ‡ indicates that the region has a significantly lower percentage of individuals who reported having 30 days of poor mental health when compared to the state level

Respondents Reporting 30 Days of Poor Mental Health in the Past Month, 2011 (Regional)



Quality of Life-Restricted Activities due to Mental or Physical Health

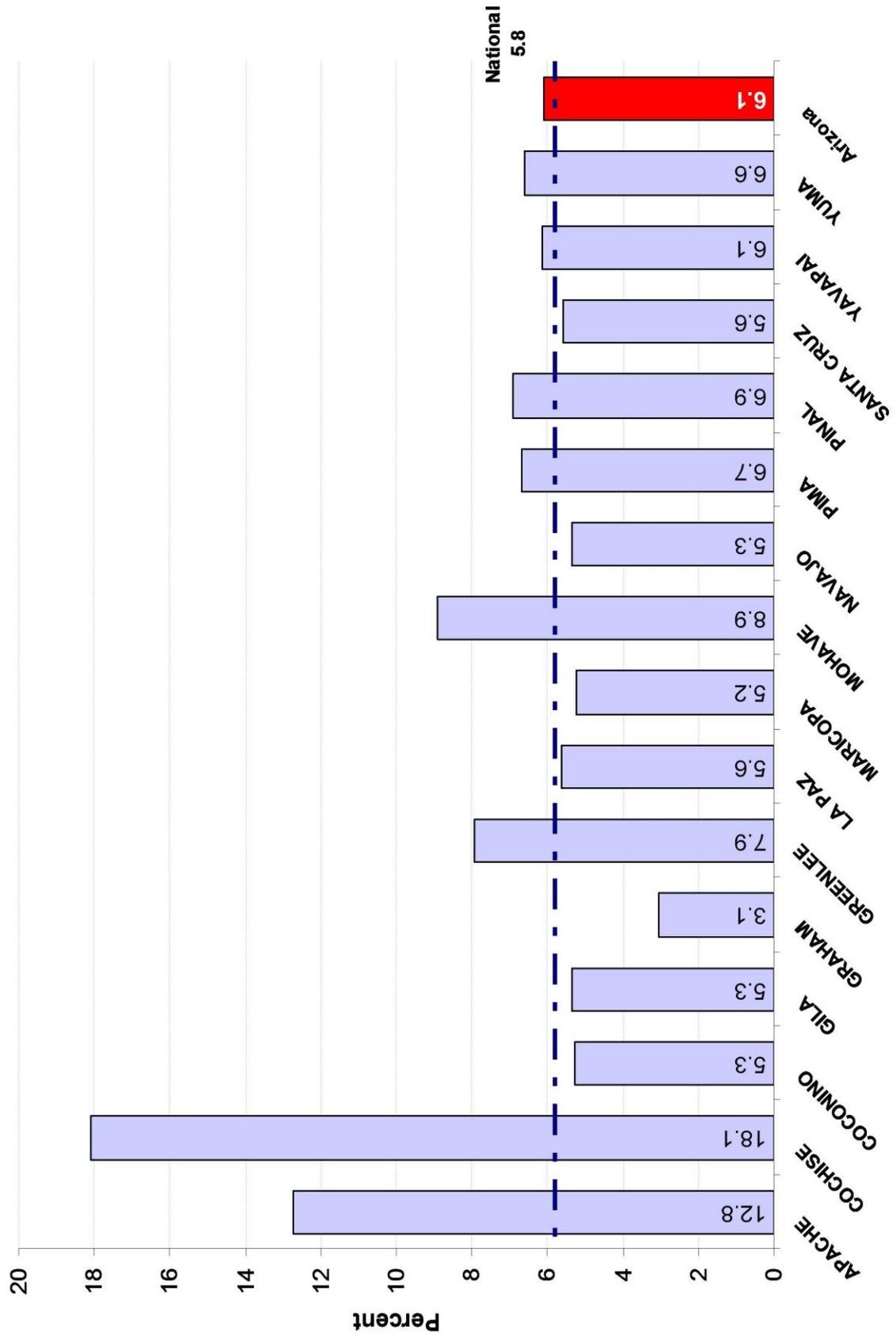
According to the 2011 BRFSS (**Table 2C** below), 6.1% of respondents reported that they had 30 days of restricted activities due to poor physical or mental health each month. Some of the highlights of this table include:

- Men were less likely than women to report that they had restricted activities for 30 days in the past month due to their health, at 5.7%.
- Adult respondents reporting that they were never married and unmarried were the least likely to report restricted activities due to health, at 4.3%.
- As education increased rates of reporting 30 days of poor physical health decreased.
- Adult respondents who were unable to work had the highest percent of people reporting poor physical health at 43.0%.

Arizona 2011 BRFSS: Individuals Reporting 30 Days of Restriction of Activities Due to Poor Health in the Past Month							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	6.1	321	204858	EMPLOYMENT			
SEX				Employed for wages	1.0	20	14110
Male	5.7	122	97067	Self employed	2.0	4	5324
Female	6.6	199	107791	Out of work	7.7	28	27238
AGE				Homemaker	4.5	21	14238
18-24	4.3	5	17535	Student	1.9	1	2916
25-34	2.0	12	12227	Retired	8.5	118	55034
35-44	5.1	20	28971	Unable to Work	43.0	128	85852
45-54	10.1	59	57304	INCOME			
55-64	7.9	97	41066	<\$25,000	10.6	145	97021
65+	7.2	128	47755	\$25,000-\$34,999	6.2	43	26282
MARITAL STATUS				\$35,000-\$49,999	5.2	37	20012
Married	5.4	132	91842	\$50,000-\$74,999	1.8	16	7818
Divorced	10.2	71	36981	\$75,000+	3.3	23	24315
Widowed	12.6	68	31193	RACE			
Separated	6.6	10	4562	White Non-Hispanic	5.9	222	116454
Never Married	4.3	31	32316	Black	4.9	5	6141
Unmarried Couple	4.3	9	7965	Asian/PI	6.0	5	5151
EDUCATION				American Indian	16.2	20	17704
Less than High School	10.3	55	52001	Other	7.0	7	4035
High School Graduate/GED	6.5	93	57197	Hispanic	5.2	54	48586
Some College/Tech School	6.4	105	72160				
College Grad	2.8	67	23198				

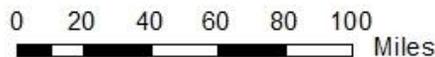
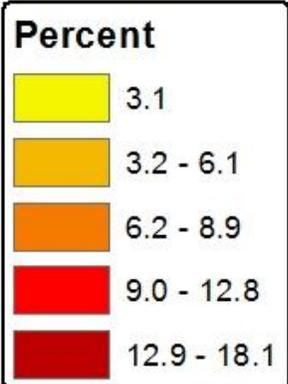
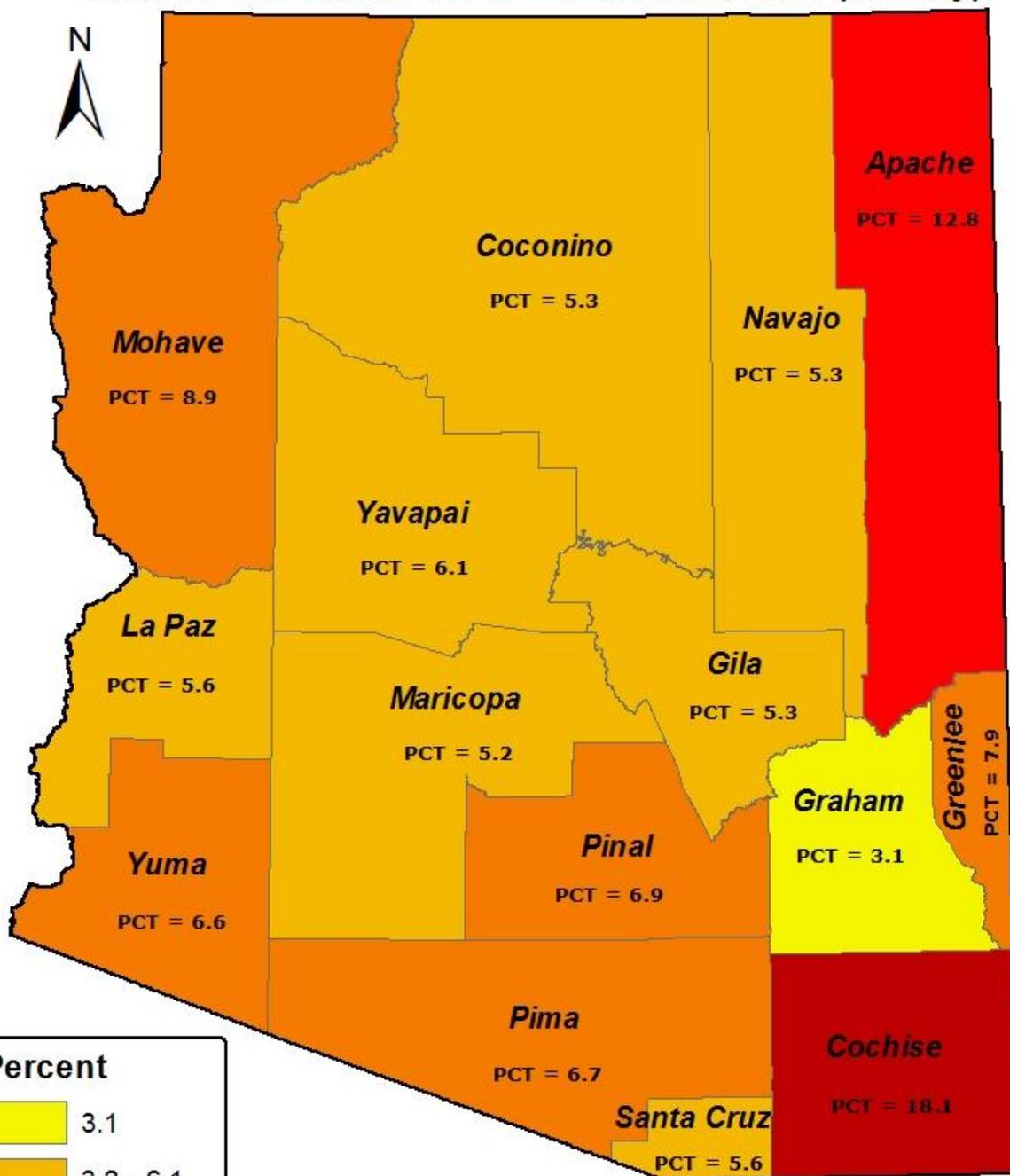
Table 2C. N* is unweighted. The variable POORHLTH was used to generate all charts and tables.

Percent of Arizonans Reporting 30 Days of Restricted Activities Due to Poor Health in the Past Month, 2011 (County)

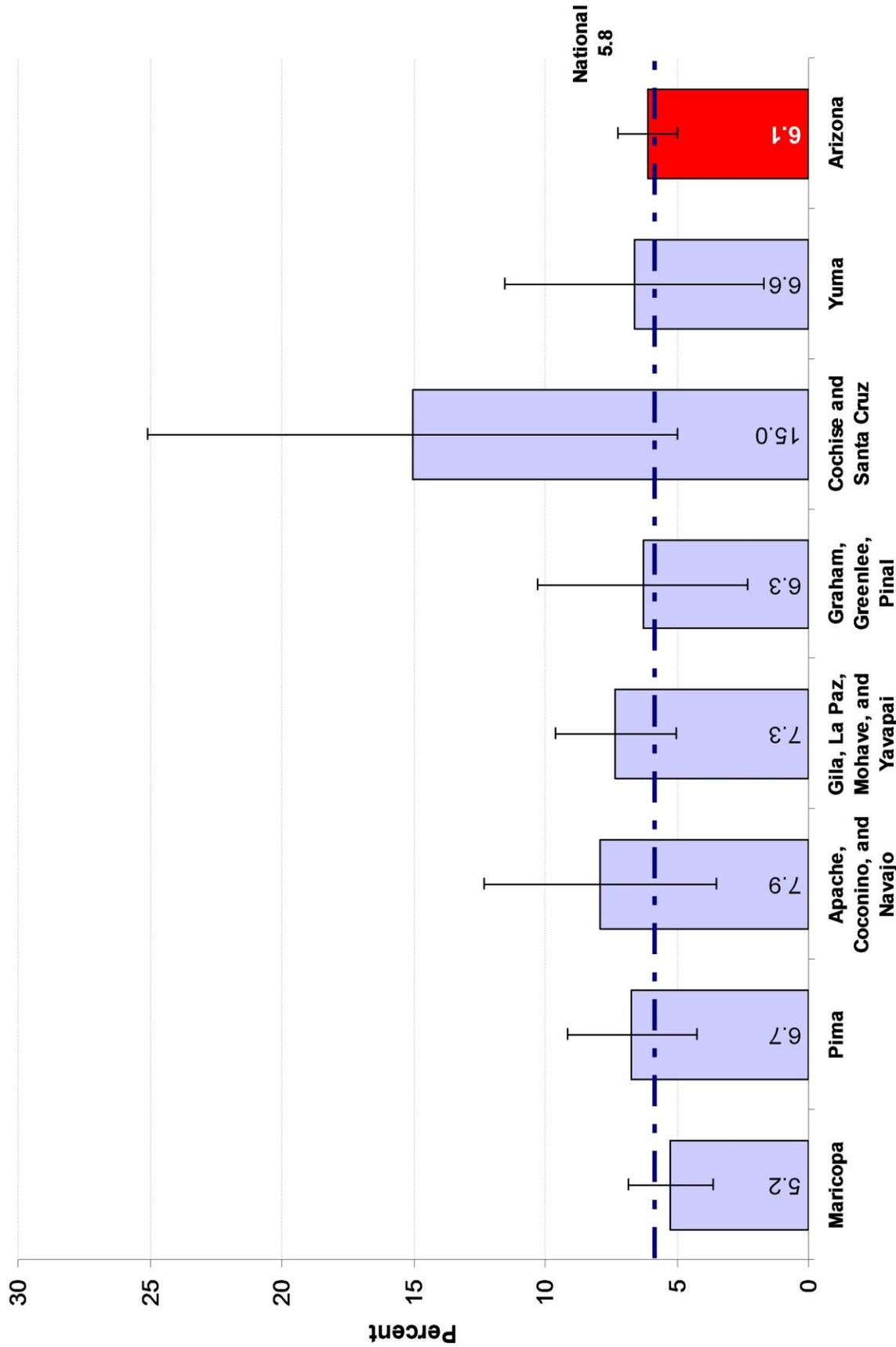


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.

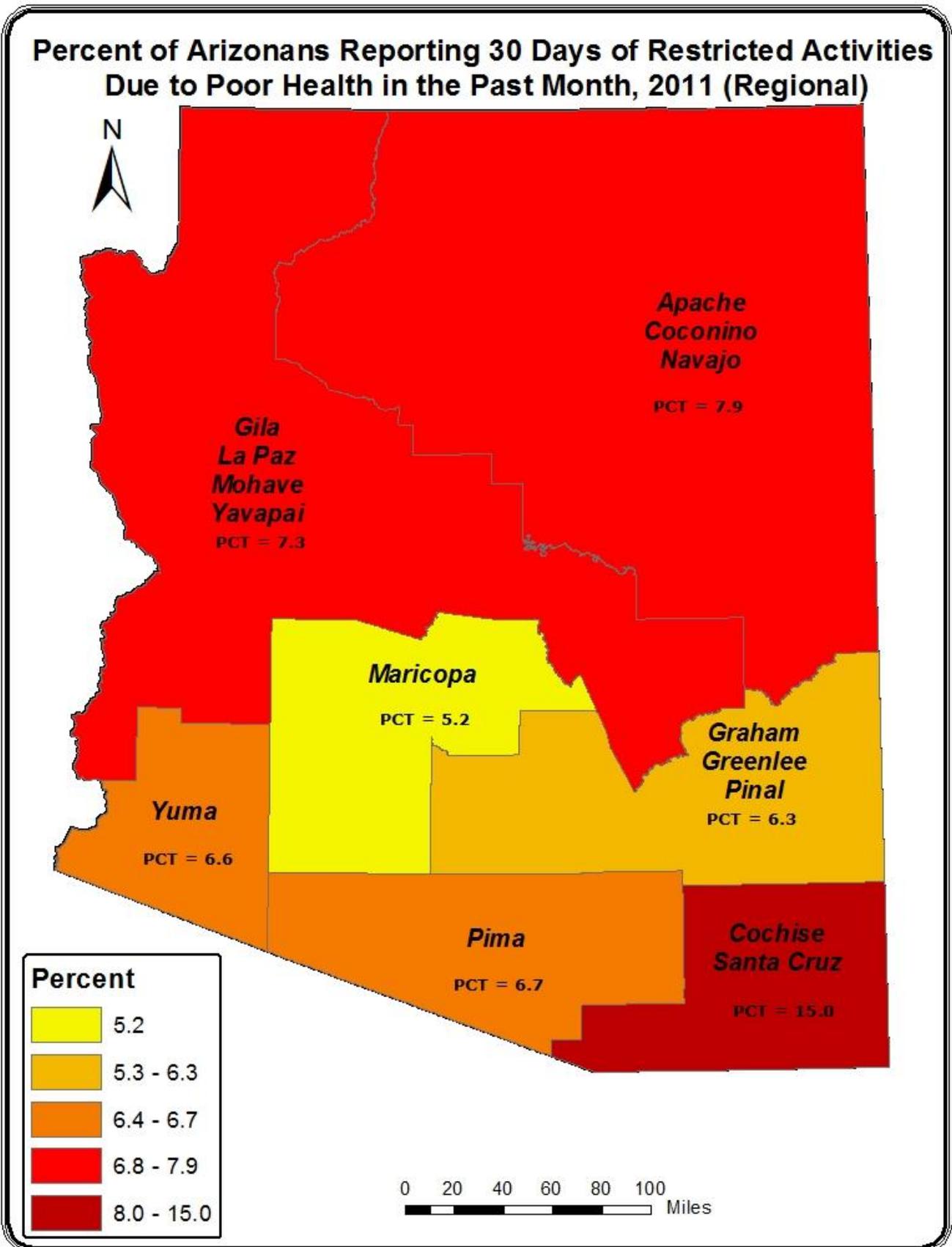
Percent of Arizonans Reporting 30 Days of Restricted Activities Due to Poor Health in the Past Month, 2011 (County)



Percent of Arizonans Reporting 30 Days of Restricted Activities Due to Poor Health in the Past Month, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



HEALTH CONDITIONS
AND
LIMITATIONS

High Cholesterol

Having high blood cholesterol puts an individual at risk for heart disease, which is the leading cause of death in the United States. About one in six adults in the U.S. has high blood cholesterol. While there are no symptoms of high cholesterol, some preventable risk factors include smoking, obesity, poor diet and lack of physical activity. Although, a simple blood test can assess the level of cholesterol, many people have never had their cholesterol checked and are unaware that they are at risk.¹⁰ BRFSS asks respondents to indicate whether they had ever had their cholesterol checked. **Figure 3** displays respondents who indicated that they had their cholesterol checked within the last five years.

High cholesterol has a large number of risk factors including smoking, obesity, poor diet, lack of physical activity and diabetes. Therefore, by collecting data on cholesterol, the BRFSS provides Arizona with a tool to assess the interventions programs targeting nutrition, physical activity, obesity and tobacco use. The aforementioned risk factors are part of Arizona's Winnable Battles as outlined in A1 & A2 of the ADHS Strategic Map. (See page 6)

Survey Question: Have you ever had your blood cholesterol checked? About how long has it been since you last had your blood cholesterol checked?

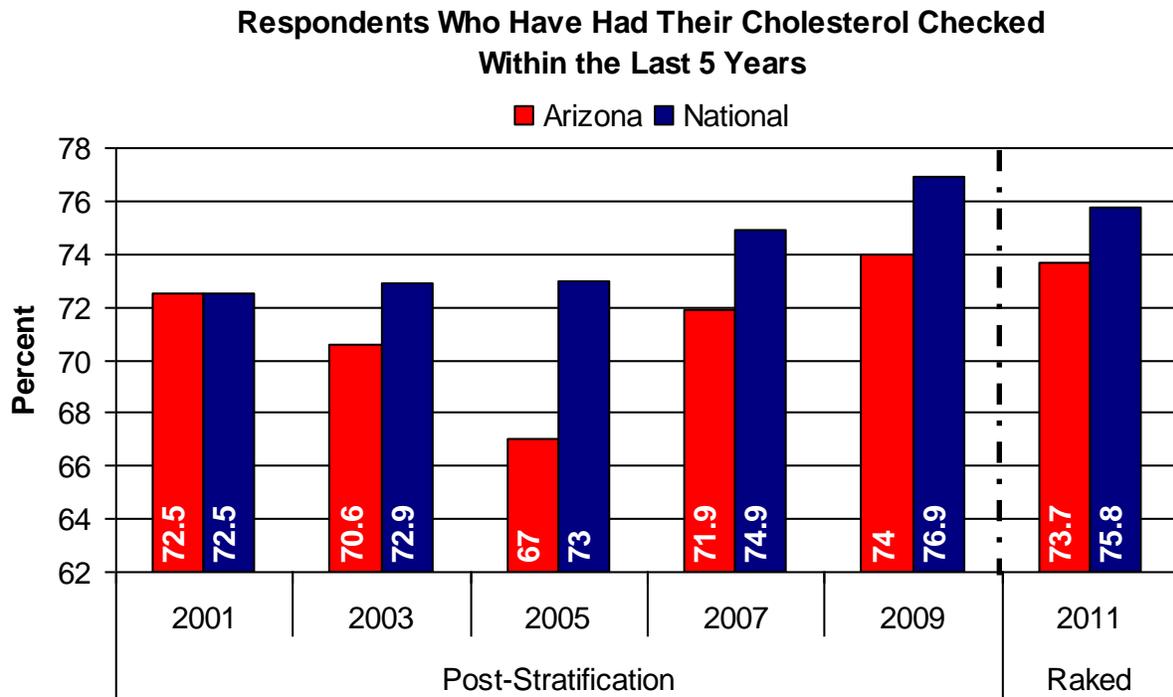


Figure 3. Prevalence of Arizona and National BRFSS respondents who had their cholesterol checked in the last 5-years. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure. The variable `_CHOLCHK` was used to generate the bar chart.

High Cholesterol

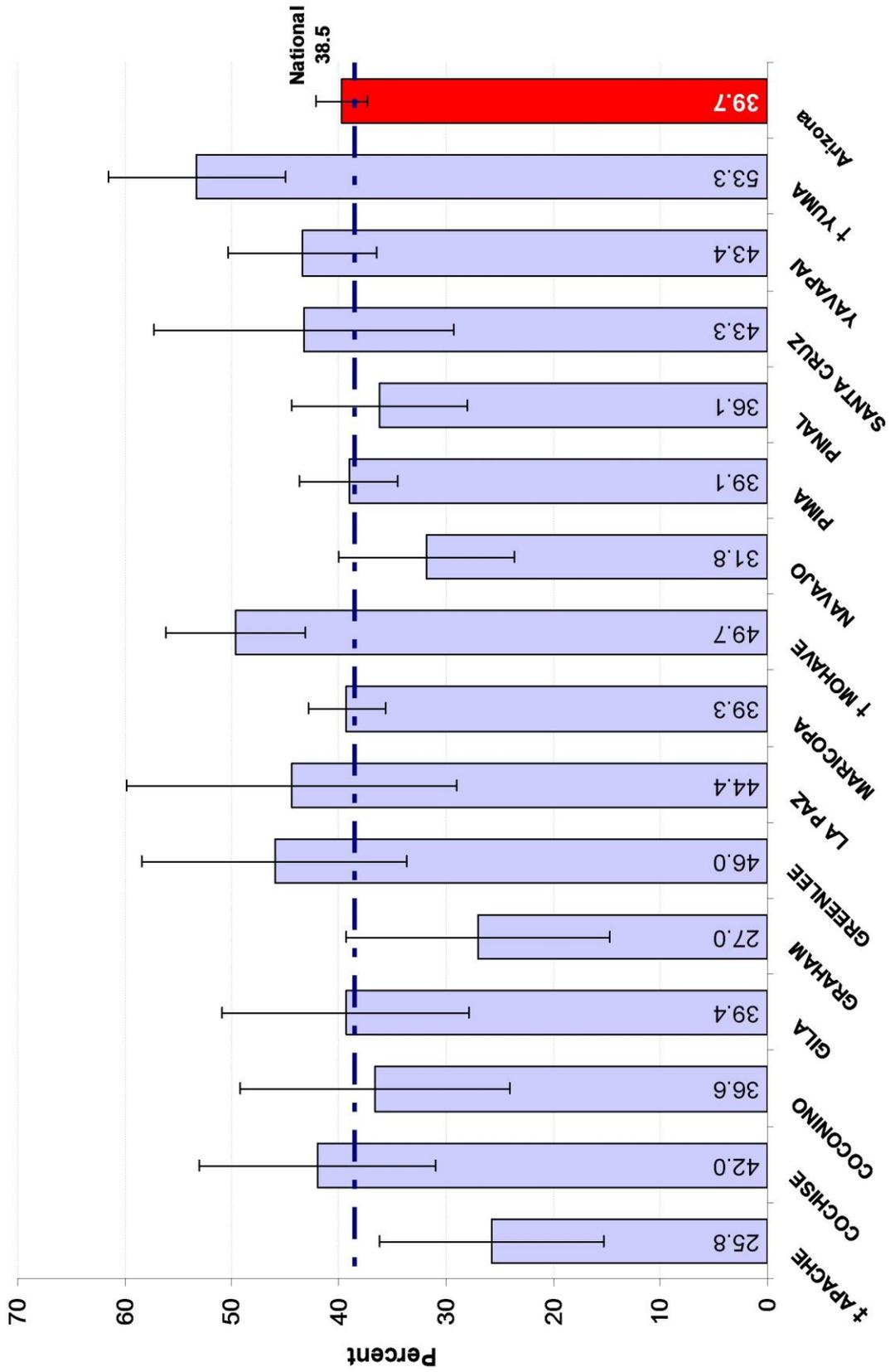
According to the 2011 BRFSS, Arizona has fewer individuals (~74%) reporting that they had their cholesterol checked within the past five years when compared to the nation (~76%) as a whole (**Figure 3**). **Table 3** below indicates that 39.7% of the respondents reported that a health professional had told them that they have high cholesterol. Some of the highlights of this table include:

- Women were less likely than men to report that they were diagnosed with high cholesterol. (37.2%)
- Adults who were unmarried had the lowest number of individuals reporting high blood pressure, followed by never married individuals. (28.1% and 30.9% respectively)
- American Indians had the lowest percent of individuals reporting that they were diagnosed with high cholesterol, at 29%.

Arizona 2011 BRFSS: Individuals Who Were Told by a Health Professional That They Had High Cholesterol							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	39.7	2571	1439126	EMPLOYMENT			
SEX				Employed for wages	34.6	620	560174
Male	42.4	1033	745597	Self employed	32.2	151	86869
Female	37.2	1538	693529	Out of work	38.1	144	104613
AGE				Homemaker	33.0	185	102171
18-24	8.0	10	14495	Student	10.4	9	12514
25-34	19.7	59	120436	Retired	56.3	1201	442804
35-44	34.0	164	235139	Unable to Work	56.7	257	127345
45-54	38.6	351	271359	INCOME			
55-64	54.3	675	335620	<\$25,000	46.1	806	412889
65+	56.7	1312	462077	\$25,000-\$34,999	35.7	275	136640
MARITAL STATUS				\$35,000-\$49,999	45.9	368	231042
Married	40.1	1400	818823	\$50,000-\$74,999	36.7	340	184428
Divorced	47.7	411	213296	\$75,000+	31.5	420	283235
Widowed	49.6	462	145410	RACE			
Separated	41.3	45	31887	White Non-Hispanic	41.7	1974	979293
Never Married	30.9	193	177788	Black	31.7	38	41867
Unmarried Couple	28.1	52	49700	Asian/PI	34.7	27	33242
EDUCATION				American Indian	29.0	75	32292
Less than High School	49.2	232	202388	Other	29.6	47	22873
High School Graduate/GED	42.2	704	371942	Hispanic	38.2	377	308403
Some College/Tech School	39.5	801	513881				
College Grad	34.3	832	348902				

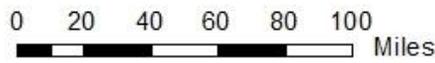
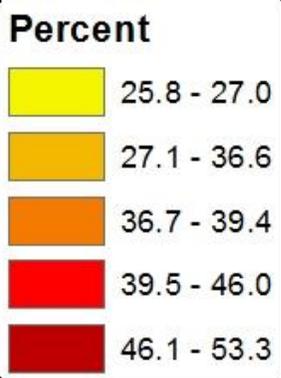
Table 3. N* is unweighted. The variable TOLDHI2 was used to generate the all the table and charts.

Percent of Arizonans Who Were Told They Have High Cholesterol, 2011 (County)

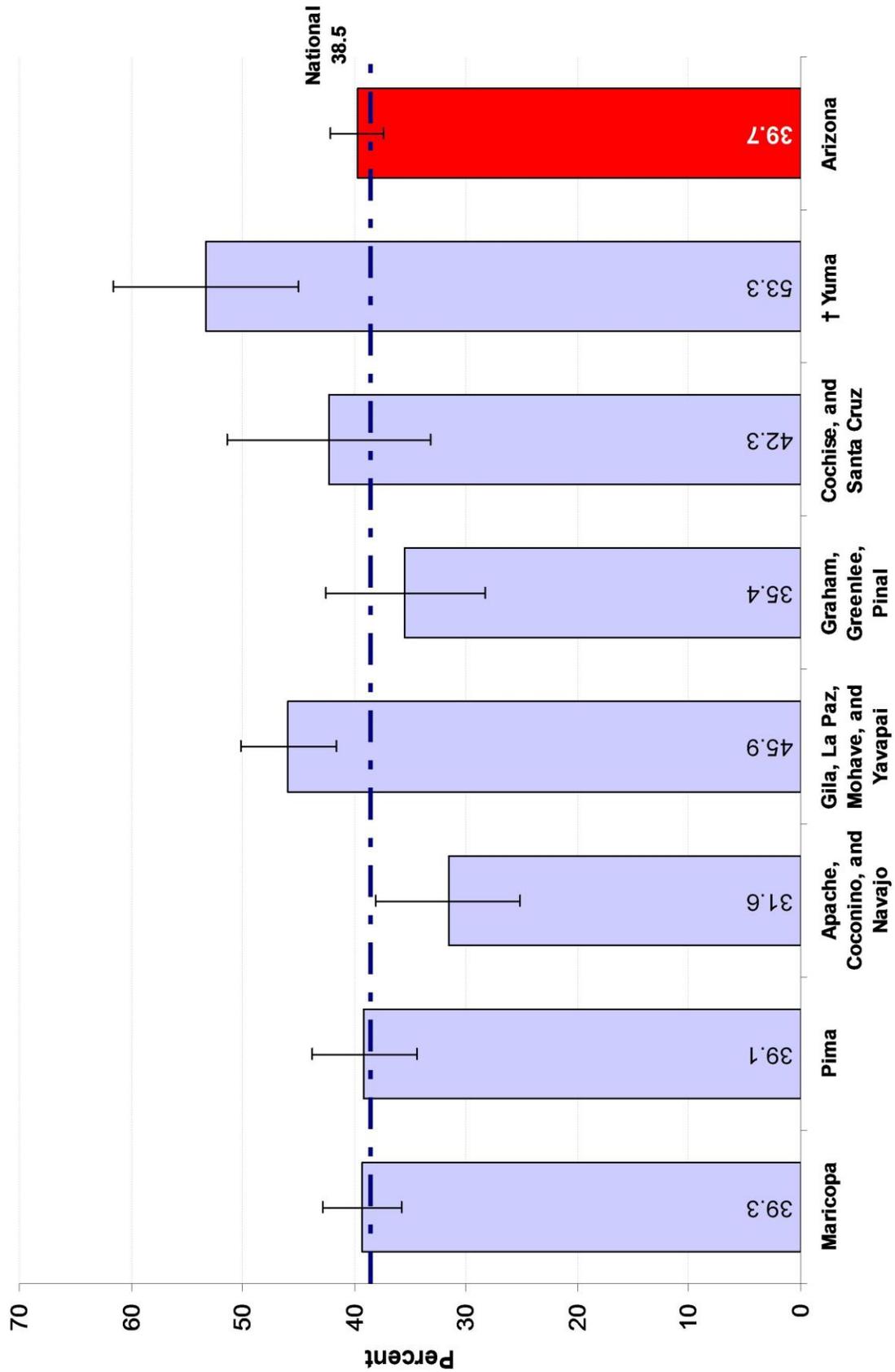


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported having been diagnosed with high cholesterol when compared to the state level
 ‡ indicates that the county has a significantly lower percentage of individuals who reported having been diagnosed with high cholesterol when compared to the state level

Percent of Arizonans Who Were Told They Have High Cholesterol, 2011 (County)

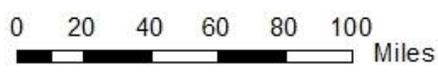
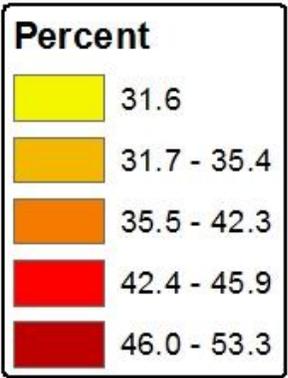


Percent of Arizonans Who Were Told They Have High Cholesterol, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported having been diagnosed with high cholesterol when compared to the state level

Percent of Arizonans Who Were Told They Have High Cholesterol, 2011 (Regional)



High Blood Pressure (Hypertension)

About one in three adults in the United States has high blood pressure. High blood pressure is called the "silent killer" because it often has no warning signs or symptoms, and many people don't realize they have it. High blood pressure significantly increases the risk for heart disease and stroke, which are among the top three leading causes of death in the United States.¹¹

The exact causes of high blood pressure are unknown. However, it has been associated with: smoking, obesity, lack of physical activity, too much salt in the diet, overconsumption of alcohol, stress, age, genetics, thyroid disorders and chronic kidney disease.¹²

Due to the large number of risk factors that impact blood pressure, continued surveillance is of utmost importance.

Monitoring high blood pressure prevalence provides Arizona with a tool to assess if the interventions and programs targeting nutrition, physical activity, obesity, tobacco use and substance use have had an impact.

The aforementioned risk factors are part of Arizona's Winnable Battles as outlined in A1 & A2 of the ADHS Strategic map.

The increased cost & length of stay associated with hypertension & other co-occurring conditions demonstrates an area in need of attention.

Furthermore, the reduction of co-occurring conditions is a targeted area of improvement as outlined in B5 of the ADHS Strategic Map.

(See page 6)

2011 Arizona Hypertension Disease Burden (HCUP)				
	Number of Discharges	Average Cost	Average Length of Stay	Aggregate Cost
Individuals with multiple chronic conditions	145	\$31,440	3.8	\$4,558,801
Individuals without another chronic condition	2,284	\$19,838	2.1	\$45,309,705
Total	2,429	-	-	\$49,868,506

Survey Question: Have you ever been told by a doctor, nurse, or other health professionals that you have high blood pressure?

Arizona Respondents With High Blood Pressure

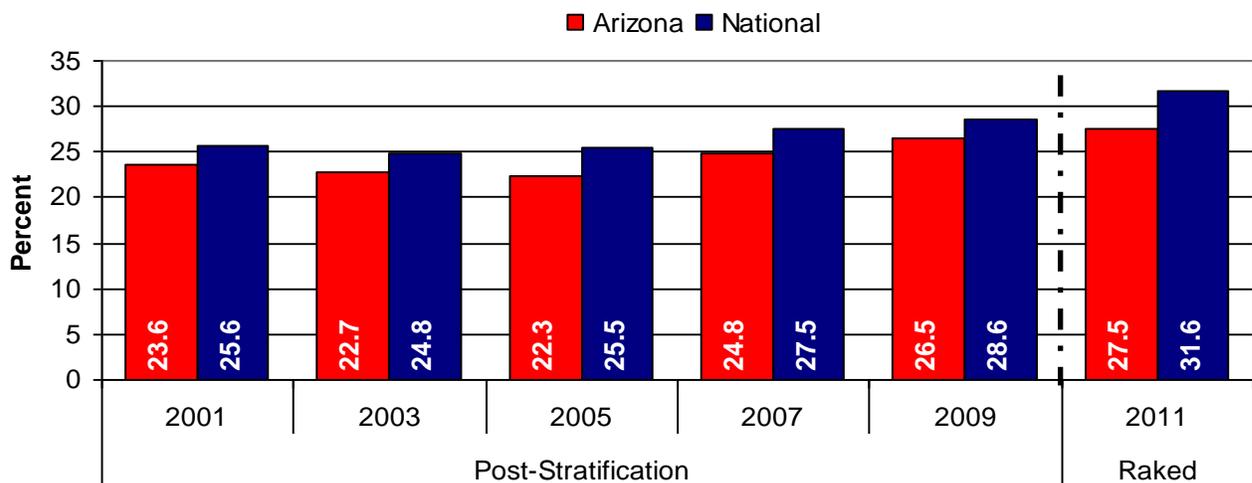


Figure 4. Prevalence of Arizona and National BRFSS respondents who reported having high blood pressure. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure.

High Blood Pressure (Hypertension)

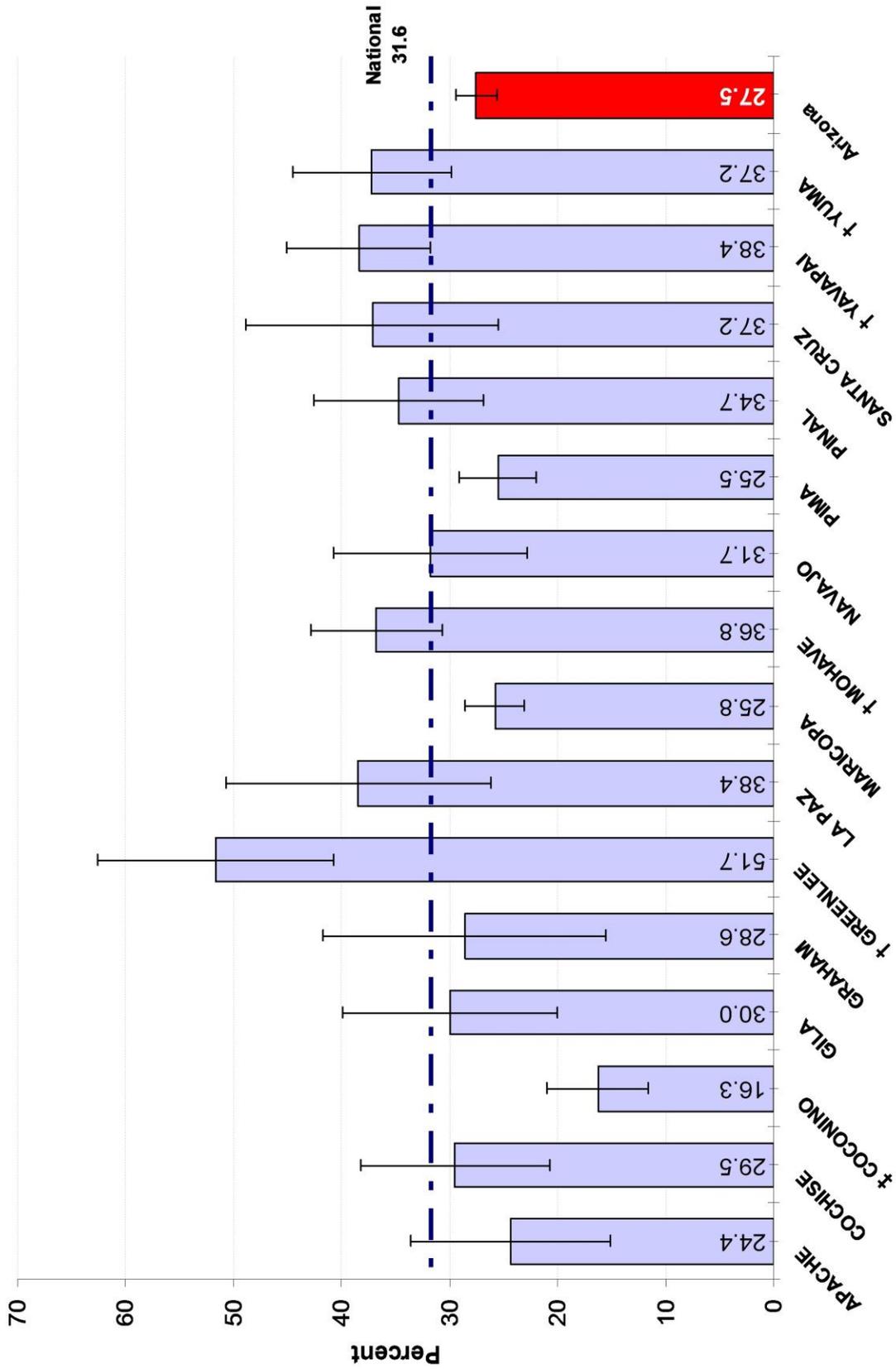
According to the 2011 BRFSS, Arizona has a lower percentage of individuals reporting that they have been told by a health professional that they have/had high blood pressure than the nation as a whole (**Figure 4**). **Table 4** below indicates that 27.5% of the respondents reported that a health professional had told them that they have/had high blood pressure. Some of the highlights of this table include:

- Women were identified as having lower incidences of high blood pressure than males. (26.7% versus 28%)
- Adults who were unmarried were least likely to report having high blood pressure (14.7%)
- Adults who were students were the least likely to have been told they had high blood pressure, at 6.4%.
- Adults with a household income \$75,000+ were least likely to report having high blood pressure, at 20.9%.

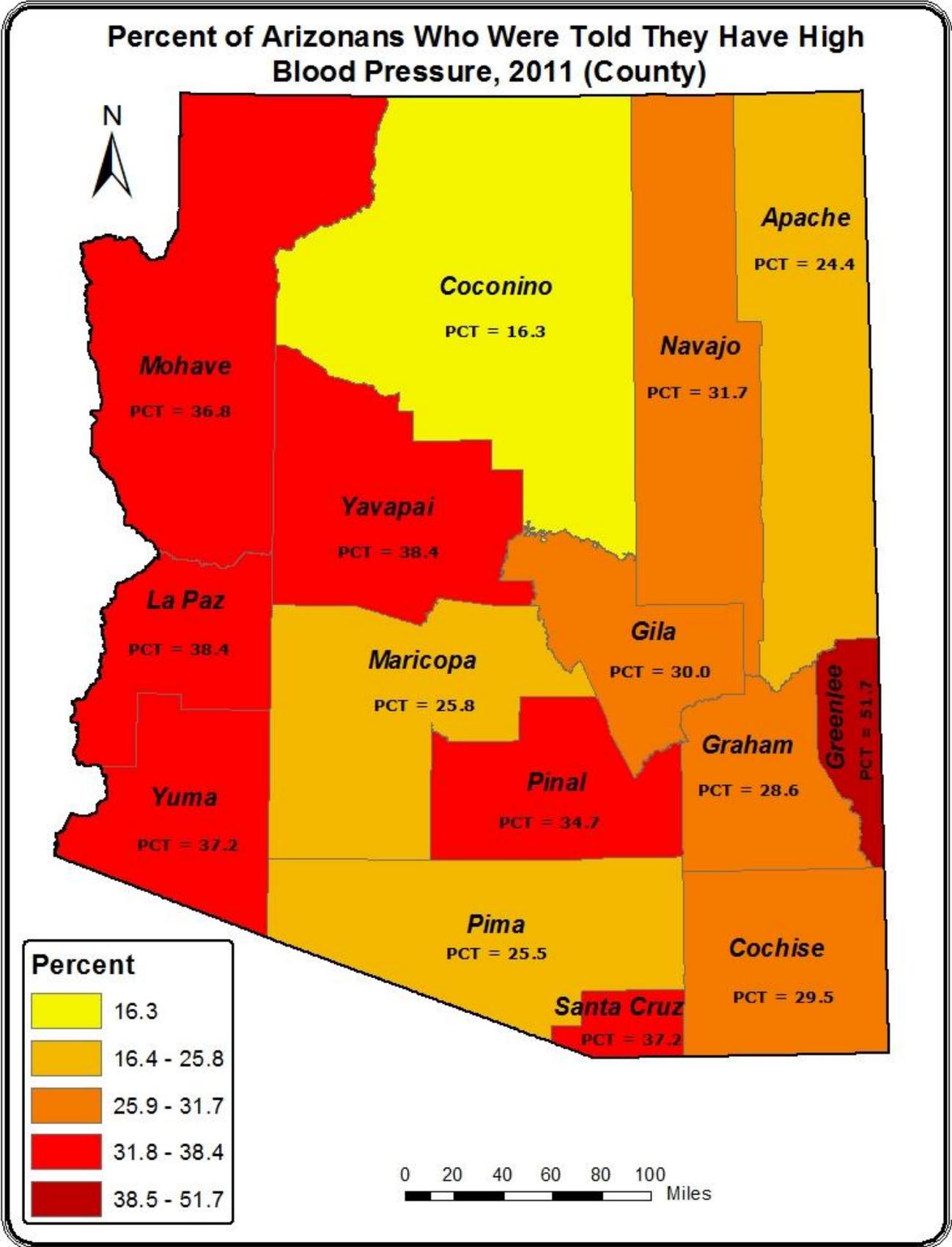
Arizona 2011 BRFSS: Individuals Who Were Told by a Health Professional That They Had High Blood Pressure							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	27.5	2600	1321320	EMPLOYMENT			
SEX				Employed for wages	19.1	519	402895
Male	28.0	1062	1062	Self employed	24.2	146	90448
Female	26.7	1538	1538	Out of work	28.8	152	138481
AGE				Homemaker	21.1	186	94580
18-24	9.2	18	55317	Student	6.4	10	15605
25-34	9.6	42	88314	Retired	52.1	1313	440576
35-44	16.9	131	144671	Unable to Work	47.4	263	131782
45-54	31.6	317	263470	INCOME			
55-64	39.5	618	278757	<\$25,000	31.4	890	439742
65+	55.9	1474	490790	\$25,000-\$34,999	26.8	287	146463
MARITAL STATUS				\$35,000-\$49,999	30.1	355	180083
Married	28.5	1327	694459	\$50,000-\$74,999	25.4	312	151748
Divorced	34.3	423	182930	\$75,000+	20.9	359	214398
Widowed	55.2	572	184444	RACE			
Separated	28.5	47	25950	White Non-Hispanic	29.0	1936	835317
Never Married	16.7	170	183957	Black	42.2	52	71563
Unmarried Couple	14.7	47	42369	Asian/PI	17.2	22	19975
EDUCATION				American Indian	30.9	101	52867
Less than High School	29.8	269	225405	Other	23.9	51	22819
High School Graduate/GED	27.8	759	346174	Hispanic	22.4	396	292446
Some College/Tech School	29.2	814	483153				
College Grad	23.0	749	260623				

Table 4. N* is unweighted. The variable used to generate the charts was **BPHIGH4**

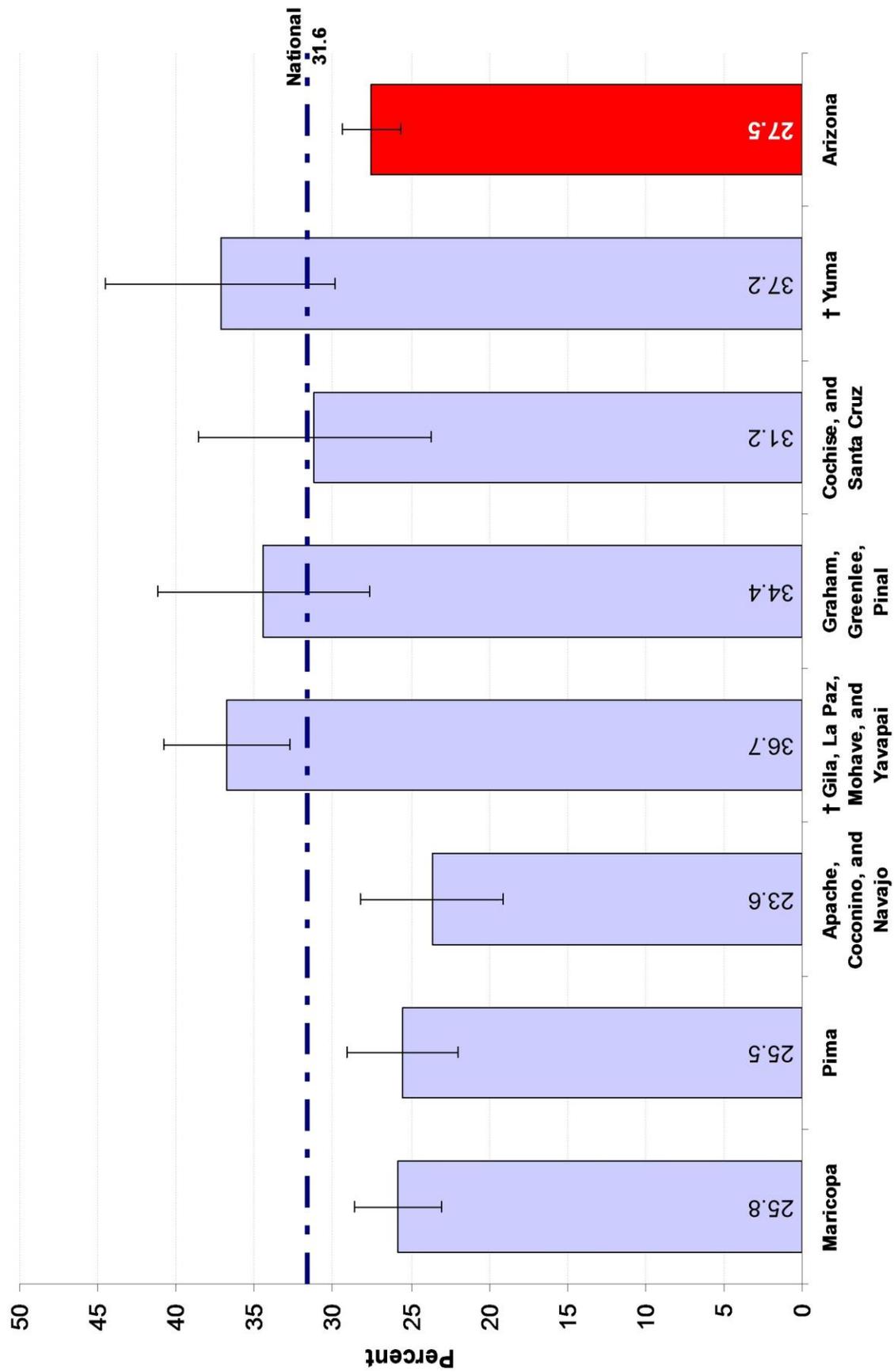
Percent of Arizonans Who Were Told They Have High Blood Pressure, 2011 (County)



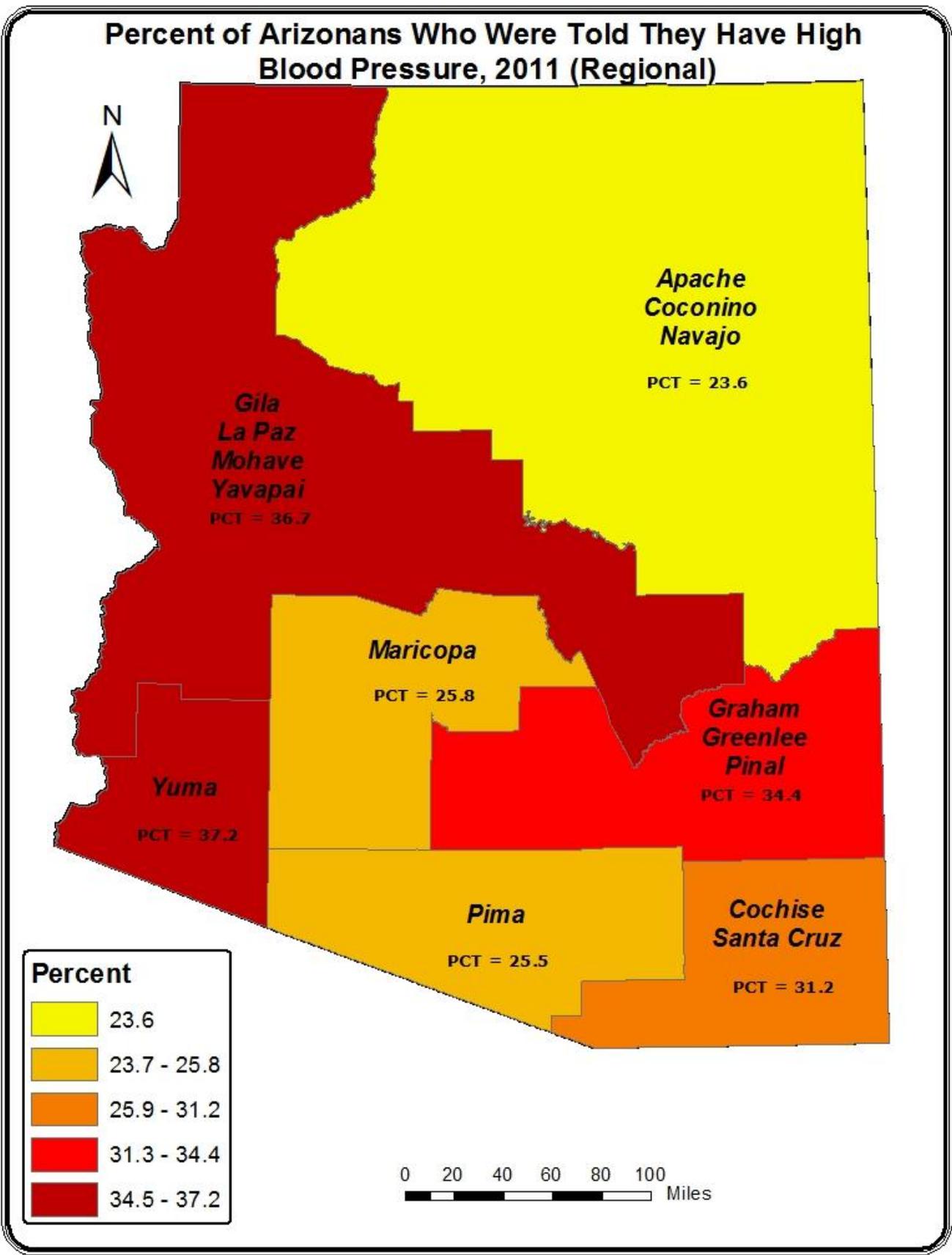
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported having been diagnosed with high blood pressure when compared to the state level
 ‡ indicates that the county has a significantly lower percentage of individuals who reported having been diagnosed with high blood pressure when compared to the state level



Percent of Arizonans Who Were Told They Have High Blood Pressure, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported having been diagnosed with high blood pressure when compared to the state level



Obesity

Current estimates show that more than 25 million Americans have type II diabetes, 27 million have a form of chronic heart disease, and 68 million have hypertension. Additionally, it is estimated that nearly 800,000 people suffer from a stroke each year. These conditions have one thing in common: obesity is a risk factor. Furthermore, one in three cancer-related deaths can also be attributed to obesity.¹³

Obesity has attained epidemic magnitude in the United States, where it has more than doubled in the past two decades. People who are overweight or obese are at greater risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities and some cancers.¹⁴

Using data from 2011 as a baseline to achieve the Healthy People 2020 goal, Arizona needs to see a reduction of 10%, setting a goal of reducing obesity levels to 22.6%.¹⁵ The body mass index (BMI) is the relationship between weight and height and is used to determine obesity and assess health risk. BMI is calculated using the following formula: $(\text{pounds} * 0.454) \div (\text{inches} * 0.0254)^2$ or (Kg/M^2) .

By collecting data on obesity, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on obesity, nutrition, and physical activity. The reduction of obesity is one of Arizona's Winnable Battles as outlined in A1 of the ADHS Strategic Map. (See page 6)

2011 Arizona Obesity Burden (HCUP)		
	Number of Discharges	Aggregate Cost
Diabetes Burden	7,065	\$167,815,464
Hypertension Burden	2,429	\$49,868,506
Arteriosclerosis Burden	1,345	\$25,229,615
Bypass Burden	3,357	\$538,532,108
Myocardial Infarction Burden	4,214	\$169,239,918
Total	18,410	\$950,685,611

Survey Questions: About how much do you weigh without shoes? About how tall are you without shoes?

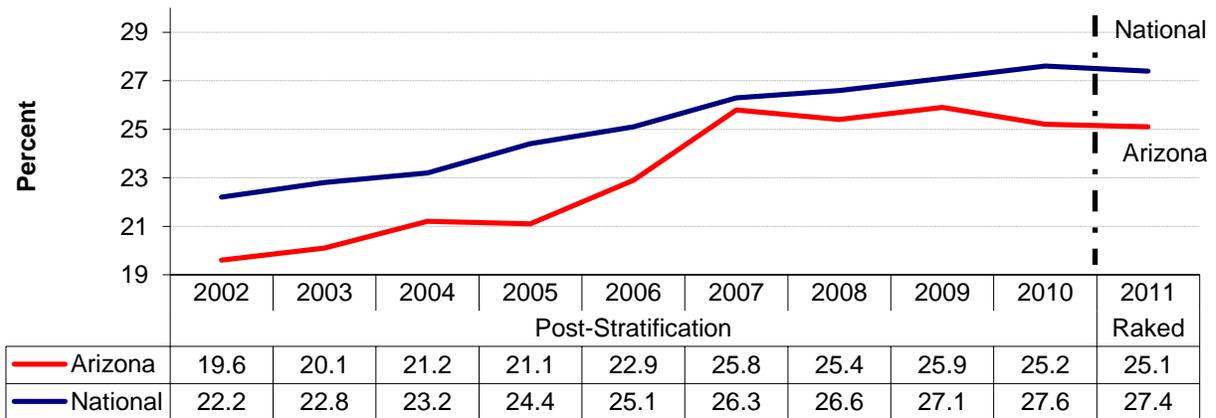


Figure 5. Prevalence of Arizona and National BRFSS respondents who reported weights exceeding BMI limits of obesity. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure.

Obesity

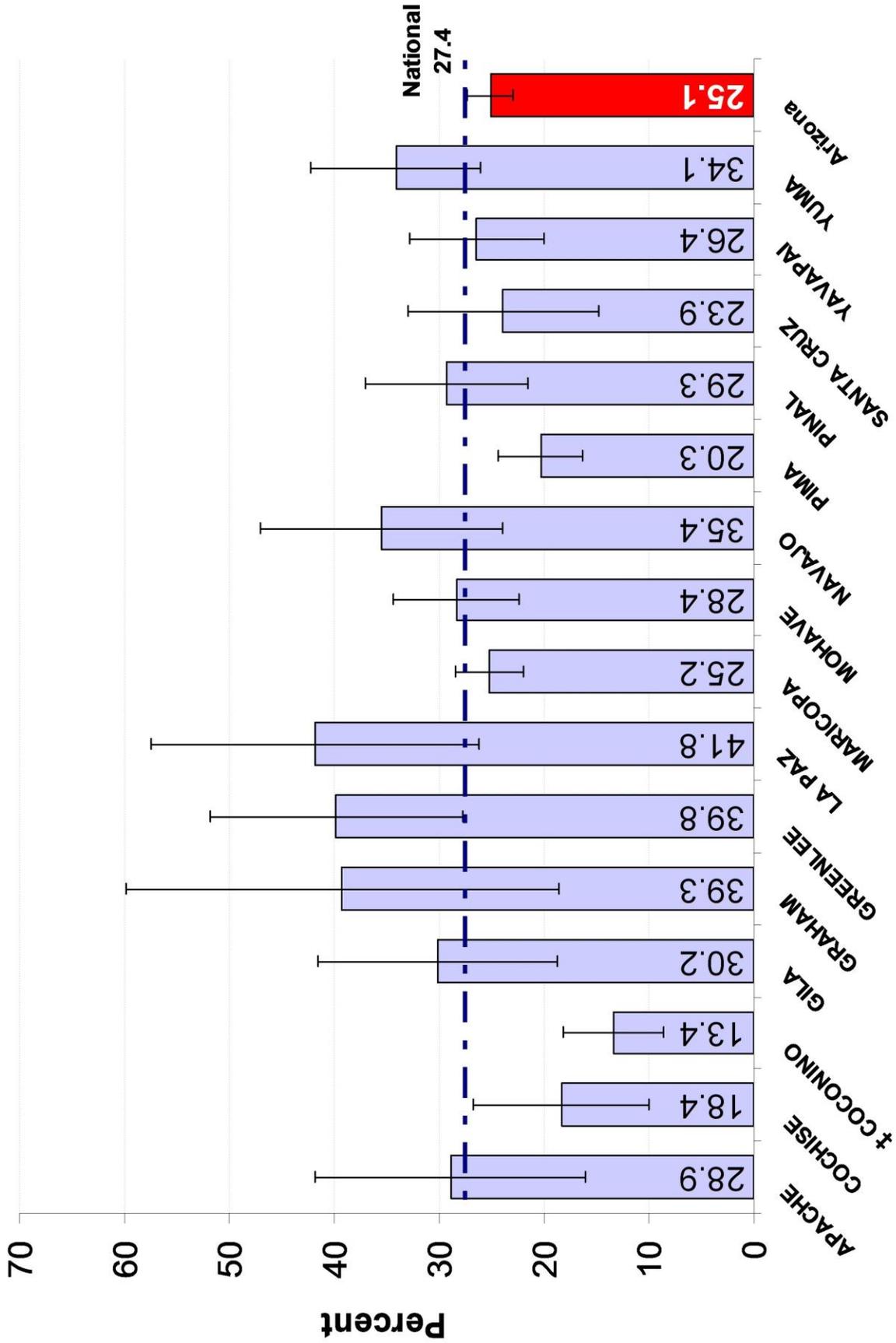
According to the 2011 BRFSS, Arizona has fewer individuals who were classified as obese when compared to the nation as a whole (**Figure 5**). **Table 5** below indicates that 25.1% of respondents were classified as obese. Some of the highlights of this table include:

- Respondents between the ages of 18-24 years old were the least likely to be obese, at 18.7%.
- Adults who were never married were less likely to be obese, at 23.2%.
- Adults who were students were less likely to be classified as obese, at 13.2%.
- Asian/Pacific Islanders are less likely to be obese compared to the other race/ethnicities, at 13.2%.

Arizona 2011 BRFSS: Respondents Who Were Classified as Obese							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	25.1	1546	1142885	EMPLOYMENT			
SEX				Employed for wages	22.7	500	457834
Male	24.4	627	568897	Self employed	21.3	98	78974
Female	25.8	919	573988	Out of work	35.2	136	160683
AGE				Homemaker	27.8	137	105676
18-24	18.7	39	107981	Student	13.2	19	30202
25-34	23.6	112	203801	Retired	21.3	467	175165
35-44	25.4	189	202242	Unable to Work	50.0	187	132960
45-54	29.6	290	237055	INCOME			
55-64	29.9	407	201080	<\$25,000	33.0	550	429742
65+	22.6	509	190727	\$25,000-\$34,999	26.5	169	141496
MARITAL STATUS				\$35,000-\$49,999	20.7	206	121323
Married	24.8	846	574317	\$50,000-\$74,999	25.1	204	146839
Divorced	27.0	248	137480	\$75,000+	19.7	245	195098
Widowed	26.7	204	82853	RACE			
Separated	38.7	28	30872	White Non-Hispanic	21.2	997	591713
Never Married	23.2	175	247075	Black	26.8	32	42285
Unmarried Couple	24.5	41	65146	Asian/PI	13.2	9	14831
EDUCATION				American Indian	34.2	108	56980
Less than High School	36.2	189	239411	Other	30.1	36	28464
High School Graduate/GED	25.2	430	297039	Hispanic	33.8	343	399879
Some College/Tech School	25.9	521	413911				
College Grad	17.4	404	191672				

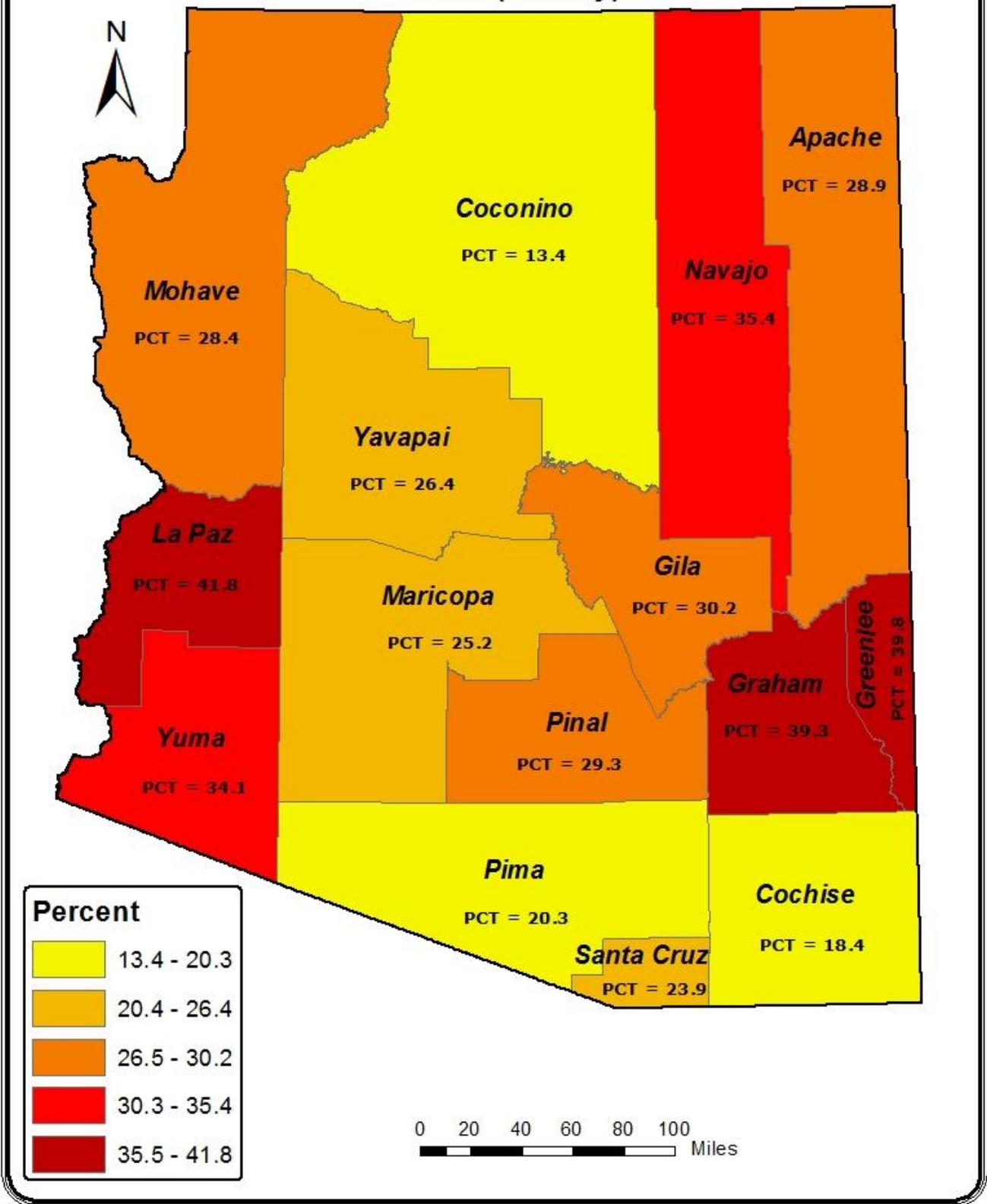
Table 5. N* is unweighted. Calculated value defined as (Kg/M²) individuals who had BMIs \geq 30.0 are classified as obese. The variable **_BMI5CAT** was used to generate all charts and tables.

Percent of Arizonans Who Are Obese, 2011 (County)

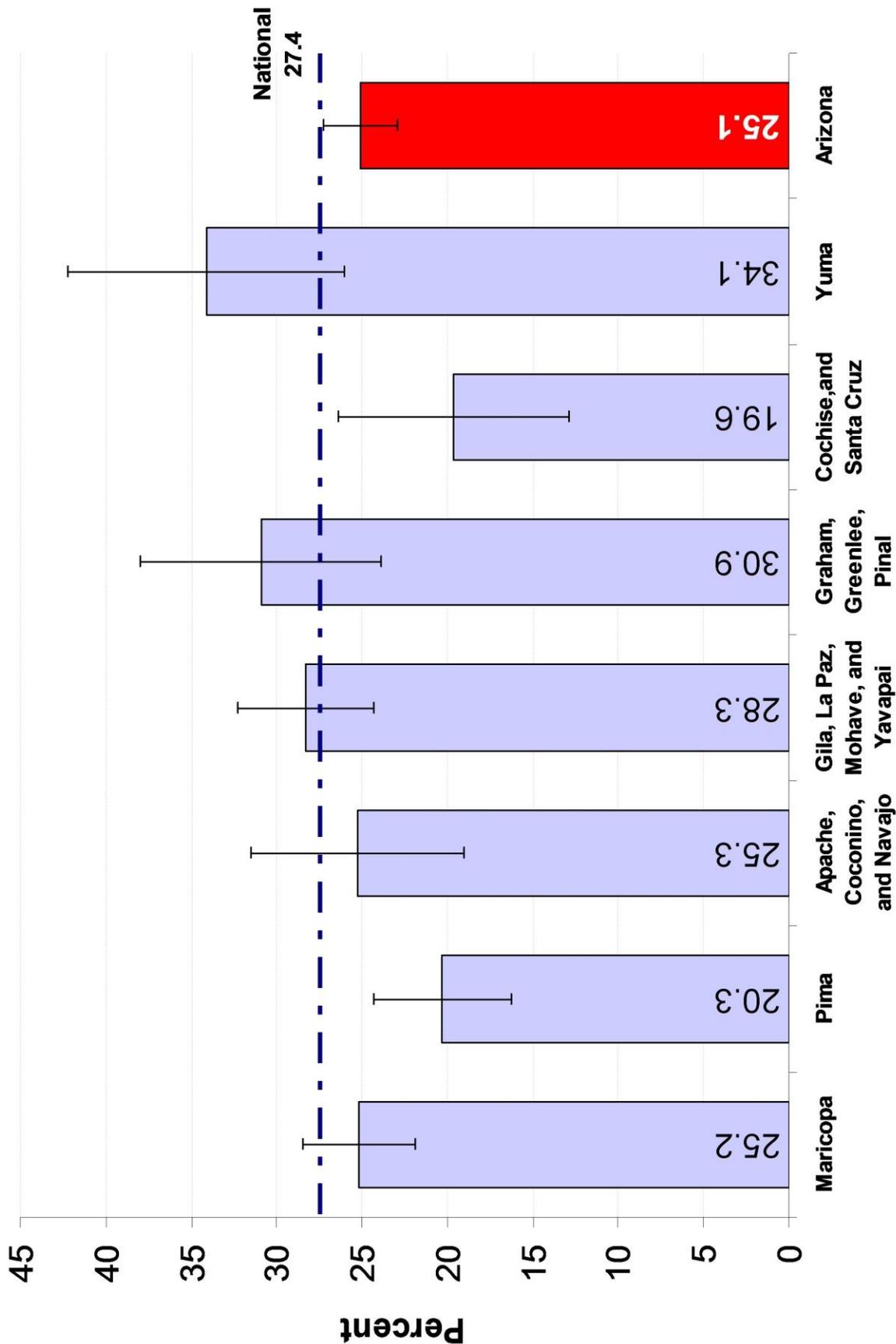


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly lower percentage of individuals who are obese when compared to the state level

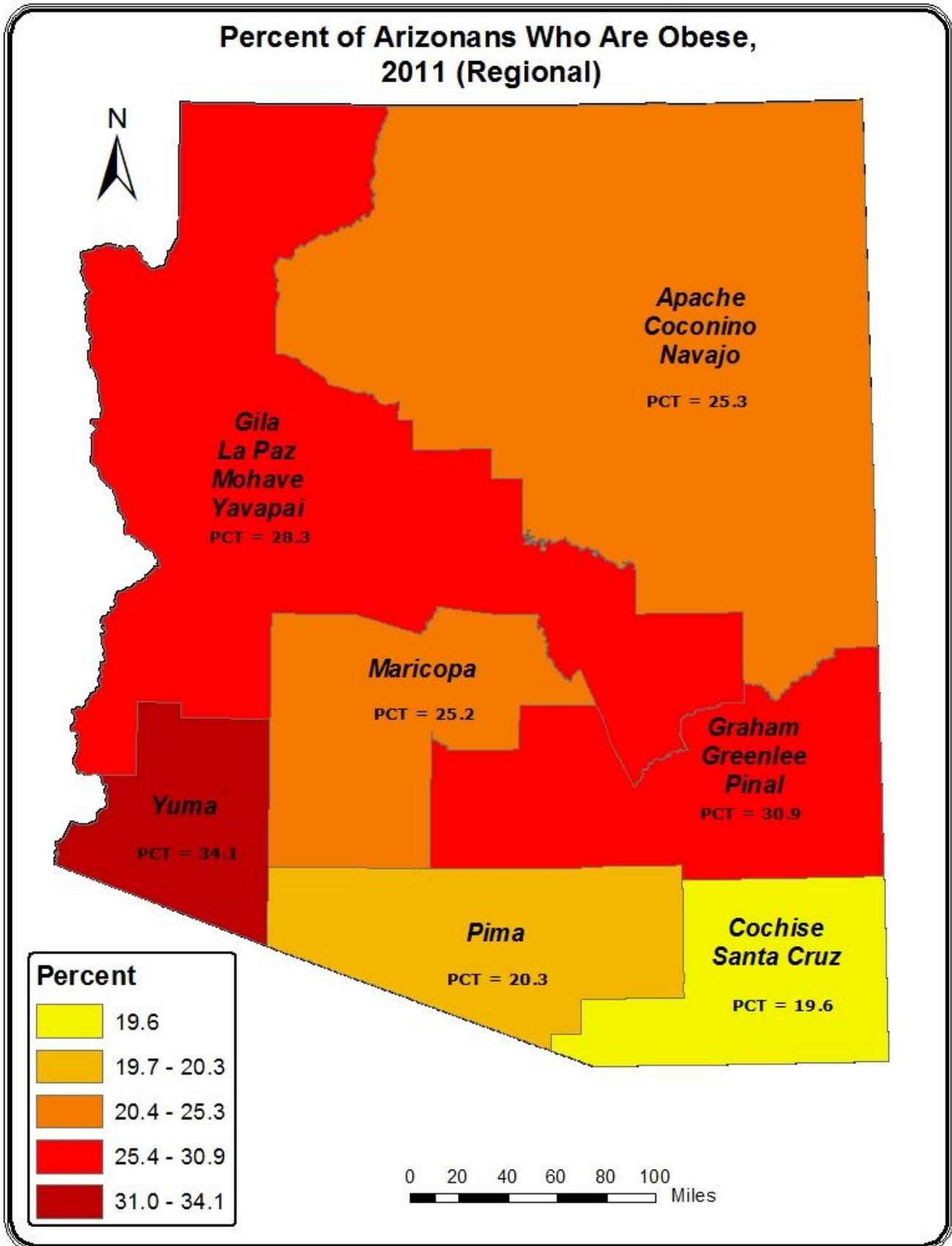
Percent of Arizonans Who Are Obese, 2011 (County)



Percent of Arizonans Who Are Obese, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Diabetes

Currently, more than 17 million Americans have diabetes, and over 200,000 people die each year of related complications. Diabetes can cause heart disease, stroke, blindness, kidney failure, leg and foot amputations, pregnancy complications, and deaths related to flu and pneumonia. Particularly at risk are the 5.9 million Americans who are unaware that they have the disease.¹⁶

“Early detection, improved delivery of care and better self-management are key strategies for preventing much of the burden of diabetes. Type II diabetes, formerly considered “adult onset” diabetes, is now being diagnosed more frequently among children and adolescents. This type of diabetes is linked to two modifiable risk factors: obesity and physical inactivity.”¹⁷

Due to the large number of risk factors that impact diabetes, continued surveillance is of utmost importance. Monitoring diabetes prevalence provides Arizona with a tool to assess if the interventions and programs targeting nutrition, physical activity and obesity have an impact. The aforementioned risk factors are part of Arizona’s Winnable Battles as outlined in A1 of the ADHS Strategic Map. (See page 6)

The hormones which appear during pregnancy can cause glucose intolerance. This is known as Gestational Diabetes. It typically goes away after childbirth.¹⁸ Therefore, individuals who were diagnosed with gestational diabetes are not categorized as diabetics in the following analysis.

2011 Arizona Diabetes Burden (HCUP)		
	Number of Discharges	Aggregate Cost
Individuals with multiple chronic conditions	1,040	\$43,898,957
Individuals with a chronic condition	3,774	\$85,730,739
Individuals without another chronic condition	2,251	\$38,185,768
Total	7,065	\$167,815,464

Survey Question: Have you EVER been told by a doctor that you have diabetes?

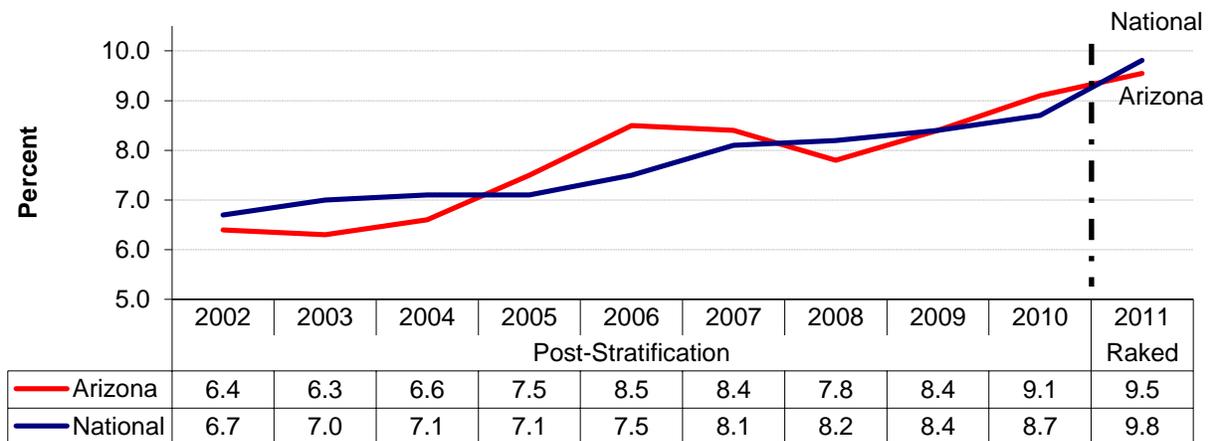


Figure 6. Prevalence of Arizona and National BRFSS respondents who reported that they were told they have diabetes in 2002-2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure.

Diabetes

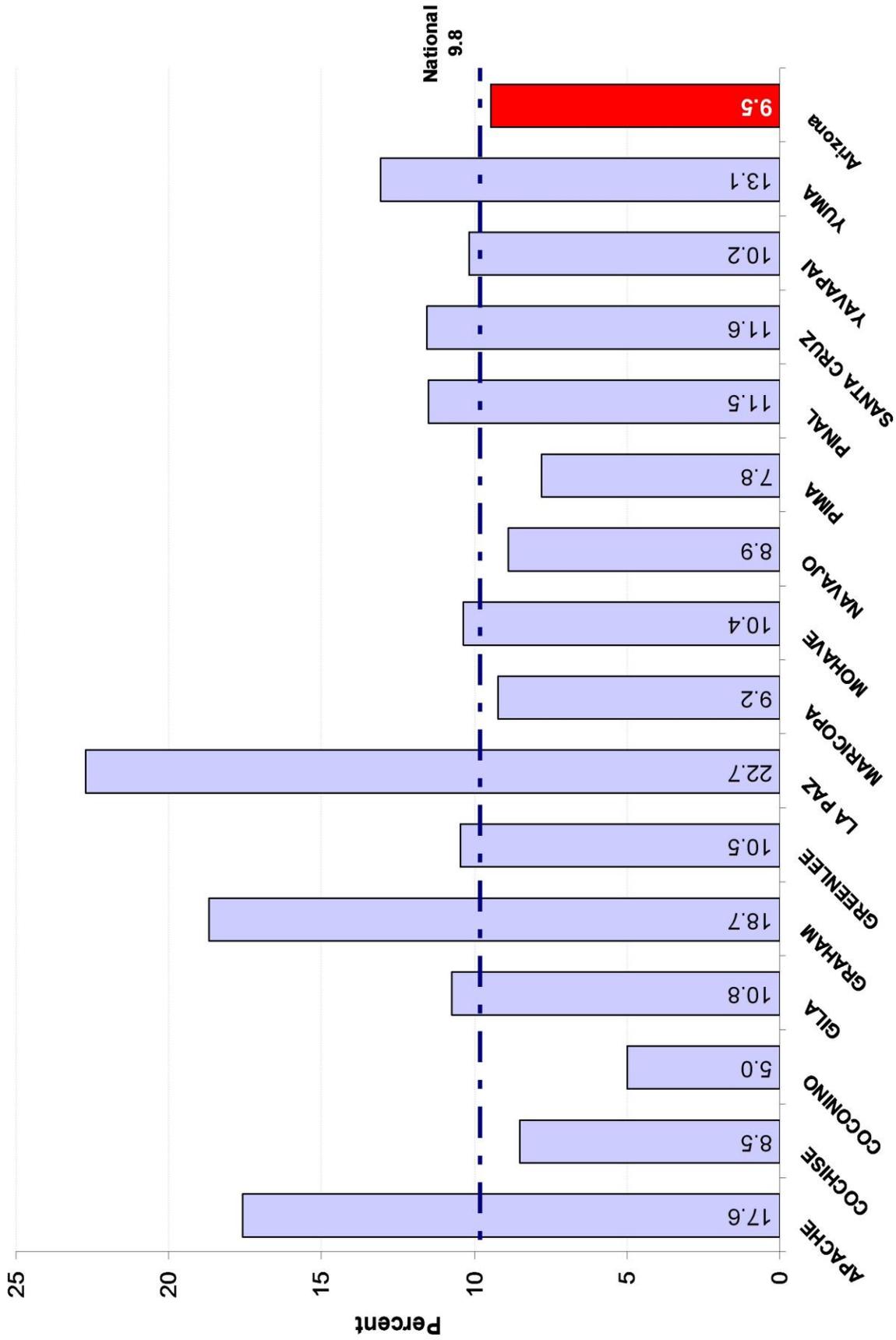
According to the 2011 BRFSS, Arizona has a lower percentage of individuals reporting that a health professional has diagnosed them with diabetes when compared to the nation as a whole (**Figure 6**). **Table 6** below indicates that 9.5 % of respondents were told by a person in the medical profession that they had diabetes. Some of the highlights of this table include:

- As age increased, so did the likelihood of diabetes.
- Adult respondents who were never married had the lowest incidence of diabetes, at 5.1%.
- The likelihood of reporting a diagnosis of diabetes decreased with higher levels of education.
- Adults who were students had the lowest percentage of individuals reporting a diabetes diagnosis (2%); followed by individuals who were employed for wages (5.3%).
- American Indians in Arizona had the highest reported incidence of diabetes, at 19.9%, which is approximately two times higher than the state percentage.

Arizona 2011 BRFSS: Respondents Who Were Told They Have Diabetes							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	9.5	808	455120	EMPLOYMENT			
SEX				Employed for wages	5.3	151	111276
Male	10.0	352	238646	Self employed	7.7	33	28896
Female	9.0	456	216474	Out of work	12.0	48	57337
AGE				Homemaker	5.6	56	25060
18-24	1.5	3	8740	Student	2.0	3	4827
25-34	2.3	13	21096	Retired	18.7	380	158036
35-44	5.3	41	45153	Unable to Work	24.0	132	67099
45-54	11.1	99	93305	INCOME			
55-64	15.8	229	111404	<\$25,000	16.0	353	223804
65+	19.9	423	175422	\$25,000-\$34,999	6.2	85	33458
MARITAL STATUS				\$35,000-\$49,999	8.1	99	48573
Married	10.0	396	242246	\$50,000-\$74,999	5.6	76	33506
Divorced	11.7	139	63202	\$75,000+	5.4	84	55770
Widowed	19.2	167	64982	RACE			
Separated	12.5	19	10810	White Non-Hispanic	8.0	507	229422
Never Married	5.1	68	55795	Black	14.9	23	25266
Unmarried Couple	5.7	15	16353	Asian/PI	7.9	9	9176
EDUCATION				American Indian	19.9	65	34252
Less than High School	12.6	113	95248	Other	5.3	12	5142
High School Graduate/GED	10.4	237	129096	Hispanic	11.2	177	146247
Some College/Tech School	9.5	256	157347				
College Grad	6.4	199	73025				

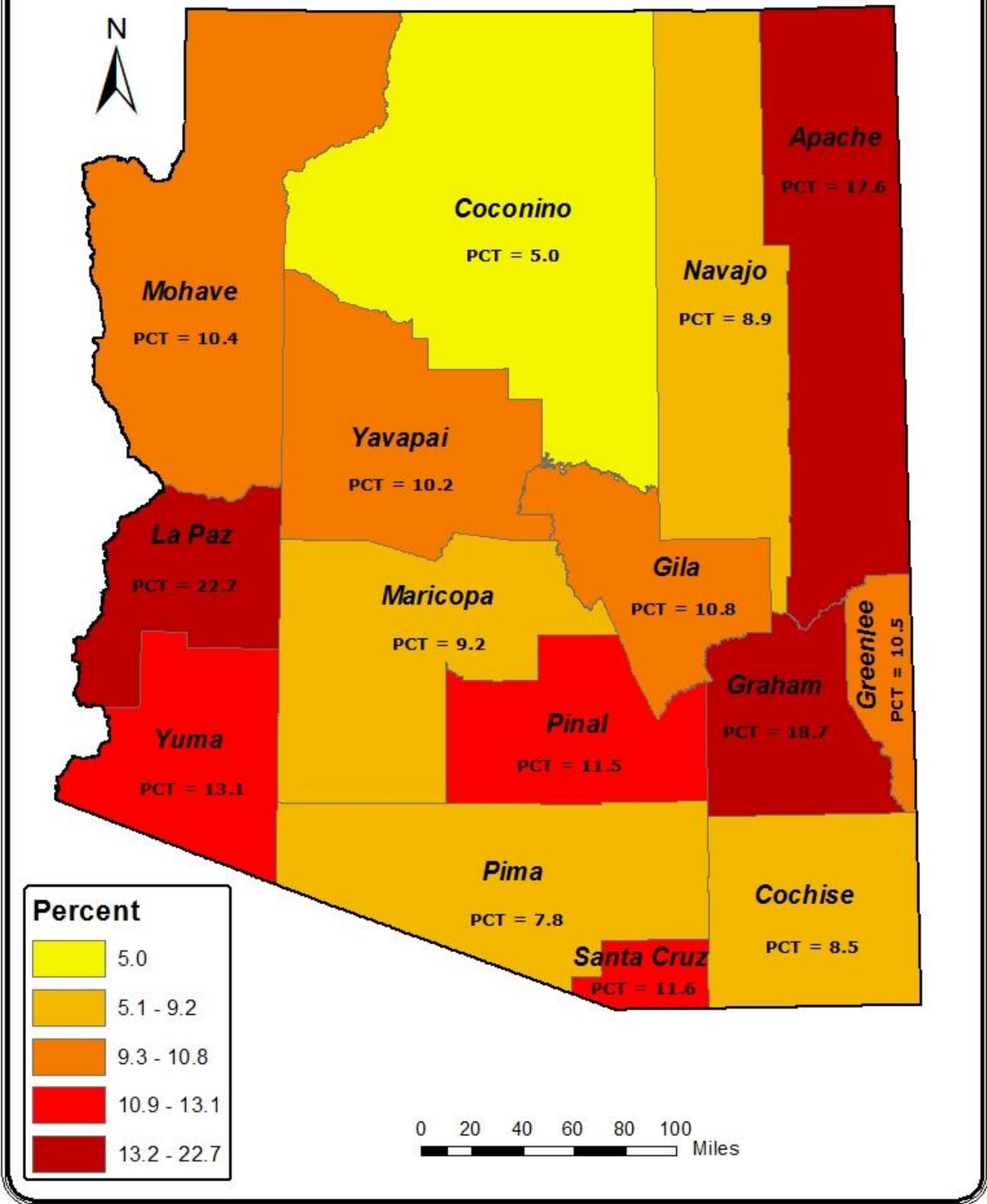
Table 6. N* is unweighted. The variable **DIABETE3** was used to generate all charts and tables.

Percent of Arizonans Reporting Having Diabetes, 2011 (County)

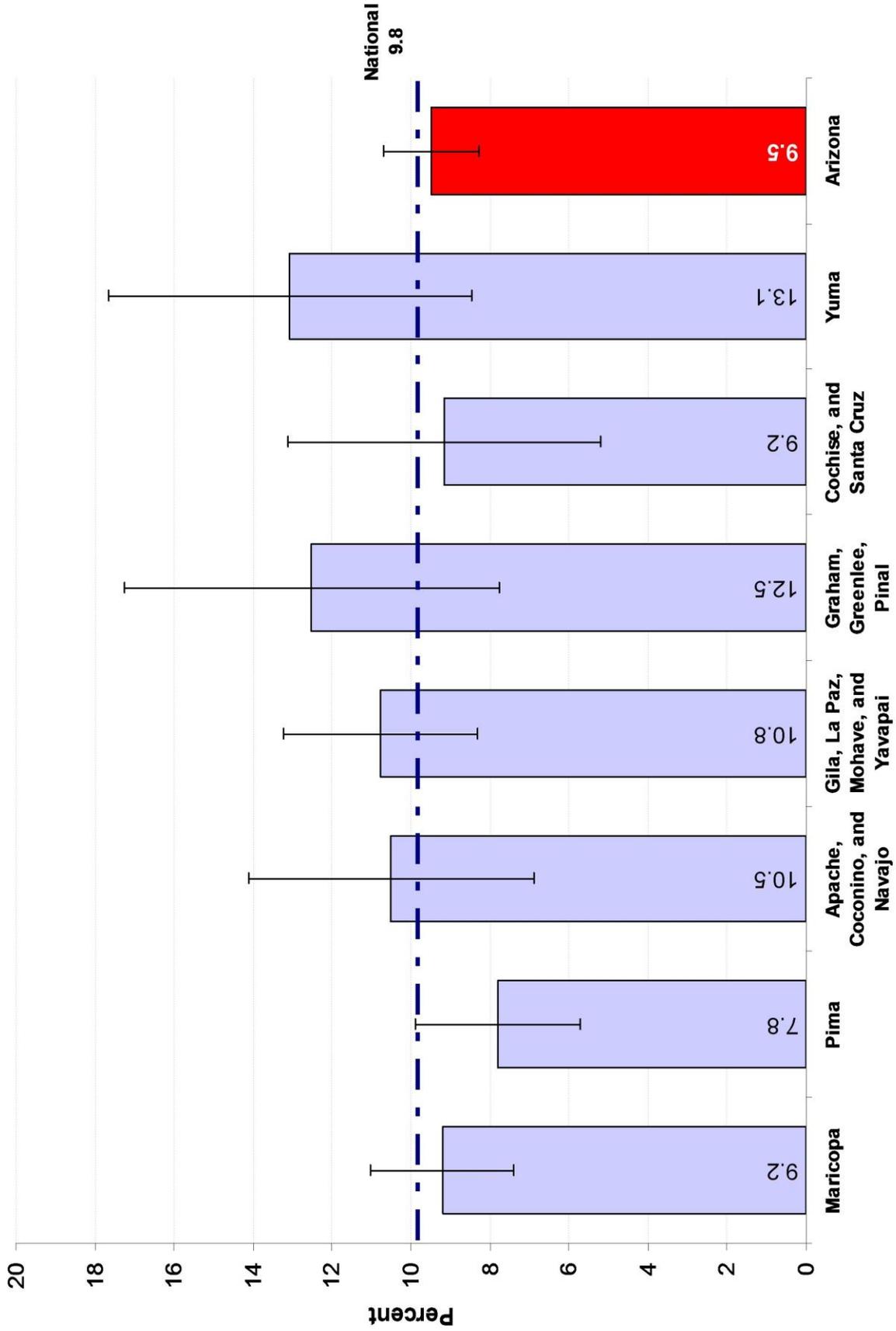


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.

Percent of Arizonans Reporting Having Diabetes, 2011 (County)

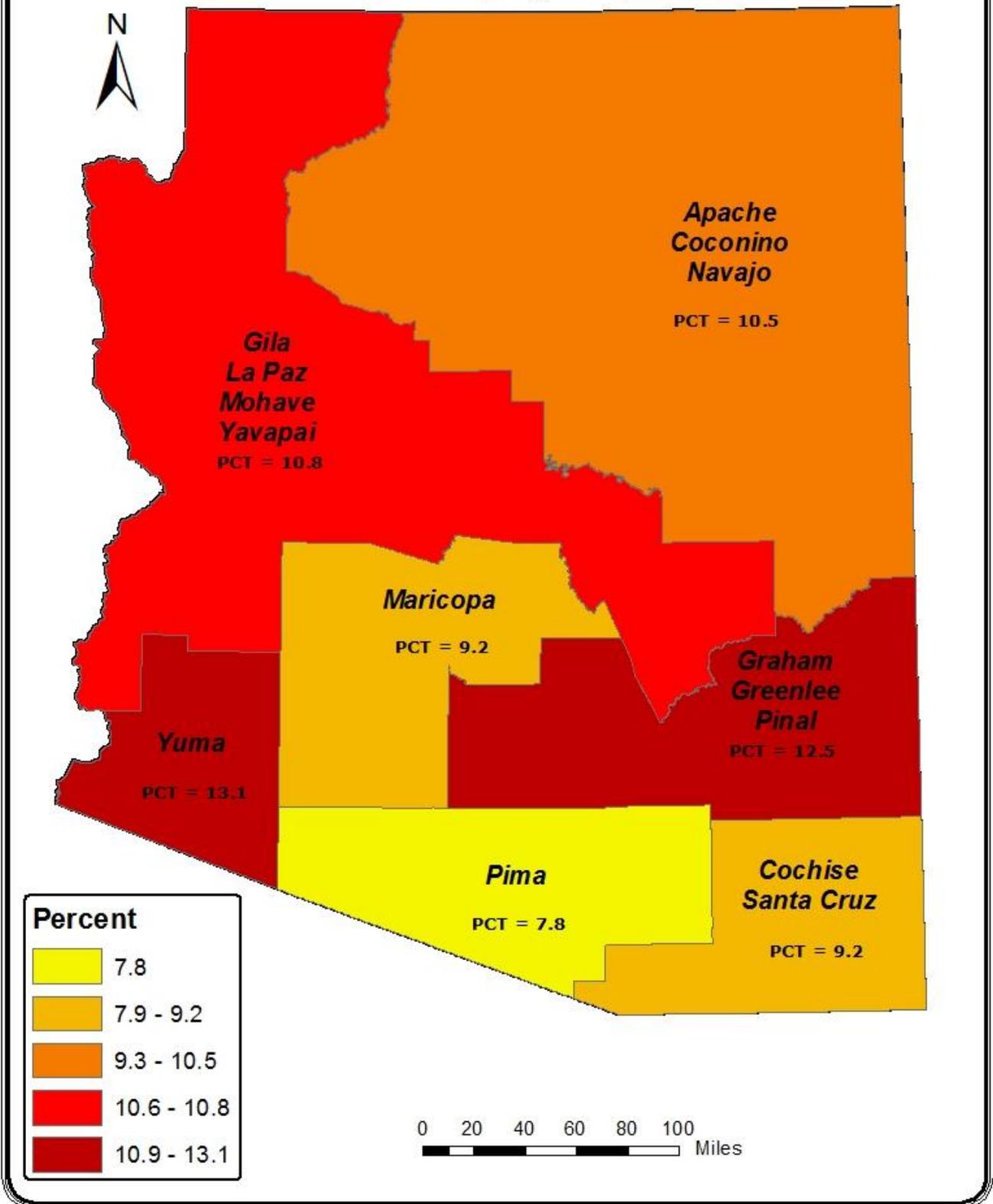


Percent of Arizonans Reporting Having Diabetes, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFS website is provisional and values are subject to change

Percent of Arizonans Reporting Having Diabetes, 2011 (Regional)



Limitation of Activity

*By collecting data on individuals with limitations of activities due to a health problem or impairments, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on chronic diseases and their impact on Physical Activity. The promotion of Physical Activity is one of Arizona's Winnable Battles as outlined in A1 of the ADHS Strategic Map.
(See page 6)*

Regular physical activity can help improve an individual's overall health and fitness and help reduce their risk of developing many chronic diseases. Chronic diseases often limit physical activity because of the functional limitations that accompany them.¹⁹

Survey Question: Are you limited in any way in any activities because of physical, mental, or emotional problems?

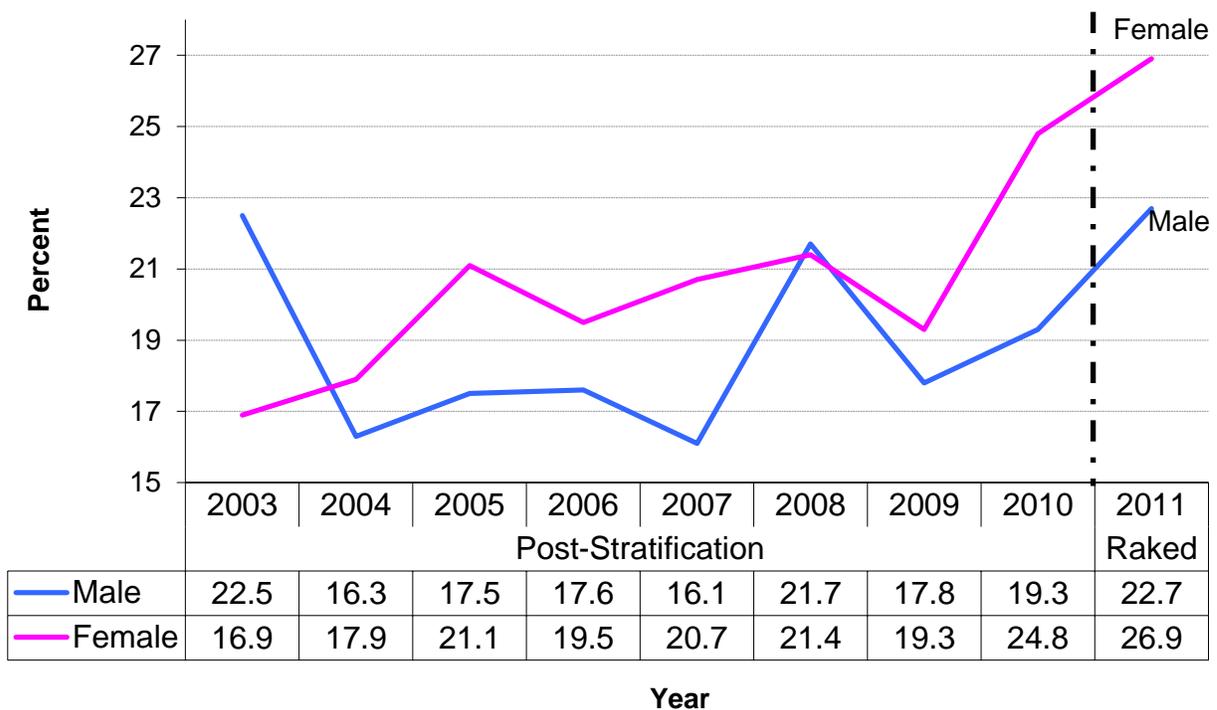


Figure 7. Prevalence of Arizona BRFSS respondents who reported their activities are limited, by gender. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

According to 2011 BRFSS, **Figure 7** indicates that women were more likely to be limited in activities because of physical, mental or emotional problems when compared to men, at 26.9% and 22.7% respectively.

Limitation of Activity

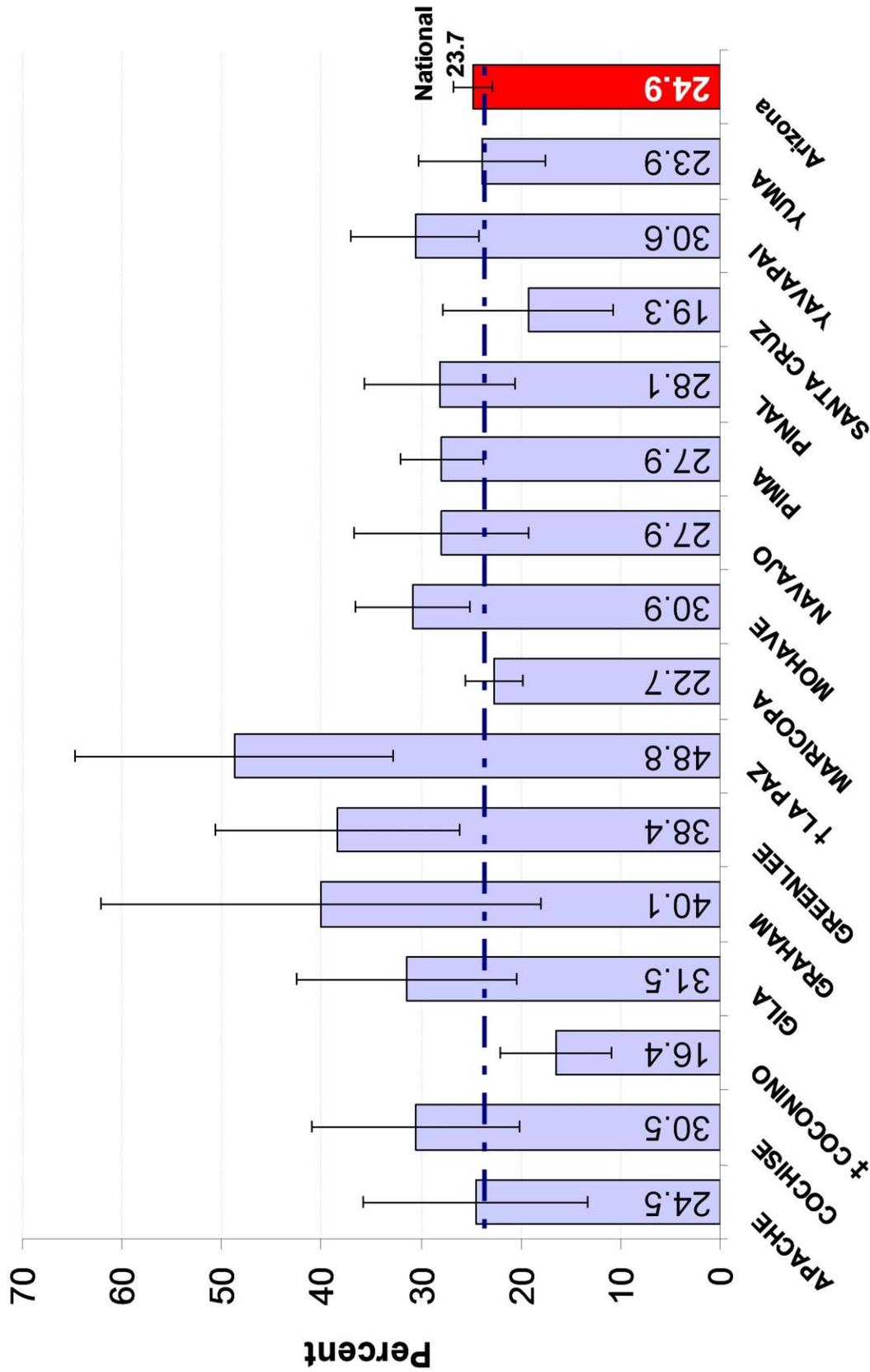
According to the 2011 BRFSS, Arizona had a higher percentage of individuals reporting that they have an impairment or health problem that limited their activities when compared to the nation as a whole. **Table 7** below indicates that 24.9% of the respondents reported having a health problem or impairment that required special equipment. Some of the highlights of this table include:

- Men are less likely than women to report that they have health problem that limits their daily activities.
- Individuals who reported that they were employed for wages were the least likely to report that they have limited daily activities due to their health, at 15.5%.
- Individuals who were never married had the lowest percentage reporting some form of limited activity, at 17.6%.
- As household income increased, the percentage of adults with an activity limitation decreased; 31.3% of adults with a household income of less than \$25,000 had an activity limitation (the highest percent for all income subgroups) compared to 18% of adults with a household income of \$75,000 or higher.

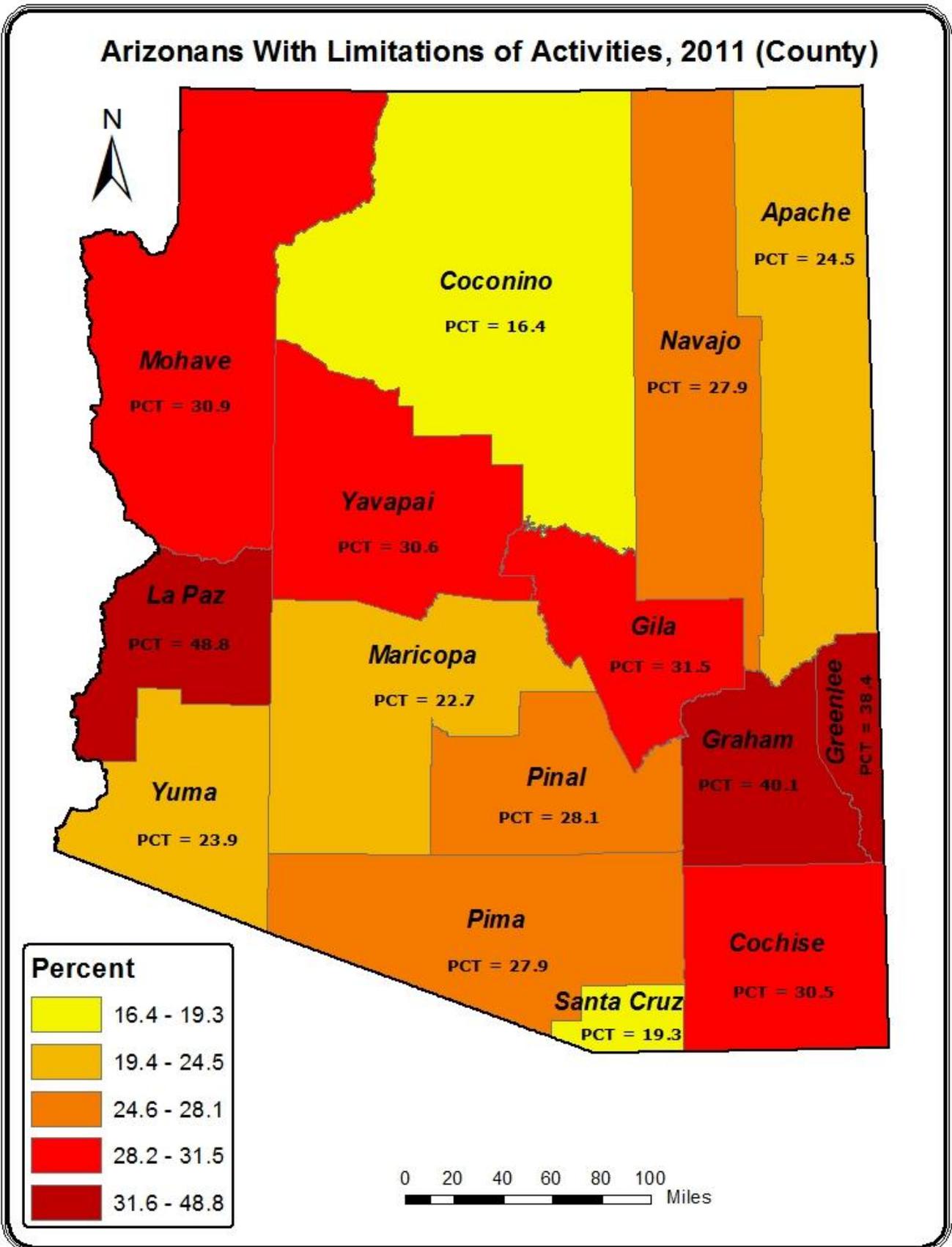
Arizona 2011 BRFSS: Limited Activities							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	24.9	1956	1128103	EMPLOYMENT			
SEX				Employed for wages	15.5	338	309753
Male	22.7	730	509300	Self employed	16.6	94	58936
Female	26.9	1226	618803	Out of work	23.3	127	106642
AGE				Homemaker	18.0	126	75327
18-24	14.4	29	81220	Student	19.5	22	44533
25-34	15.8	73	137554	Retired	38.5	871	310183
35-44	17.2	131	138898	Unable to Work	82.6	369	214378
45-54	26.9	270	210904	INCOME			
55-64	35.6	513	239238	<\$25,000	31.3	762	415788
65+	38.4	940	320289	\$25,000-\$34,999	23.4	215	118053
MARITAL STATUS				\$35,000-\$49,999	20.8	237	119428
Married	24.0	919	551181	\$50,000-\$74,999	23.3	221	131685
Divorced	35.9	375	183427	\$75,000+	18.0	239	175752
Widowed	38.7	405	122678	RACE			
Separated	33.2	42	29286	White Non-Hispanic	28.1	1523	771326
Never Married	17.6	159	181819	Black	23.0	29	34645
Unmarried Couple	21.0	49	57303	Asian/PI	10.1	12	10696
EDUCATION				American Indian	25.4	69	41940
Less than High School	25.9	189	186540	Other	33.7	53	29558
High School Graduate/GED	26.3	532	307959	Hispanic	17.4	233	213504
Some College/Tech School	25.9	644	399459				
College Grad	21.2	588	232368				

Table 7. N* is unweighted. The variable QLACTLM2 was used to generate all tables and charts

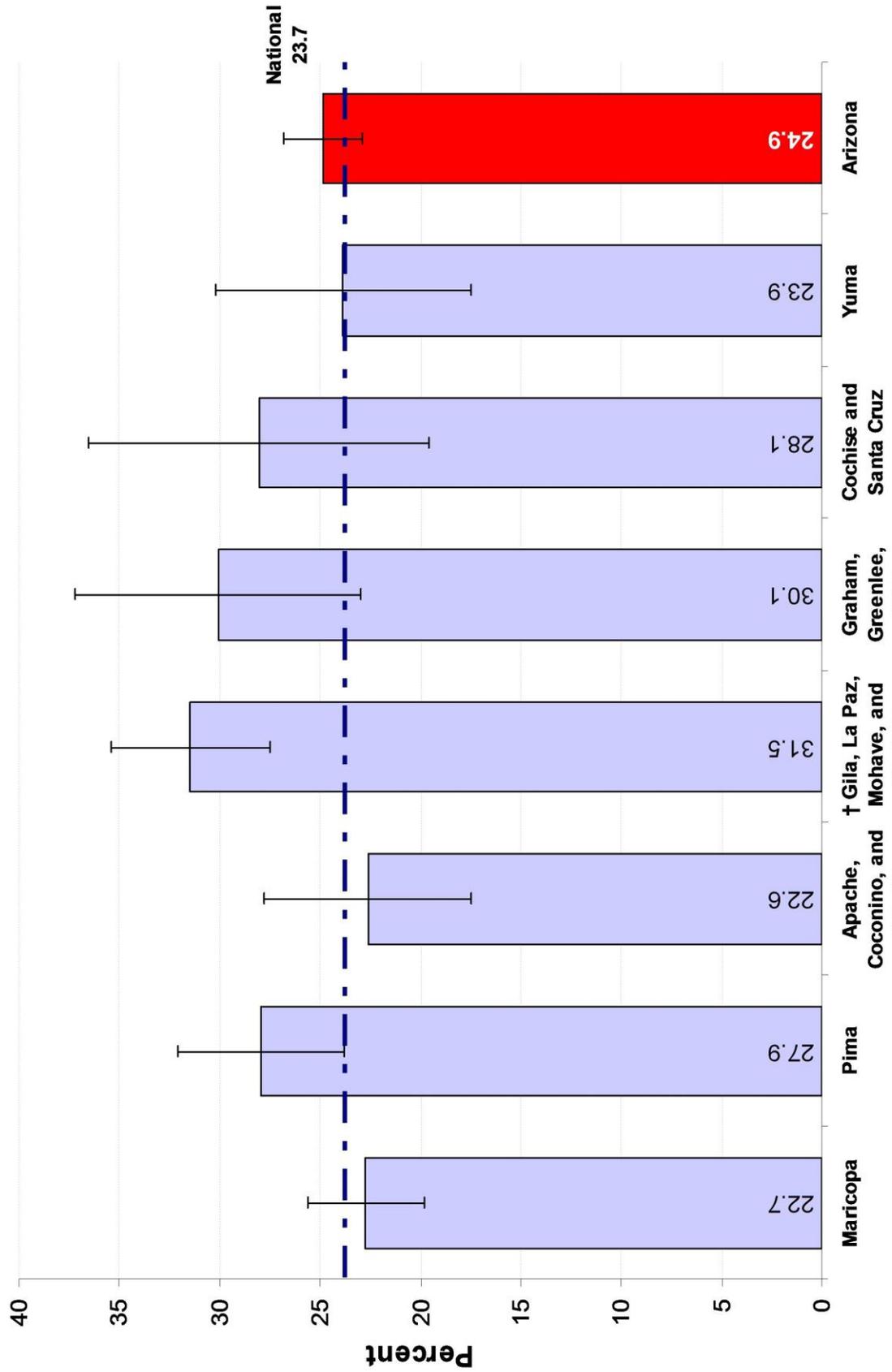
Arizonans With Limitations of Activities, 2011 (County)



* As of 11/26/2012 the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported limited activities due to health problems when compared to the state level
 ‡ indicates that the county has a significantly lower percentage of individuals who reported limited activities due to health problems when compared to the state level

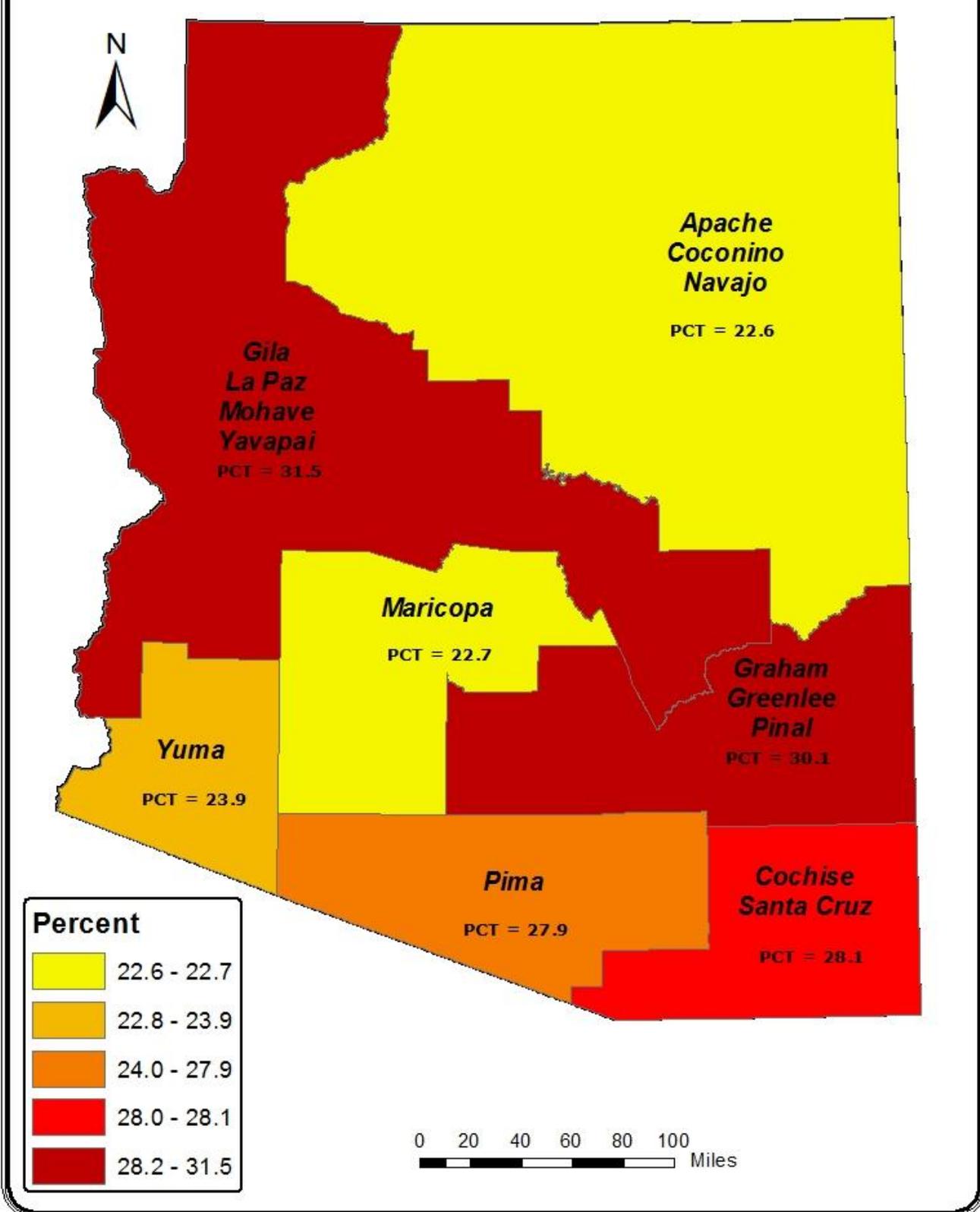


Arizonans With Limitations of Activities, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported limited activities due to health problems when compared to the state level

Arizonans With Limitations of Activities, 2011 (Regional)



Requiring Special Equipment

The National Response Framework defines *special needs populations* as follows: “Populations whose members may have additional needs before, during and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision and medical care. Individuals in need of additional response assistance may include those who have disabilities; who live in institutionalized settings; who are elderly; who are children; who are from diverse cultures; who have limited English proficiency or are non-English speaking; or who are transportation-disadvantaged.”²⁰

By collecting data on individuals who require special equipment, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on chronic diseases and their impact on Physical Activity.

The promotion of Physical Activity is one of Arizona’s Winnable Battles as outlined in A1 of the ADHS Strategic Map.

(See page 6)

Survey Question: Do you now have any health problems that require you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

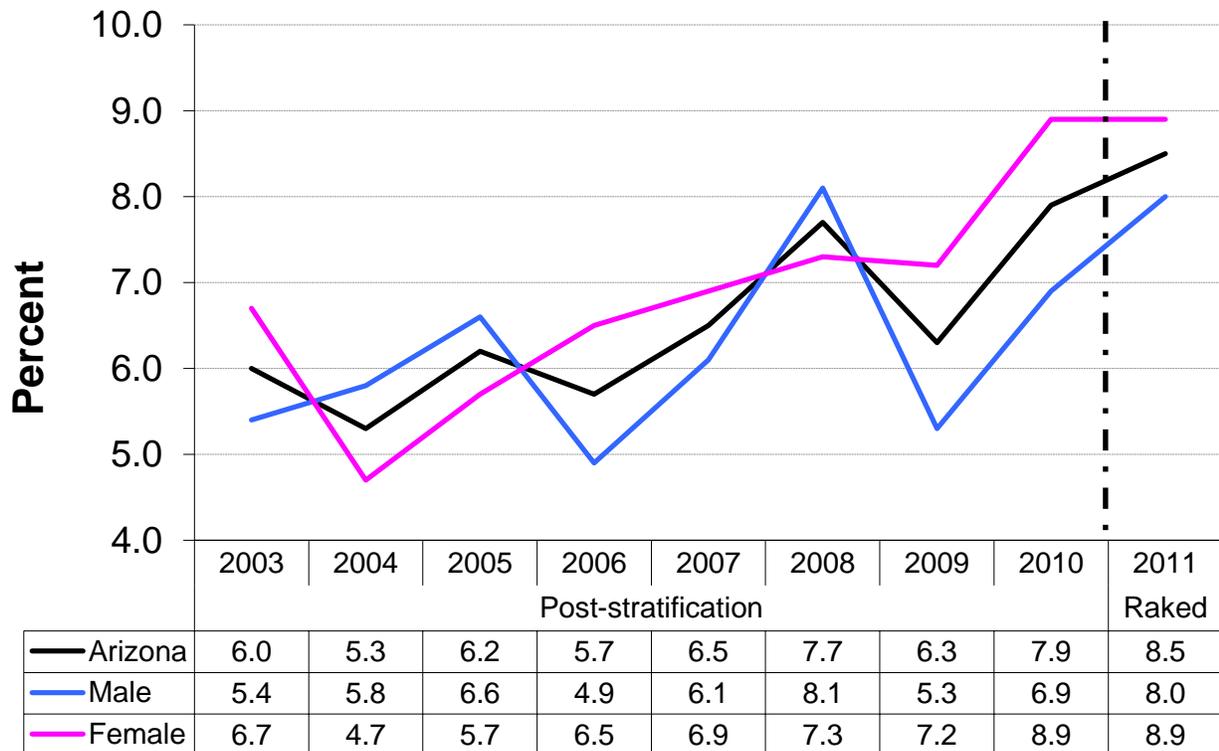


Figure 8. Prevalence of Arizona BRFSS respondents who require the use of special equipment. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Requiring Special Equipment

According to the 2011 BRFSS, 8.5% of respondents reported they required the use of special equipment. The respondents reported 8.9% of female and 8.0% of male who required the use of special equipment. (Figure 8).

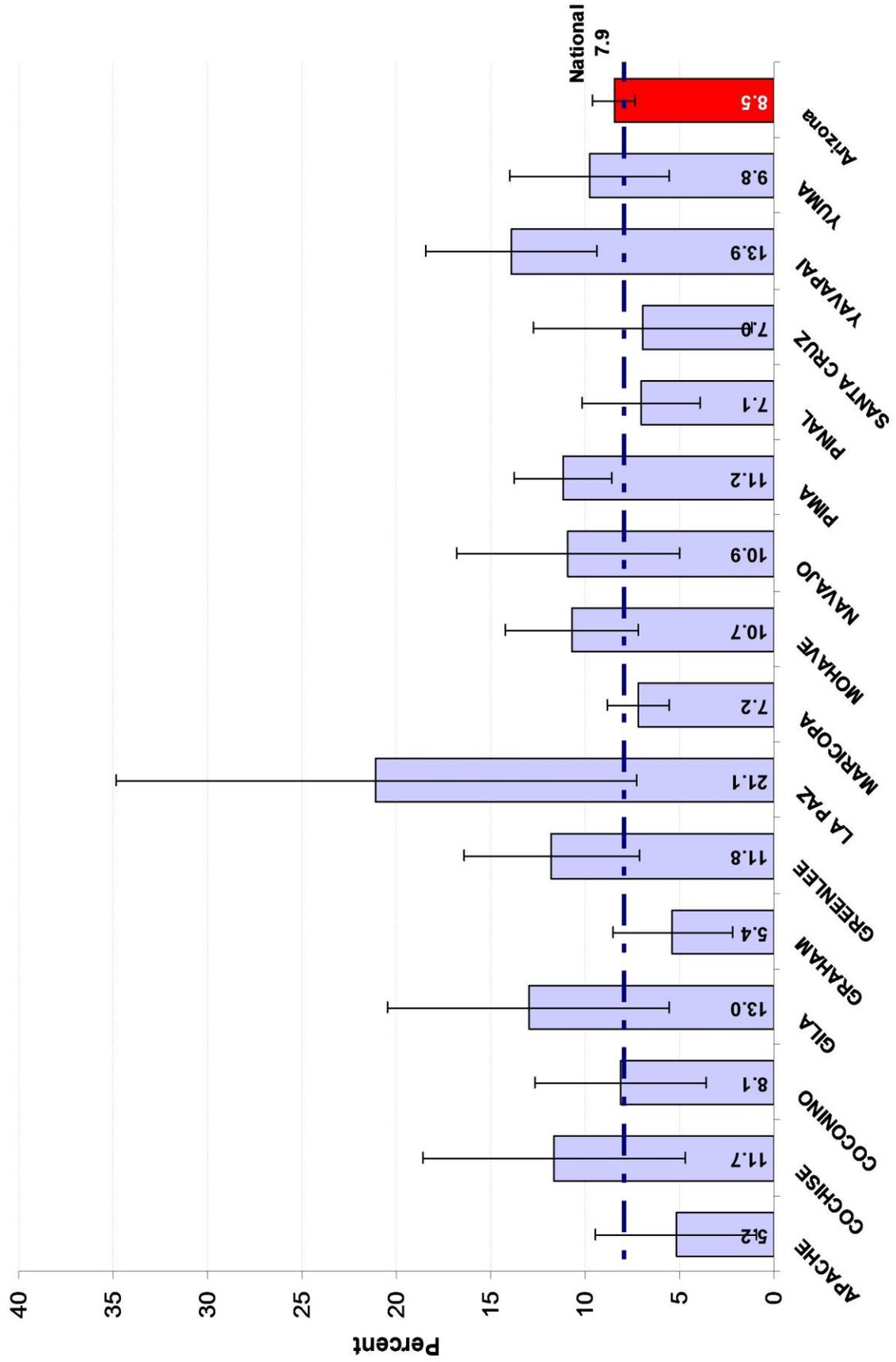
Table 8 below indicates that 8.5% of respondents reported having a health problem or impairment that required special equipment. Some of the highlights of this table include:

- Individuals who were never married were the least likely to require special equipment (3.3%).
- As education increases the likelihood of using special equipment decreases.
- As adults’ age increased, so did the likelihood of their need for special equipment.
- When looking at the employment categories, individuals who were employed for wages were the least likely to require special equipment (2.7%).

Arizona 2011 BRFSS Respondents Who Require Special Equipment							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	8.5	803	384394	EMPLOYMENT			
SEX				Employed for wages	2.7	81	54230
Male	8.0	293	179911	Self employed	5.5	19	19705
Female	8.9	510	204483	Out of work	6.1	32	28134
AGE				Homemaker	3.8	48	15816
18-24	2.2	4	12208	Student	3.4	4	7789
25-34	2.0	15	17352	Retired	17.2	391	139288
35-44	3.9	34	31606	Unable to Work	43.1	223	112196
45-54	10.1	100	79803	INCOME			
55-64	14.1	193	95506	<\$25,000	14.1	376	186187
65+	17.7	457	147919	\$25,000-\$34,999	8.1	89	41143
MARITAL STATUS				\$35,000-\$49,999	5.7	72	32814
Married	6.9	313	158221	\$50,000-\$74,999	3.7	69	21023
Divorced	14.0	166	71807	\$75,000+	4.0	58	39477
Widowed	22.4	220	70939	RACE			
Separated	12.4	20	10913	White Non-Hispanic	9.1	604	249604
Never Married	3.3	58	33830	Black	9.0	15	13590
Unmarried Couple	13.9	24	38096	Asian/PI	5.8	6	5593
EDUCATION				American Indian	10.3	36	16983
Less than High School	10.3	83	72859	Other	10.1	19	8859
High School Graduate/GED	9.6	240	112803	Hispanic	6.3	102	77194
Some College/Tech School	8.3	255	129479				
College Grad	6.3	222	68582				

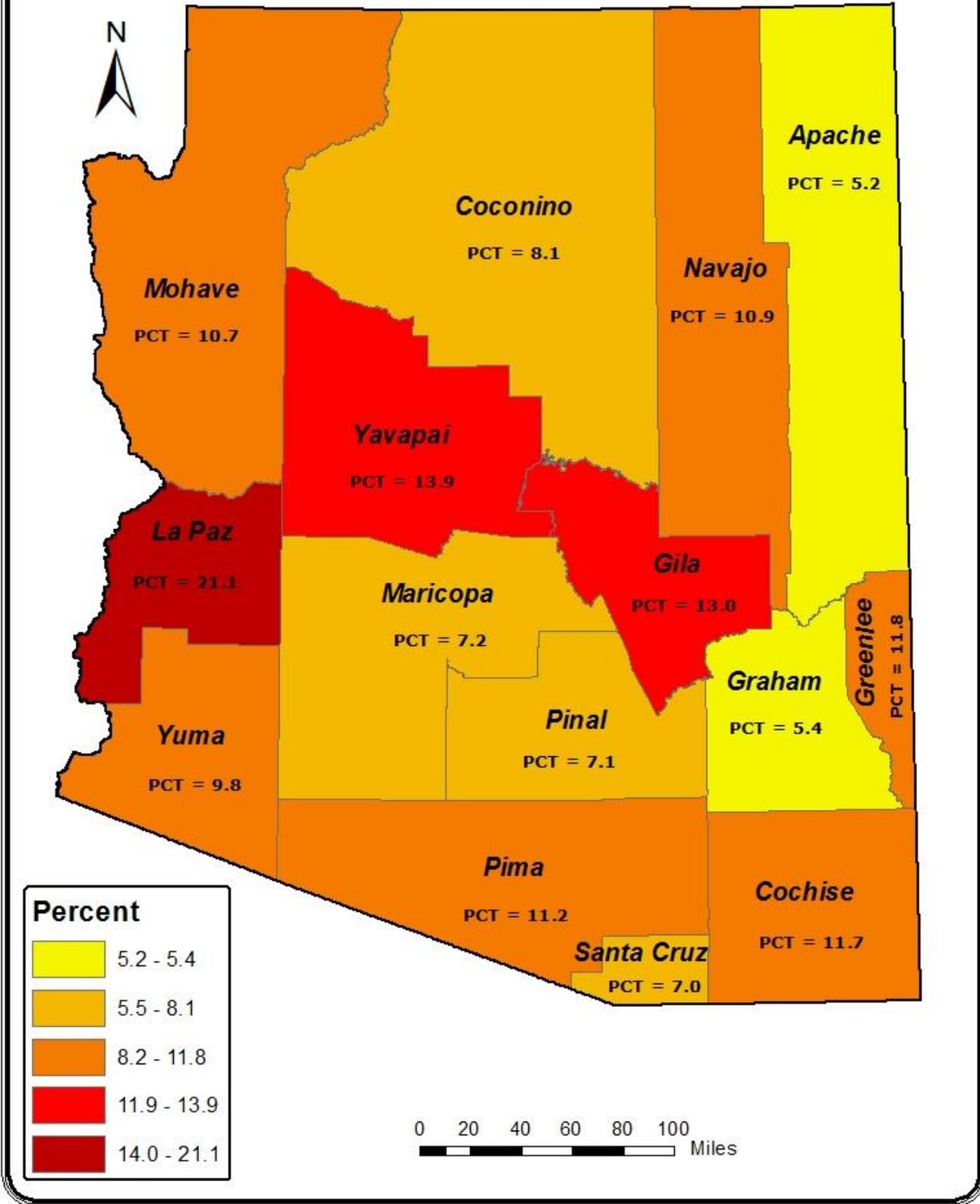
Table 8. N* is unweighted. The variable USEEQUIP was used to generate all tables and charts.

Arizona Residents Who Need Special Equipment for Health Reasons, 2011 (County)

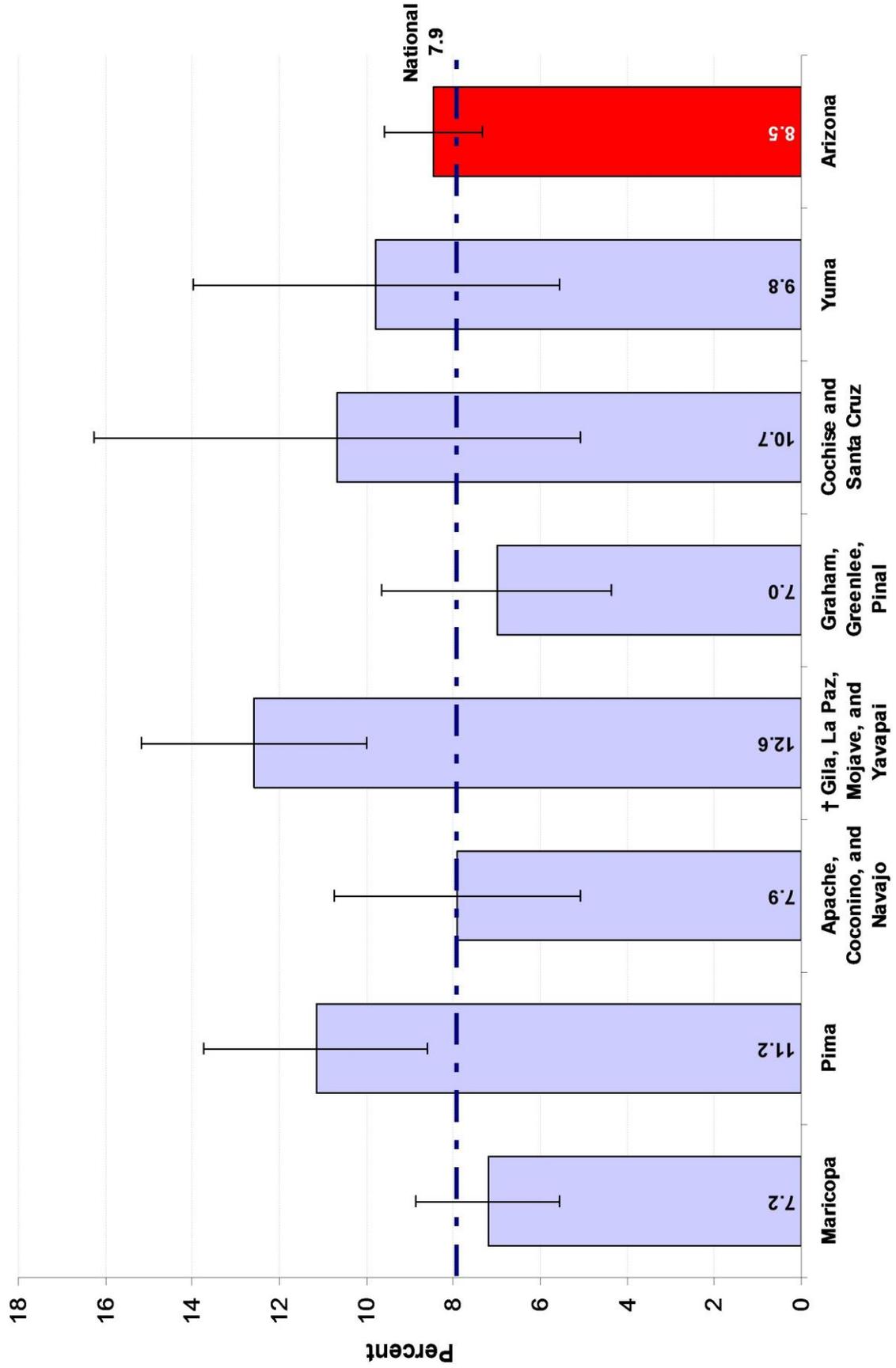


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

Arizona Residents Who Need Special Equipment for Health Reasons, 2011 (County)

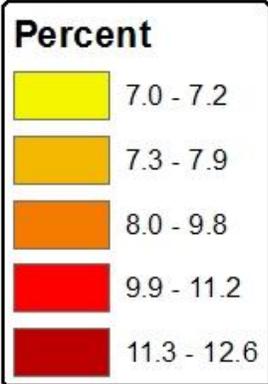
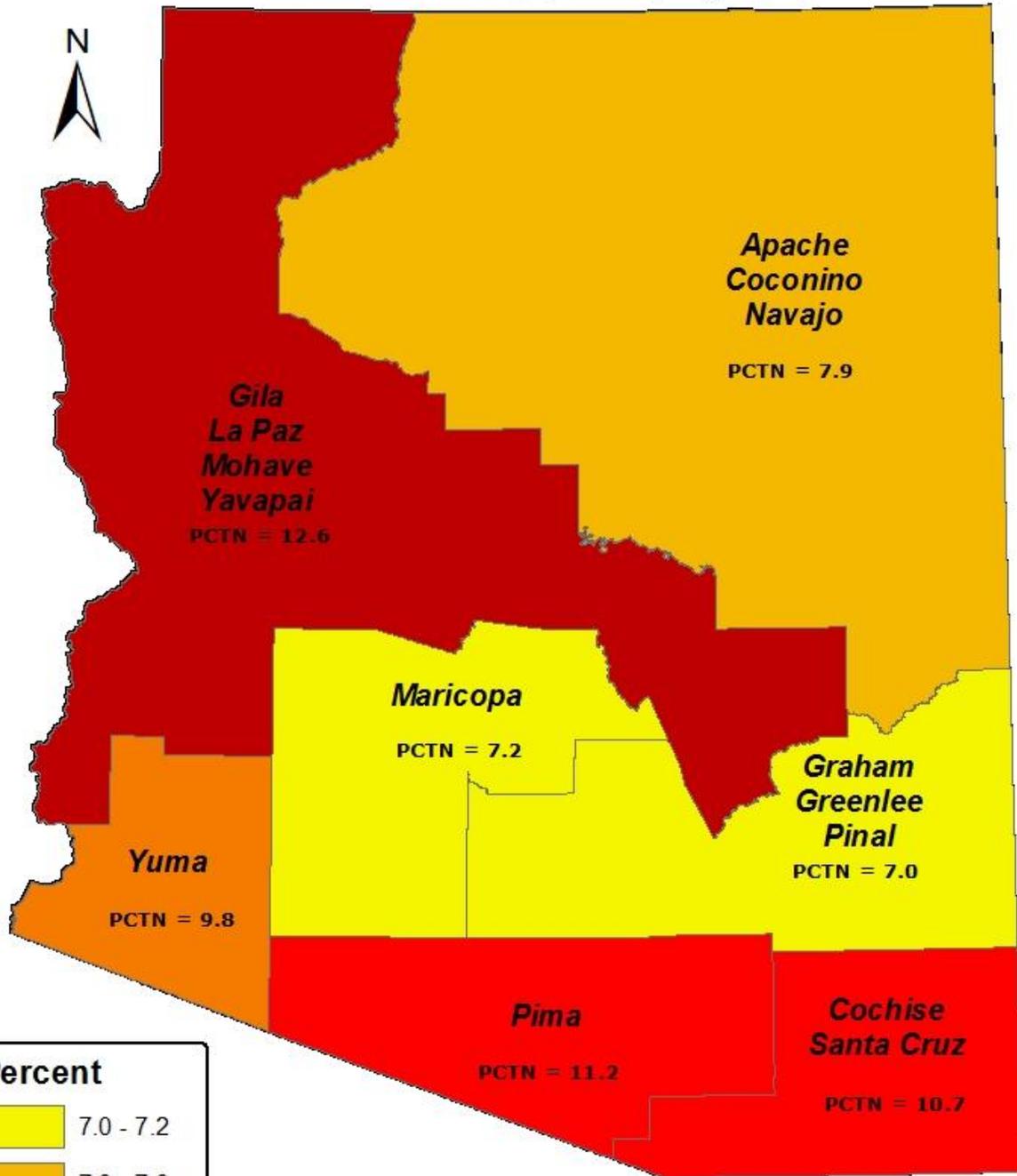


Arizona Residents Who Need Special Equipment for Health Reasons, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported the use of special equipment when compared to the state level

Arizona Residents Who Need Special Equipment for Health Reasons, 2011 (Regional)



Cardiovascular Disease - Heart Attack

The percentage of Arizona 2011 BRFSS respondents who were told that they had had a heart attack was slightly lower than the nation as a whole. Making lifestyle changes and taking preventative measures can also reduce the risk of future heart attacks or strokes.

Cardiovascular disease remains the leading cause of death in the United States, killing roughly the same number of Americans each year as cancer, lower respiratory diseases (including pneumonia) and accidents combined.²¹

*Heart attacks have a large number of risk factors including smoking, poor nutrition, lack of physical activity and diabetes. Therefore, by collecting data on heart attacks, the BRFSS provides Arizona with a tool to assess whether the interventions and programs targeting nutrition, physical activity, obesity and tobacco use are having a positive effect. The aforementioned risk factors are part of Arizona's Winnable Battles as outlined in A1 & A2 of the ADHS Strategic Map.
(See page 6)*

2011 Arizona Heart Attack Burden (HCUP)		
	Number of Discharges	Aggregate Cost
Survived with multiple chronic conditions	1536	\$76,164,740
Survived with a chronic condition	1401	\$50,346,372
Survived without chronic conditions	995	\$29,036,098
Expired with multiple chronic conditions	212	\$11,705,194
Expired with a chronic condition	55	\$1,635,803
Expired without chronic conditions	15	\$351,711
Total	4214	\$169,239,918

Survey Questions: Has a doctor, nurse, or other Health Professional ever told you that you had a heart attack, also called a myocardial infarction?

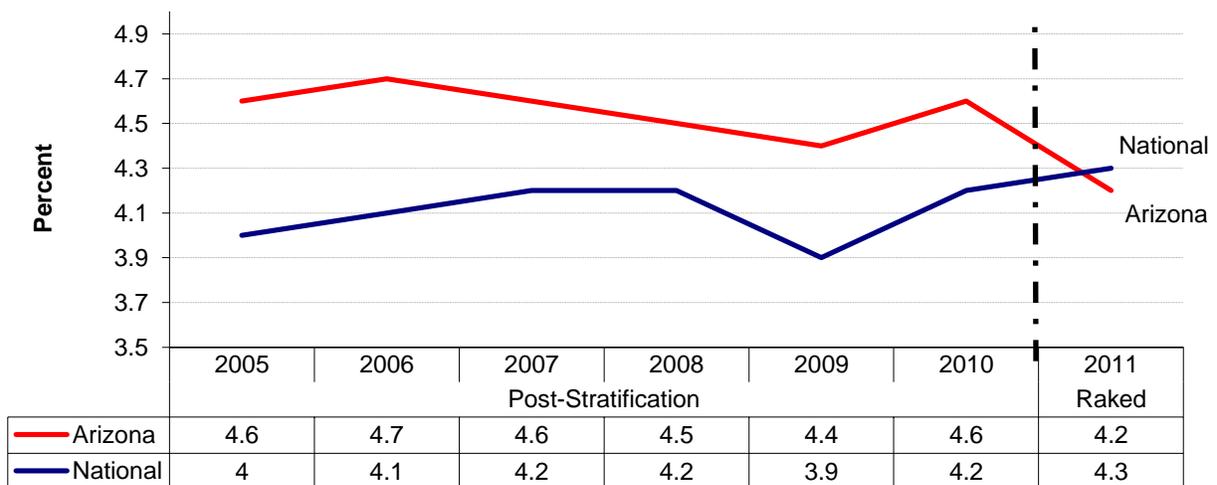


Figure 9. Prevalence of Arizona and National BRFSS respondents who were told that they have had a heart attack. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Cardiovascular Disease - Heart Attack

In each year from 2005 to 2010, the prevalence rates of myocardial infarction were about the same compared to National median values. With the new weighting methodology the values are still very close, with the national median being .1% higher than Arizona (**Figure 9**).

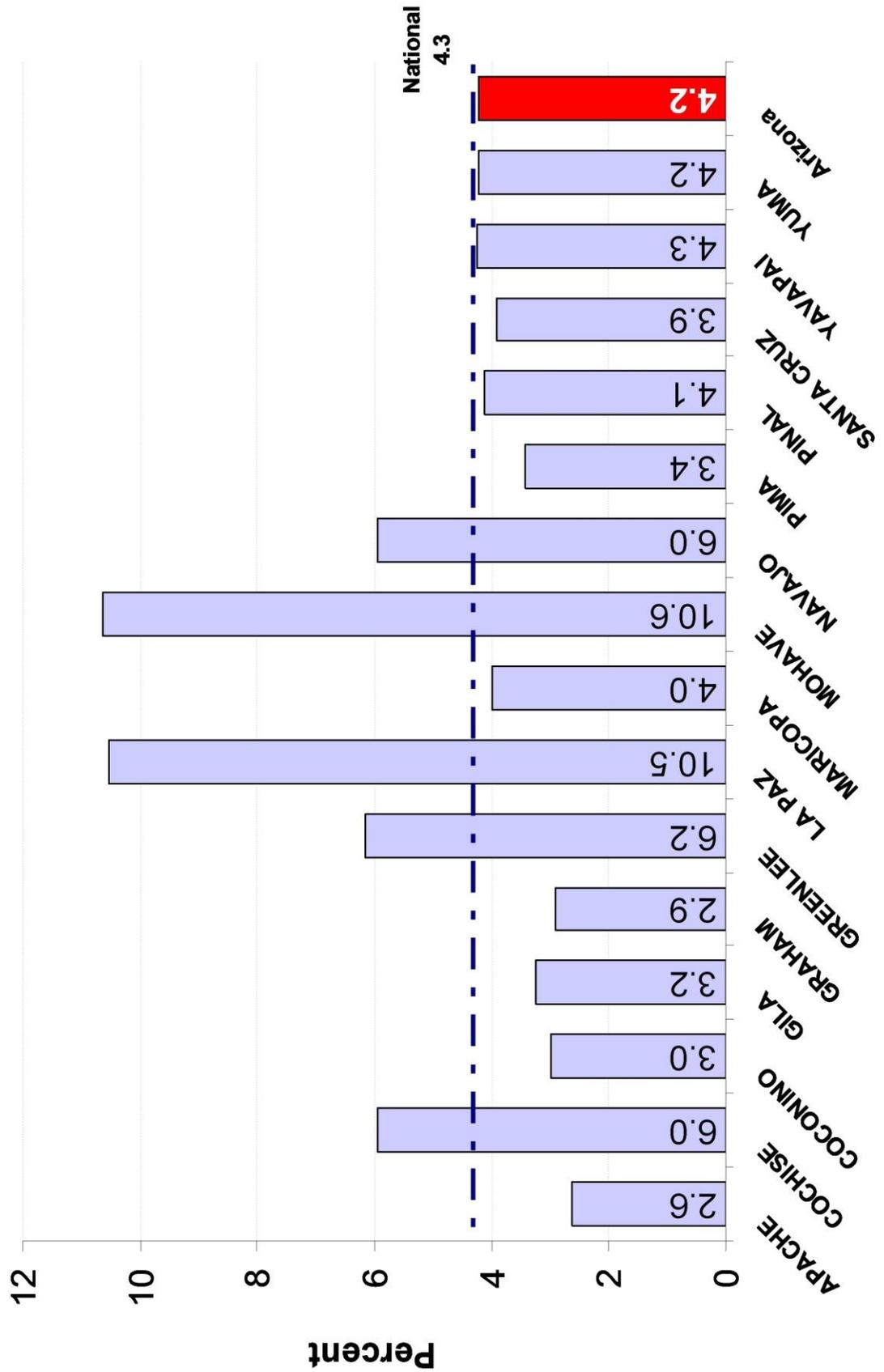
Table 9 below indicates that 4.2% of respondents reported that someone in the health profession told them that they had a heart attack. Some of the highlights of this table include:

- Women were less likely than men to have had a heart attack, at 3.2%.
- By employment status category, adults who retired and who were unable to work were most likely to have had a heart attack, at 11.8% to 11.1% respectively.
- As education increased the likelihood of having a heart attack decreased.
- Hispanics were less likely than non-Hispanic Whites to have had a heart attack, at 2.5% versus 4.8%.

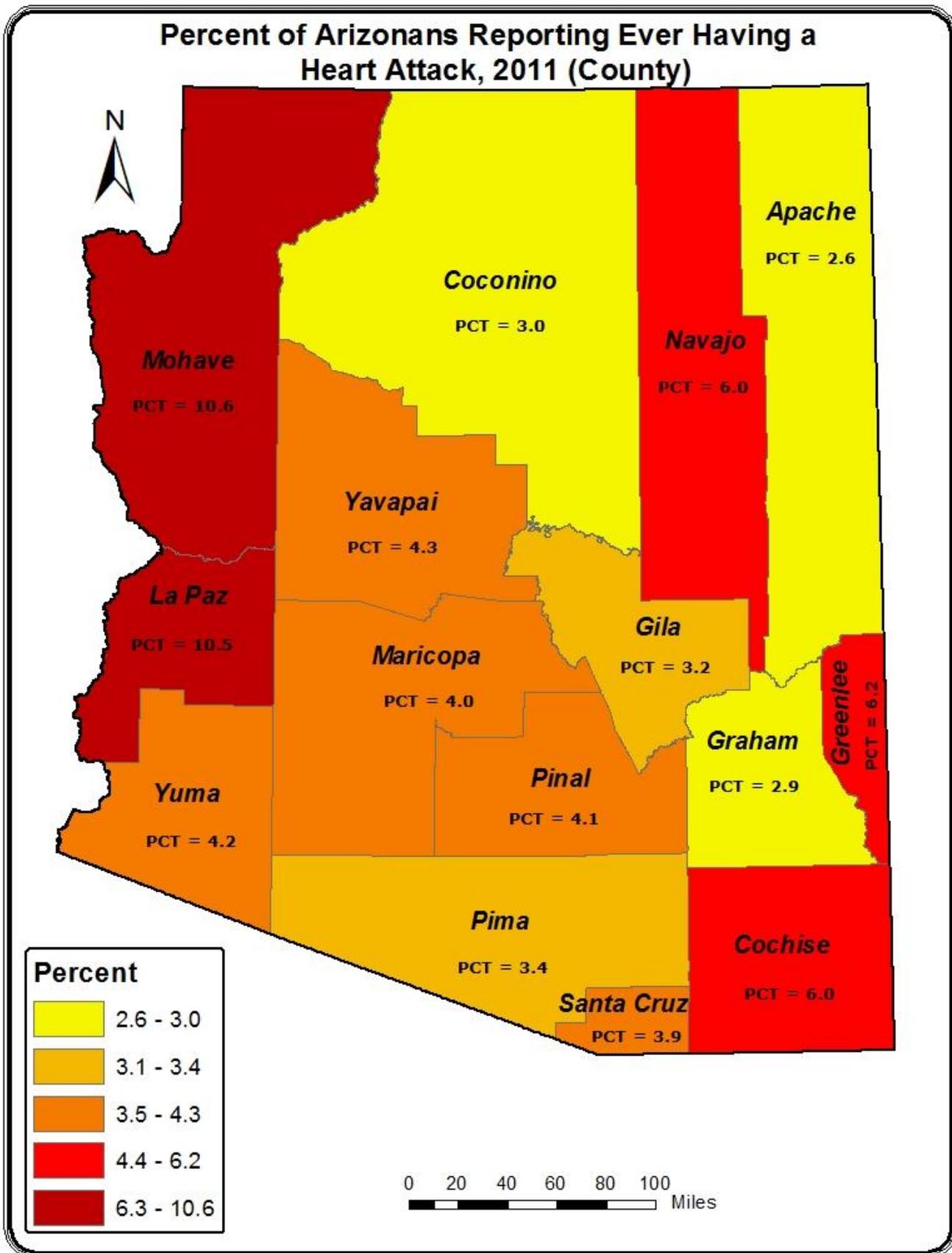
Arizona 2011 BRFSS: Respondents Who Were Told They Had a Heart Attack							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	4.2	458	201450	EMPLOYMENT			
SEX				Employed for wages	1.7	49	36679
Male	5.2	238	123221	Self employed	1.3	14	4906
Female	3.2	220	78229	Out of work	3.8	18	18458
AGE				Homemaker	1.7	31	7611
18-24	0.6	1	3794	Student	1.6	1	3794
25-34	0.7	2	6803	Retired	11.8	268	98789
35-44	0.8	10	7041	Unable to Work	11.1	76	30510
45-54	4.0	36	33148	INCOME			
55-64	5.9	89	41273	<\$25,000	7.5	211	104355
65+	12.6	320	109392	\$25,000-\$34,999	3.6	51	19380
MARITAL STATUS				\$35,000-\$49,999	3.0	53	17975
Married	4.0	220	96267	\$50,000-\$74,999	1.9	37	11367
Divorced	8.2	85	43289	\$75,000+	2.1	39	21676
Widowed	10.1	123	33129	RACE			
Separated	5.5	7	4883	White Non-Hispanic	4.8	347	136815
Never Married	0.6	14	6523	Black	6.7	7	11290
Unmarried Couple	6.0	8	17336	Asian/PI	3.9	4	4570
EDUCATION				American Indian	4.2	17	7074
Less than High School	5.6	61	42033	Other	2.2	9	2115
High School Graduate/GED	5.3	166	65167	Hispanic	2.5	66	32076
Some College/Tech School	3.9	123	63763				
College Grad	2.7	107	30464				

Table 9. N* is unweighted. The variable CVDINFR4 was used to generate all the tables and charts. The student and 18-24 categories must be interpreted with caution as they only have one individual reporting a heart attack.

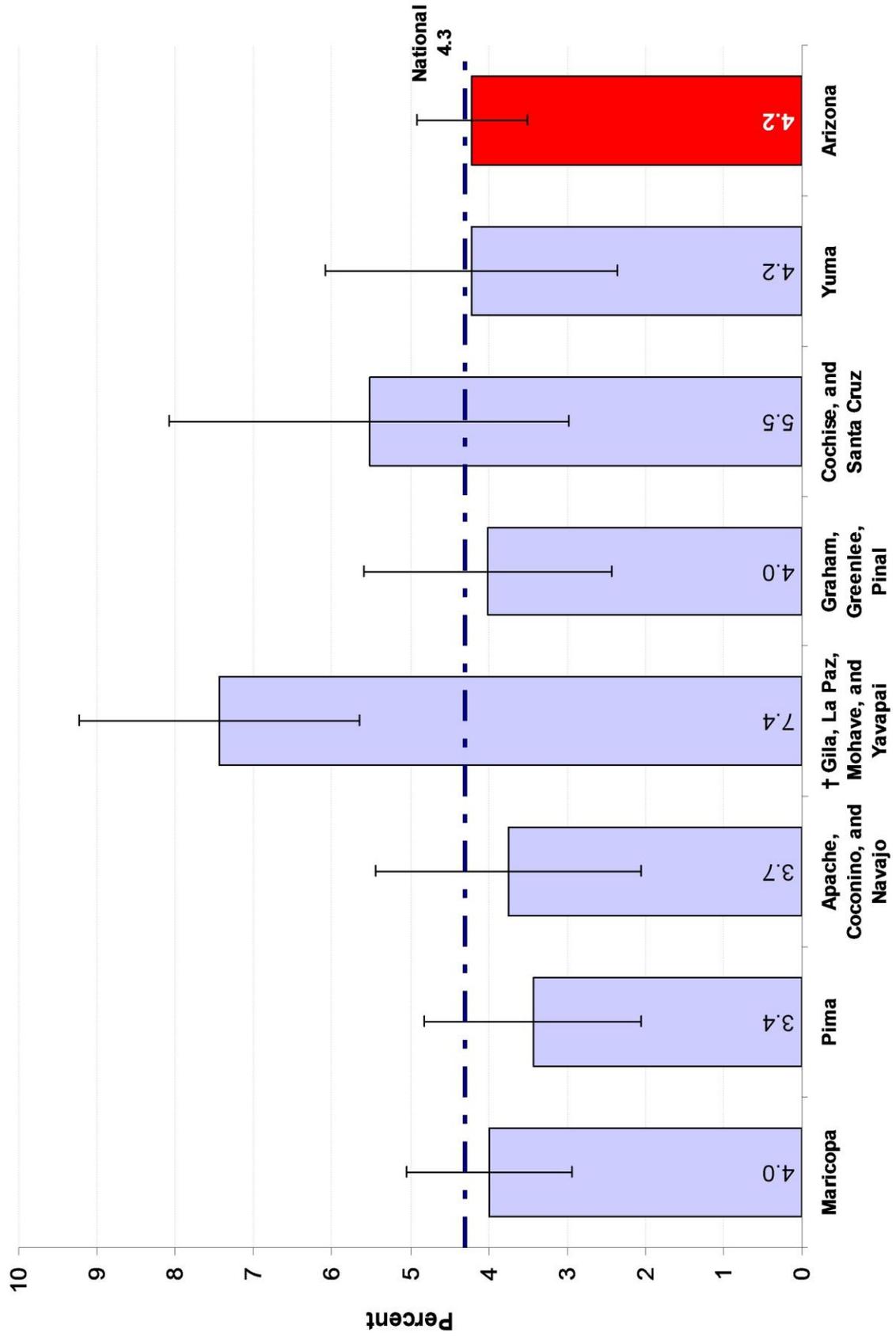
Percent of Arizonans Reporting Ever Having a Heart Attack, 2011 (County)



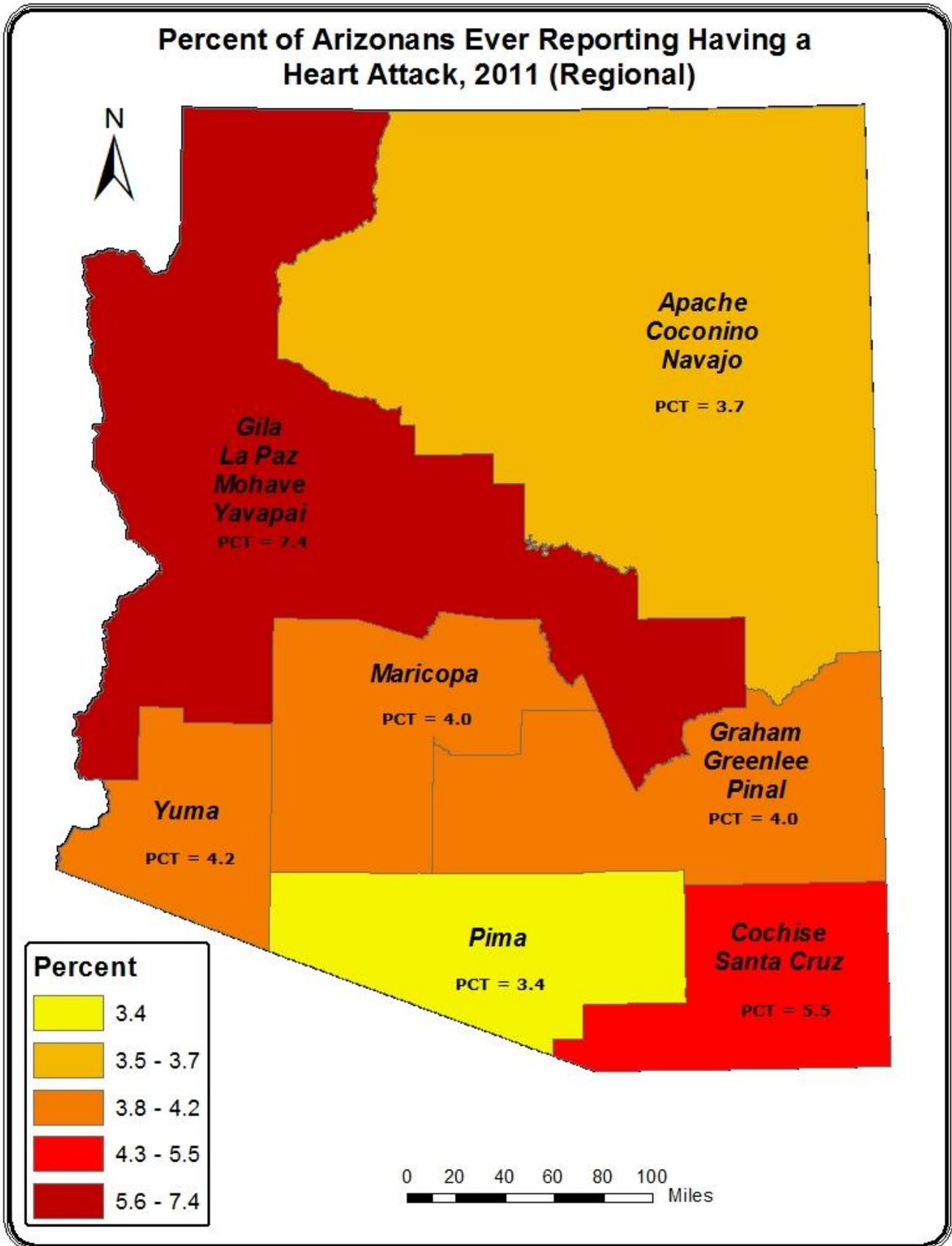
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Percent of Arizonans Ever Reporting Having a Heart Attack, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported having been diagnosed with heart attack when compared to the state level



Cardiovascular disease – Angina/Coronary Heart Disease

Angina is chest pain or discomfort that occurs because the heart muscle is not receiving an adequate supply of blood. “It may feel like pressure or a squeezing pain in the chest. The pain may also occur in the shoulders, arms, neck, jaw, or back, and it may feel like indigestion. Angina is a symptom of coronary heart disease. Angina may be stable or unstable. Stable angina is chest pain that occurs on physical exertion or under mental or emotional stress. Unstable angina is chest pain that occurs even while at rest, without apparent reason. Acute Coronary Syndrome is a term that is sometimes used to describe people who either have an acute myocardial infarction or unstable angina.”²²

Angina (coronary heart disease) has a large number of risk factors including smoking, poor nutrition, lack of physical activity, and diabetes. Therefore, by collecting data on angina, the BRFSS provides Arizona with a tool to assess whether the interventions and programs targeting nutrition, physical activity, obesity and tobacco use. The aforementioned risk factors are part of Arizona’s Winnable Battles as outlined in A1 & A2 of the ADHS Strategic Map. (See page 6)

2011 Arizona Arteriosclerosis Burden (HCUP)		
	Number of Discharges	Aggregate Cost
Individuals with multiple chronic conditions	141	\$3,747,164
Individuals without another chronic condition	1,204	\$21,482,451
Total	1,345	\$25,229,615
2011 Arizona By Pass Burden (HCUP)		
	Number of Discharges	Aggregate Cost
Percutaneous transluminal coronary angioplasty with multiple chronic conditions	91	\$21,621,840
Percutaneous transluminal coronary angioplasty without multiple chronic conditions	70	\$12,896,696
Cardiac catheterization with multiple chronic conditions	792	\$168,317,120
Cardiac catheterization without multiple chronic conditions	972	\$150,996,815
Without cardiac catheterization with multiple chronic conditions	456	\$74,729,555
Without cardiac catheterization without multiple chronic conditions	976	\$109,970,082
Total	3,357	\$538,532,108

Survey Question: Has a doctor, nurse, or other Health Professional ever told you that you had angina or coronary heart disease?

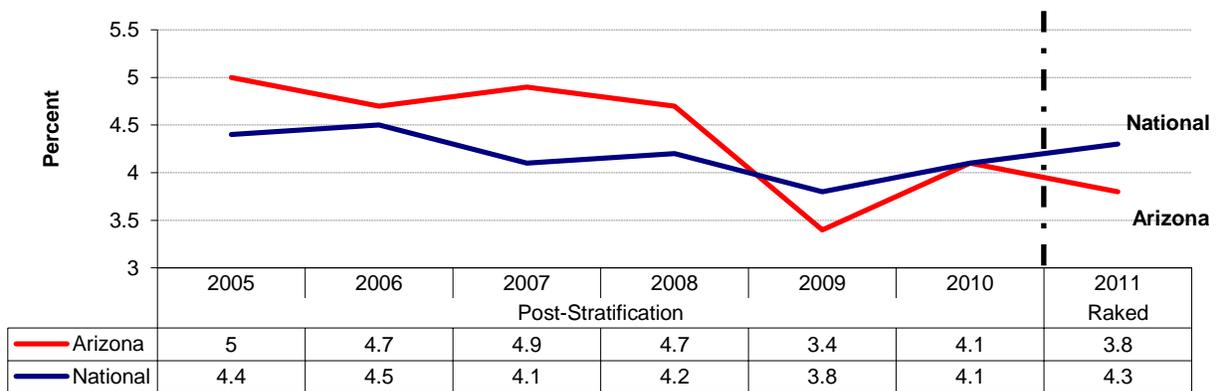


Figure 10. Prevalence of Arizona and National BRFSS respondents who were told that they have had angina. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Cardiovascular disease – Angina/Coronary Heart Disease

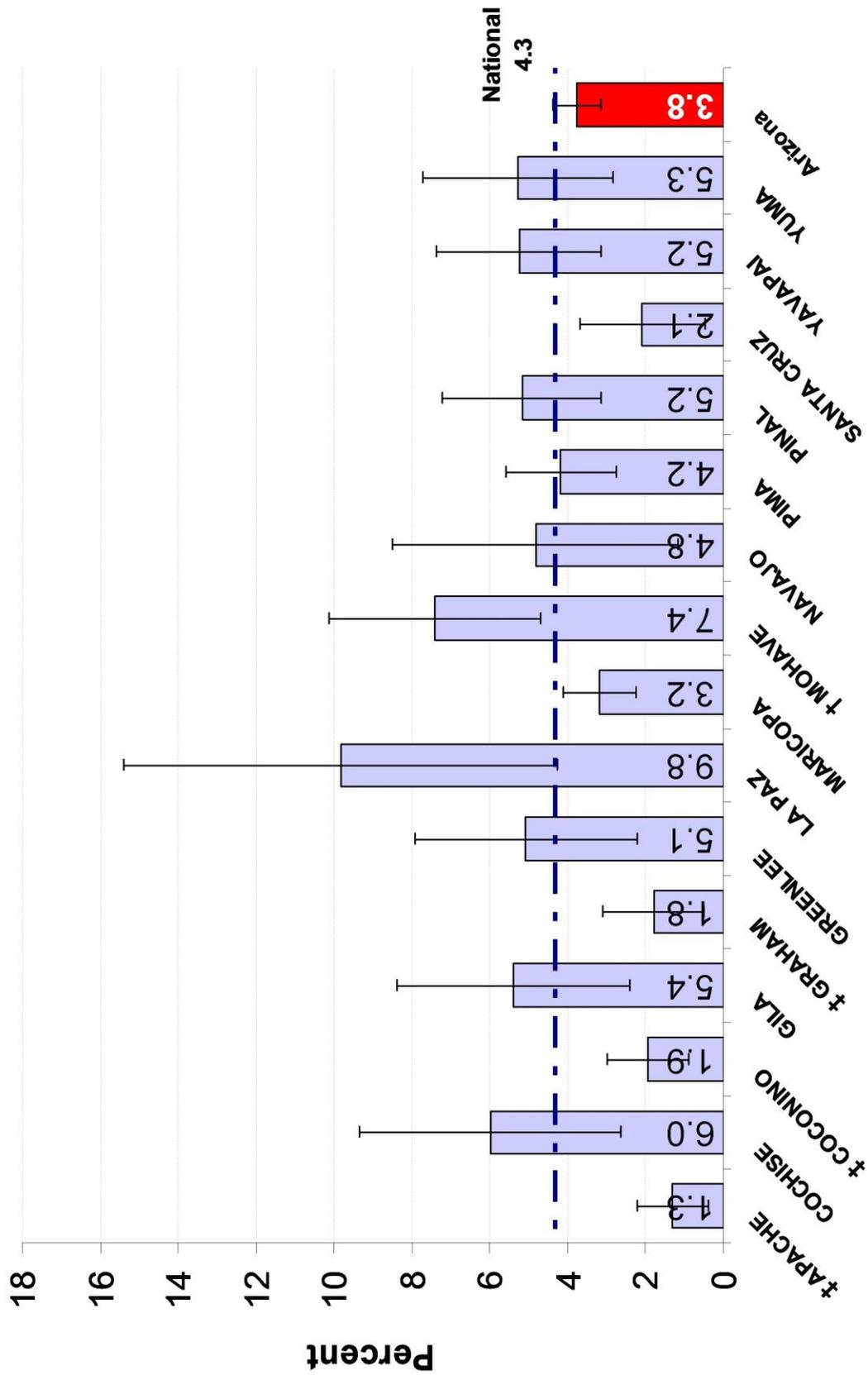
According to the 2011 BRFSS, Arizona has fewer individuals reporting that a health professional told them they had angina or coronary heart disease when compared to the nation as a whole (**Figure 10**). **Table 10** below indicates that 3.8% of respondents reported that someone in the health profession told them that they had Angina or Coronary Heart disease. Some of the highlights of this table include:

- Women were less likely than men to report having been diagnosed with angina, at 3.2%.
- As age increased, so did the likelihood of reporting a diagnosis of angina or coronary heart disease.
- By marital status, of all the subgroups, individuals who reported that they were never married were the least likely to be told they had angina or coronary heart disease, at .7%.

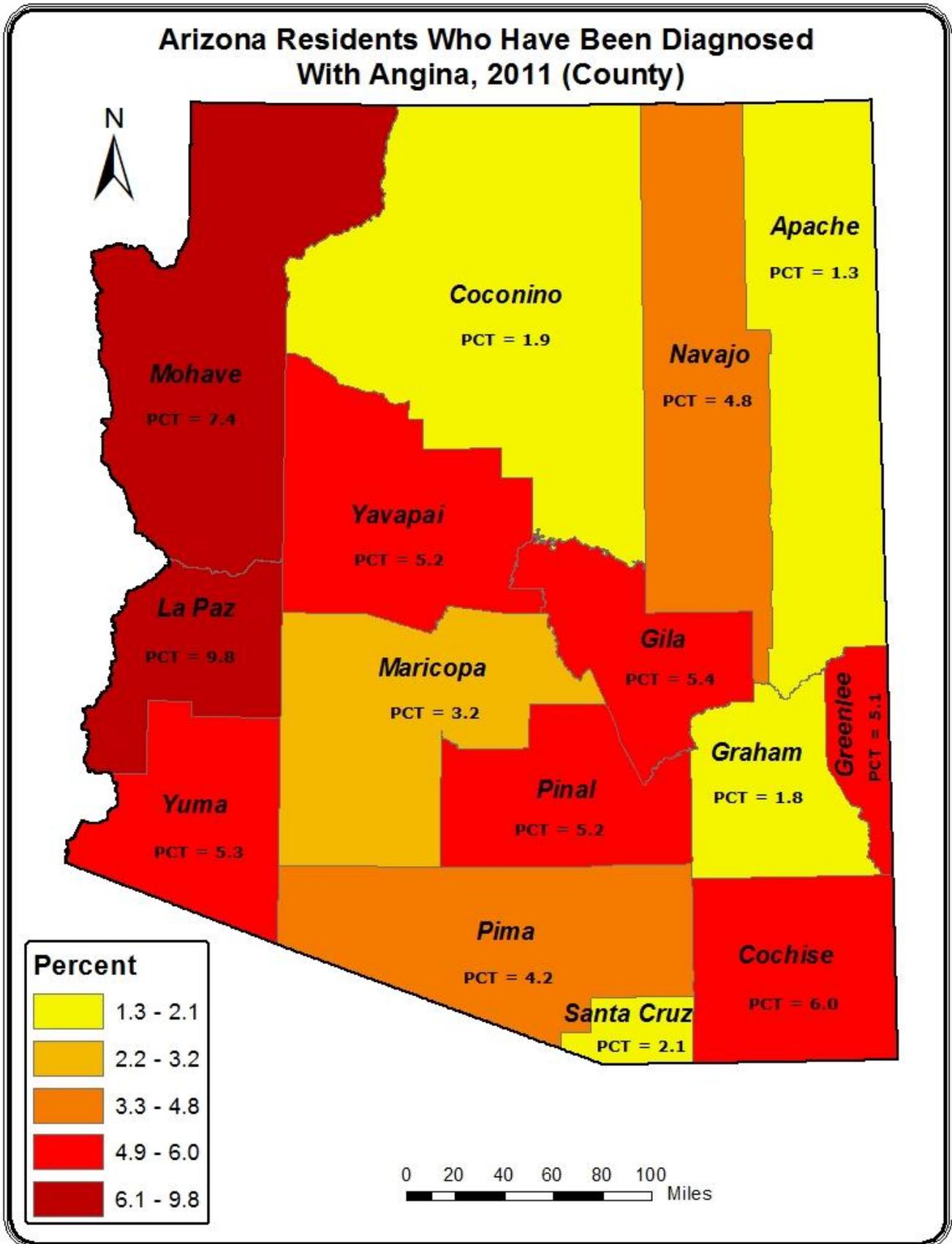
Arizona 2011 BRFSS: Respondents Who Were Told They Had Angina or Coronary Heart Disease							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	3.8	442	180171	EMPLOYMENT			
SEX				Employed for wages	1.6	48	34779
Male	4.3	216	103233	Self employed	1.4	13	5097
Female	3.2	226	76938	Out of work	1.6	14	7620
AGE				Homemaker	1.7	24	7480
18-24	.	.	.	Student	0.3	1	704.9657
25-34	0.1	1	1024	Retired	10.6	268	88126
35-44	1.8	11	15130	Unable to Work	12.6	72	34137
45-54	3.0	30	24924	INCOME			
55-64	4.9	91	34533	<\$25,000	4.5	163	63070
65+	12.1	309	104560	\$25,000-\$34,999	4.2	57	22770
MARITAL STATUS				\$35,000-\$49,999	4.0	57	23765
Married	4.5	219	107949	\$50,000-\$74,999	2.3	45	13823
Divorced	4.7	66	25172	\$75,000+	2.3	49	23806
Widowed	9.4	126	30271	RACE			
Separated	2.3	10	2132	White Non-Hispanic	4.9	362	140631
Never Married	0.7	14	7286	Black	2.3	6	3827
Unmarried Couple	2.5	6	7338	Asian/PI	3.9	3	4535
EDUCATION				American Indian	1.7	13	2988
Less than High School	3.6	51	27122	Other	1.2	10	1146
High School Graduate/GED	4.3	140	53497	Hispanic	1.8	43	23622
Some College/Tech School	3.6	119	59234				
College Grad	3.5	131	40014				

Table 10. N* is unweighted. The variable CVDCRHD4 was used to generate all tables and charts. There was one individual reporting that they have been diagnosed with angina in the 25-34 age category. It is important to note that this person’s weighted frequency is 1024. Please note that due to the small sample in this category the information in said subgroup may not provide meaningful data.

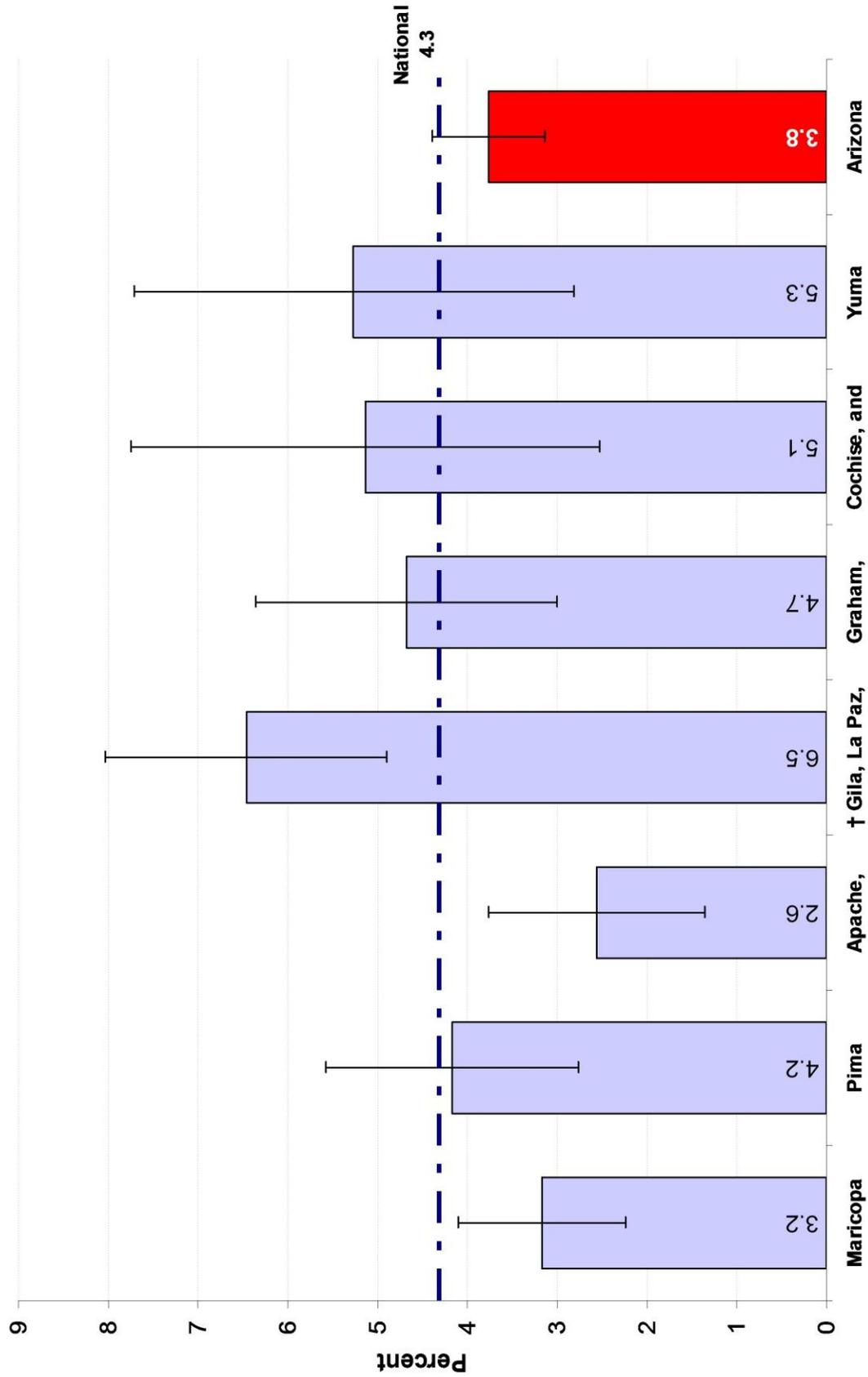
Arizona Residents Who Have Been Diagnosed With Angina, 2011 (County)



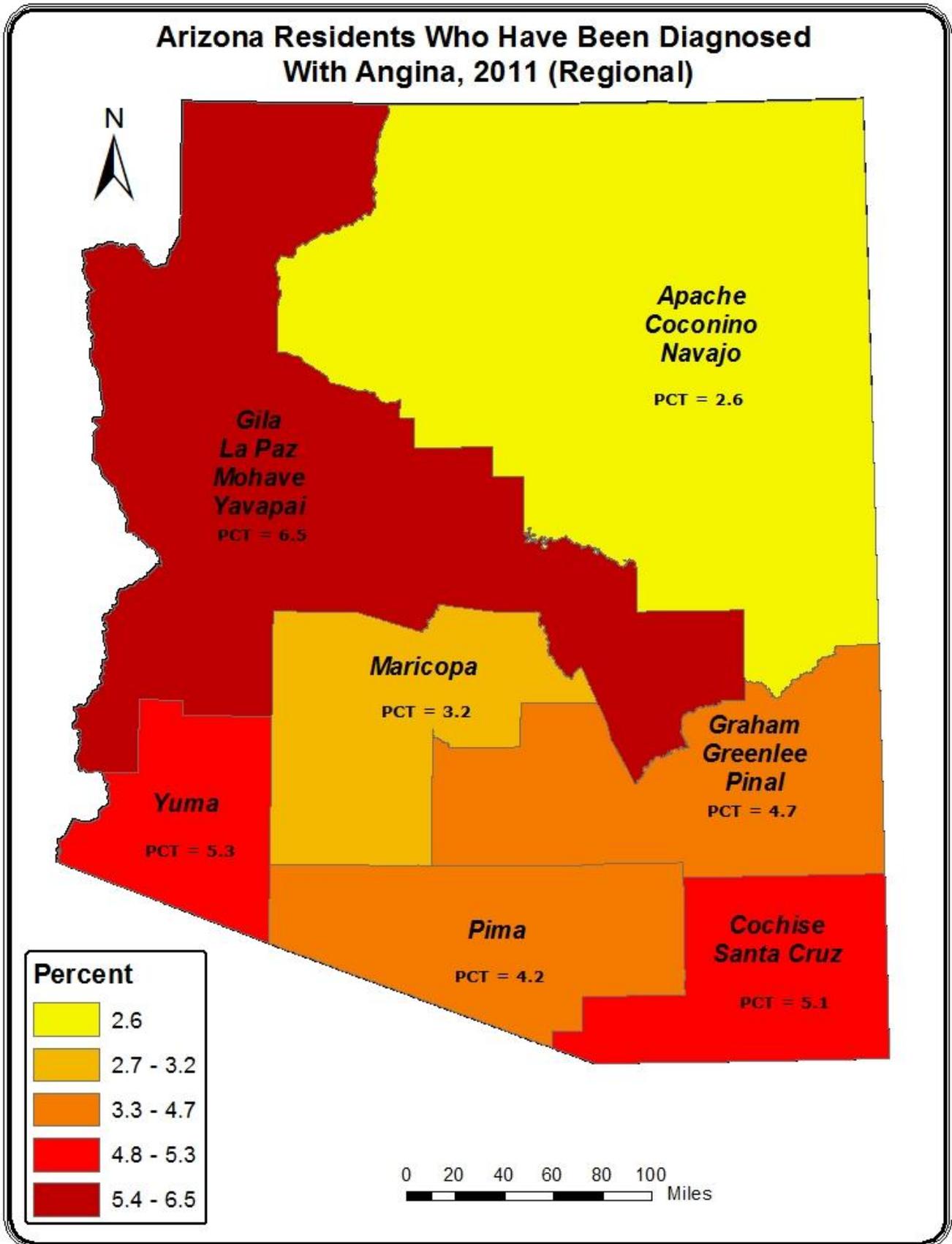
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who have been diagnosed with angina when compared to the state level
 ‡ indicates that the county has a significantly lower percentage of individuals who have been diagnosed with angina when compared to the state level



Arizona Residents Who Have Been Diagnosed With Angina, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who have been diagnosed with angina when compared to the state level



Cardiovascular Disease-Stroke

A stroke or cerebrovascular accident occurs when the blood supply to the brain is cut off (an ischemic stroke) or when a blood vessel bursts (a hemorrhagic stroke). Most are of the ischemic type. Brain cells begin to die without oxygen. Permanent disability or death may result. High blood pressure, smoking and having had a previous stroke or heart attack increase a person's chance of having a stroke.

2011 Arizona Stroke Burden (HCUP)			
Number of Discharges	Length of Stay	Average Charges	In-Hospital Deaths
7,253	4.1 days	\$42,218	174

Strokes have a large number of risk factors including smoking, poor nutrition, lack of physical activity, and diabetes. Therefore, by collecting data on strokes, the BRFSS provides Arizona with a tool to assess whether the interventions and programs targeting nutrition, physical activity, obesity and tobacco use.

*The aforementioned risk factors are part of Arizona's Winnable Battles as outlined in A1 & A2 of the ADHS Strategic Map.
(See page 6)*

The following are major signs of stroke according to The National Institute of Neurological Disorders and Stroke:

- "Sudden numbness or weakness of the face, arms or legs
- Sudden confusion or trouble speaking or understanding others
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, or loss of balance or coordination
- Sudden severe headache with no known cause"²³

ICD-9 Categorization Scheme	
434.00	Cerebral thrombosis without mention of cerebral infarction
434.01	Cerebral thrombosis with cerebral infarction
434.10	Cerebral embolism without mention of cerebral infarction
434.11	Cerebral embolism with cerebral infarction
434.90	Cerebral artery occlusion, unspecified without mention of cerebral infarction
434.91	Cerebral artery occlusion, unspecified with cerebral infarction

Survey Question: Has a doctor, nurse, or other Health Professional ever told you that you had a stroke?

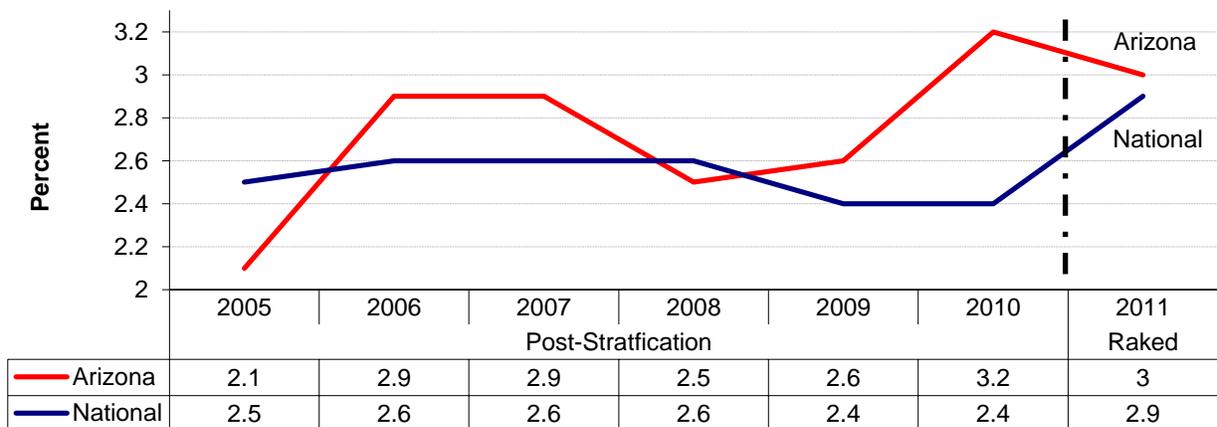


Figure 11. Prevalence of Arizona and National BRFSS respondents who were told that they have had a stroke. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure.

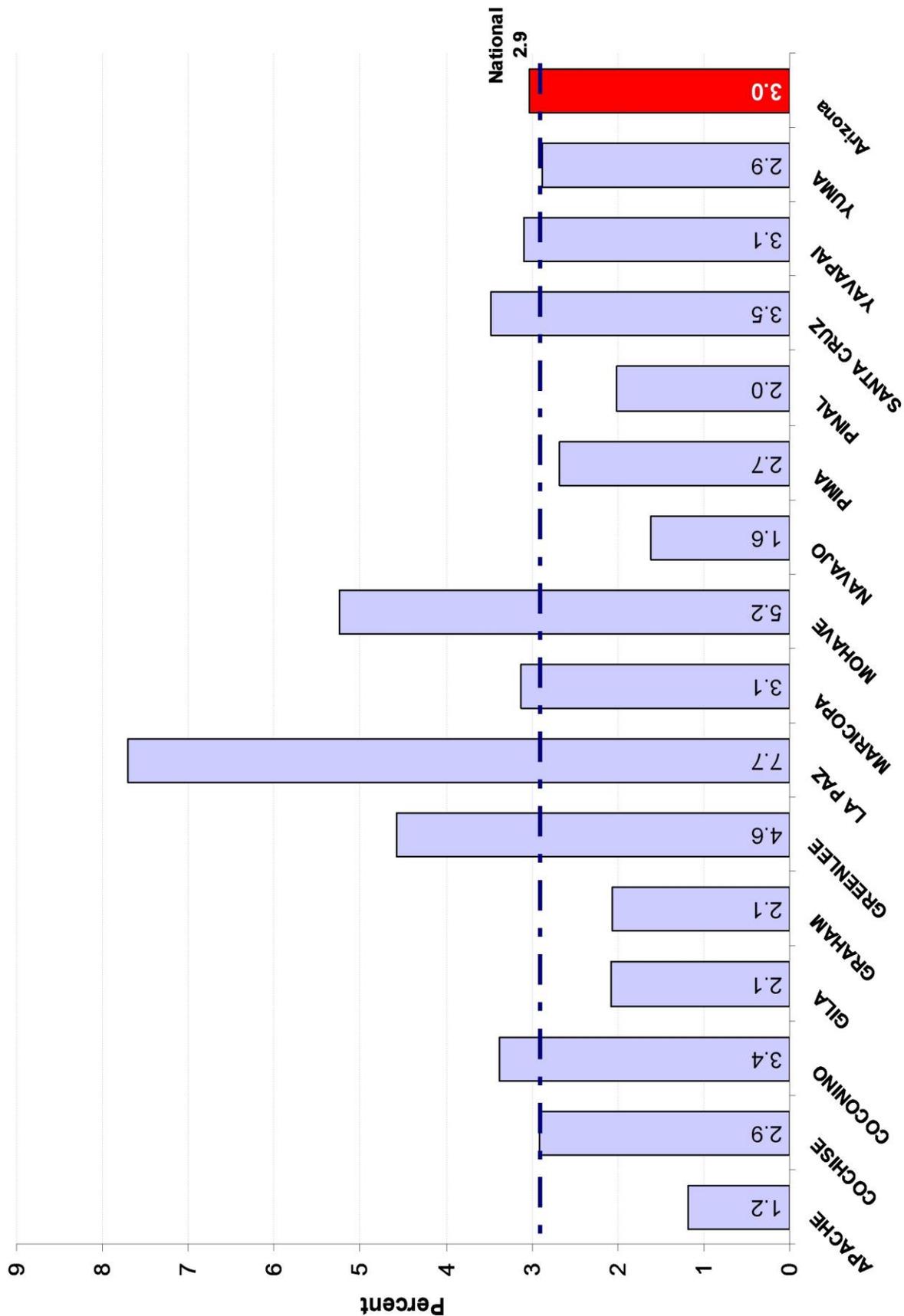
According to the 2011 BRFSS, Arizona had a slightly higher percent of individuals reporting a stroke when compared to the nation as a whole (**Figure 11**). **Table 11** below indicates that 3% of respondents reported that someone in the health profession told them that they had a stroke. Some of the highlights of this table include:

- Women were identified as having a slightly lower incidence of stroke than men.
- By marital status, of all the subgroups, individuals who reported that they were never married were the least likely to report a stroke, at 1.4%
- As income increased the likelihood of reporting a stroke decreased.
- Individual who were self-employed had the lowest percentage reporting a stroke diagnosis, at .3%.

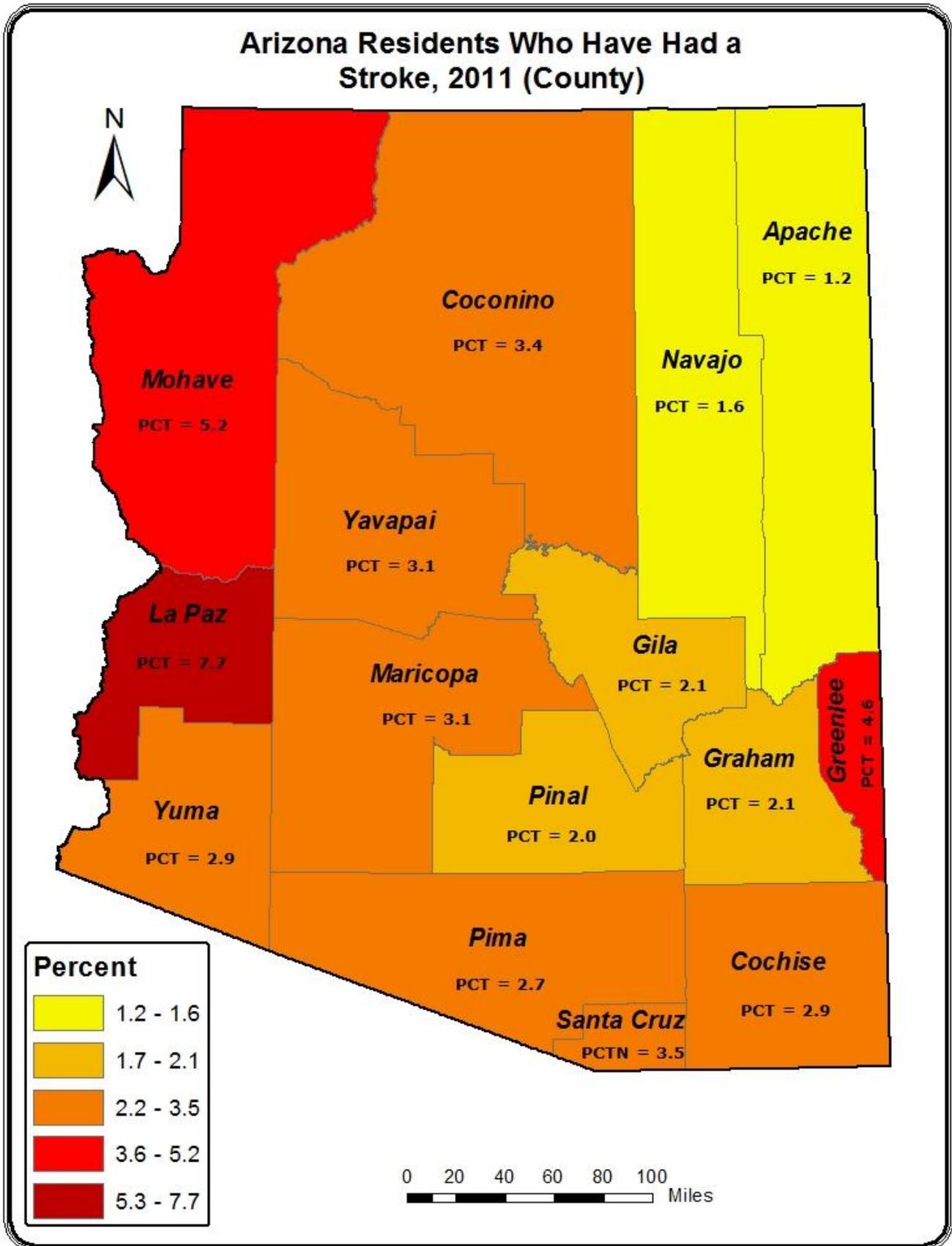
Arizona 2011 BRFSS: Respondents Who Were Told They Have Had a Stroke							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	3.0	294	144851	EMPLOYMENT			
SEX				Employed for wages	1.0	26	21189
Male	3.4	135	80407	Self employed	0.3	7	1031
Female	2.7	159	64444	Out of work	3.4	15	16410
AGE				Homemaker	1.9	18	8239
18-24	1.3	2	7769	Student	.	.	.
25-34	0.6	5	5092	Retired	7.3	164	61420
35-44	1.3	8	10898	Unable to Work	13.2	64	36562
45-54	3.3	28	27200	INCOME			
55-64	3.1	55	21810	<\$25,000	4.7	141	65415
65+	8.2	196	72081	\$25,000-\$34,999	3.5	31	18743
MARITAL STATUS				\$35,000-\$49,999	2.9	34	17133
Married	3.1	129	73937	\$50,000-\$74,999	1.6	21	9400
Divorced	4.6	56	24684	\$75,000+	1.5	26	15503
Widowed	7.3	83	24461	RACE			
Separated	1.8	5	1625	White Non-Hispanic	3.3	219	95047
Never Married	1.4	13	15228	Black	2.6	4	4484
Unmarried Couple	1.7	7	4848	Asian/PI	0.1	2	79.8
EDUCATION				American Indian	4.3	14	7393
Less than High School	4.2	32	31322	Other	4.8	12	4632
High School Graduate/GED	2.7	90	33051	Hispanic	2.4	37	30964
Some College/Tech School	2.9	93	48310				
College Grad	2.8	78	31866				

Table 11. N* is unweighted. The variable CVDSTRK3 was to generate all tables and charts.

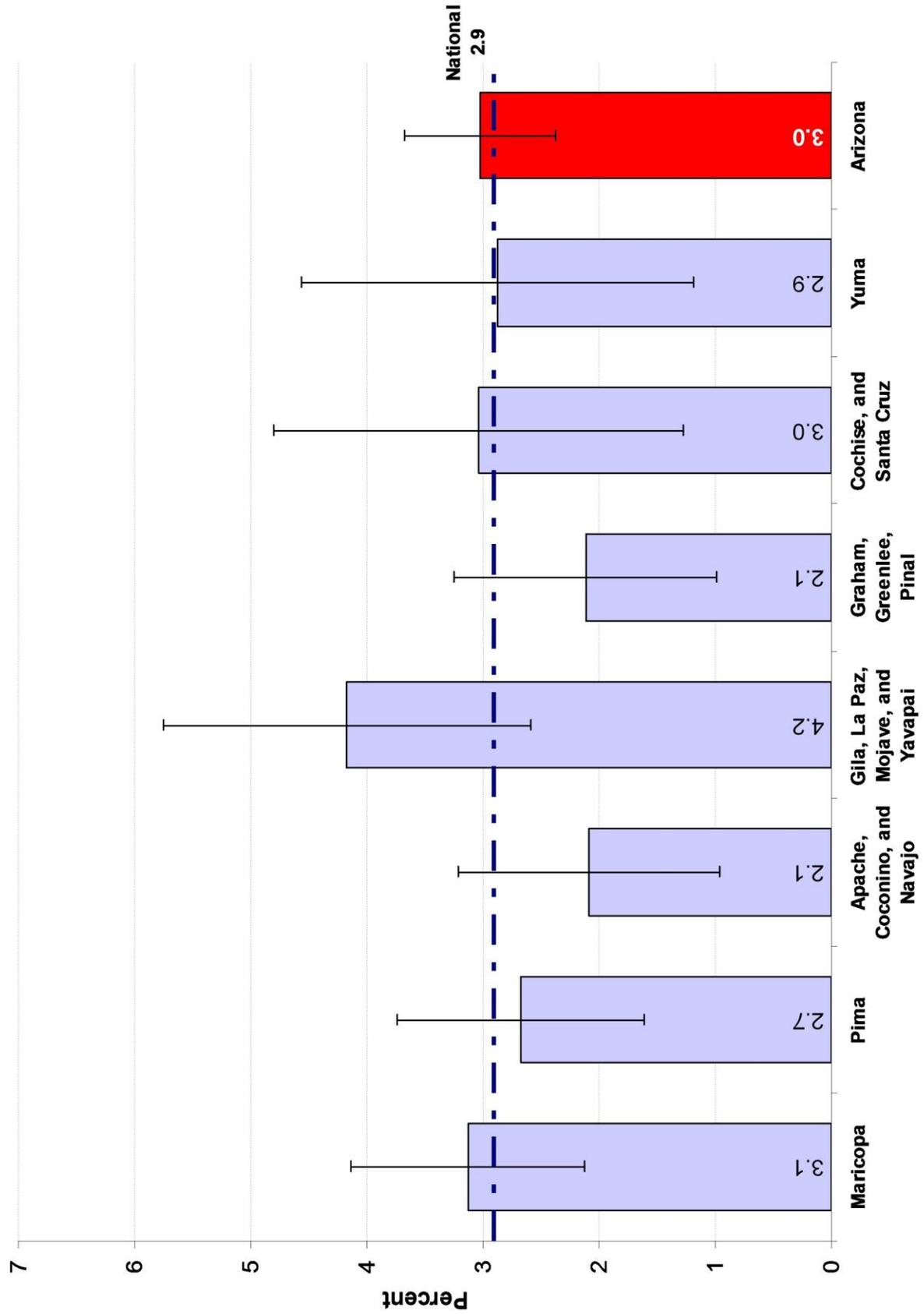
Arizona Residents Who Have Had a Stroke, 2011 (County)



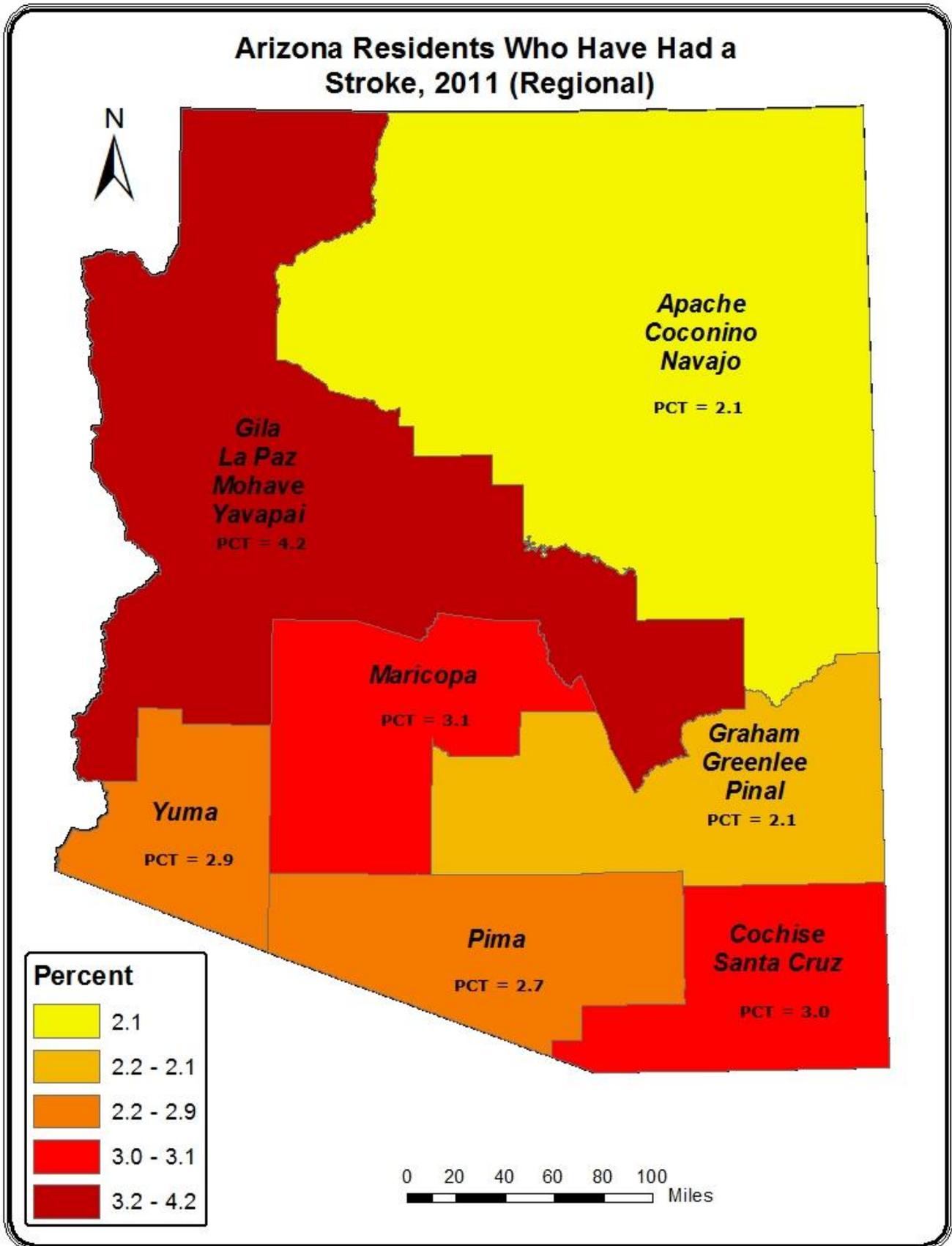
* As of 11/26/2012 the data uploaded to the national BRFS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Arizona Residents Who Have Had a Stroke, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Asthma

Asthma is a chronic respiratory disease characterized by episodes or attacks of impaired breathing. Symptoms are caused by inflammation and narrowing of small airways and may include shortness of breath, coughing, wheezing, and chest pain. Disease severity ranges from mild with occasional symptoms to severe with persistent symptoms that impact quality of life. However, even people with mild disease may suffer severe attacks. Common attack triggers include airway irritants (e.g., tobacco smoke and air pollution), allergens, respiratory infections, stress and exercise.²⁴

Smoking and second hand smoke have been shown to increase the severity of asthma related symptoms, reduce quality of life and increase utilization of health care services among asthmatics. Therefore, by monitoring asthma prevalence in conjunction with smoking status, the BRFSS is providing Arizona with a tool to assess interventions and programs targeting asthmatics who smoke. The reduction of tobacco use is part of Arizona's Winnable Battles as outlined in A2 of the ADHS Strategic Map. (See page 6)

According to CDC latest findings, in 2009, 25 million persons in the United States reported having asthma during their lifetimes. The number of people diagnosed with asthma grew by 4.3 million from 2001 to 2009. Asthma costs in the U.S. grew from about \$53 billion in 2002 to about \$56 billion in 2007, about a 6% increase. Greater access to medical care is needed for the growing number of people with asthma.²⁵ Asthma was linked to 3,447 deaths (about 9 deaths per day) in 2007.

Asthma is a complicated disease that requires long-term and multifaceted study and treatment. This includes educating, treating and providing continuing medical care and monitoring for people with asthma, as well as changing behaviors that lead to asthma or exacerbate it (such as smoking), and eliminating or avoiding triggers.²⁶

The CDC Vital Signs 2011 report shows one in 12 people have asthma and the number is growing. Asthma costs the United States \$56 billion yearly in medical costs, lost school and work days, and early deaths.²⁷

Survey Question: Have you EVER been told by a doctor, nurse, or other health professional that you had asthma?

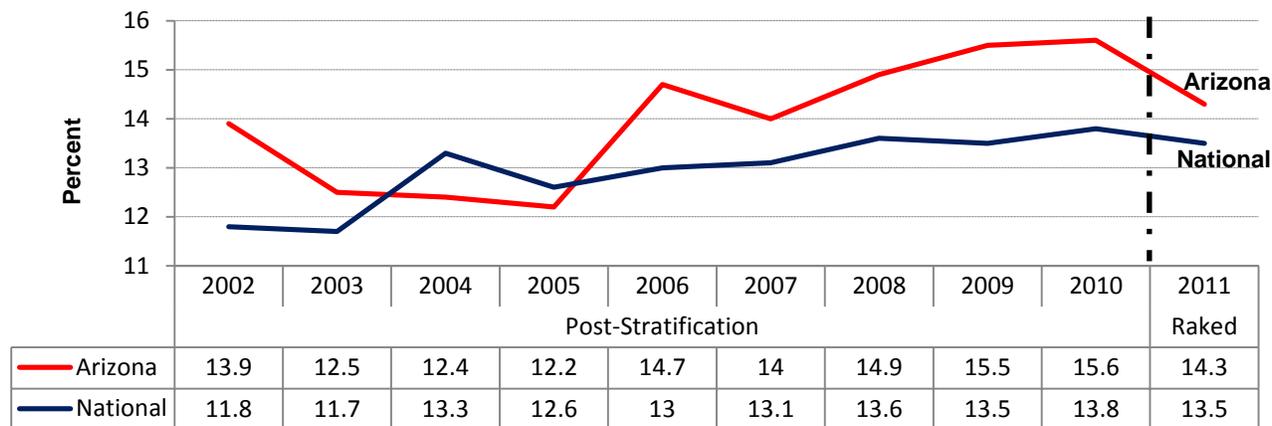


Figure 12. Arizona and National BRFSS respondents who require had been told they have asthma. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Asthma

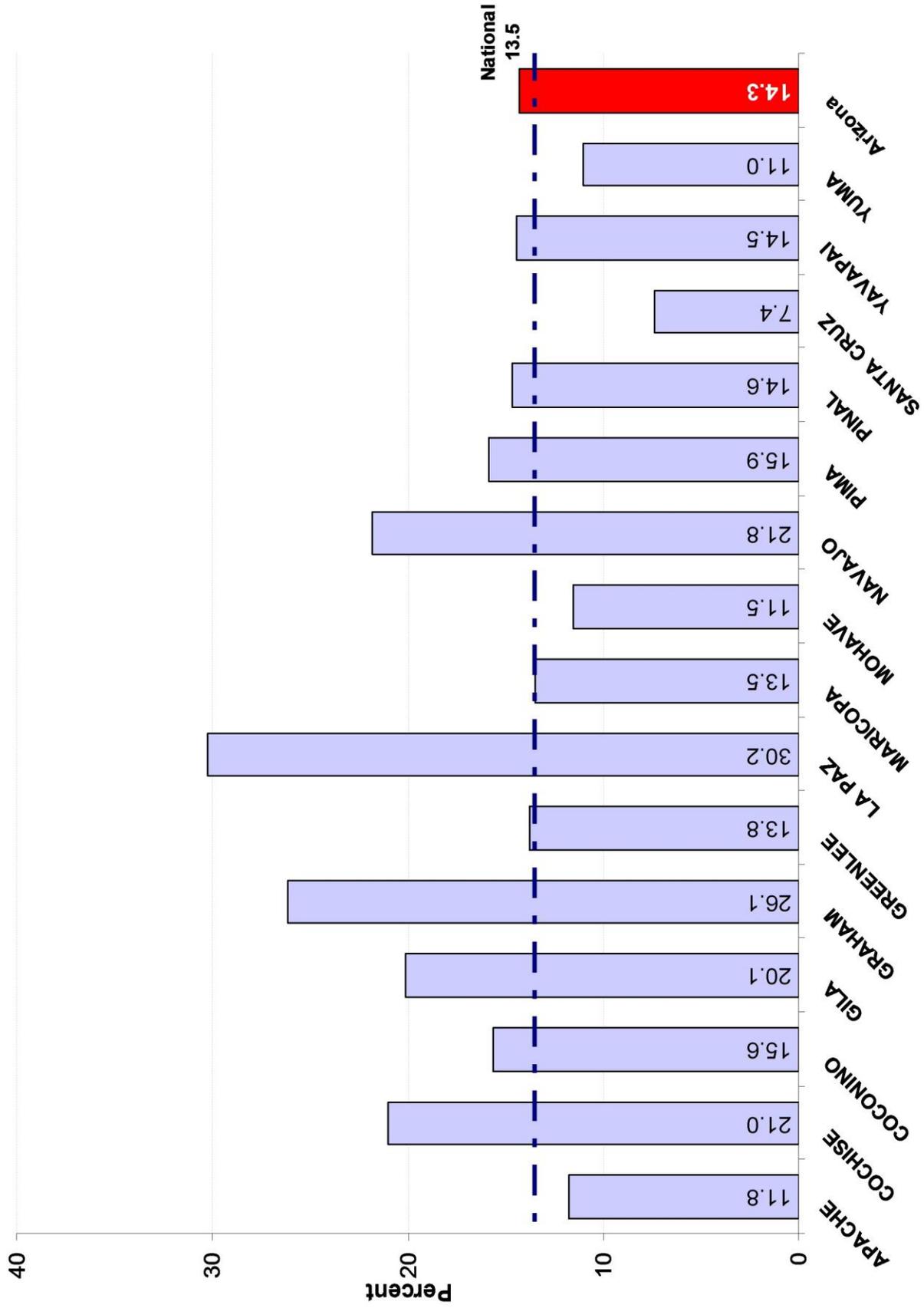
According to the 2011 BRFSS, Arizona had more individuals reporting that they were diagnosed with asthma when compared to the nation as a whole (**Figure 12**). **Table 12** below indicates that 14.3% of respondents reported that someone in the health profession told them that they had asthma. Some of the highlights of this table include:

- Men were less likely than women to report that they were diagnosed with asthma, at 12.1%.
- Respondents between the ages of 55-64 were the least likely to have asthma, at 11.8%.
- Asians were the least likely to report having been diagnosed with asthma, at 9%.
- Among types of employment, individuals who reported that they were “Homemakers” were the least likely to report being diagnosed with asthma, at 11.4%

Arizona 2011 BRFSS: Respondents Who Were Told They Had Asthma							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	14.3	928	684225	EMPLOYMENT			
SEX				Employed for wages	11.6	249	245559
Male	12.1	303	289020	Self employed	15.0	63	56511
Female	16.4	625	395206	Out of work	13.7	66	66068
AGE				Homemaker	11.4	82	50747
18-24	16.3	45	97441	Student	20.1	25	48096
25-34	14.9	65	137224	Retired	14.4	304	121231
35-44	12.5	104	107543	Unable to Work	34.7	138	95142
45-54	15.6	154	130431	INCOME			
55-64	11.8	210	83117	<\$25,000	17.0	319	237361
65+	14.7	350	128468	\$25,000-\$34,999	14.6	102	79448
MARITAL STATUS				\$35,000-\$49,999	10.4	97	61750
Married	12.0	434	289656	\$50,000-\$74,999	11.6	112	68615
Divorced	19.5	179	105083	\$75,000+	13.3	157	136485
Widowed	18.0	147	60688	RACE			
Separated	11.1	18	10140	White Non-Hispanic	15.2	681	435931
Never Married	16.0	114	176016	Black	15.9	18	26942
Unmarried Couple	14.0	31	40461	Asian/PI	9.0	6	10455
EDUCATION				American Indian	19.2	45	32987
Less than High School	14.8	88	112507	Other	28.6	36	27567
High School Graduate/GED	14.1	227	175559	Hispanic	10.5	118	137825
Some College/Tech School	15.4	312	252858				
College Grad	12.4	297	140609				

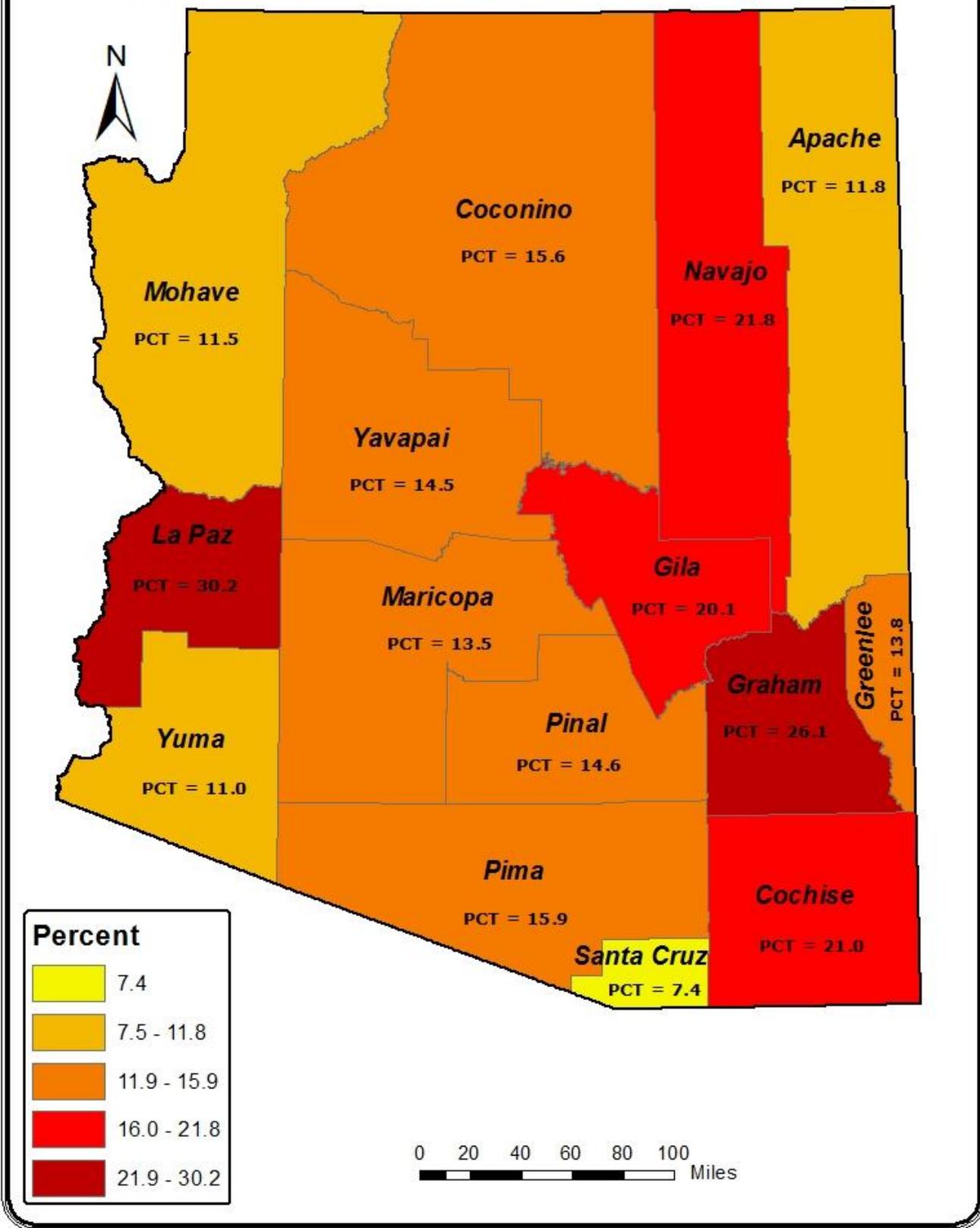
Table 12. N* is unweighted. The variable ASTHMA3 was used to generate all tables and charts.

Percent of Arizonans With Asthma, 2011 (County)

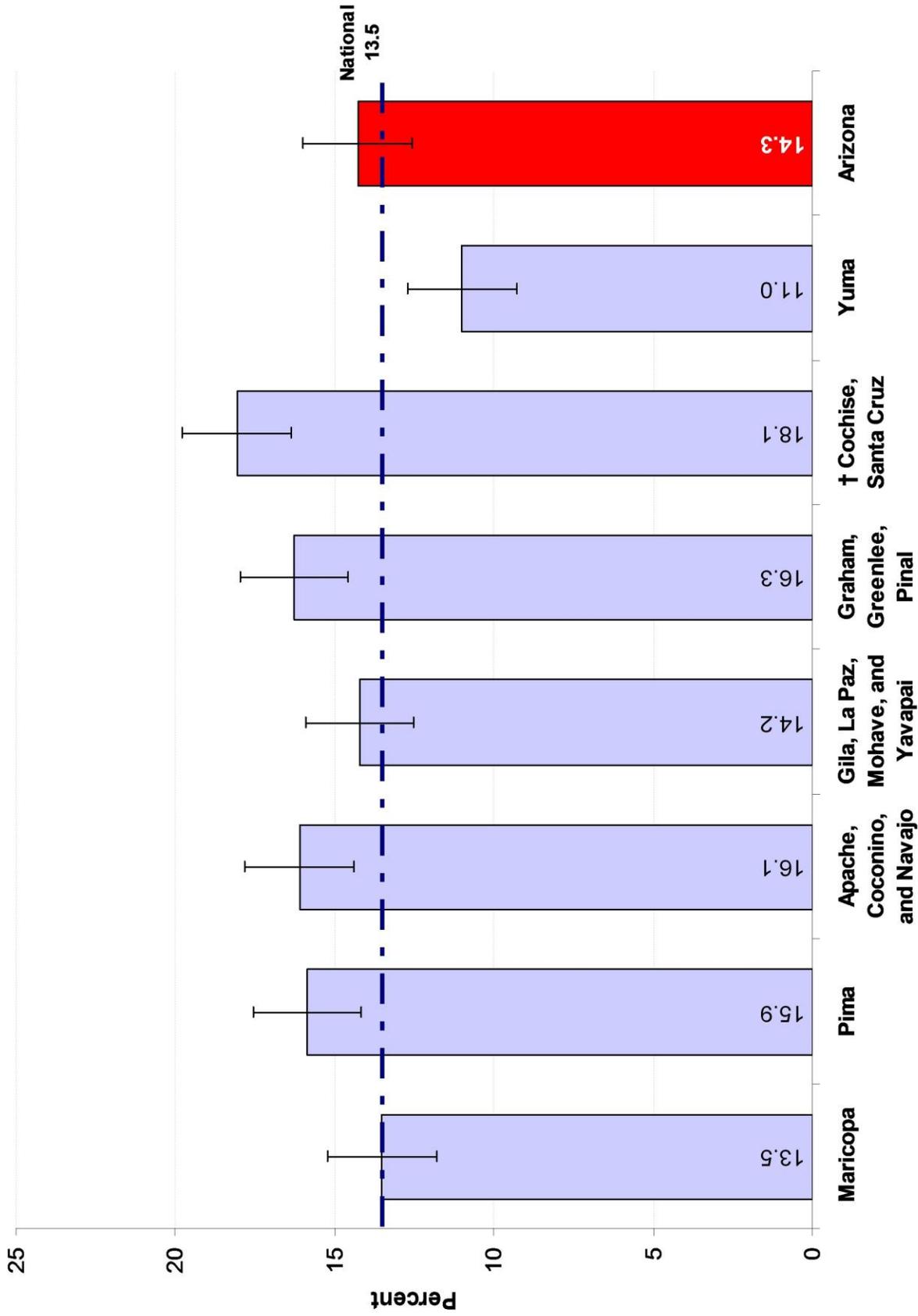


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.

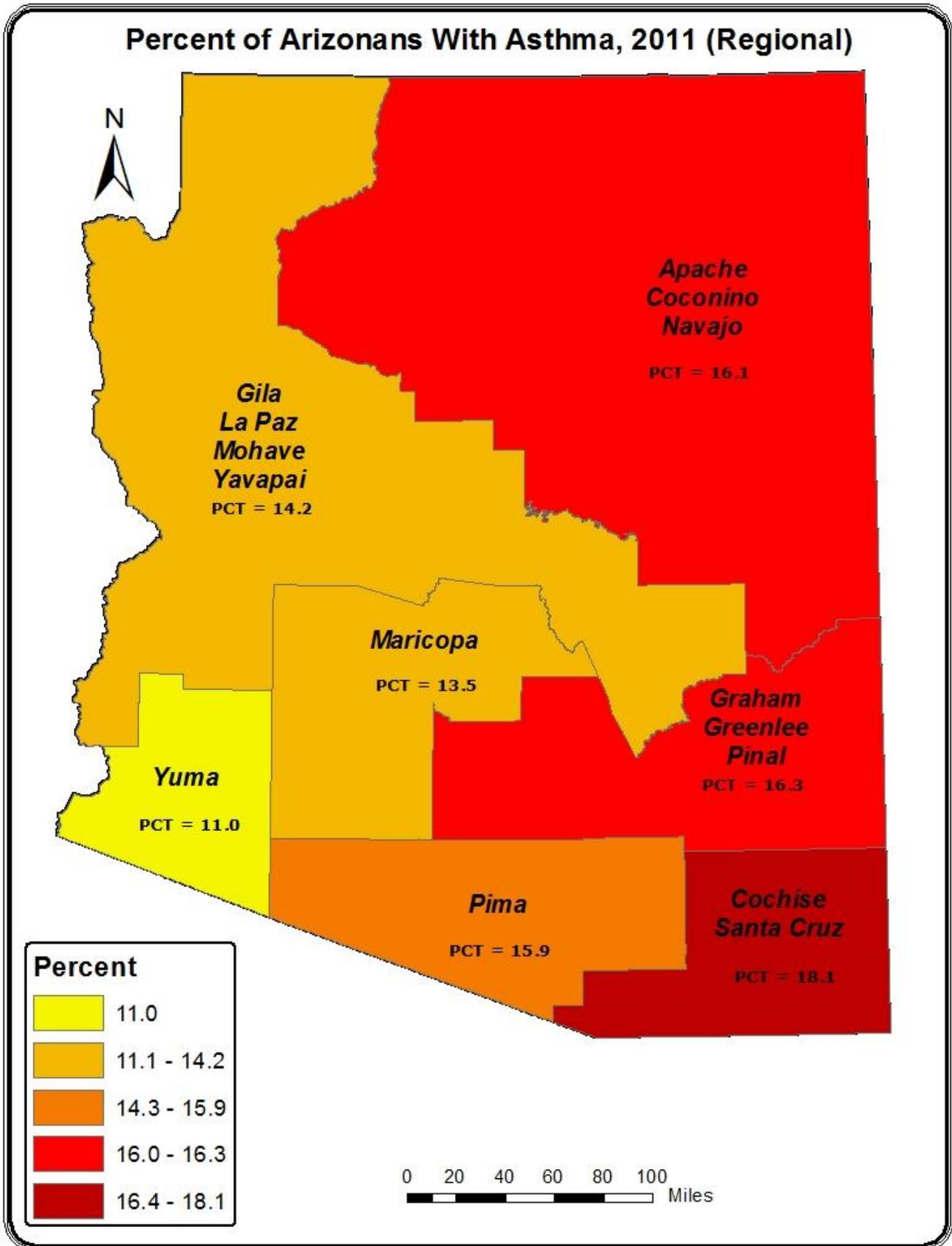
Percent of Arizonans With Asthma, 2011 (County)



Percent of Arizonans With Asthma, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported having been diagnosed with asthma when compared to the state level



Chronic Obtrusive Pulmonary Disease (COPD)

Chronic Obtrusive Pulmonary Disease (COPD) is not one disease; it is an umbrella term that describes chronic lung conditions that cause pathological changes in the lungs. These changes occur in the large (central) airways, the peripheral bronchioles and the lung parenchyma. These changes essentially block airflow as the individual exhales, making it increasingly difficult to breathe. These changes are progressive, they are not fully reversible, and cannot be treated with inhaled steroids/corticosteroids (used to treat asthma). The primary treatment is the use of a bronchodilator; however, steroid inhalers can reduce COPD exacerbations and increase quality of life.²⁸ COPD is predominately associated with smoking.²⁹

Due to Chronic Obtrusive Pulmonary Disease being predominately associated with smoking status, the data collected by the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on reducing tobacco use. The reduction of tobacco use is one of Arizona's Winnable Battles; as outlined in A2 of the ADHS Strategic Map. (See page 6)

According to the “Confronting COPD” survey 44% of COPD patients were below retirement age, with 24% reporting it completely prevented them for working. An additional 9% stated that they missed work due to the disease.³⁰

2011 Arizona COPD Disease burden (HCUP)				
	Number of Discharges	Average Cost	Average Length of Stay	Aggregate Cost
Individuals with multiple chronic conditions	4,672	\$32,834	4.7	\$153,441,213
Individuals a chronic condition	4,715	\$28,128	3.9	\$132,622,124
Individuals without another chronic condition	3,536	\$20,893	3.0	\$73,878,104
Total	12,923	-	-	\$359,941,441

To understand COPD one must understand a few spirometric measurements; specifically forced expiratory volume in 1 second (FEV₁) and forced vital capacity (FVC). FEV₁ is the amount of air that can be forcibly blown out within one second. FVC is full amount of air that can be blown out after a full inhalation. These two values make up the ratio to determine whether a person has COPD (FEV₁/FVC < 70%). It is important to note that after the FEV₁/FVC ratio naturally decreases as people age (See figure 13A). Therefore, as an individual ages the likelihood of developing COPD increases.

Mean FEV₁/FVC ratio by age group and sex

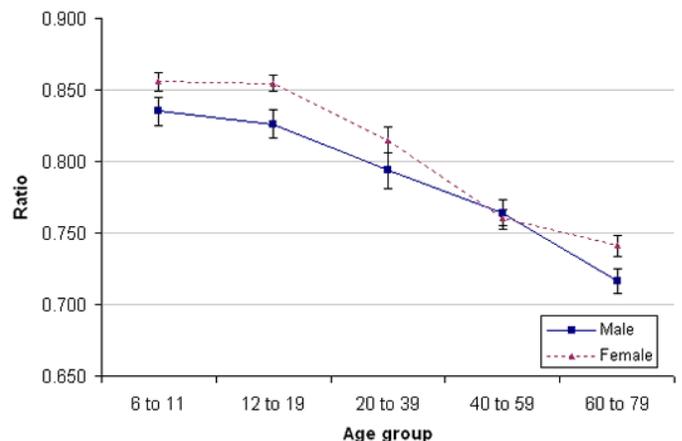


Figure 13A. Change in FEV₁/FVC ratio by age.³¹

Chronic Obtrusive Pulmonary Disease (COPD)

Survey Questions:

Have you EVER been told by a doctor or other health professional that you had emphysema (2010 State Added)?

Have you EVER been told by a doctor or other health professional that you had Chronic Bronchitis (2010 State Added)?

2010: Percent of Arizonans With COPD

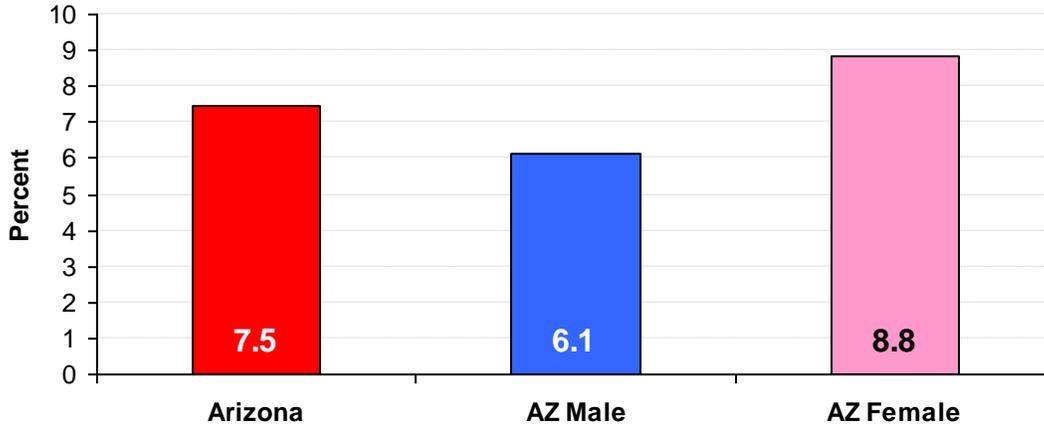


Figure 13B. Arizona BRFSS respondents who were told they have emphysema or chronic bronchitis by gender. In 2010 COPD questions were state-added; therefore, no national data was available. Furthermore, the way the question was asked is significantly different when compared to the 2011 data, making any comparison impossible.

Survey Questions:

(Ever told) you have COPD (chronic obstructive pulmonary disease, emphysema or chronic bronchitis)?

2011: Percent of Individuals With COPD

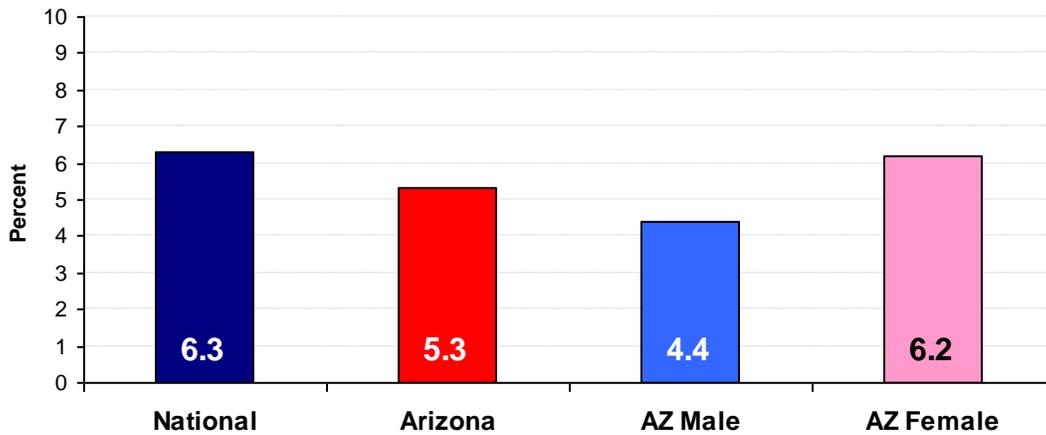


Figure 13C. Arizona and National BRFSS respondents who were told they have COPD, emphysema or chronic bronchitis (and by gender in Arizona).

Chronic Obtrusive Pulmonary Disease (COPD)

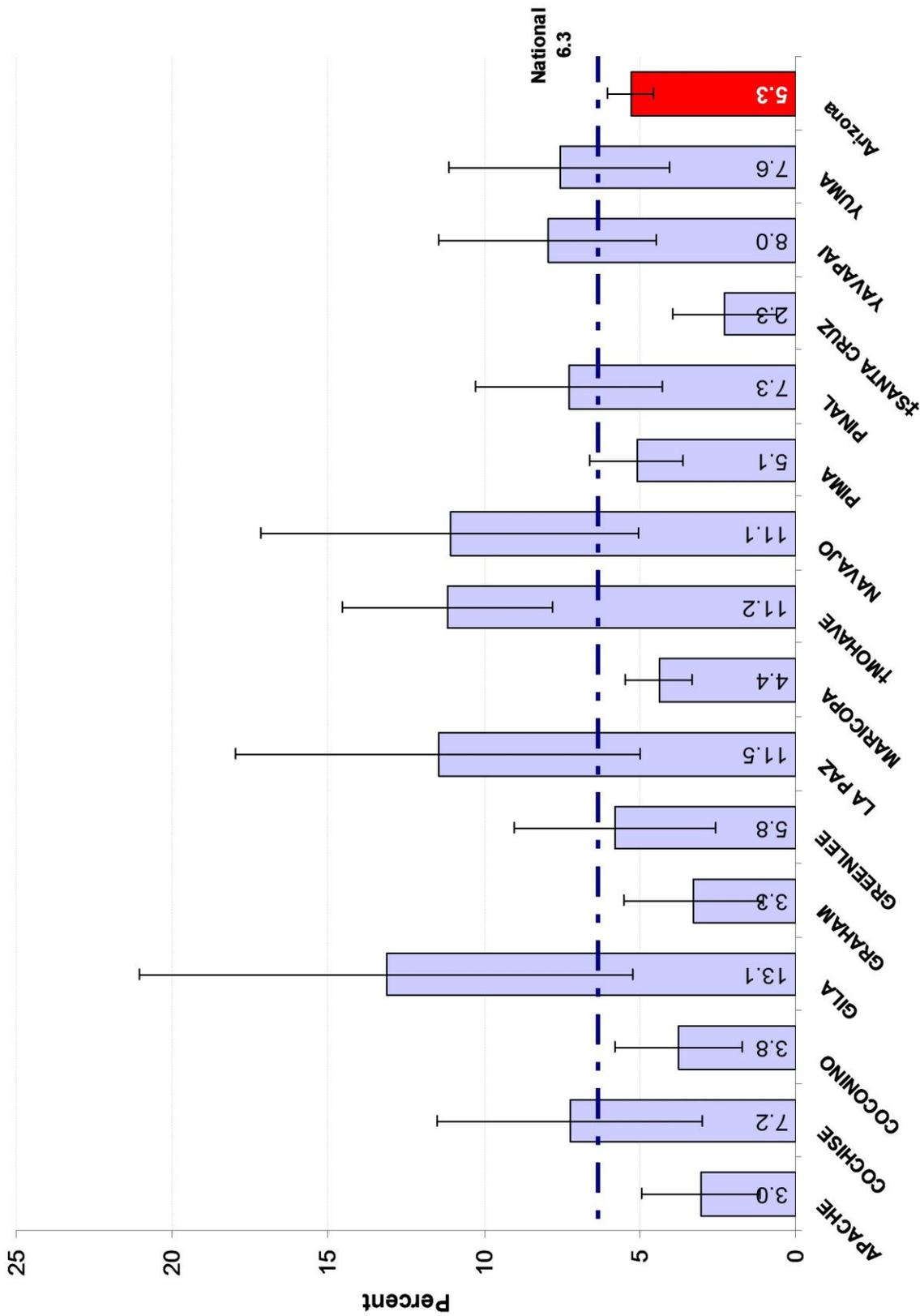
According to the 2011 BRFSS, Arizonans are less likely to report that they have been diagnosed with COPD when compared to the nation as a whole (**Figure 13C**). **Table 13** below indicates that 5.3% of respondents reported that someone in the health profession told them that they had COPD. Some of the highlights of this table include:

- Men are less likely to report that they have been diagnosed with COPD, at 4.4%.
- As income increases the likelihood of reporting a COPD diagnosis decreases.
- When looking at the employment subgroups: students were the least likely to report a COPD diagnosis (1.4%), followed by individuals who were self-employed (2.3%).
- Hispanics were the least likely to report having been diagnosed with COPD, at 1.5%
- Individuals who were unable to work reported the highest levels of COPD, at 20.6%; the results correspond to the Confronting COPD survey.
- As age increased so did the likelihood of being diagnosed with COPD; following the established trend in the current literature.

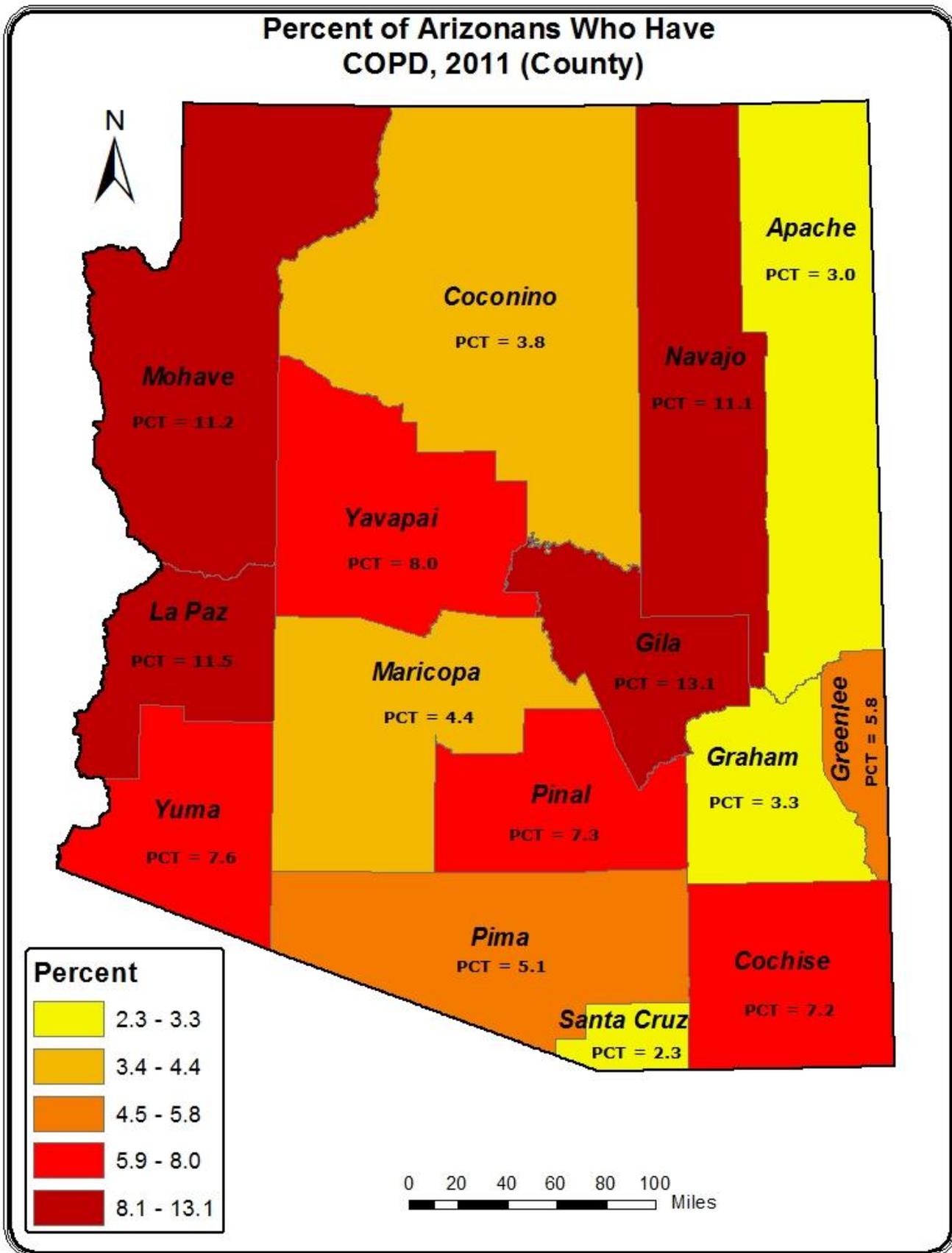
Arizona 2011 BRFSS: Respondents Who Were Told They Had COPD							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	5.3	578	251978	EMPLOYMENT			
SEX				Employed for wages	2.9	77	60910
Male	4.4	204	104268	Self employed	2.3	16	8515
Female	6.2	374	147710	Out of work	3.5	32	17060
AGE				Homemaker	3.3	30	14576
18-24	0.6	3	3777	Student	1.4	3	3103
25-34	0.9	9	8525	Retired	11.0	282	91776
35-44	3.8	24	31990	Unable to Work	20.6	136	55849
45-54	6.2	72	51513	INCOME			
55-64	7.3	145	51267	<\$25,000	7.9	275	108866
65+	12.0	325	104905	\$25,000-\$34,999	5.6	61	30086
MARITAL STATUS				\$35,000-\$49,999	5.0	61	30005
Married	4.8	239	116224	\$50,000-\$74,999	4.0	49	23608
Divorced	11.9	130	62922	\$75,000+	2.2	47	22398
Widowed	11.3	140	37481	RACE			
Separated	7.3	16	6464	White Non-Hispanic	6.8	472	194245
Never Married	2.1	36	22703	Black	5.2	12	8825
Unmarried Couple	1.9	14	5568	Asian/PI	2.0	3	2327
EDUCATION				American Indian	5.4	16	8955
Less than High School	6.8	71	49825	Other	11.6	19	11149
High School Graduate/GED	5.4	176	66409	Hispanic	1.5	46	19910
Some College/Tech School	6.0	205	97888				
College Grad	3.3	125	37553				

Table 13. N* is unweighted. The variable CHCCOPD was used to generate all tables and charts.

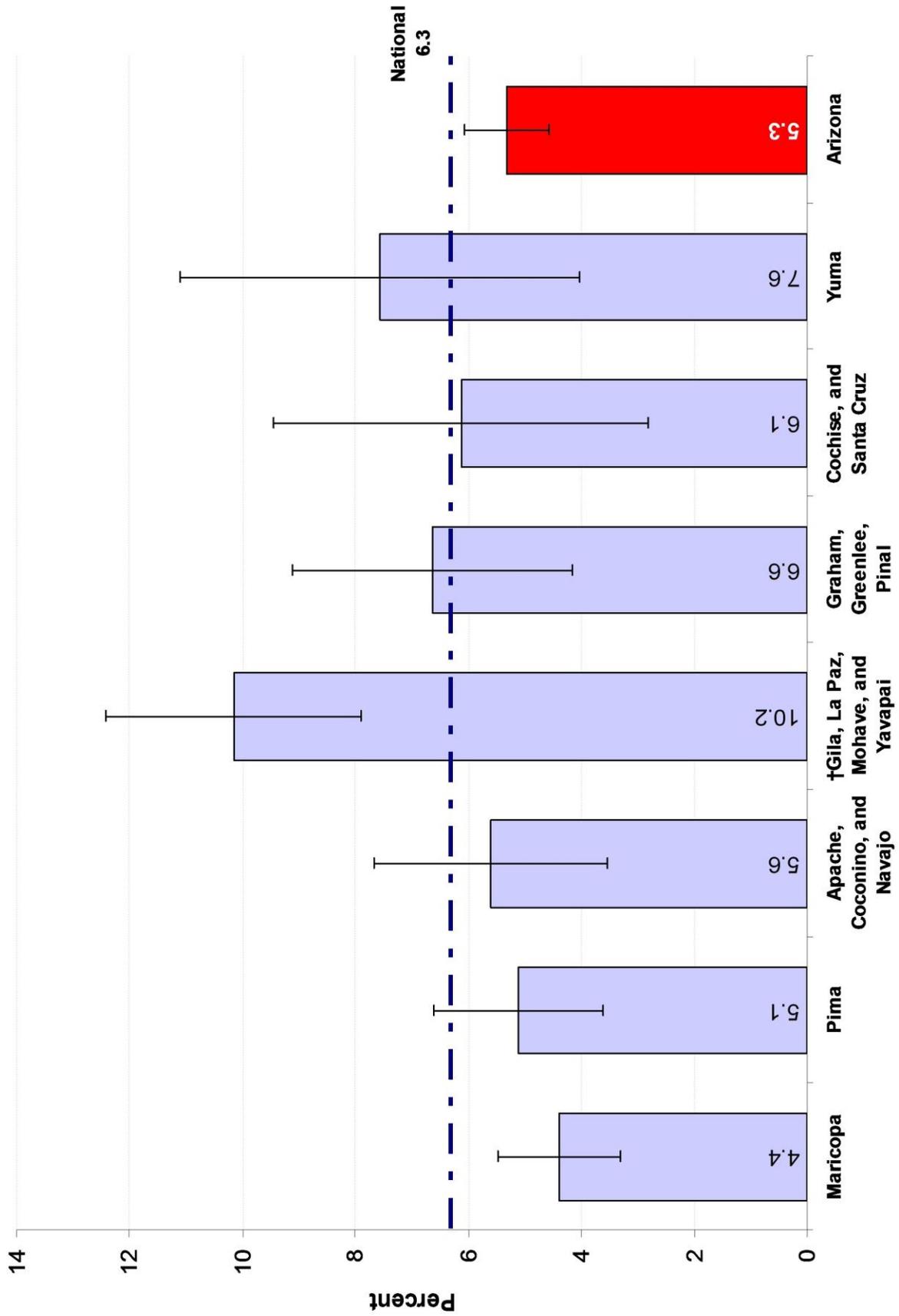
Percent of Arizonans Who Have COPD, 2011 (County)



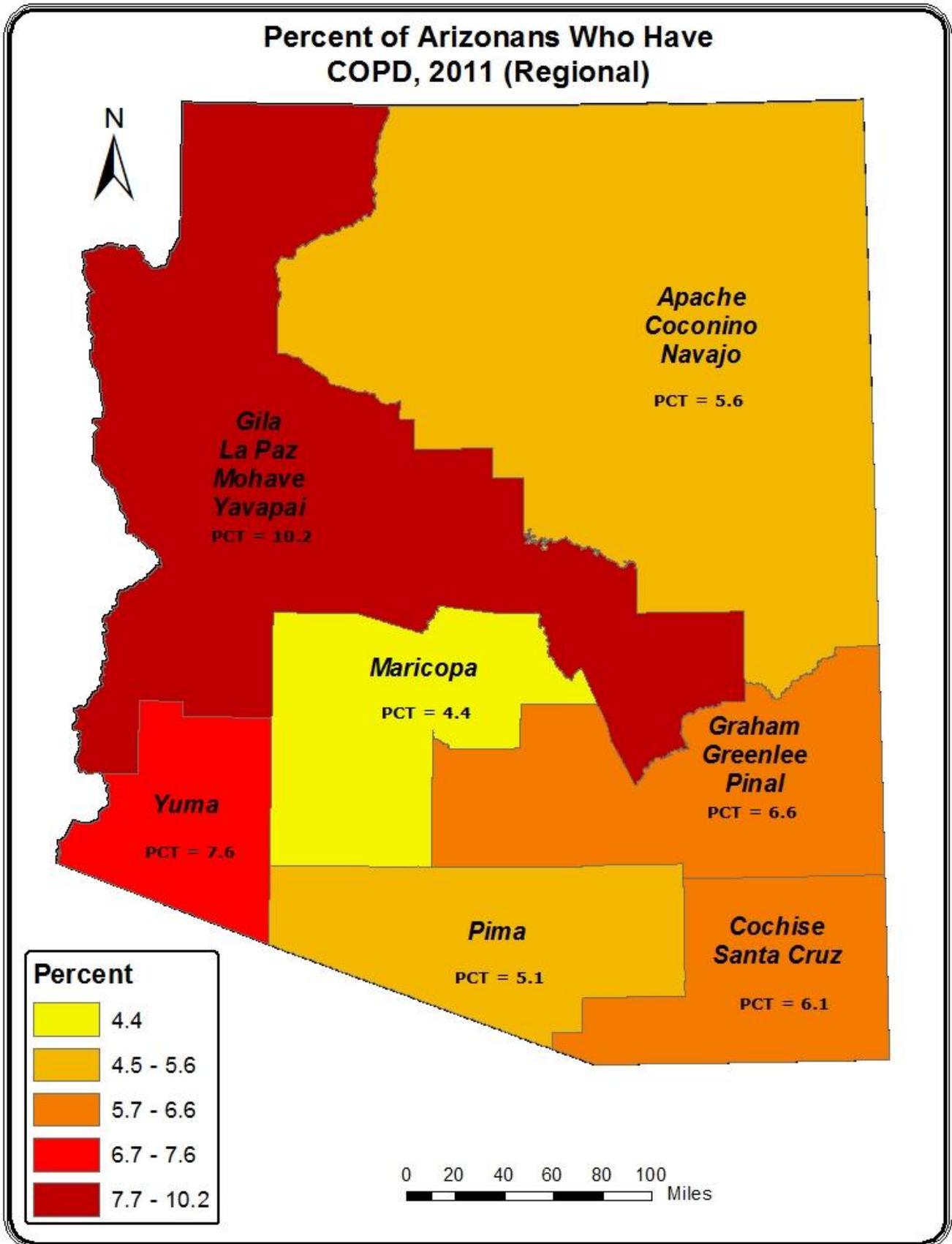
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported having been diagnosed with COPD when compared to the state level
 ‡ indicates that the county has a significantly lower percentage of individuals who reported having been diagnosed with COPD when compared to the state level



Percent of Arizonans Who Have COPD, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the region has a significantly higher percentage of individuals who reported having been diagnosed with COPD when compared to the state level



**HEALTH RISKS,
BEHAVIORS,
AND
AWARENESS**

Physical Activity

Starting in 2011 the BRFSS has adopted a different method for assessing physical activity. In the past, the BRFSS physical activity questions focused upon the amount of time a person participated in moderate or vigorous activities. The new physical activity questions remove ambiguity in these categories; the new questions ask if the interviewee participates in specific activities. It is due to this change (in addition to the new weighting methodology) that physical activity responses from the 2011 BRFSS cannot be compared with previous data.

According to the American College of Sports Medicine's Fitness Advisory Board, Arizona (data is based upon Maricopa and Pinal Counties) is ranked 32nd in the nation in terms of promoting physical fitness. Some areas that Arizona did well included: having a high percent of state land designated as parkland, higher park related expenditure per capita, and having lower smoking and heart disease mortality.³²

To further improve the health of Arizonans it is ADHS' goal to increase physical activity throughout the state. Physical activity decreases the risk of heart attack, colon cancer, diabetes and high blood pressure, and may decrease the risk of stroke. It also helps with weight control, contributes to healthy bones, muscles and joints; reduces the incidence of falls among the elderly; helps to relieve the pain of arthritis; decreases symptoms of anxiety and depression; and can decrease the need for hospitalizations, physician visits and medications. Moreover, physical activity does not need to be strenuous to be beneficial.³³ Regular exercise also can contribute to the functional independence of the elderly and improves the quality of life for people of all ages.³⁴

Survey Questions: During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? What type of physical activity or exercise did you spend the (first & second) most time doing during the past month? How many times per week or per month did you take part in this activity during the past month? And when you took part in this activity, for how many minutes or hours did you usually keep at it? During the past month, how many times per week or per month did you do physical activities or exercises to STRENGTHEN your muscles?

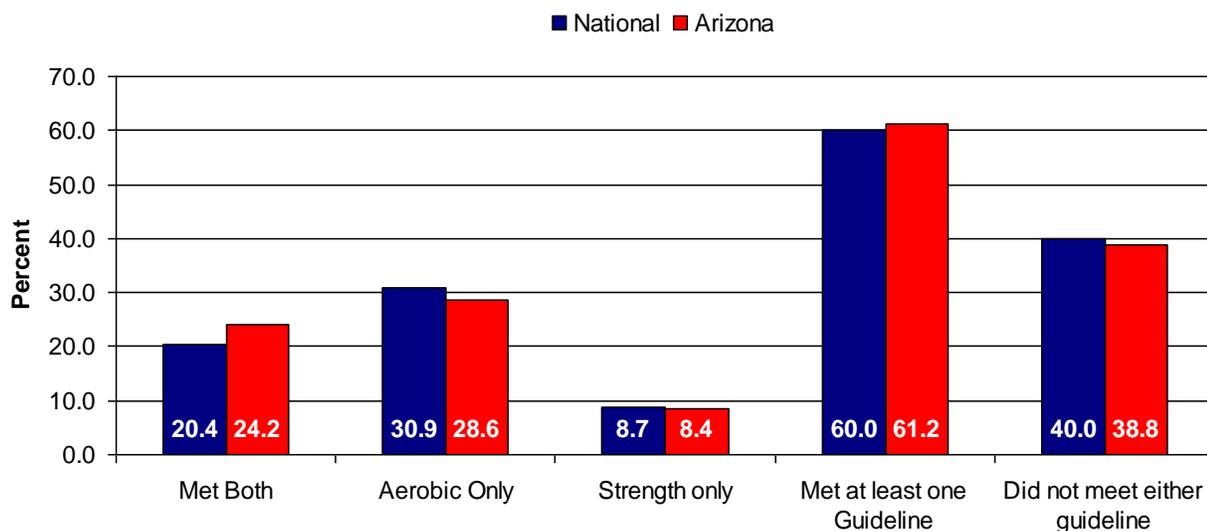


Figure 14. Arizona 2011 BRFSS respondents' physical activity levels. Starting in 2011 BRFSS is assessing physical activity in a new manner.

By collecting data on physical activity, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on Physical Activity. The promotion of Physical Activity is one of Arizona's Winnable Battles as outlined in A1 of the ADHS Strategic Map. (See page 6)

Physical Activity

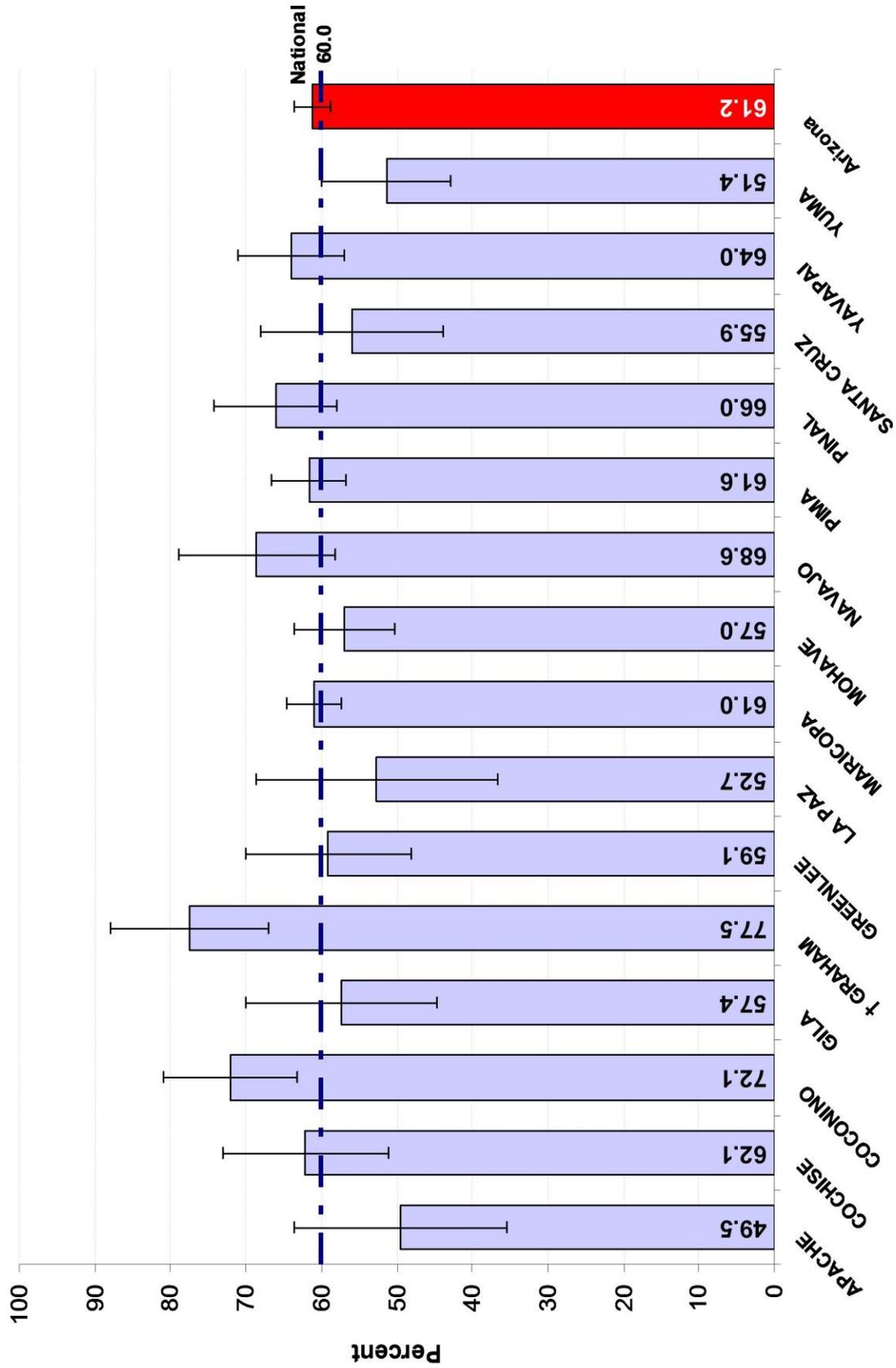
Analysis of the 2011 Arizona BRFSS data shows that Arizona has more individuals meeting at least one physical activity guideline when compared to the nation as a whole (**Figure 14**). **Table 14** below indicates that 61.2% of respondents reported meeting at least one physical activity guideline. Some highlights of this table include:

- Men were most likely to engage in one form of physical activity, at 64.8%.
- Respondents with a marital status of “Separated” were more likely to participate in physical activity, at 72%. It is important to note that the unweighted frequency is 56, which is much smaller than the other categories. However, it also represents a much smaller population of 60,739.
- College graduate respondents participate in physical activity at a greater percentage than the other education subgroups, at 72.3%.

Arizona 2011 BRFSS: Individuals Who Met One or More Physical Activity Requirements							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	61.2	3682	2698053	EMPLOYMENT			
				Employed for wages	63.0	1146	1239031
SEX				Self employed	64.2	298	223750
Male	64.8	1561	1427874	Out of work	52.9	227	230326
Female	57.6	2121	1270178	Homemaker	62.3	327	254192
AGE				Student	68.1	87	153261
18-24	62.0	155	348856	Retired	65.9	1435	510095
25-34	63.5	298	528893	Unable to Work	35.3	154	82996
35-44	59.5	392	469433	INCOME			
45-54	61.6	575	474282	<\$25,000	50.3	909	642553
55-64	55.6	778	359935	\$25,000-\$34,999	58.6	373	290553
65+	64.1	1484	516654	\$35,000-\$49,999	67.3	539	380490
MARITAL STATUS				\$50,000-\$74,999	63.4	556	357647
Married	62.6	2058	1409139	\$75,000+	72.7	829	695884
Divorced	58.5	533	290028	RACE			
Widowed	56.8	523	170381	White Non-Hispanic	65.1	2817	1726264
Separated	72.0	56	60739	Black	65.9	59	98273
Never Married	61.8	397	612131	Asian/PI	61.3	48	60695
Unmarried Couple	56.1	105	152541	American Indian	57.4	158	92691
EDUCATION				Other	68.0	73	59340
Less than High School	43.9	211	298675	Hispanic	52.1	482	631277
High School Graduate/GED	55.4	882	630930				
Some College/Tech School	65.5	1127	988636				
College Grad	72.3	1458	774493				

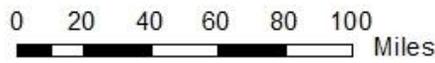
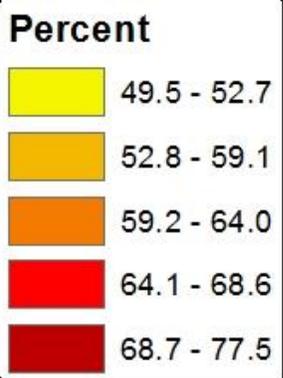
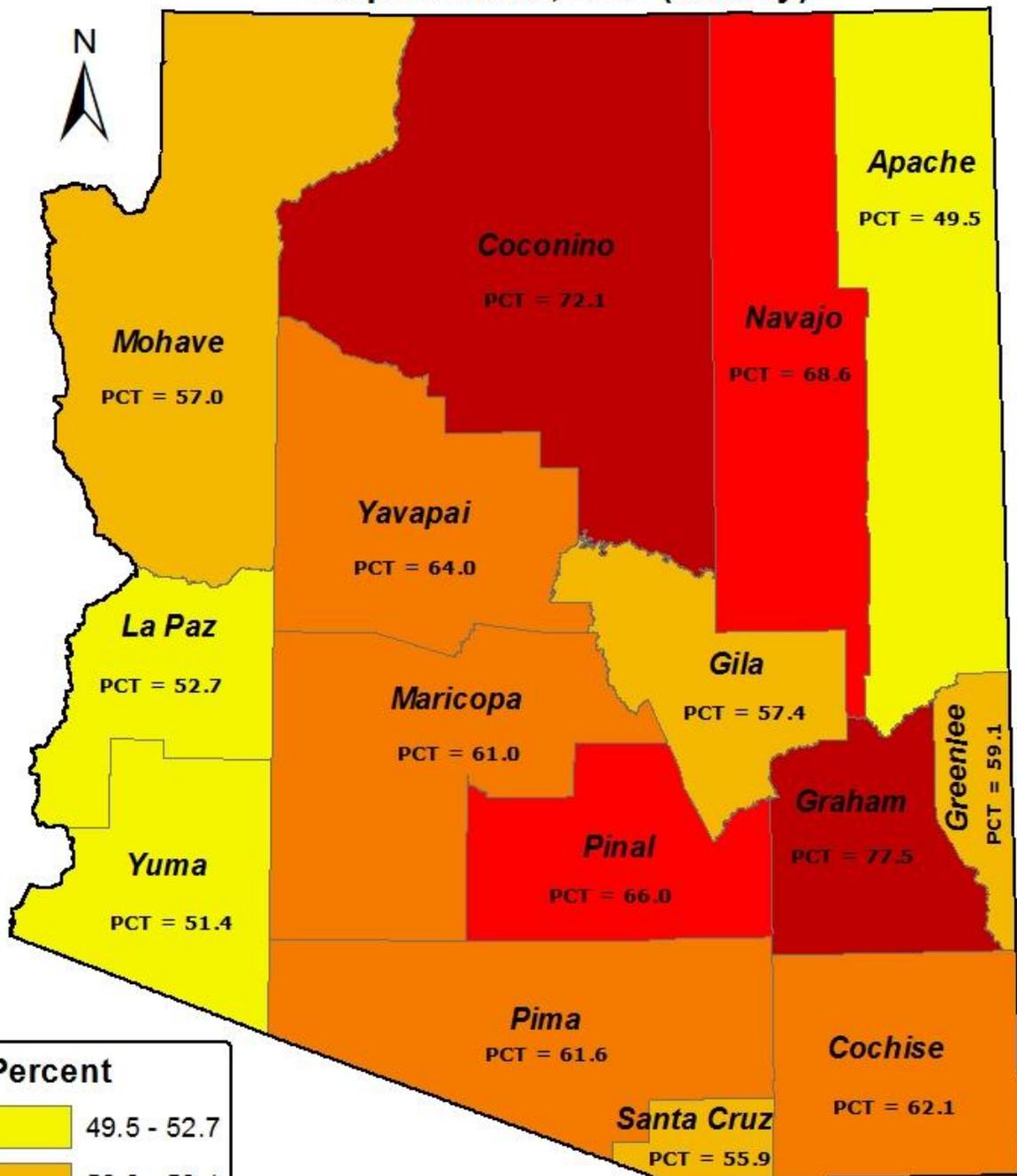
Table 14. N* is unweighted. The table was generated using the variable `_PAREC`. It is important to note that the unweighted N for men was smaller than that of women. These individuals also represented a larger weighted frequency as well.

Percent of Arizonans Meeting Physical Activity Requirements, 2011 (County)

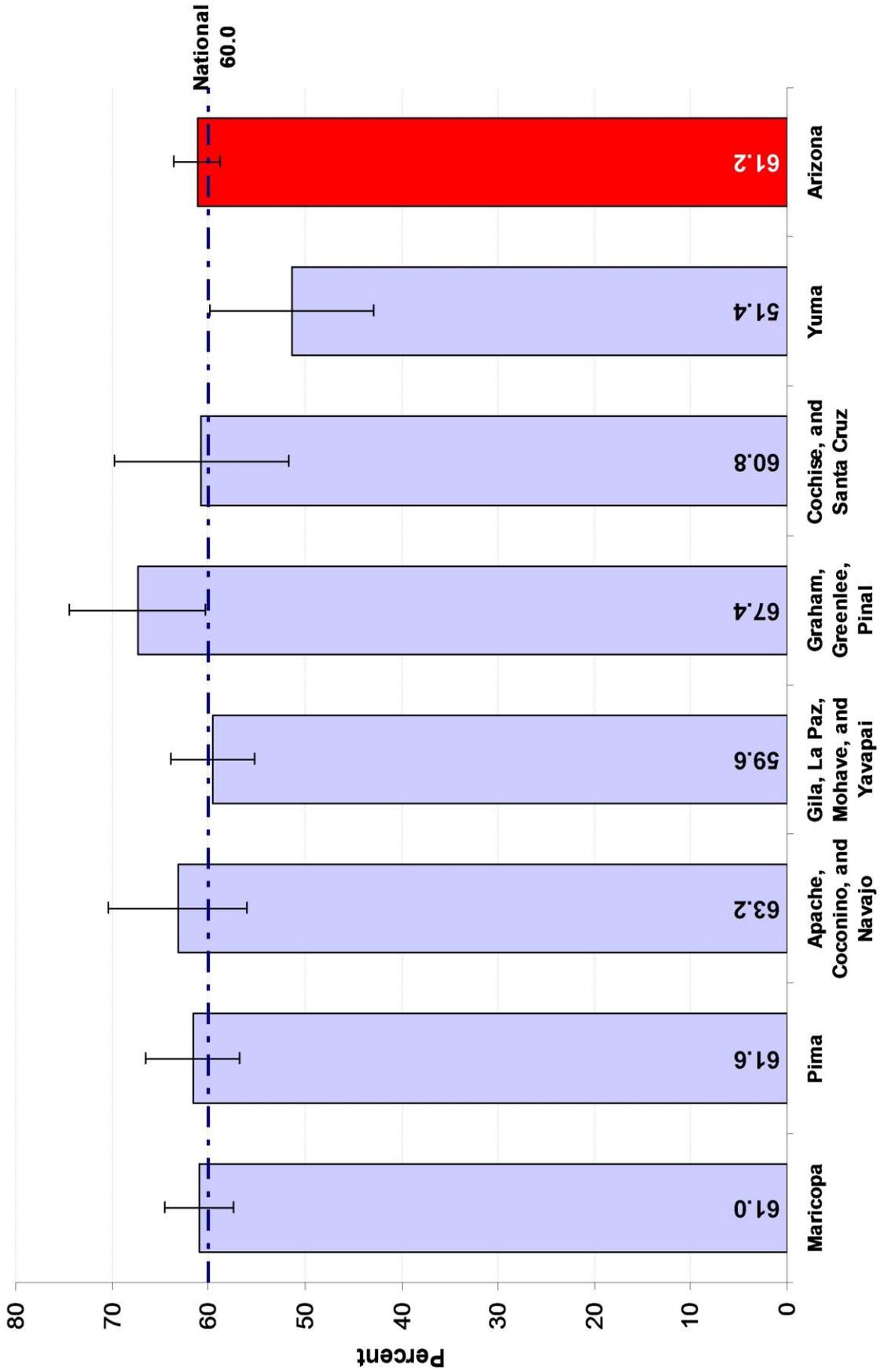


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who are meeting one or more physical activity guidelines when compared to the state level

Percent of Arizonans Meeting Physical Activity Requirements, 2011 (County)

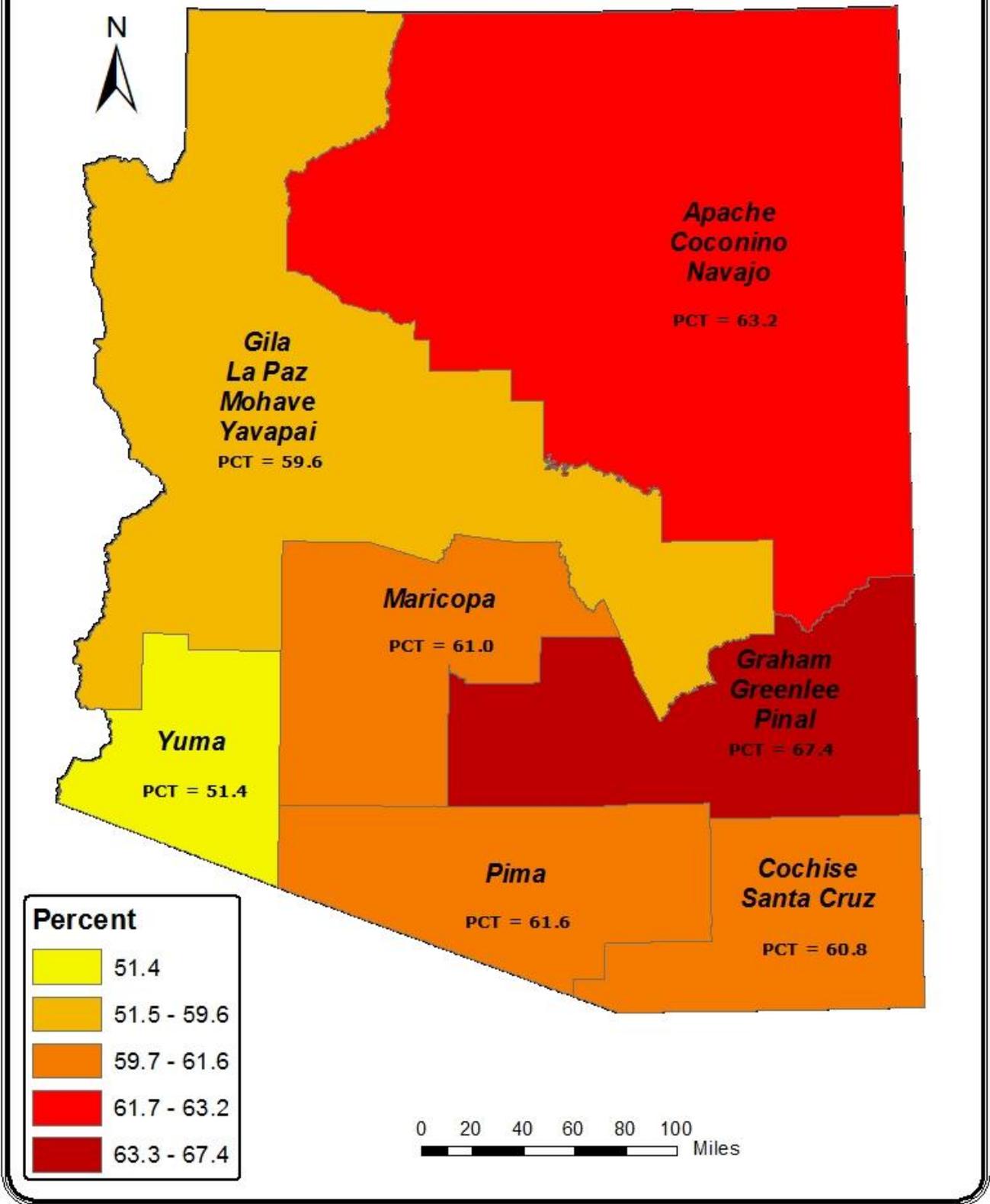


Percent of Arizonans Meeting Physical Activity Requirements, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

Percent of Arizonans Meeting Physical Activity Requirements, 2011 (Regional)



Fruit and Vegetable Consumption

Starting in 2011 the BRFSS has adopted a different method for assessing fruit and vegetable consumption. Because of these changes (in addition to the new weighting methodology), fruit and vegetable consumption responses from the 2011 BRFSS cannot be compared to previous data.

Good nutrition, including a diet low in saturated fats and at least five servings of fruits and vegetables each day, plays a key role in maintaining good health. Improving diet could extend the productive life span and reduce the occurrence of chronic diseases, including heart disease, stroke, and some types of cancers, diabetes and osteoporosis.³⁵

By collecting data on fruit and vegetable consumption, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions that promote proper nutrition. The promotion of proper nutrition is one of Arizona's Winnable Battles as outlined in A1 of the ADHS Strategic Map. (See page 6)

Survey Questions:

How often do you drink 100% fruit juices such as orange, grapefruit, or tomato?

How often do you eat fruit, green salad, beans and orange vegetables?

Excluding the aforementioned fruits and vegetables, how many servings of vegetables do you usually eat?

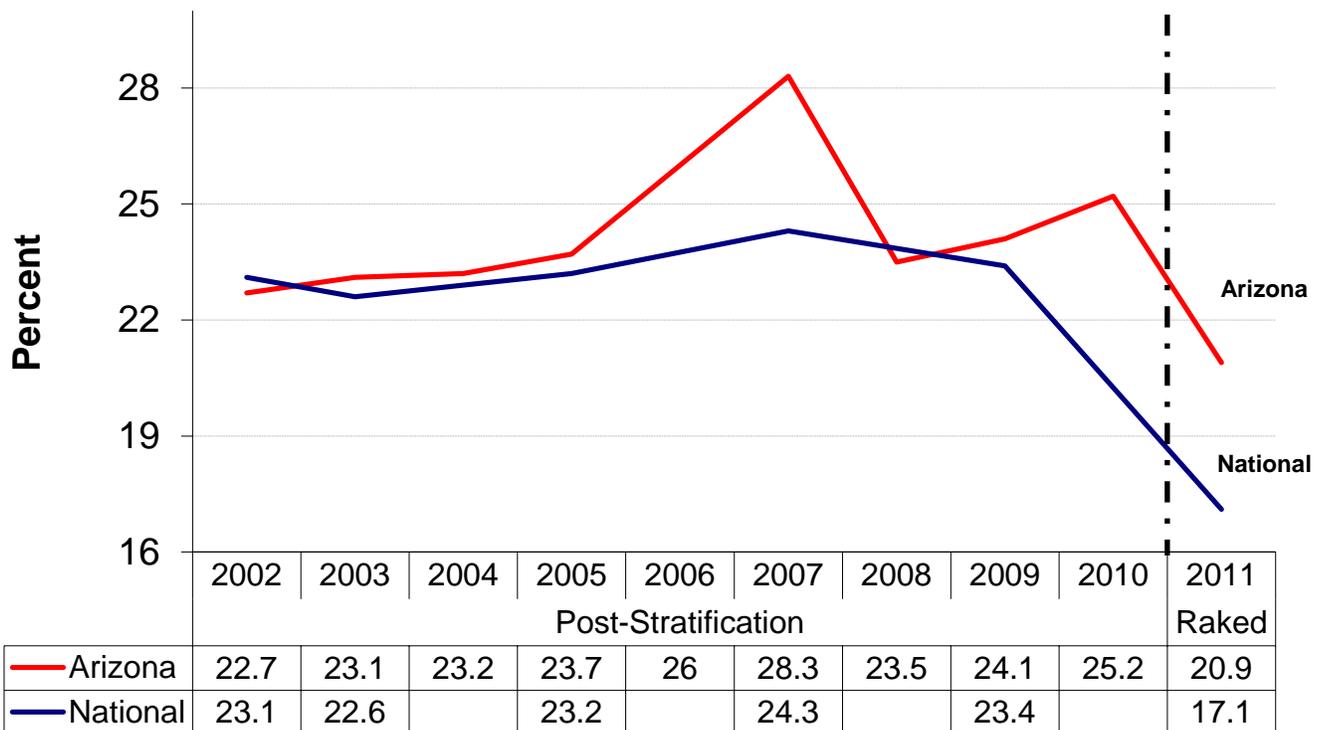


Figure 15. Percentage of Arizona BRFSS respondents reported consuming five servings of fruits and vegetables per day in 2002-2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure and question structure. **Note:** The National data for 2004, 2006, 2008 and 2010 were not available for questions in this category.

Fruit and Vegetable Consumption

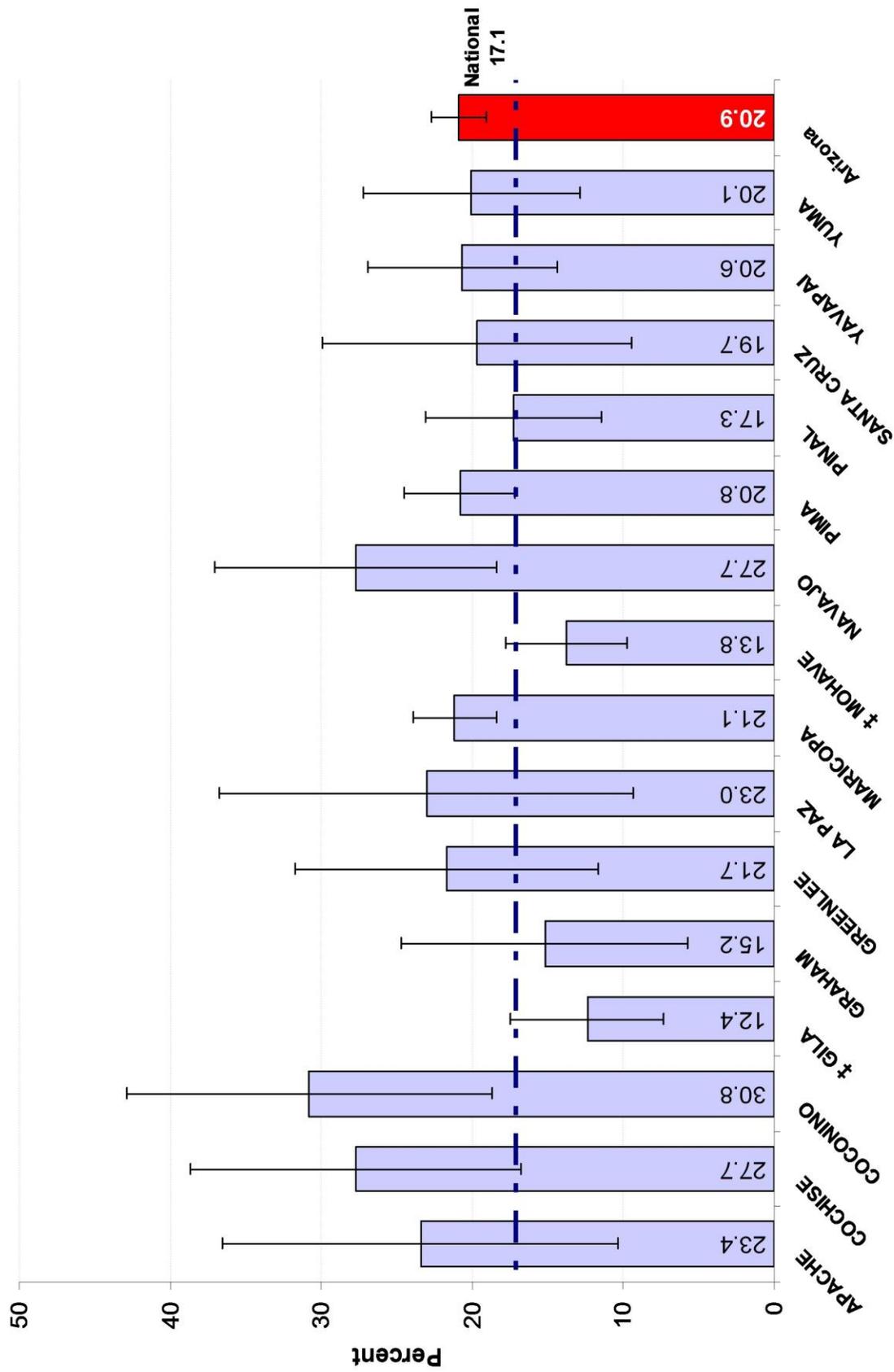
One of the most important dietary habits is the consumption of at least five servings of fruits and vegetables per day. Analysis of the 2011 Arizona BRFSS showed a larger percentage of Arizonans reporting that they ate five or more servings of fruit and vegetables when compared to the nation as a whole (**Figure 15**). **Table 15** below indicates that 20.9% percent of respondents reported that they consume five servings of fruits and vegetables per day.

- Adults aged 35-44 were more likely to consume five or more servings per day, at 26%.
- Adults with higher household income, \$50,000 and above, were more likely to consume the five recommended servings (between 25.8 % and 26.2%).
- The likelihood of consuming five or more fruits and vegetables increased with education.

Arizona 2011 BRFSS: Respondents Consuming Five or More Servings of Fruits and Vegetables a Day							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	20.9	1318	975206	EMPLOYMENT			
SEX				Employed for wages	22.3	447	455531
Male	18.1	402	418104	Self employed	29.4	127	109185
Female	23.6	916	557102	Out of work	13.6	77	64499
AGE				Homemaker	29.8	153	128507
18-24	16.3	49	96026	Student	14.7	26	34573
25-34	22.5	120	200313	Retired	16.5	414	135567
35-44	26.0	161	215259	Unable to Work	17.2	71	46938
45-54	22.3	221	180884	INCOME			
55-64	18.0	272	124749	<\$25,000	16.9	343	231486
65+	18.5	495	157976	\$25,000-\$34,999	20.6	123	107209
MARITAL STATUS				\$35,000-\$49,999	16.9	171	99786
Married	23.4	746	552505	\$50,000-\$74,999	26.2	197	153945
Divorced	18.4	166	96326	\$75,000+	25.8	295	258557
Widowed	22.2	207	72780	RACE			
Separated	33.9	20	30555	White Non-Hispanic	20.7	964	586307
Never Married	16.0	136	170116	Black	23.7	22	36900
Unmarried Couple	17.6	36	50323	Asian/PI	19.9	13	21075
EDUCATION				American Indian	24.3	53	40434
Less than High School	16.4	92	120509	Other	26.5	28	23519
High School Graduate/GED	16.5	298	199012	Hispanic	20.1	221	255449
Some College/Tech School	22.2	389	356289				
College Grad	26.8	539	299396				

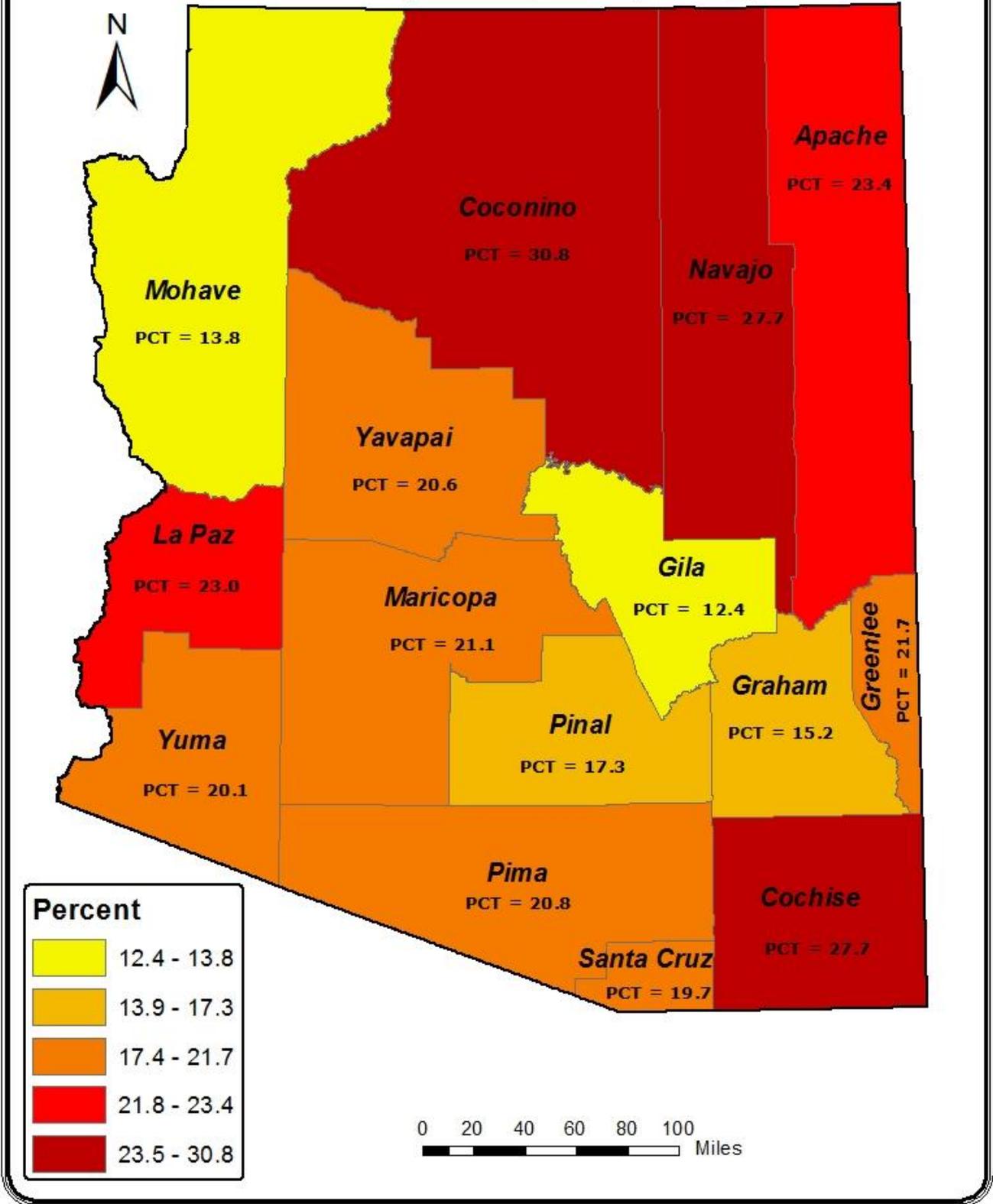
Table 15. N* is unweighted. The serving per day variable was constructed using FRUITJU1, FRUIT1, FVBEANS, FVGREEN, FVORANG, and VEGETAB1. The responses from these questions were added together at the individual level. A binary variable was generated: using 5 servings per day as the threshold.

Percent of Arizonans Consuming Five or More Fruits and Vegetables, 2011 (County)

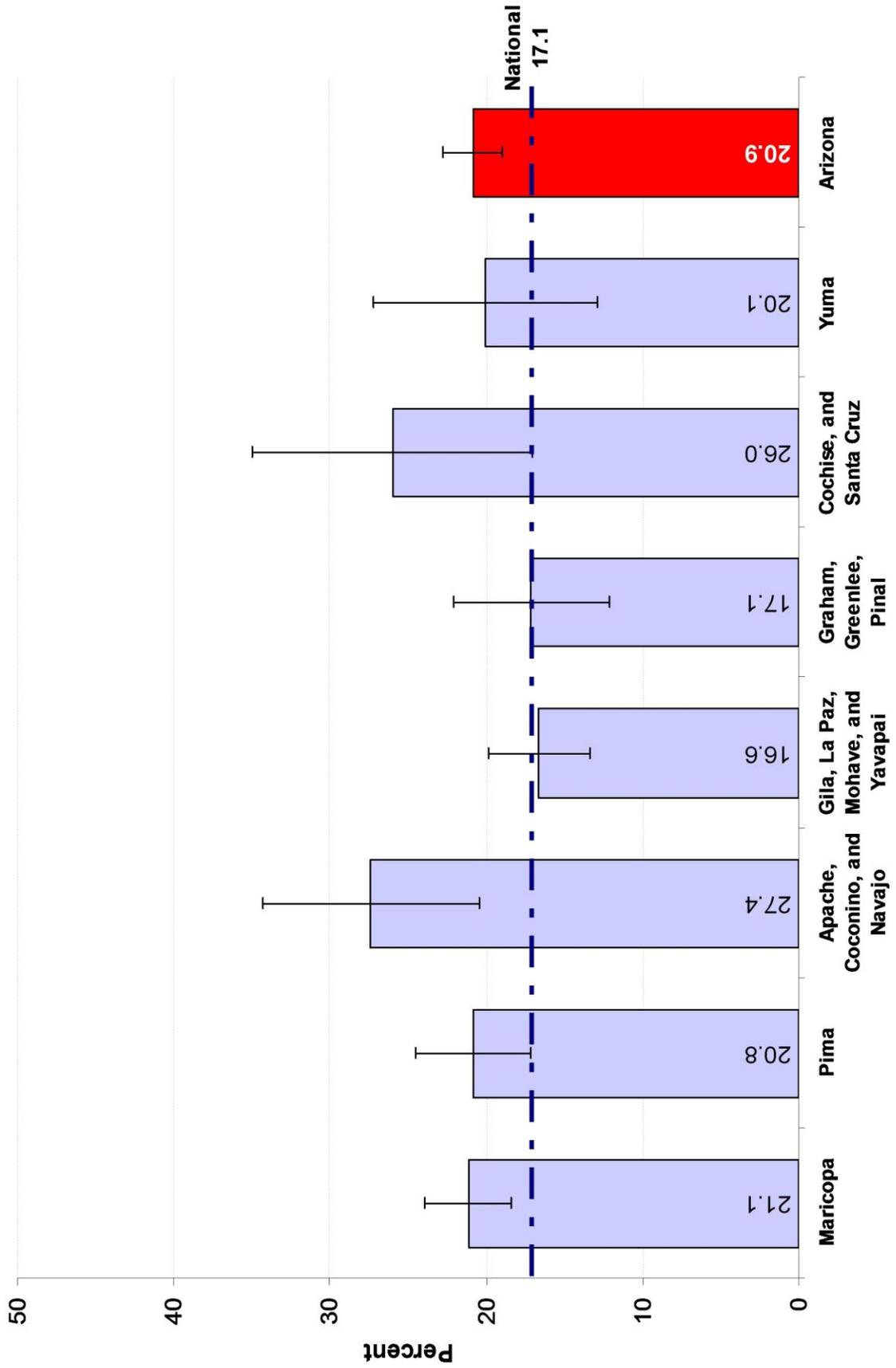


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly lower percentage of individuals eat five or more servings of fruits and vegetables per day when compared to the state level

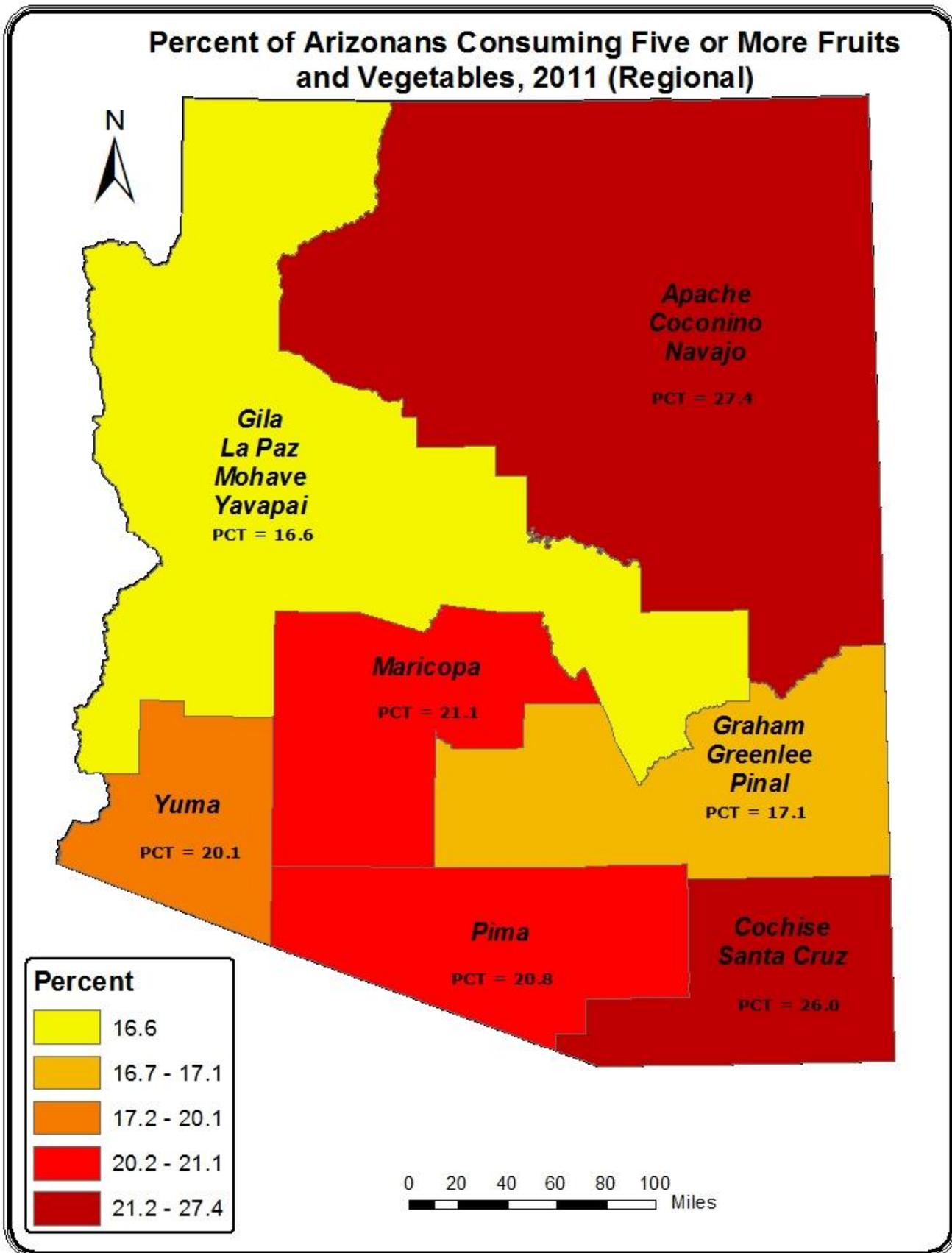
Percent of Arizonans Consuming Five or More Fruits and Vegetables, 2011 (County)



Percent of Arizonans Consuming Five or More Fruits and Vegetables, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Folic Acid

Each year in the United States, approximately 3,000 pregnancies are affected by neural tube defects (NTDs). Studies have shown that up to 70 percent of NTDs such as spina bifida and anencephaly may be preventable through adequate intake of folic acid.³⁶ In 2011, there were 86 newborns diagnosed with an NTD in Arizona.³⁷

Folic acid is a B vitamin that helps form red blood cells and has been found to reduce the risks of certain types of birth defects, cancer and cardio-vascular disease. While folic acid is important for everyone's health, it is especially vital for women of childbearing age. The United States Public Health Service recommends that all women of childbearing age in the United States who are capable of becoming pregnant should consume 400 micrograms (mcg) of folic acid per day for the purpose of reducing their risk of having a pregnancy affected with a neural tube defect.³⁸

Folic acid occurs naturally (as folate) in beans, leafy green vegetables, and in orange juice. Furthermore, in 1996 the FDA authorized the fortification of grains with folic acid; in 1998, fortification with folic acid became mandatory.³⁹

The collection of data on folic acid awareness provides Arizona with a tool to measure the current knowledge of this important element of nutrition and can help identify and implement best practices. Prenatal nutrition and best practices are part of Arizona's Winnable Battles. Outlined as A1 and F in the ADHS Strategic Map. (See page 6)

ICD-9 Categorization Scheme	
740	Anencephalus
741.00- 741.03	Spina Bifida with Hydrocephalus
741.90- 741.93	Spina Bifida without mention of Hydrocephalus
742	Encephalocele

Survey Question:

Some health experts recommend that women take 400 micrograms of the B-vitamin folic acid every day. They recommend this for which one of the following reasons?

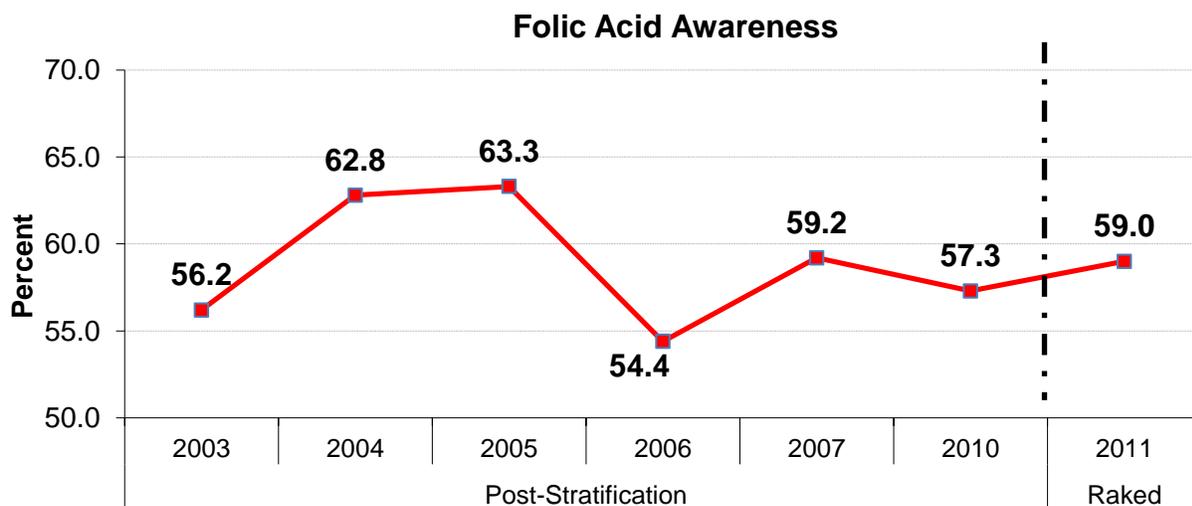


Figure 16. Percentage of Arizona 2011 BRFSS female respondents (18-44 years old) who reported that folic acid prevents birth defects in 2003-2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure. Note: No data is available for the years 2008 or 2009.

Folic Acid

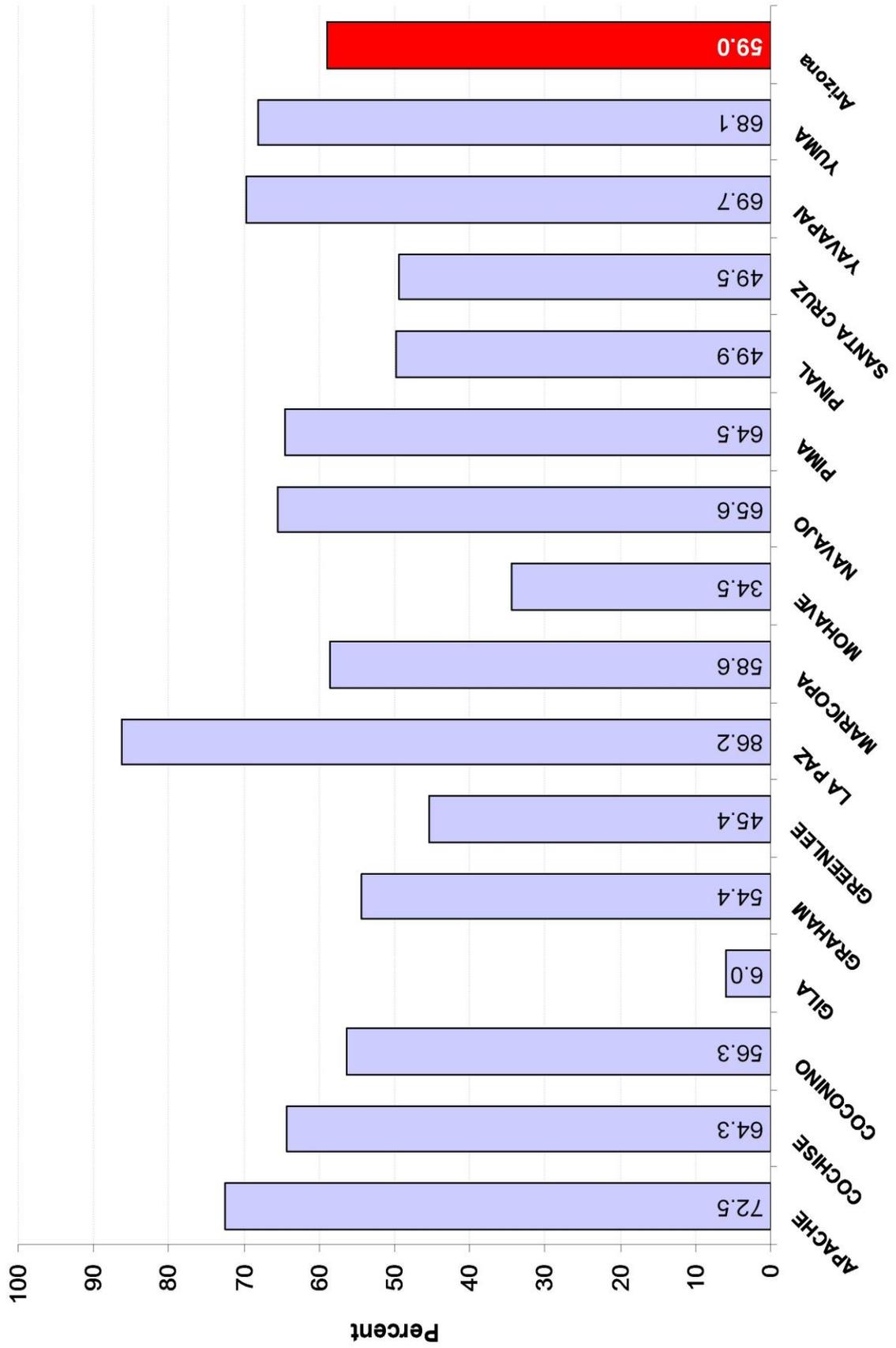
Results from the 2011 BRFSS report showed that 59% of women between ages 18-44 answered that folic acid might prevent birth defects. **Table 16A** below describes some of the characteristics about women who understand that folic acid prevents birth defects. Some highlights include:

- Women who are married had the highest percentage of recognizing that folic acid prevents birth defects, 65.3%.
- Knowledge of folic acid preventing birth defects increased with education.
- Similarly, women with higher household incomes (\$75,000+) were more likely to recognize that folic acid prevents birth defects, 70.3%.

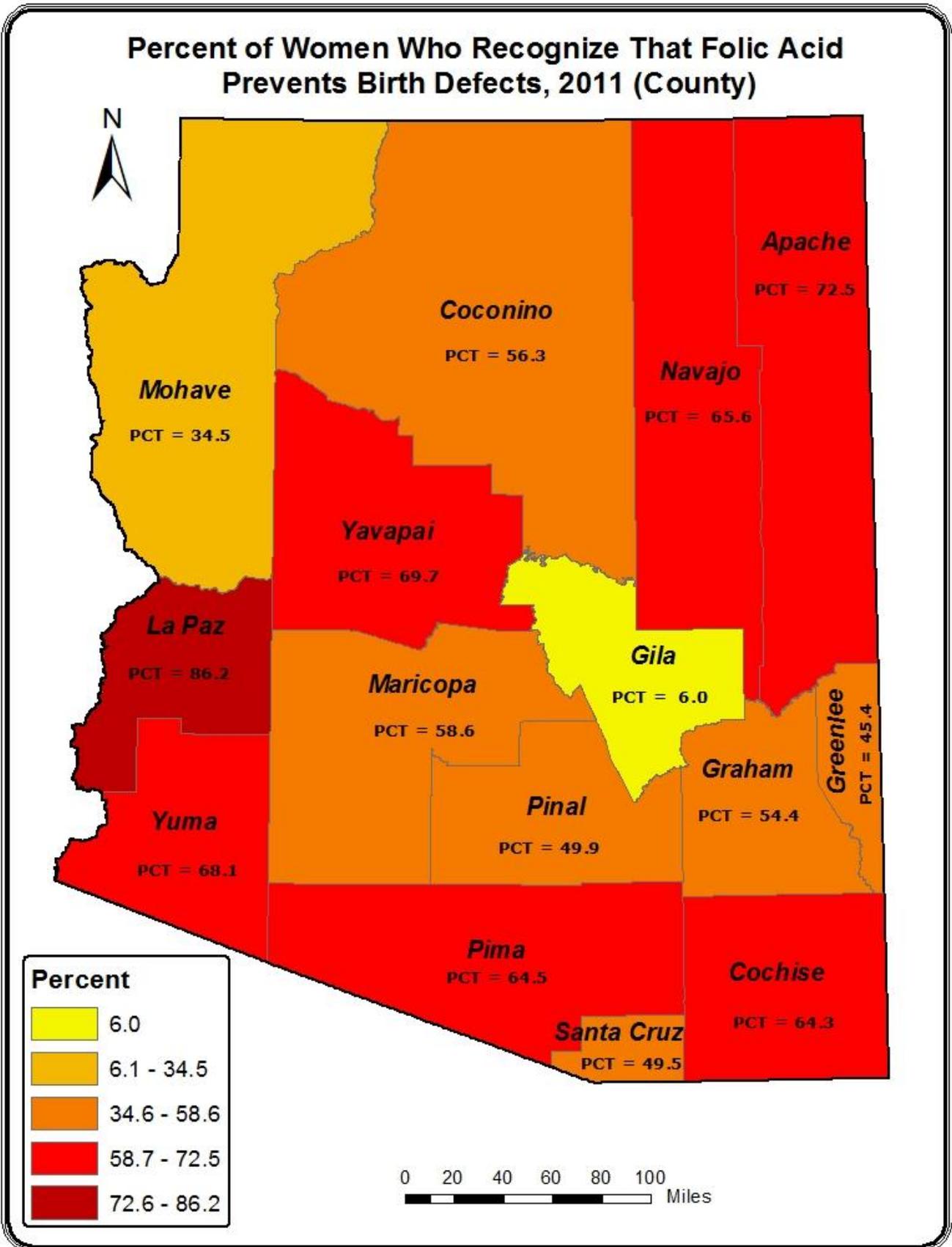
Arizona 2011 BRFSS: Women of Childbearing Age who Recognize that Folic Acid Prevents Birth Defects							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	59.0	357	434935	EMPLOYMENT			
SEX				Employed for wages	56.4	164	175812
Female	59.0	357	434935	Self employed	69.5	25	38559
AGE				Out of work	69.0	30	39447
18-24	39.5	29	58826	Homemaker	60.7	101	110679
25-34	64.7	135	183698	Student	47.7	25	37879
35-44	63.1	193	192410	Unable to Work	62.7	11	30463
MARITAL STATUS				INCOME			
Married	65.3	241	228609	<\$25,000	58.7	93	154987
Divorced	63.0	24	36694	\$25,000-\$34,999	49.6	30	38379
Widowed	1.7	1	55,2206	\$35,000-\$49,999	52.9	37	46447
Separated	57.9	12	13623	\$50,000-\$74,999	65.0	73	60925
Never Married	51.9	61	126092	\$75,000+	70.3	99	112350
Unmarried Couple	49.8	17	29828	RACE			
EDUCATION				White Non-Hispanic	61.5	222	244287
Less than High School	43.5	19	68472	Black	81.0	9	27358
High School Graduate/GED	40.9	60	68745	Asian/PI	64.3	6	12475
Some College/Tech School	68.1	103	161117	American Indian	72.9	16	12343
College Grad	78.2	175	136601	Other	28.7	2	1811
				Hispanic	52.7	102	136660

Table 16A. N* is unweighted. The table was generated using the variable **AZ2_3**. *While widow had the lowest percent with only 1.7% answering that folic acid prevents birth defects. It is important to note that there is only 1 widow; this widow represents 55.2 other women. Therefore, this value may not be representative of the true trend.

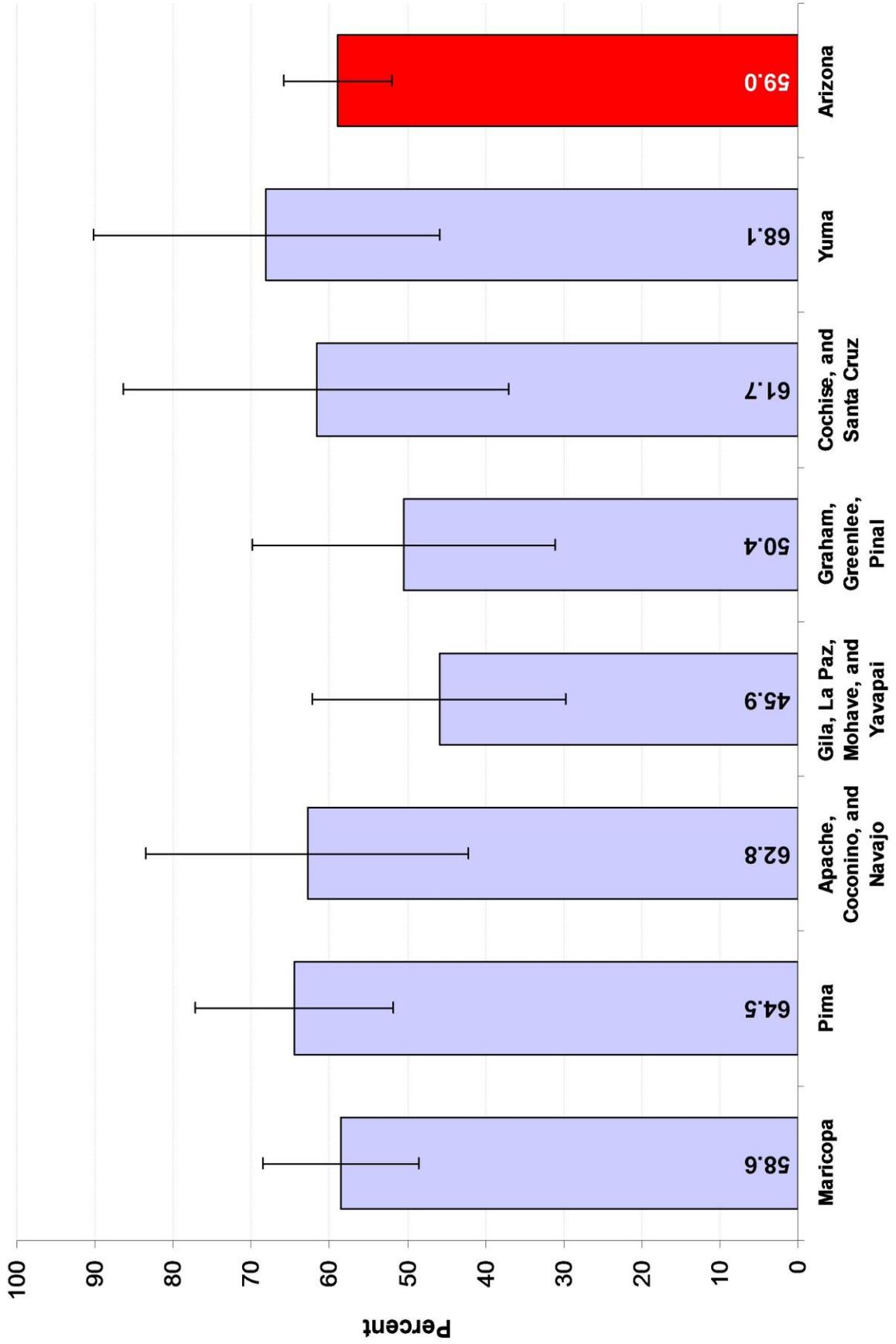
Percent of Women Who Recognize That Folic Acid Prevents Birth Defects, 2011 (County)

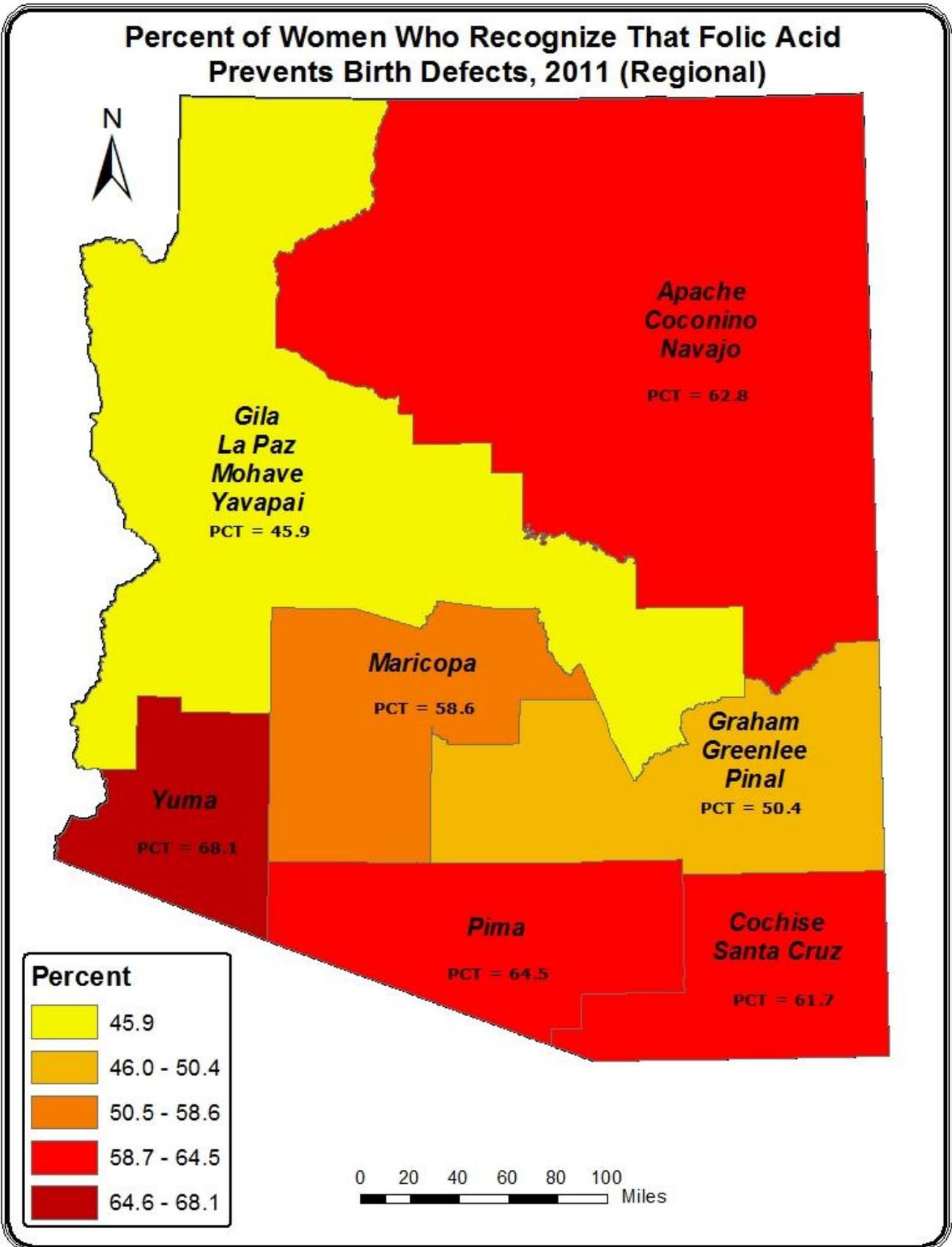


* Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Percent of Women Who Recognize That Folic Acid Prevents Birth Defects, 2011 (Regional)





Folic Acid

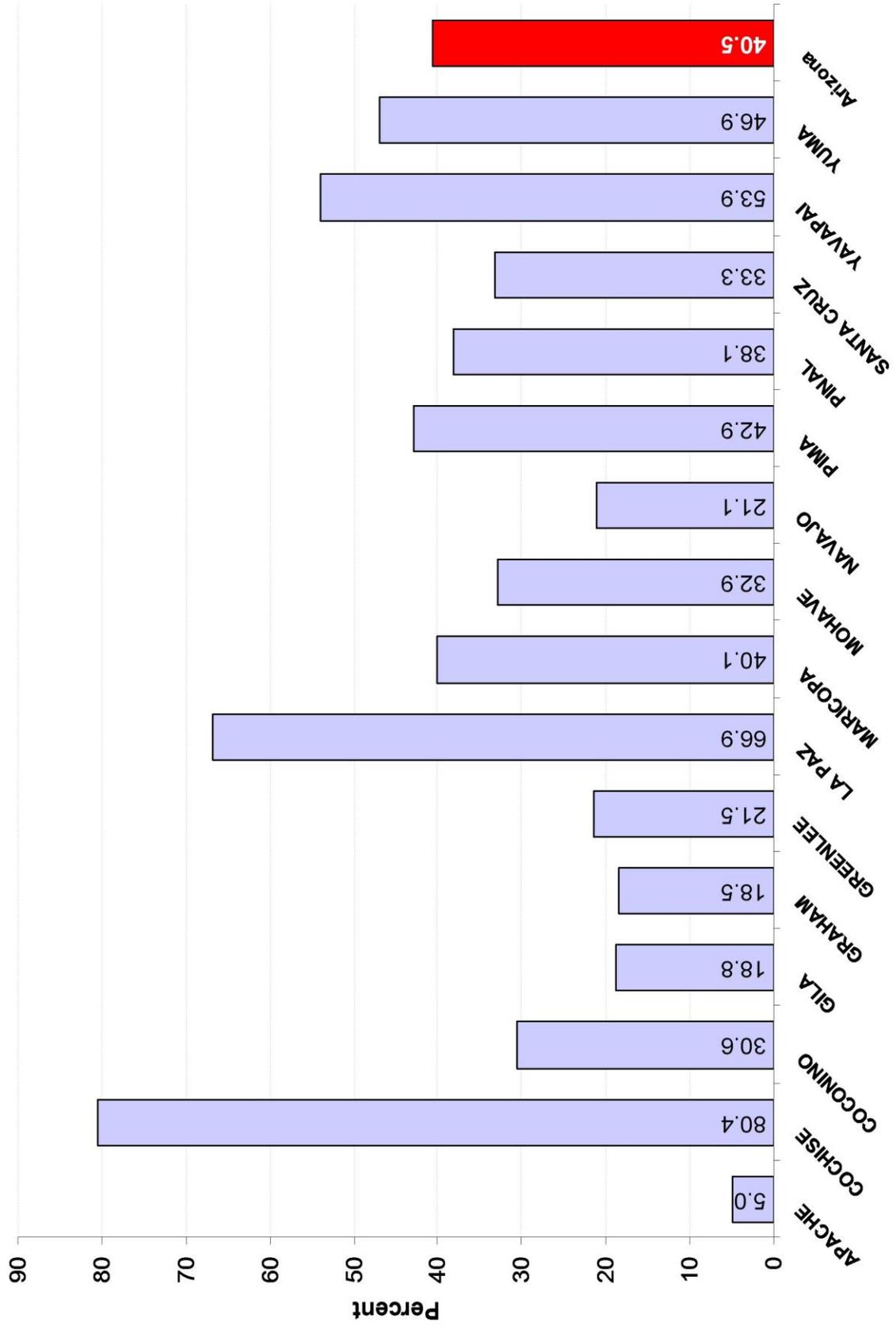
Healthy Arizona 2020 has set an objective of increasing the proportion of women of child-bearing potential with intake of at least 400 µg of folic acid from fortified foods or dietary supplements to 26.2 percent.¹⁵ This was based upon a 10% improvement of the current level. The results from the 2011 BRFSS report showed that 40.5% of women between the ages (18-44) take folic acid in some way or form. Arizona’s goal is 26.2%, so using 2011 level as a baseline, we should aim to achieve a 10% increase in folic acid supplementation in women of child-bearing age. **Table 16B** below describes a few characteristics of women who take folic acid. Some highlights of the table include:

- Women who are divorced or widowed had the highest percentage of folic acid supplementation, at 65.3% and 60.7% respectively.
- As education increased so did the percentage of women taking a supplement containing folic acid.
- Women with higher household incomes (\$75,000+) were more likely to take a folic acid supplement, at 56.7%.

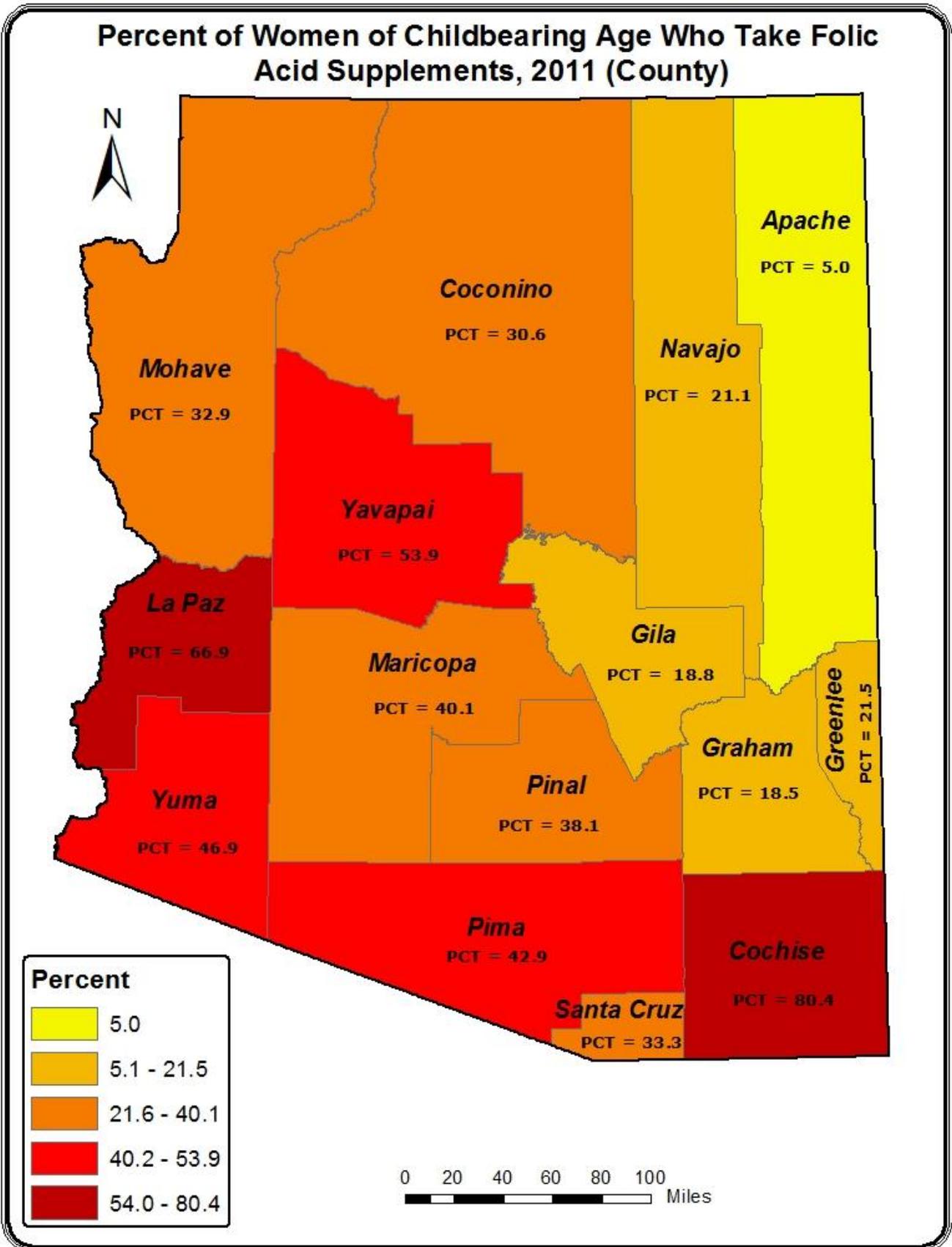
Arizona 2011 BRFSS: Women of Childbearing Age Who Currently Take a Multivitamins or Supplements That Contains Folic Acid							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	40.5	280	346918	EMPLOYMENT			
SEX				Employed for wages	37.1	126	147410
Female	40.5	280	346918	Self employed	38.3	20	23853
AGE				Out of work	40.5	20	26622
18-24	25.1	20	49798	Homemaker	46.5	80	91140
25-34	48.3	122	155939	Student	28.0	20	23467
35-44	42.0	138	141182	Retired	100.0	1	44.3358
MARITAL STATUS				Unable to Work	65.5	12	34355
Married	45.4	182	182055	INCOME			
Divorced	65.3	25	44442	<\$25,000	39.3	70	122300
Widowed	60.7	4	4751	\$25,000-\$34,999	26.4	22	27275
Separated	57.8	9	13713	\$35,000-\$49,999	34.9	36	34315
Never Married	29.2	45	82320	\$50,000-\$74,999	48.7	55	48529
Unmarried Couple	26.0	14	19603	\$75,000+	56.7	80	95722
EDUCATION				RACE			
Less than High School	36.4	21	66539	White Non-Hispanic	49.1	183	219708
High School Graduate/GED	35.6	55	69780	Black	45.9	8	19189
Some College/Tech School	36.6	72	105856	Asian/PI	37.2	2	6096
College Grad	55.8	132	104744	American Indian	24.2	13	5622
				Other	23.1	2	1755
				Hispanic	29.1	71	92084

Table 16B. N* is unweighted. The table was generated using the variable **AZ2_1**

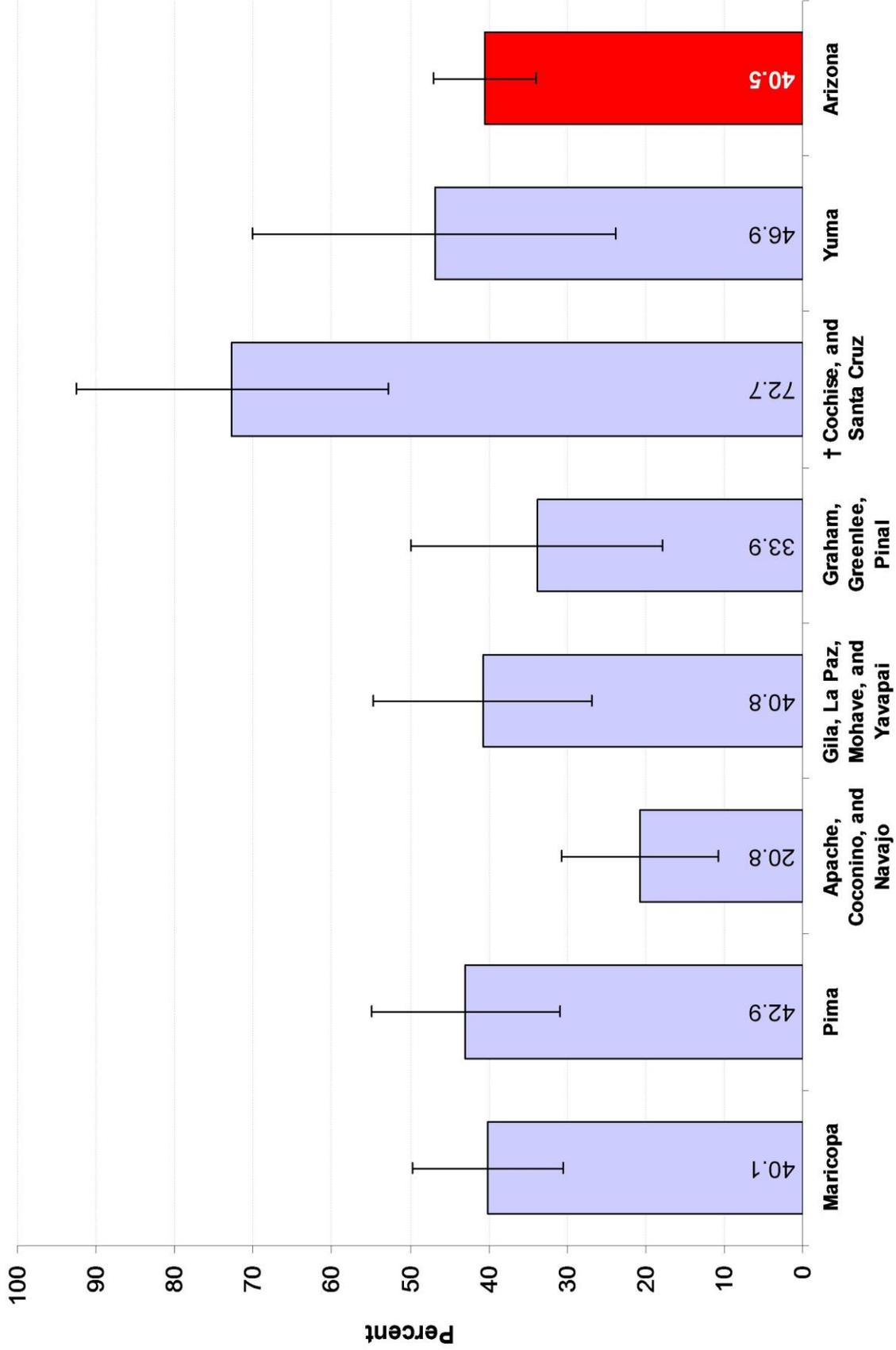
Percent of Women of Childbearing Age Who Take Folic Acid Supplements, 2011 (County)



* Confidence intervals are too large to contribute meaningful information and were excluded from this chart.

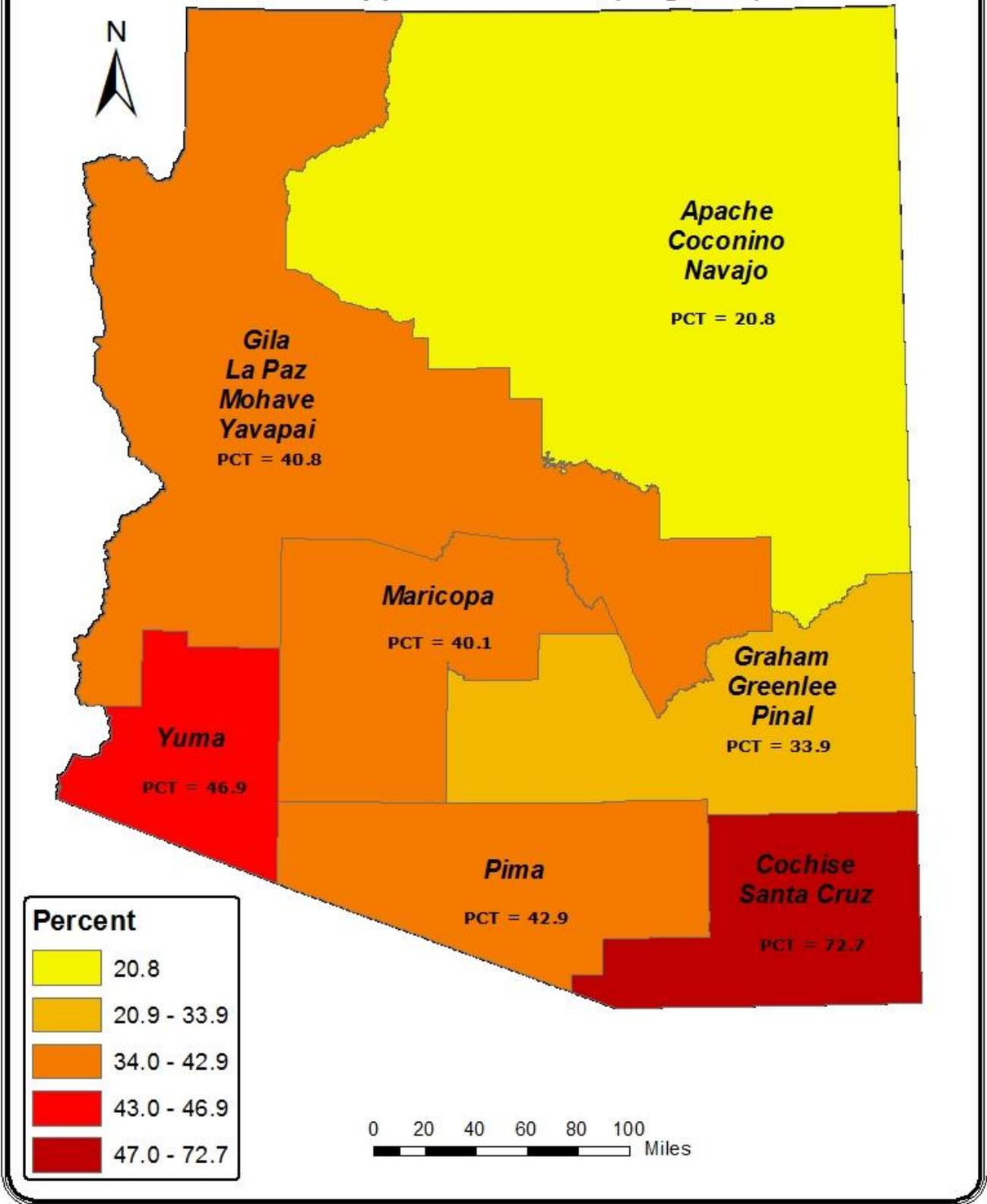


Percent of Women of Childbearing Age Who Take Folic Acid Supplements, 2011 (Regional)



† indicates that the region has a significantly higher percentage of women who taking folic acid supplements when compared to the state level

Percent of Women of Childbearing Age Who Take Folic Acid Supplements, 2011 (Regional)



Smoking Status

“Smoking is associated with a significantly increased risk of heart disease, stroke, lung and other types of cancer and chronic lung diseases. Decreasing cigarette smoking among adolescents and adults is a major public health objective for the Nation. Preventing smoking among teenagers and young adults is critical because smoking usually begins in adolescence. Smoking during pregnancy contributes to elevated risk of miscarriage, premature delivery and having a low birth weight infant.”⁴⁰

By collecting data on smoking status, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on reducing tobacco use. The reduction of tobacco use is one of Arizona’s Winnable Battles as outlined in A2 of the ADHS Strategic Map. (See page 6)

“Direct medical expenditures attributed to smoking total more than \$96 billion per year. In addition, smoking costs an estimated \$97 billion per year in lost productivity.”⁴¹ The lung cancer disease burden alone cost Arizonans close to \$150 million; this number is looking solely at malignant neoplasms as a primary diagnosis.

2011 Arizona Lung Cancer Disease Burden (HCUP)				
	Number of Discharges	Average Cost	Average Length of Stay	Aggregate Cost
Malignant neoplasm of the main bronchus	109	64,363	7.0	\$7,015,522
Malignant neoplasm of the upper lobe, bronchus or lung	851	78,361	7.1	\$66,685,514
Malignant neoplasm of the middle lobe, bronchus or lung	80	69,341	7.0	\$5,547,316
Malignant neoplasm of the lower lobe, bronchus or lung	443	74,969	6.7	\$33,211,240
Malignant neoplasm of the other parts of bronchus or lung	115	68,540	6.7	\$7,882,151
Malignant neoplasm of the bronchus and lung, unspecified	569	51,811	5.9	\$29,480,743
Total	2,167	-	-	\$149,822,486

Survey Questions: Have you smoked at least 100 cigarettes in your entire life? Do you now smoke cigarettes every day, some days, or not at all?

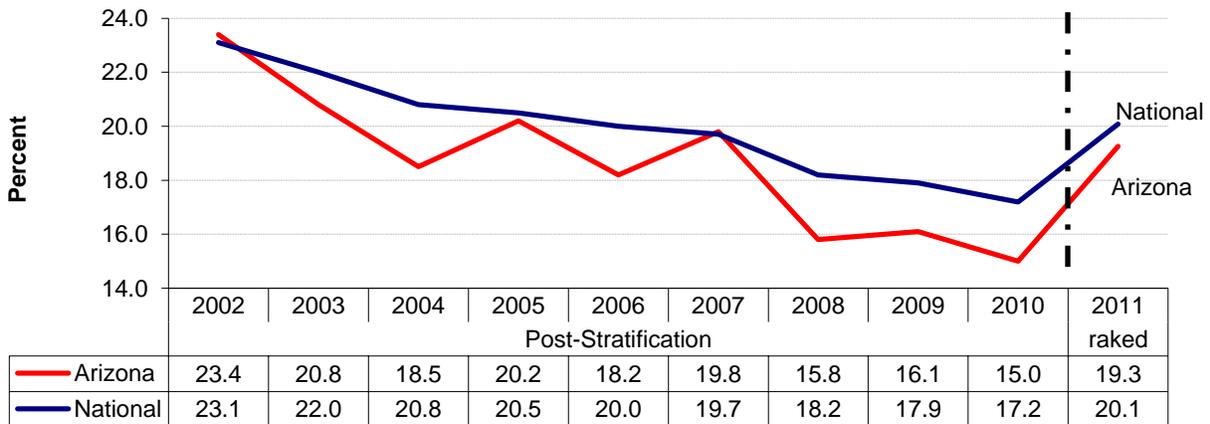


Figure 17. Among all adults, the percentage of Arizona respondents who reported that they were current smokers, between 2002 and 2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure. Healthy People 2020 goal (TU-1) is to reduce the number of current smokers to 12 percent.¹⁵

Smoking Status

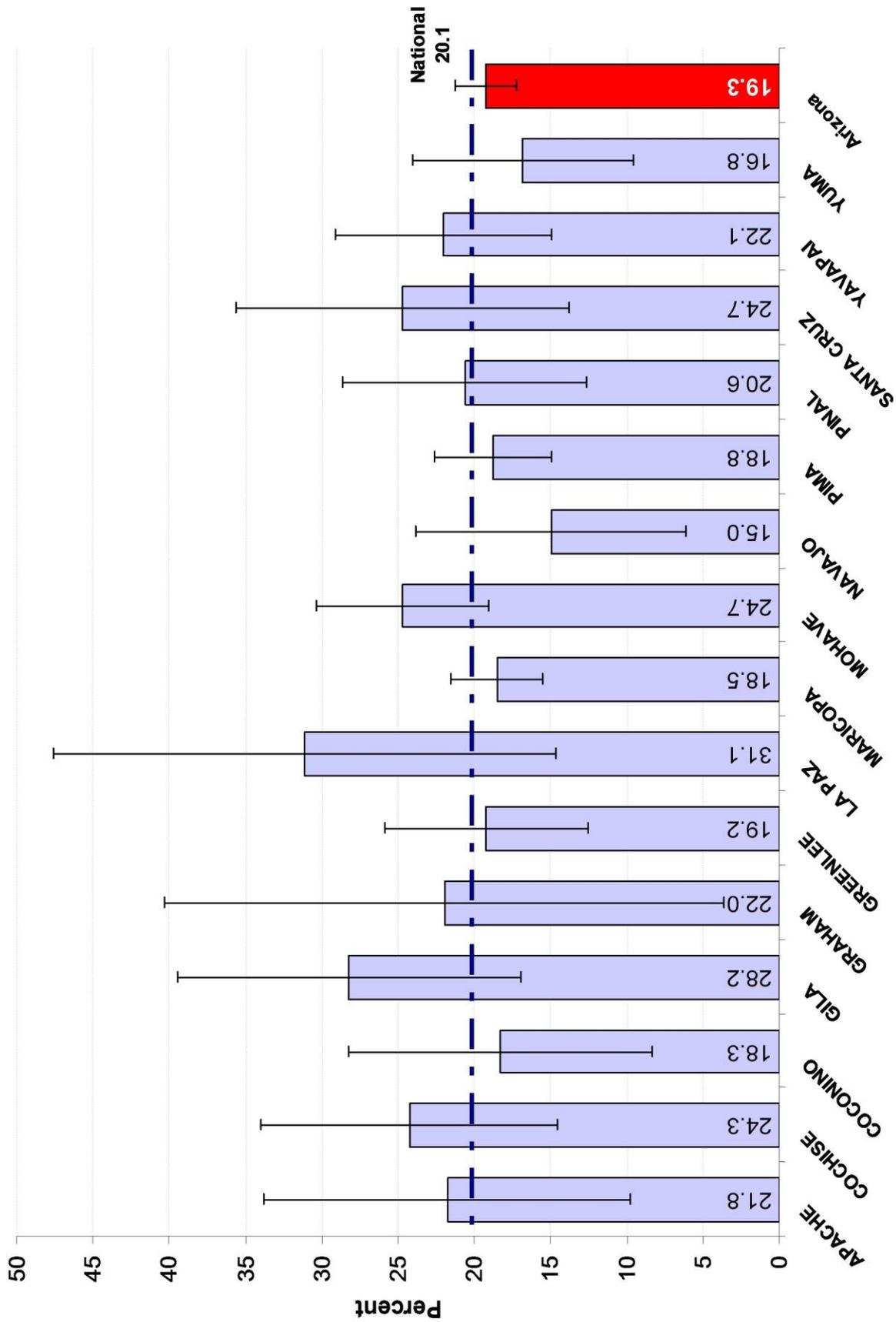
According to the 2011 BRFSS, Arizonans reported less than the national average that they had ever smoked at least 100 cigarettes in their life. (**Figure 17**). **Table 17** below indicates that 19.3% of respondents reported being a current smoker. Some key highlights of the table include:

- Female were less likely than males to be current smokers at 17.5% versus 21%, respectively.
- Adults who were married were less likely to be current smokers, at 12.7%.
- The lowest proportion of smokers was in the age group 65 and above, at 9%.
- As education increased, the proportion of smokers decreased.
- Adults with household incomes greater than \$50,000 were the least likely to be current smokers.

Arizona 2011 BRFSS: Respondents Who Are Current Smokers							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	19.3	1023	919397	EMPLOYMENT			
SEX				Employed for wages	20.5	341	430772
Male	21.0	438	496012	Self employed	21.3	93	80052
Female	17.5	585	423385	Out of work	30.5	122	146425
AGE				Homemaker	15.9	65	70456
18-24	19.2	49	115363	Student	7.5	11	18084
25-34	27.2	100	245824	Retired	10.2	248	85830
35-44	19.0	135	163088	Unable to Work	31.5	142	87578
45-54	21.3	209	177653	INCOME			
55-64	19.8	277	138982	<\$25,000	28.4	448	397358
65+	9.0	253	78487	\$25,000-\$34,999	20.9	123	112571
MARITAL STATUS				\$35,000-\$49,999	21.3	127	126682
Married	12.7	413	307503	\$50,000-\$74,999	12.9	92	76451
Divorced	32.0	251	171930	\$75,000+	11.7	113	119090
Widowed	14.0	130	47004	RACE			
Separated	31.0	34	25996	White Non-Hispanic	21.7	746	623424
Never Married	24.4	144	267027	Black	27.3	28	46038
Unmarried Couple	35.1	48	99562	Asian/PI	13.3	8	15397
EDUCATION				American Indian	20.0	43	34205
Less than High School	28.8	146	218247	Other	20.1	28	18980
High School Graduate/GED	23.8	341	294266	Hispanic	13.3	154	172166
Some College/Tech School	19.6	358	321637				
College Grad	7.4	176	83525				

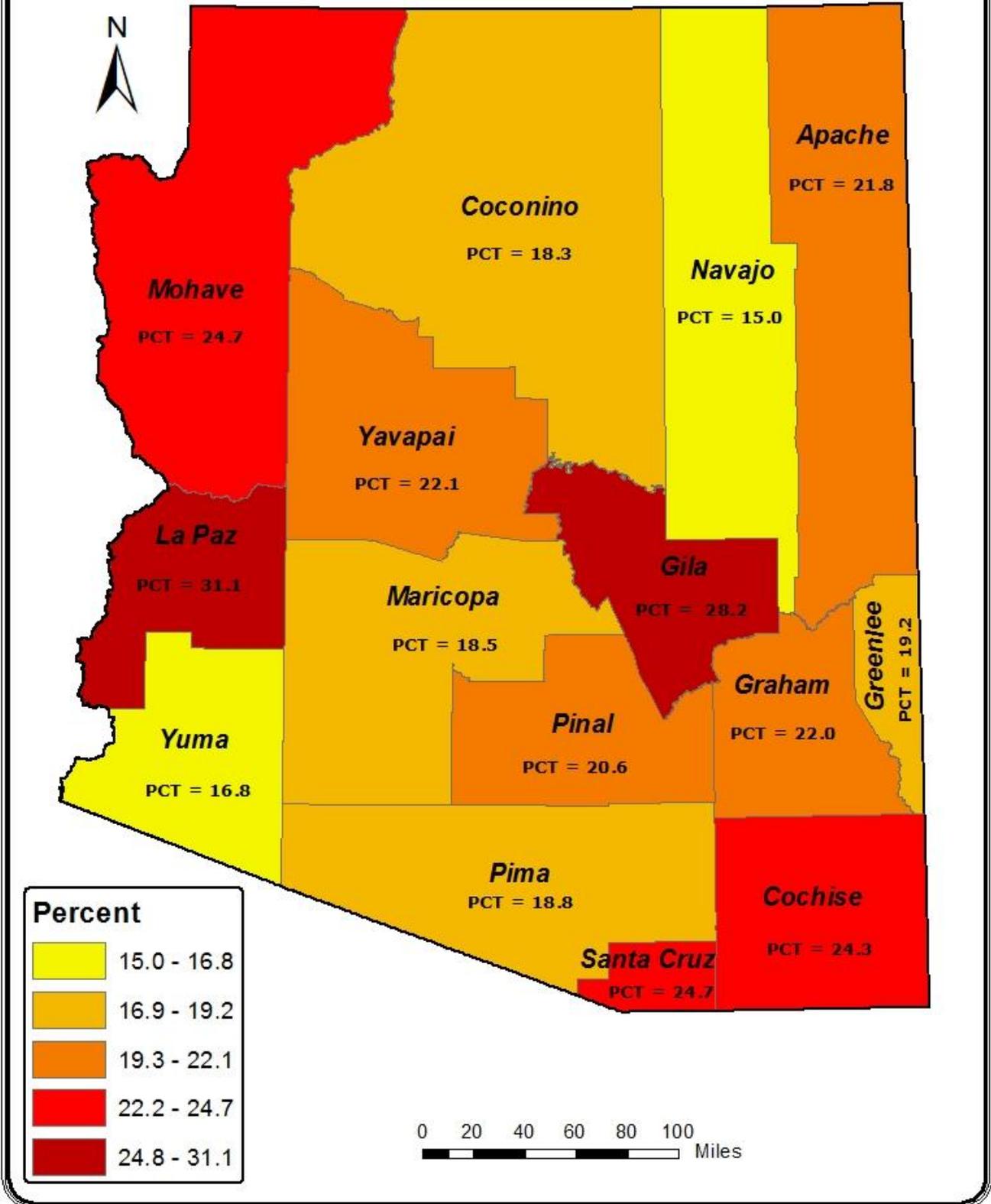
Table 17. N* is unweighted. The variable _RFSMOK3 was used to generate all tables and charts.

Percent of Arizonans Who Are Current Smokers, 2011 (County)

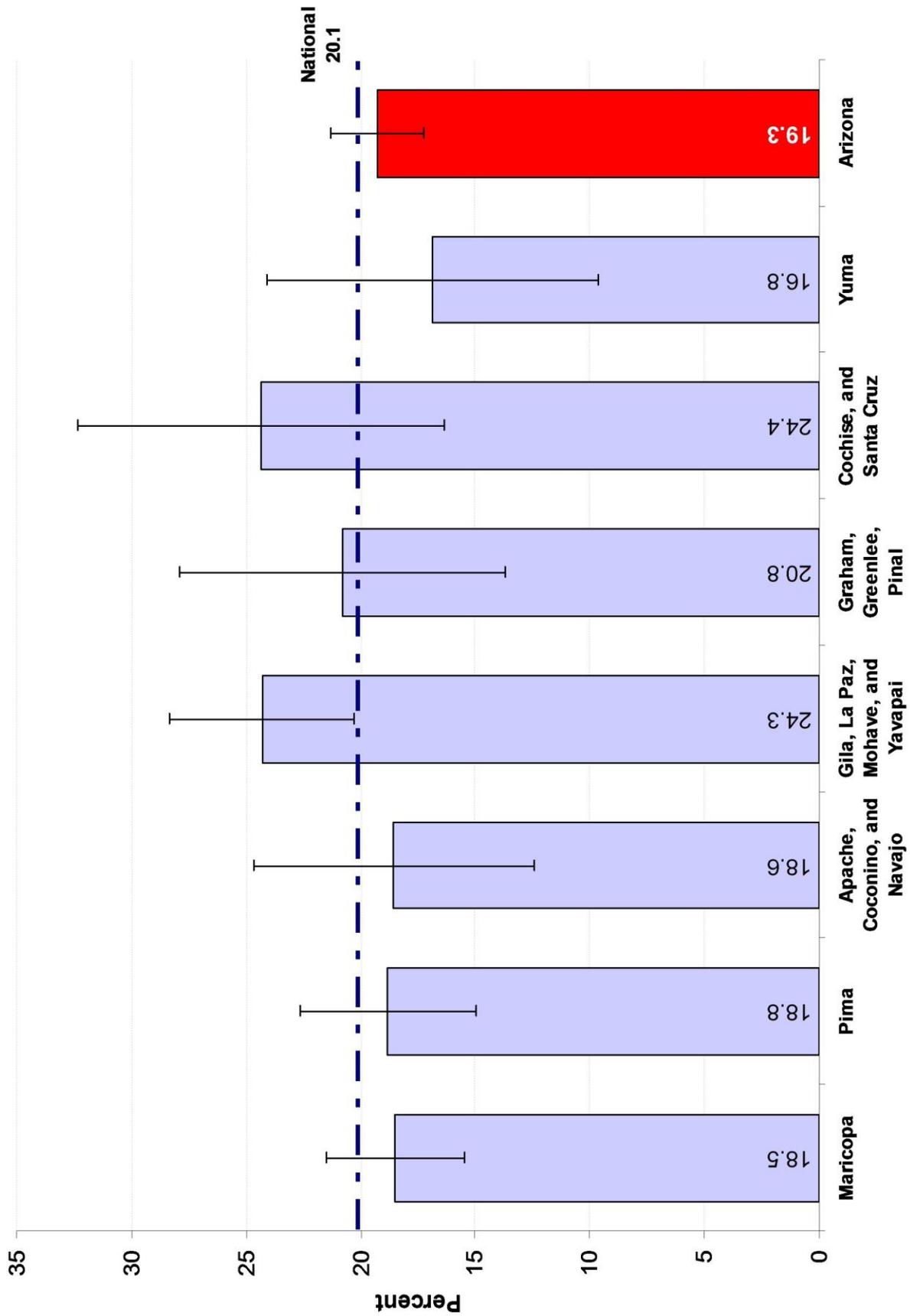


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

Percent of Arizonans Who Are Current Smokers 2011 (County)

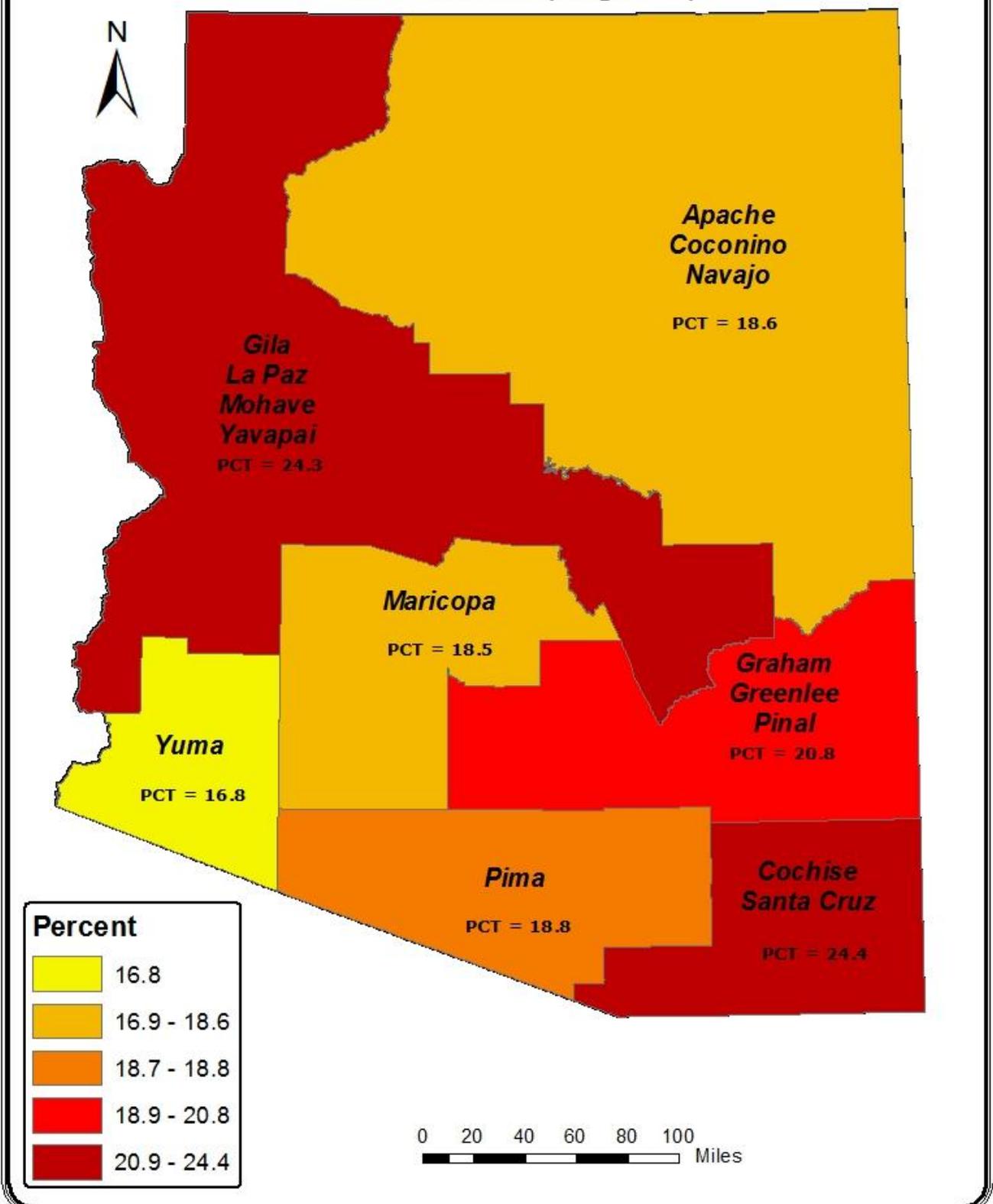


Percent of Arizonans Who Are Current Smokers, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

Percent of Arizonans Who Are Current Smokers, 2011 (Regional)



Influenza

Influenza is a significant cause of morbidity. Elderly persons with chronic diseases are at high risk for influenza morbidity and mortality.⁴² “Influenza A and B are the two types of influenza viruses that cause epidemic human disease.”⁴³ Since treatment of influenza can only minimize its symptoms, epidemics are most preventable through vaccination against current strains of disease.

Since new strains of influenza periodically emerge, annual vaccinations are necessary to provide constant protection against infection. Vaccination against influenza is recommended as a part of routine health care for all people six months of age and older. Health care professionals should continue to advise or recommend to their high risk populations that they be vaccinated against current influenza strains.

By gathering data on influenza vaccinations, the BRFSS provides Arizona with a tool to measure the effects of programs and interventions on reducing healthcare associated infections and public health risk. Influenza vaccinations are part of Arizona’s Winnable Battles and the promotion and protection of public health and safety as outlined in A3 and C2 of the ADHS Strategic Map. (See page 6)

2011 Arizona Influenza Disease Burden (HCUP)				
	Number of Discharges	Average Length of Stay	Average Charges	Aggregate Cost
Influenza with pneumonia (after Oct 1, 2009)	370	5.4	42,602	\$15,762,605
Influenza with other respiratory manifestations (after Oct 1, 2009)	517	2.7	16,683	\$8,625,214
Influenza with other respiratory manifestations (after Oct 1, 2011)	27	3.3	28,826	\$778,290
Influenza with other manifestations (after Oct 1, 2009)	38	3.2	19,705	\$748,795
Influenza due to identified avian influenza virus with pneumonia	19	7.4	60,171	\$1,143,255
Influenza due to identified avian influenza virus with other respiratory manifestations	49	3.4	21,818	\$1,069,072
Total	1,020	-	-	\$28,127,231

Survey Question: During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?

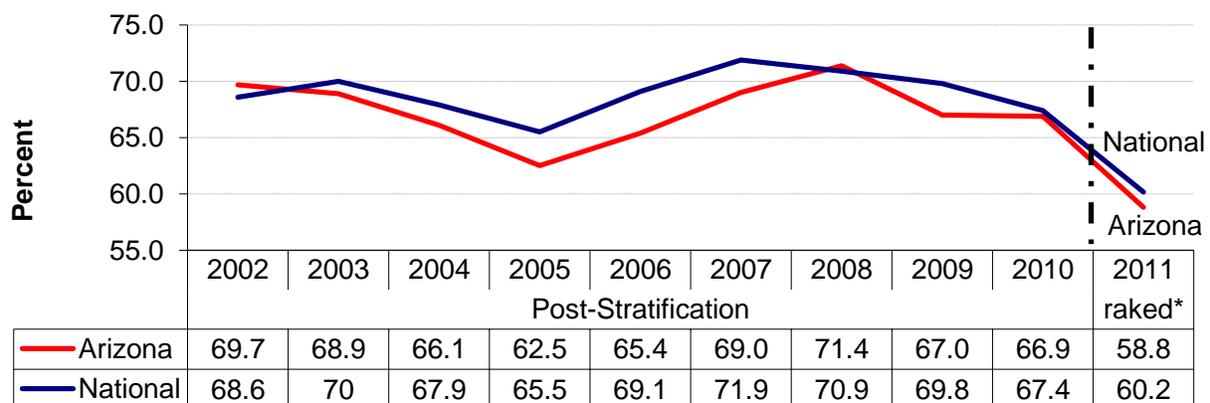


Figure 18. Percentage of Arizona and National BRFSS respondents 65+ years old reporting they had an influenza vaccination in the last 12 months, 2002-2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure; additionally.

***Note-** In 2011, flu shot status is asked in a significantly different manner than the prior years.

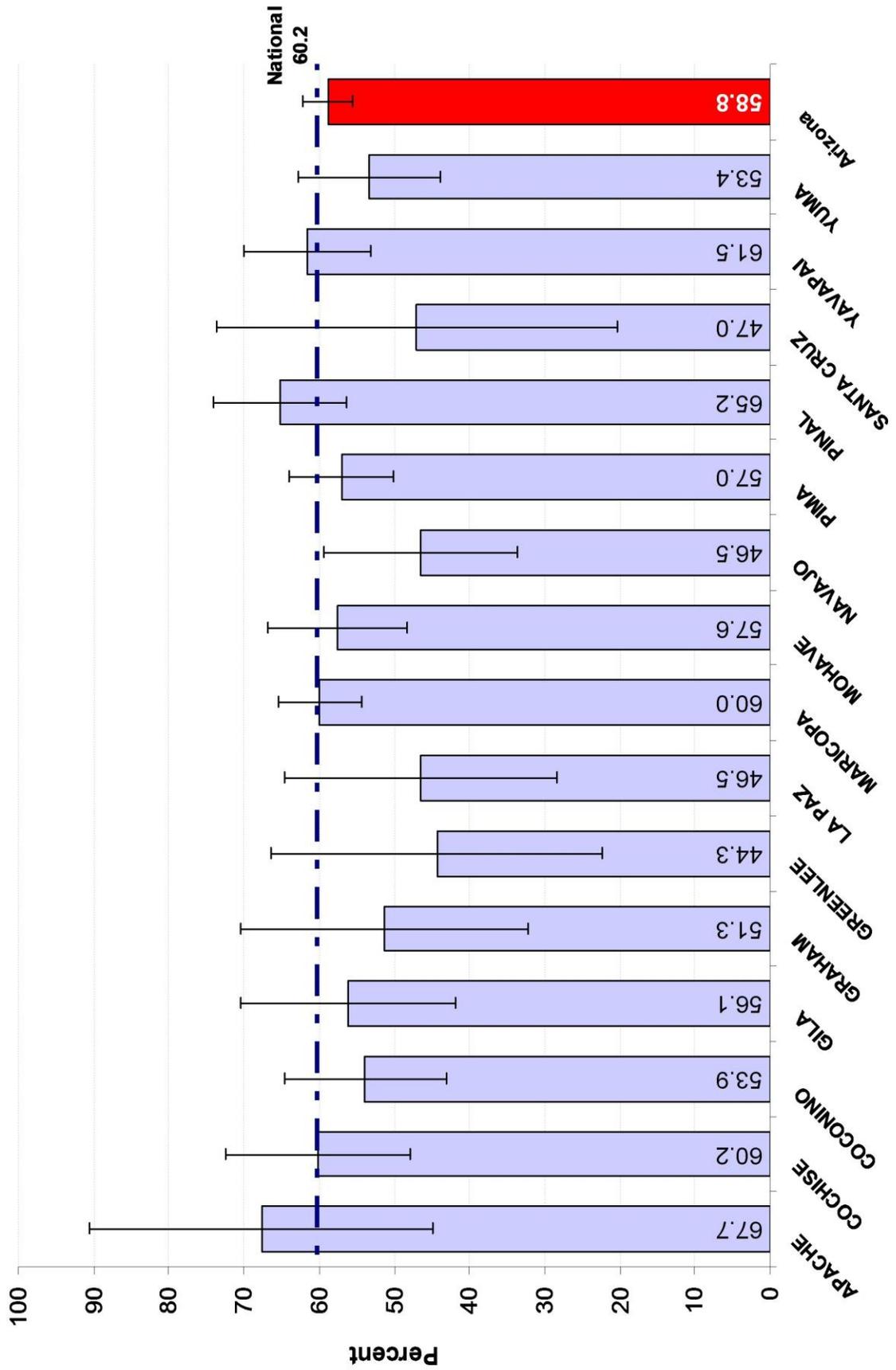
According to the 2011 BRFSS, Arizonans 65 years and above were less likely to receive an influenza vaccination when compared to their national counterparts (**Figure 18**). **Table 18 below** indicates that 58.8% of Arizonans 65+ years of age reported that they received an influenza vaccine during the past 12 months. The following respondent groups have had an influenza vaccination in the past 12 months:

- Adult females were more likely than adult males to receive an influenza vaccination, at 61.3% and 55.8% respectively.
- Hispanic older adults (33%) were less likely to be vaccinated than White non-Hispanics, Blacks and American Indians.
- Adults who were high school graduates, some college/Tech school and College Graduates were more likely to receive an influenza vaccine, from 59.3% - 64.1% when compared to individuals who did not graduate high school.

Arizona 2011 BRFSS: Adults 65+ Who Received a Flu Vaccination Through Injection or Nasal Spray							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	58.8	1426	489143	EMPLOYMENT			
SEX				Employed for wages	46.2	73	27003
Male	55.8	523	210052	Self employed	64.3	46	15993
Female	61.3	903	279090	Out of work	27.1	18	3222
AGE				Homemaker	56.4	112	36419
65+	58.8	1426	489143	Student	.	.	.
MARITAL STATUS				Retired	61.3	1126	389527
Married	59.3	711	285184	Unable to Work	50.5	50	16923
Divorced	56.3	195	54574	INCOME			
Widowed	58.7	455	131685	<\$25,000	51.4	415	129902
Separated	64.0	11	2339	\$25,000-\$34,999	58.2	176	52169
Never Married	63.5	38	9478	\$35,000-\$49,999	64.9	247	94559
Unmarried Couple	52.8	14	5335	\$50,000-\$74,999	67.2	199	68590
EDUCATION				\$75,000+	65.5	164	59643
Less than High School	42.1	103	48266	RACE			
High School Graduate/GED	59.3	411	137244	White Non-Hispanic	62.4	1247	414942
Some College/Tech School	60.7	424	167241	Black	61.0	14	7345
College Grad	64.1	484	131442	Asian/PI	59.0	6	8422
				American Indian	77.8	28	10257
				Other	37.1	24	6121
				Hispanic	33.3	91	32121

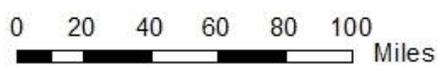
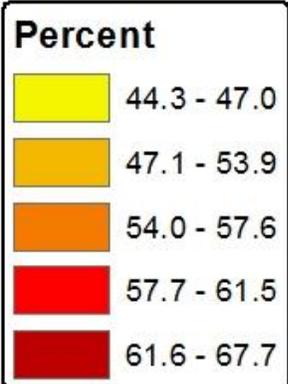
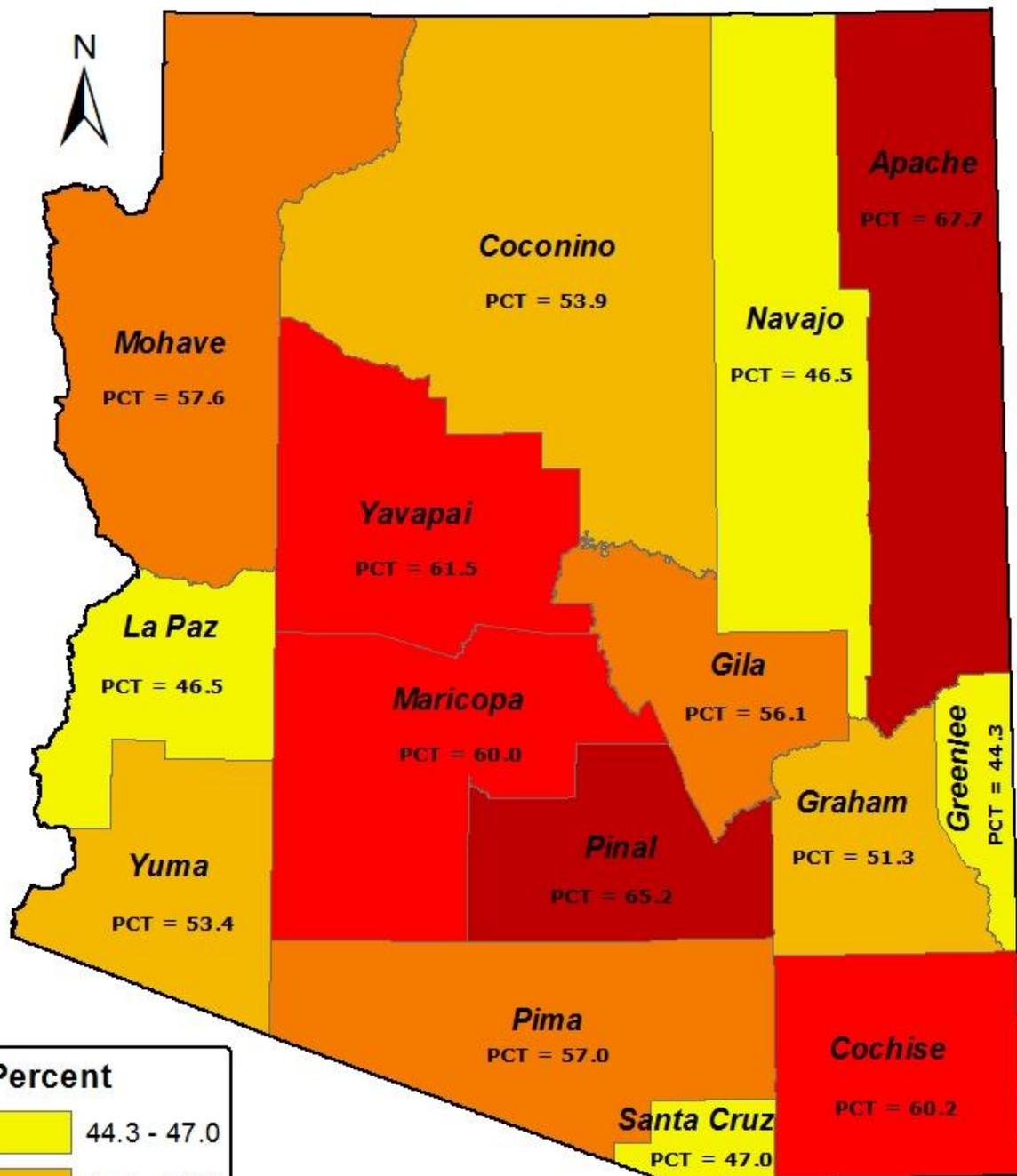
Table 18. N* is unweighted. The variable _FLSHOT5 was used to generate all tables and charts.

Percent of Arizonans 65+ Reporting Having a Flu Vaccination, 2011 (County)

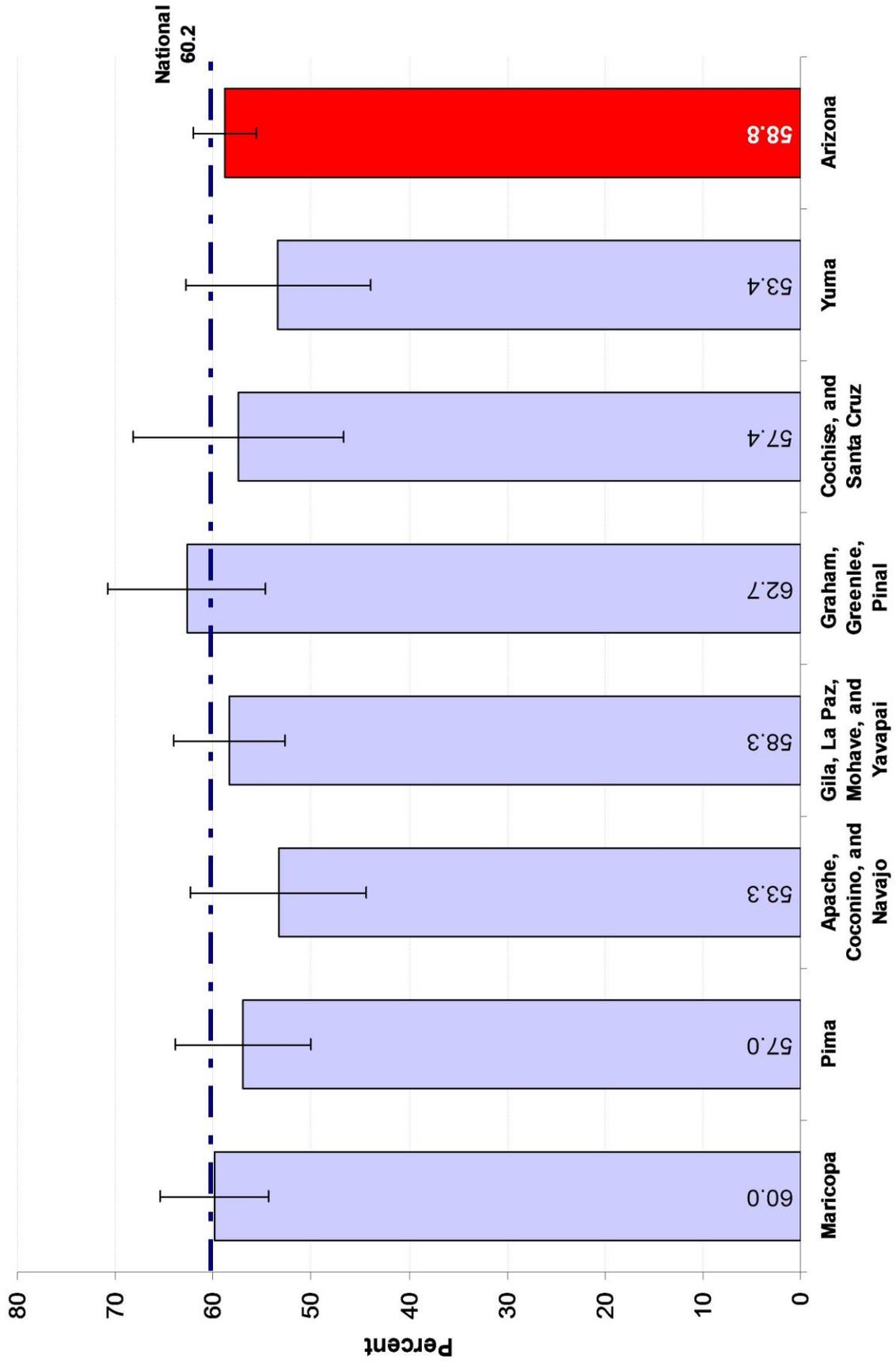


* As of 11/26/2012 the data uploaded to the national BRFS website is provisional and values are subject to change

Percent of Arizonans 65+ Reporting Having a Flu Vaccination, 2011 (County)

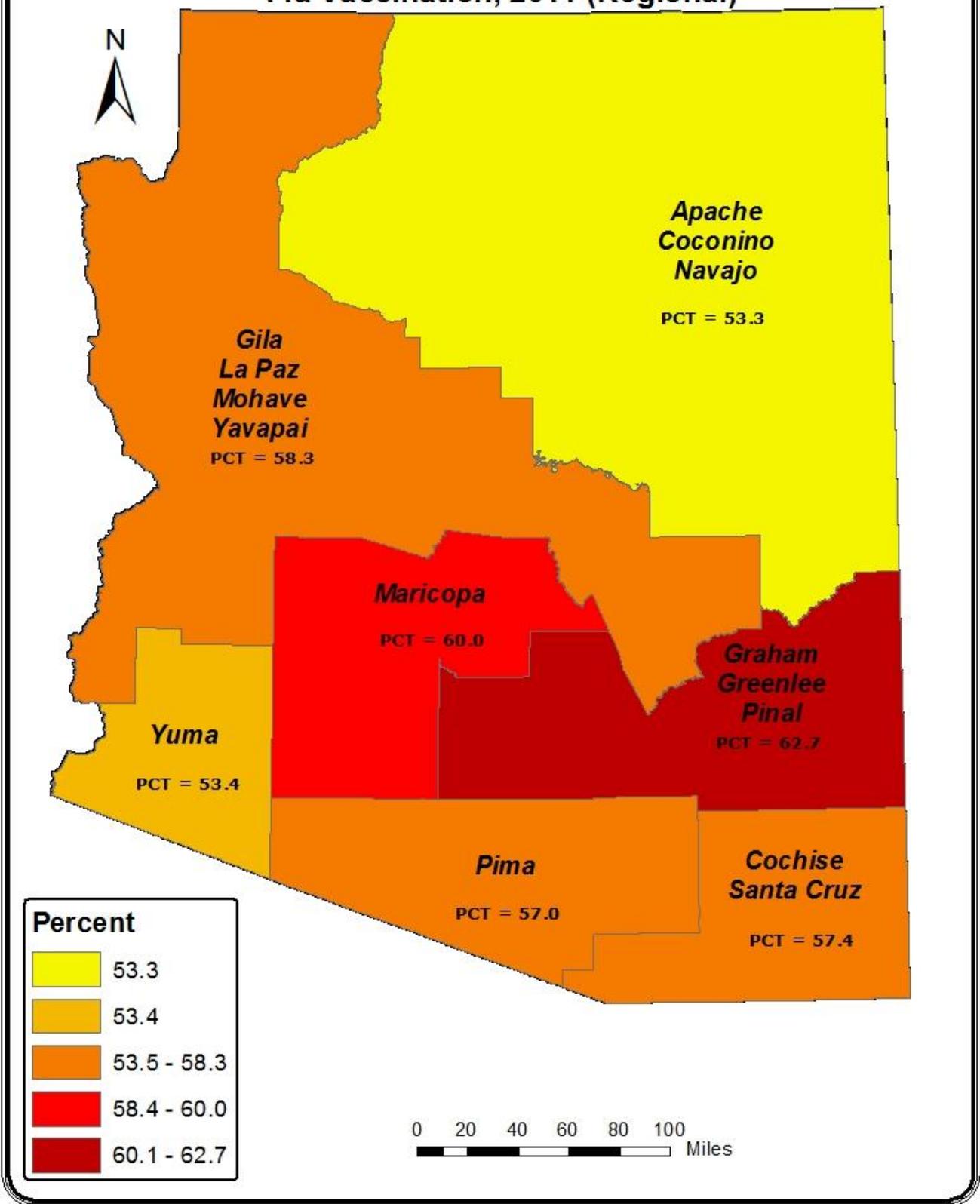


Percent of Arizonans 65+ Reporting Having a Flu Vaccination, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFS website is provisional and values are subject to change

Percent of Arizonans 65+ Reporting Having a Flu Vaccination, 2011 (Regional)



Alcohol Abuse – Binge Drinking

Binge drinking is the most common form of drinking in the U.S. It has been estimated that 1 in 6 adults binge drinks about three to four times a month. In 2006 the estimated cost to the U.S. of binge drinking was 223.5 billion dollars (including the cost of the drinks).⁴⁴ Long-term heavy drinking increases the risk of developing certain forms of cancer, especially of the esophagus, mouth, throat and larynx.⁴⁵ Alcohol use has been linked with a substantial proportion of injuries and deaths from motor vehicle crashes, falls, fires and drownings.⁴⁶ Clearly, alcohol consumption is an important public health issue. The BRFSS defines binge drinking as having five or more drinks on one occasion.

By collecting data on alcohol consumption, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on reducing alcohol abuse.

The reduction of alcohol abuse is one of Arizona's Winnable Battles as outlined in A2 of the ADHS Strategic Map.

(See page 6)

Survey Question: Considering all types of alcoholic beverages, how many times during the past 30 days did you have five or more drinks on one occasion?

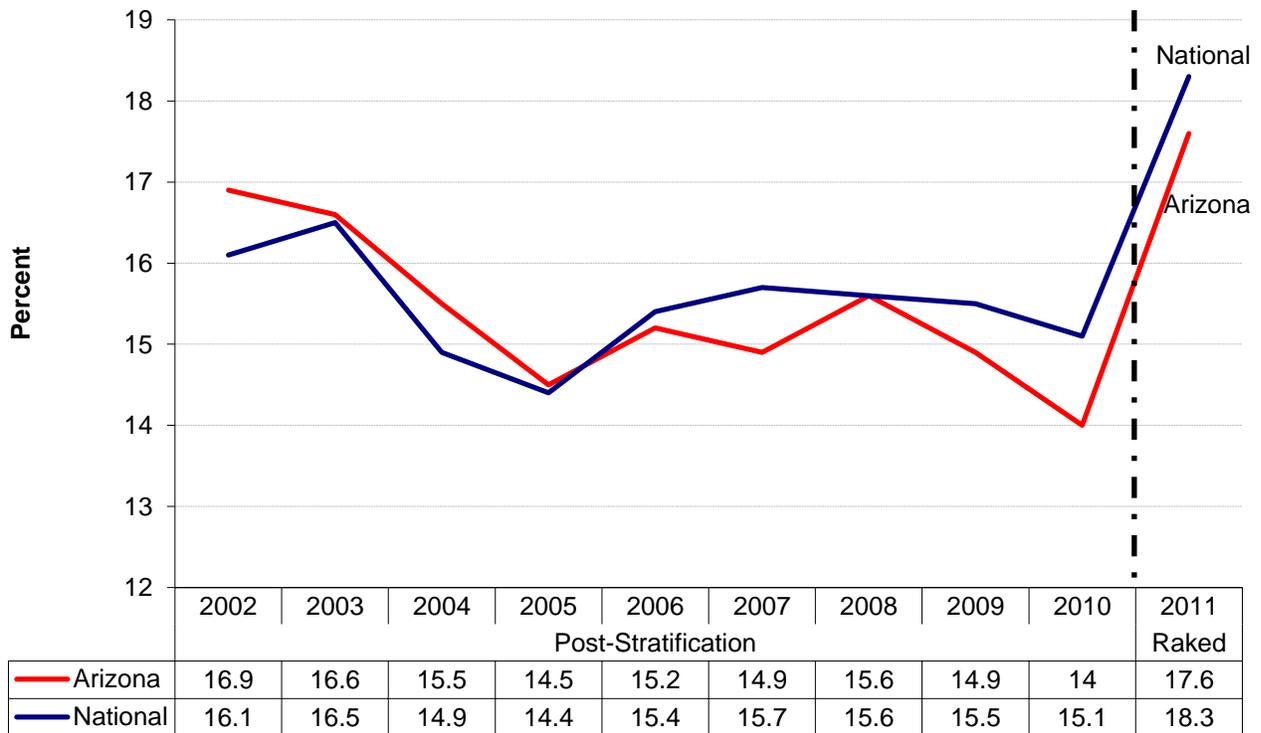


Figure 19. Arizona and National 2011 BRFSS respondents who reported that they engage in binge drinking. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure

The related *Healthy People 2020* objective (SA-14) is to reduce the percentage of the population engaging in binge drinking of alcoholic beverages by 10%. With 2011 as the baseline measurement, Arizona needs to see consumption reduced to 15.8% in order to achieve the 2020 objective on binge drinking.¹⁵

Alcohol Abuse – Binge Drinking

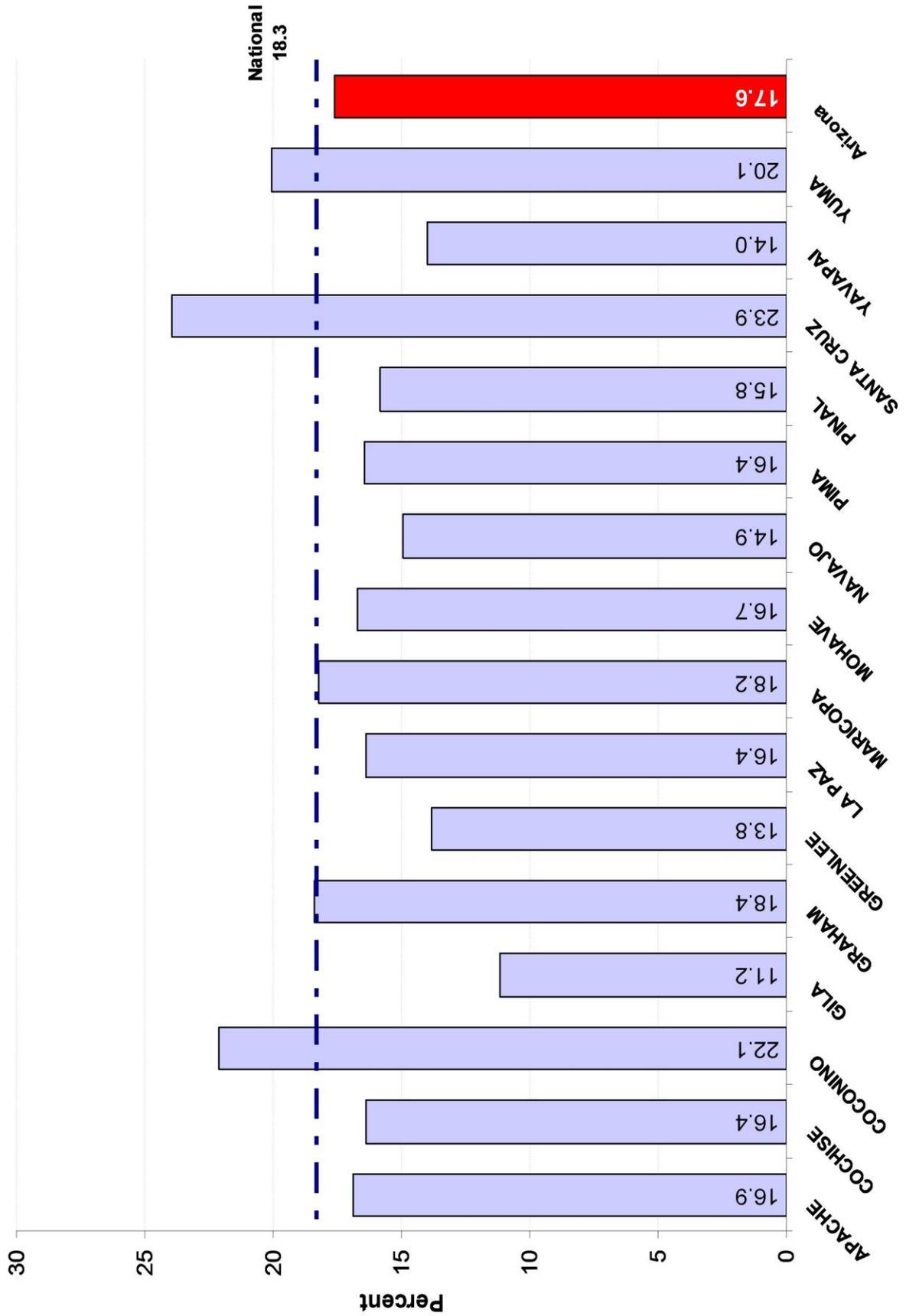
According to the 2011 BRFSS, Arizona has fewer individuals reporting binge drinking when compared to the nation as a whole (**Figure 19**). **Table 19** below indicates that 17.6% of respondents reported having five or more drinks on an occasion (“binge drinking”) one or more times in the past month. Some of the highlights of this table include:

- Women are less likely to engage in binge drinking, with only 11.7%, which is approximately 6% less than the state level.
- Individuals in the 25-34 age-groups had the highest proportion (~32%) of binge drinking.

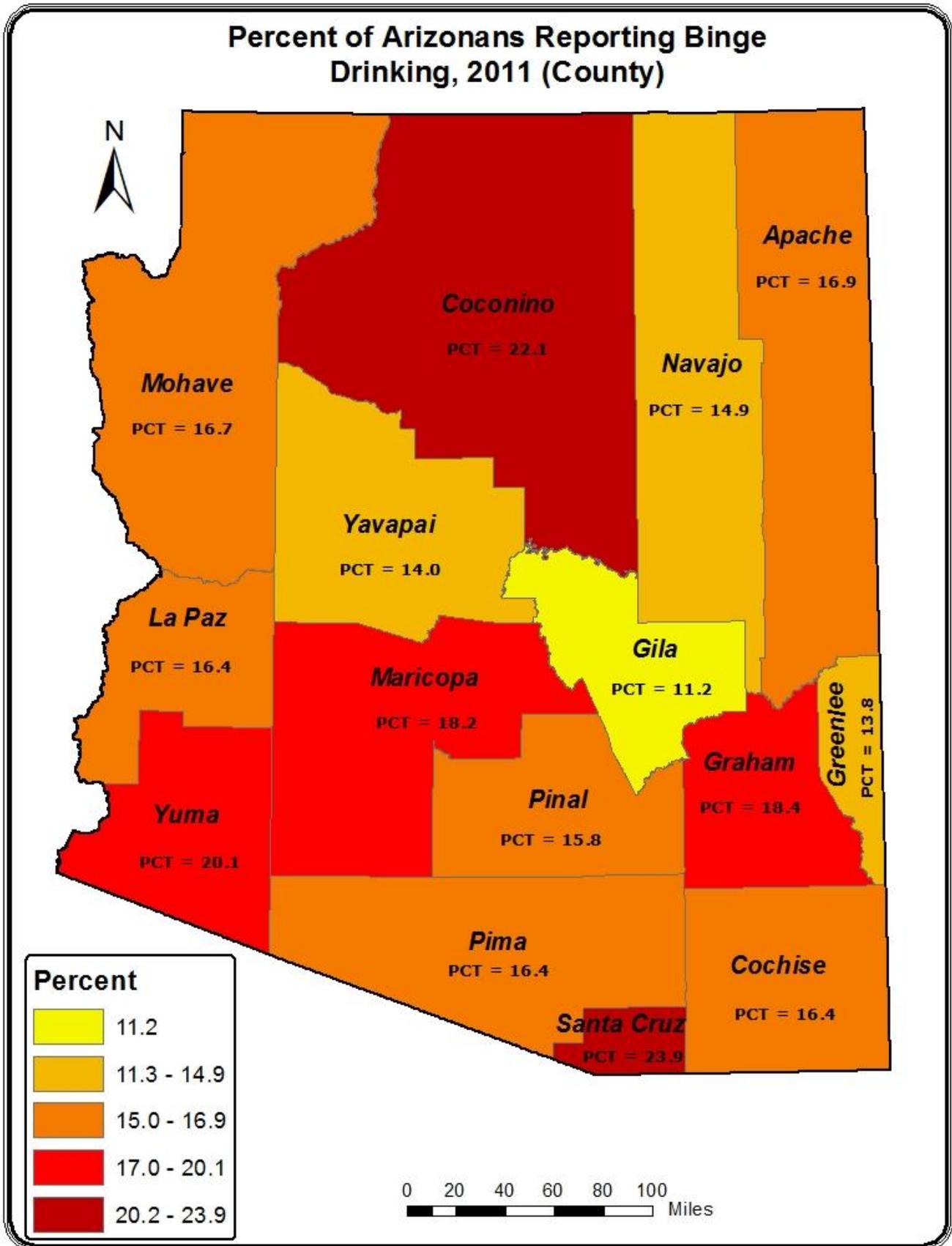
Arizona 2011 BRFSS: Respondents Who Are Reported As Binge Drinkers							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	17.6	710	787924	EMPLOYMENT			
SEX				Employed for wages	24.7	340	485397
Male	23.6	412	523564	Self employed	18.7	62	66413
Female	11.7	298	264361	Out of work	19.9	74	89122
AGE				Homemaker	8.3	37	34450
18-24	21.2	57	116425	Student	15.7	20	35343
25-34	31.9	124	272934	Retired	6.4	141	51187
35-44	16.6	116	133798	Unable to Work	9.8	35	25143
45-54	16.9	150	132096	INCOME			
55-64	14.8	140	97440	<\$25,000	17.4	191	225569
65+	4.3	123	35232	\$25,000-\$34,999	20.1	81	99548
MARITAL STATUS				\$35,000-\$49,999	20.8	108	119481
Married	13.0	346	295377	\$50,000-\$74,999	15.6	91	88302
Divorced	16.9	118	86271	\$75,000+	19.7	168	190241
Widowed	9.0	57	28033	RACE			
Separated	24.3	15	20896	White Non-Hispanic	16.4	484	444811
Never Married	25.7	132	261335	Black	8.0	10	12105
Unmarried Couple	36.1	40	95526	Asian/PI	11.8	7	11367
EDUCATION				American Indian	18.9	31	30406
Less than High School	10.9	56	75486	Other	14.9	14	13041
High School Graduate/GED	18.5	200	214120	Hispanic	22.5	160	275394
Some College/Tech School	19.4	230	298692				
College Grad	18.4	224	199626				

Table 19. N* is unweighted. `_RFBING5` was used to generate all tables and charts.

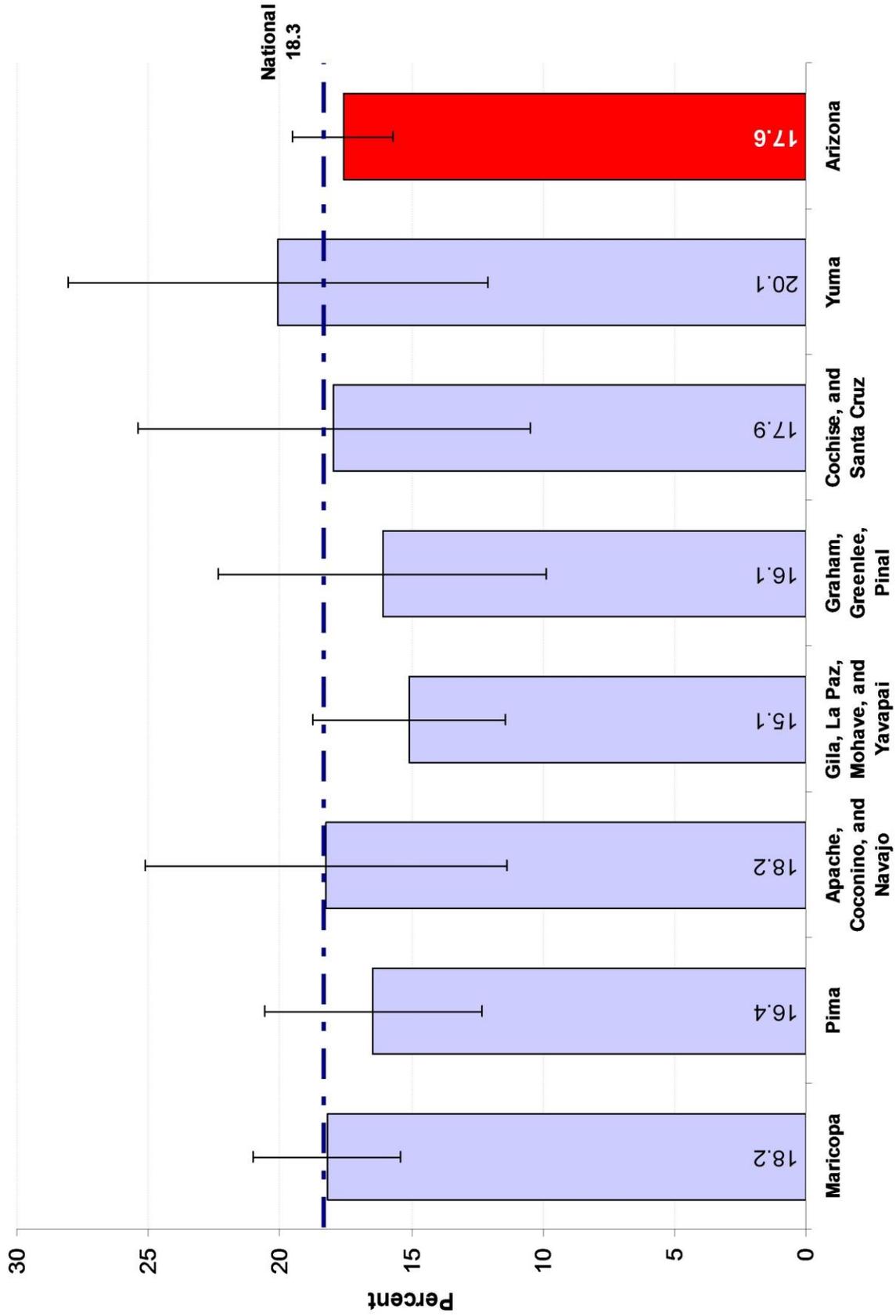
Percent of Arizonans Reporting Binge Drinking, 2011 (County)



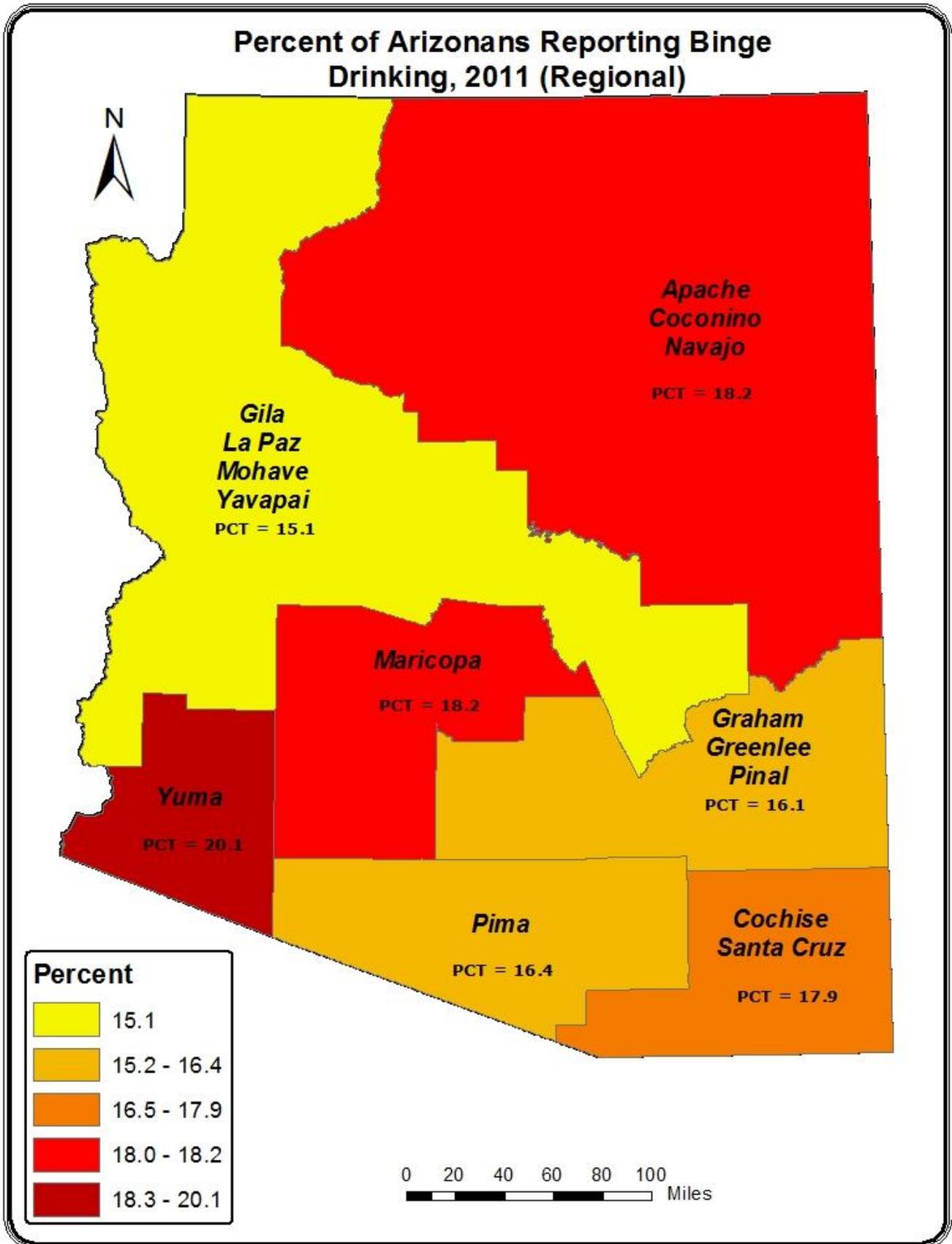
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Percent of Arizonans Reporting Binge Drinking, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Alcohol Abuse-Heavy Drinking

The BRFSS defines heavy drinking in adult men as those who have more than two drinks a day, and women who have more than one drink per day. Recent research has shown that individuals who are dependent on alcohol have higher death rates when compared to other individuals in their gender/age groups. Women who have an alcohol dependency have a 4.6-fold higher death rate and men have a 1.9-fold higher death rate, when compared to their nondependent counterparts.⁴⁷

In 2011 alcohol abuse was mentioned as a factor on 47,248 ER and 20,402 inpatient discharge records. The total cost for alcohol related diagnosis was \$688,250,819 (Sum of any mention in ER and IP).⁴⁸

By collecting data on alcohol consumption, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on reducing alcohol abuse. The reduction of alcohol abuse is one of Arizona's Winnable Battles as outlined in A2 of the ADHS Strategic Map. (See page 6)

2011 Arizona Alcohol Burden (Public Hospital Discharge Data)					
		Number of Discharges	Average Length of Stay	Average Charge	Aggregate Charges
Emergency Room	Principle	18,351	0.4	\$3,981.95	\$73,072,814
	Any Mention	47,248	0.4	\$5,027.40	\$237,534,362
In Patient	Principle	2,447	5.4	\$15,812.84	\$38,646,580
	Any Mention	20,402	4.8	\$22,098.28	\$450,716,457

Heavy drinking is defined as: Adult men having more than two drinks per day and adult women having more than one drink per day.

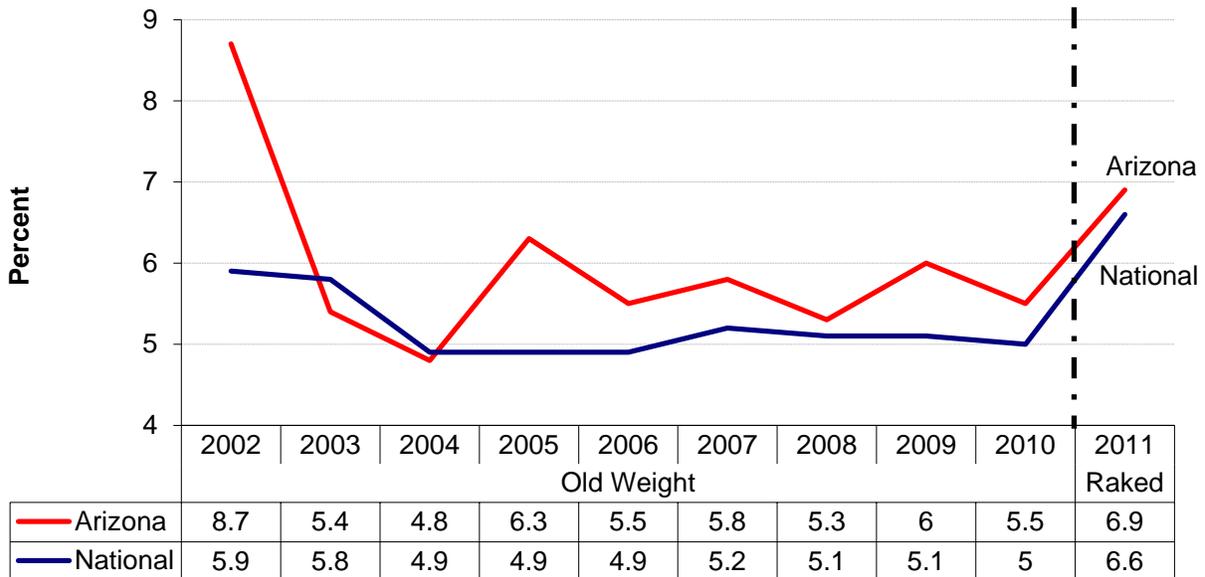


Figure 20. Arizona and National BRFSS respondents from 2002-2011 who reported engaging in heavy drinking. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure.

Alcohol Abuse-Heavy Drinking

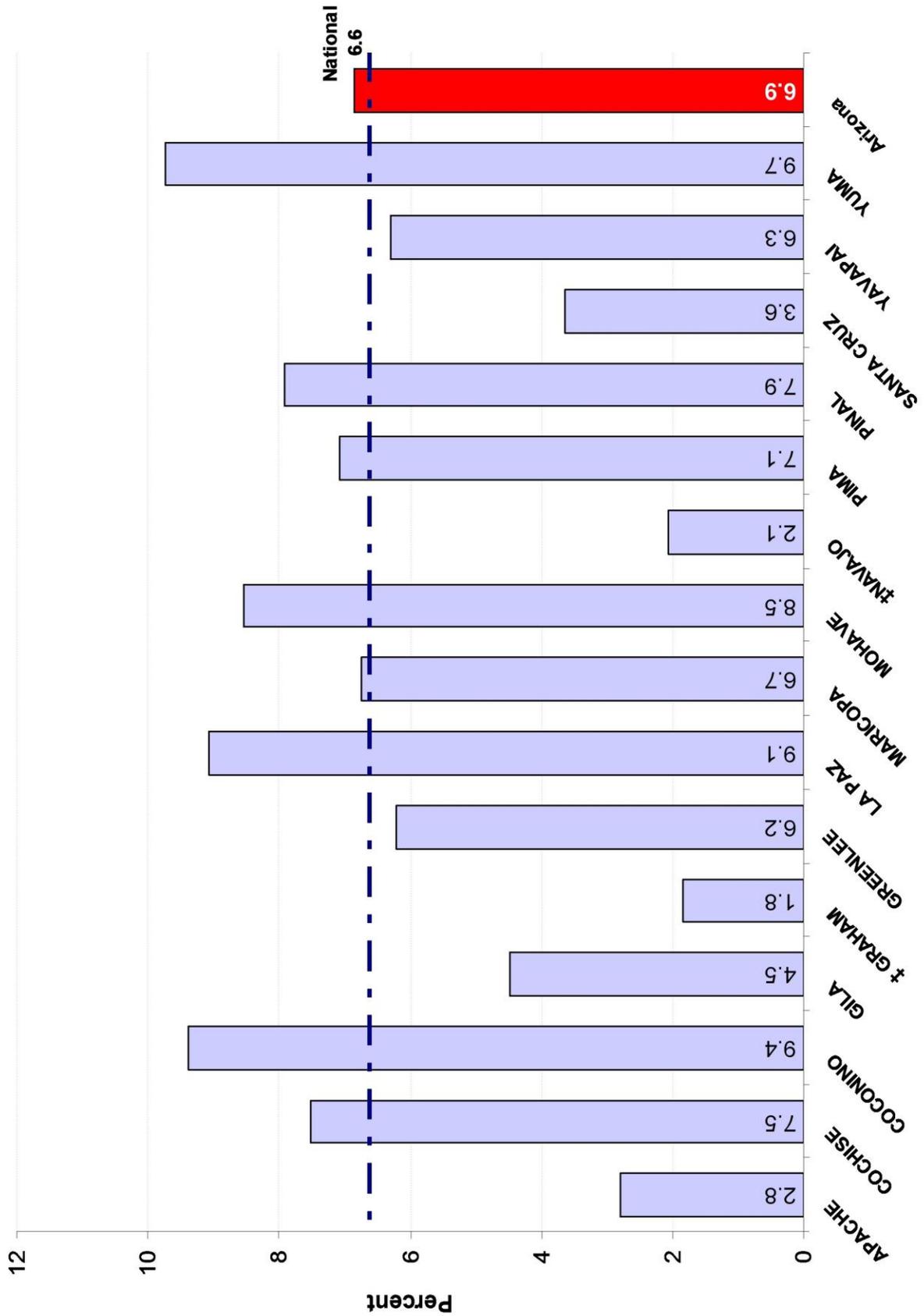
According to the 2011 BRFSS, Arizonans have more individuals reporting that they engage in heavy drinking when compared to the nation as a whole (**Figure 20**). **Table 20** below indicates that 6.9% of respondents reported being heavy drinkers. Some key highlights of the table include:

- Women are less likely to engage in heavy drinking, at 5.8%.
- Students, homemakers and those unable to work were least likely to engage in heavy drinking, at 3.3%, 3.4% and 3.6% respectively.
- The household income level \$50,000-\$74,999 had the lowest percentage individuals reporting that they were heavy drinkers, at 5.3%.

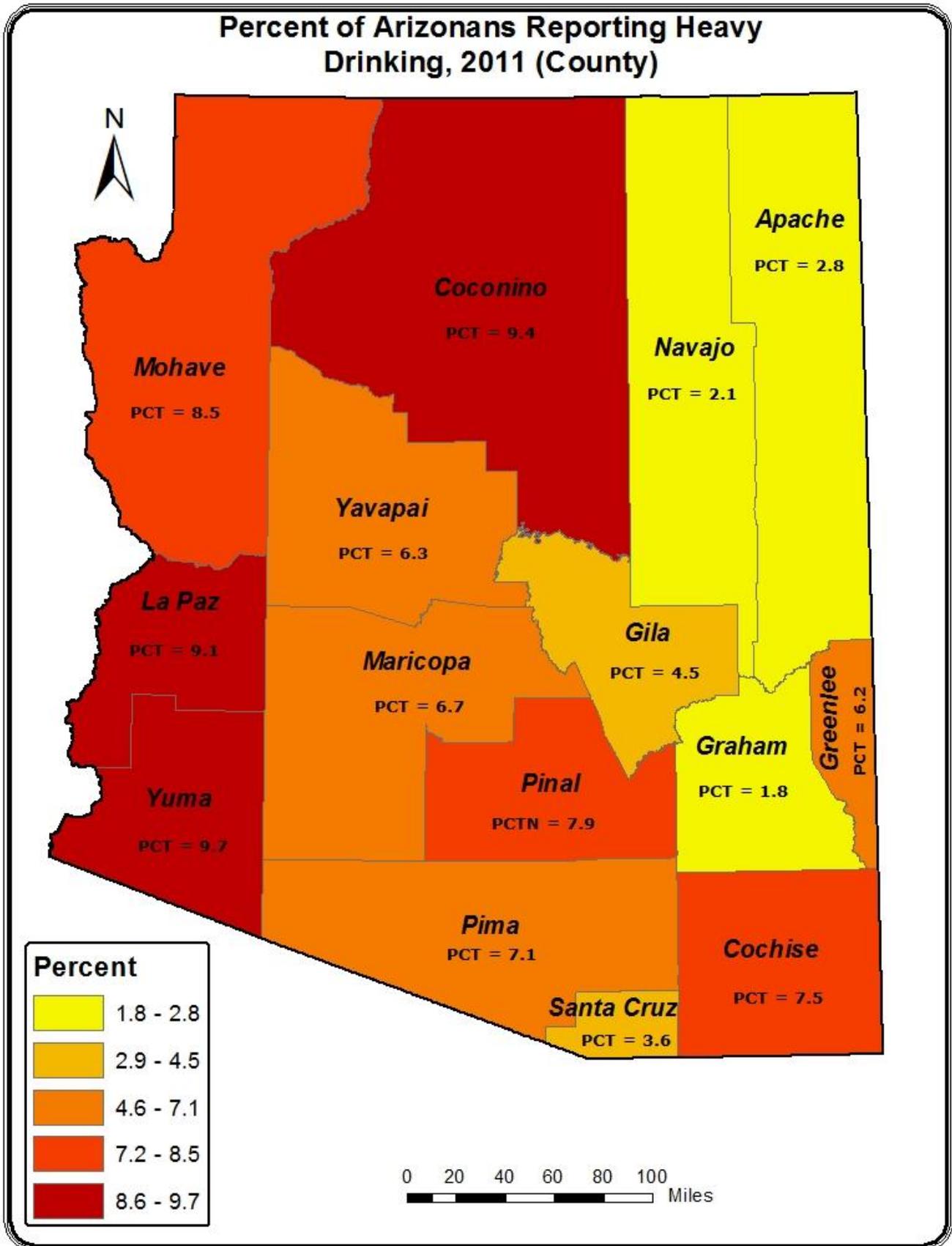
Arizona 2011 BRFSS: Respondents Who Are Reported As Heavy Drinkers							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	6.9	378	306827	EMPLOYMENT			
SEX				Employed for wages	9.3	148	183085
Male	7.9	170	175497	Self employed	5.1	34	18205
Female	5.8	208	131330	Out of work	7.5	29	33814
AGE				Homemaker	3.4	21	13882
18-24	5.6	19	30899	Student	3.3	5	7400
25-34	10.0	39	85499	Retired	5.1	120	41094
35-44	5.3	39	41964	Unable to Work	3.6	20	9294
45-54	9.3	69	72191	INCOME			
55-64	5.3	82	35468	<\$25,000	5.7	87	74149
65+	4.9	130	40805	\$25,000-\$34,999	6.1	40	30547
MARITAL STATUS				\$35,000-\$49,999	11.2	64	64081
Married	6.3	200	142912	\$50,000-\$74,999	5.3	46	30161
Divorced	7.1	55	36172	\$75,000+	7.9	90	75982
Widowed	6.9	54	21233	RACE			
Separated	6.2	7	5324	White Non-Hispanic	7.5	312	203679
Never Married	7.6	48	77447	Black	5.7	4	8580
Unmarried Couple	8.6	11	23021	Asian/PI	1.2	2	1161
EDUCATION				American Indian	7.2	8	11660
Less than High School	5.3	28	37095	Other	10.8	8	9455
High School Graduate/GED	5.5	93	63446	Hispanic	5.8	40	70939
Some College/Tech School	8.0	126	122524				
College Grad	7.7	130	83096				

Table 20. N* is unweighted. The variable `_RFDRHV4` was used to generate all the tables and charts.

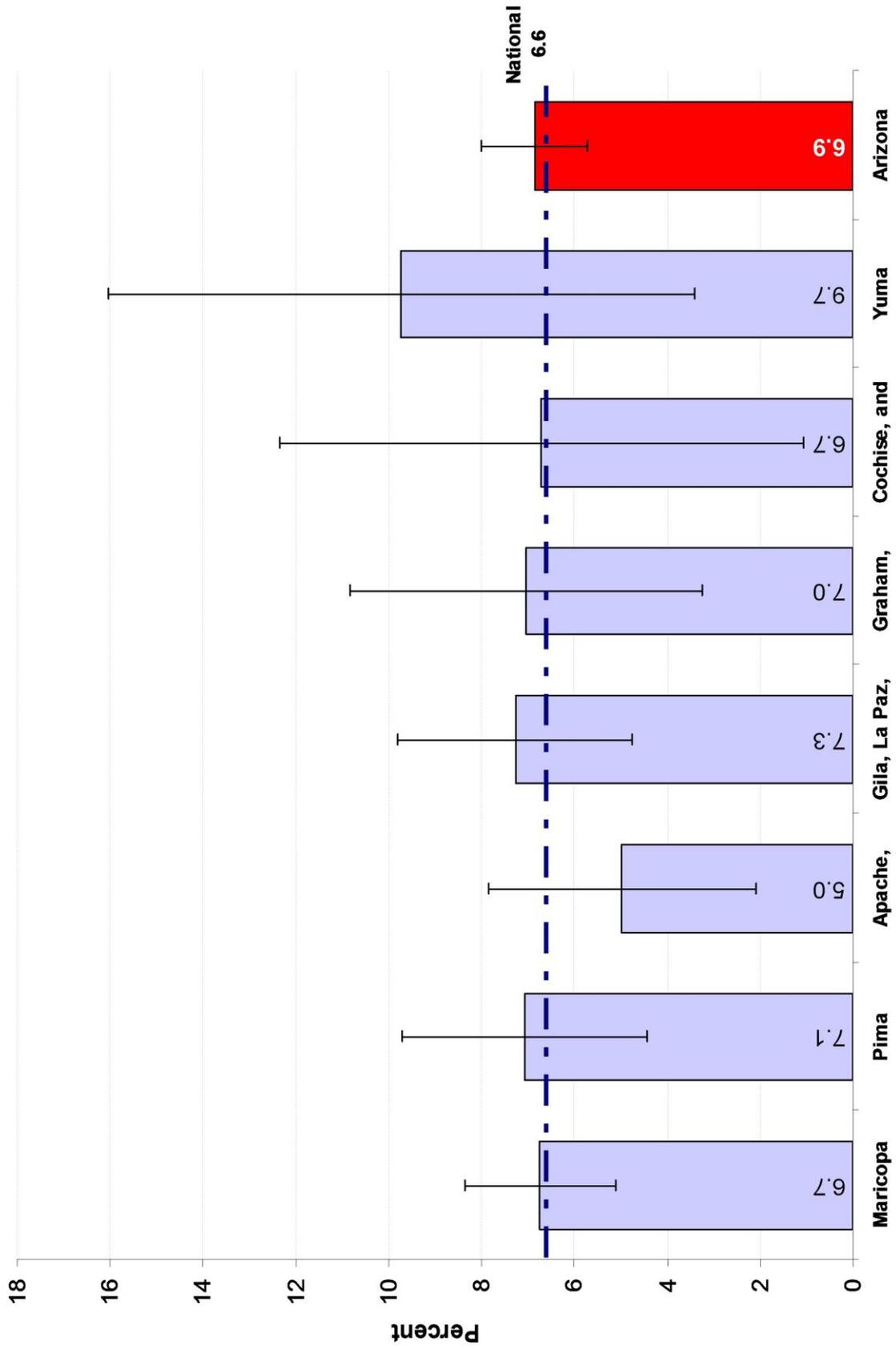
Percent of Arizonans Reporting Heavy Drinking, 2011 (County)



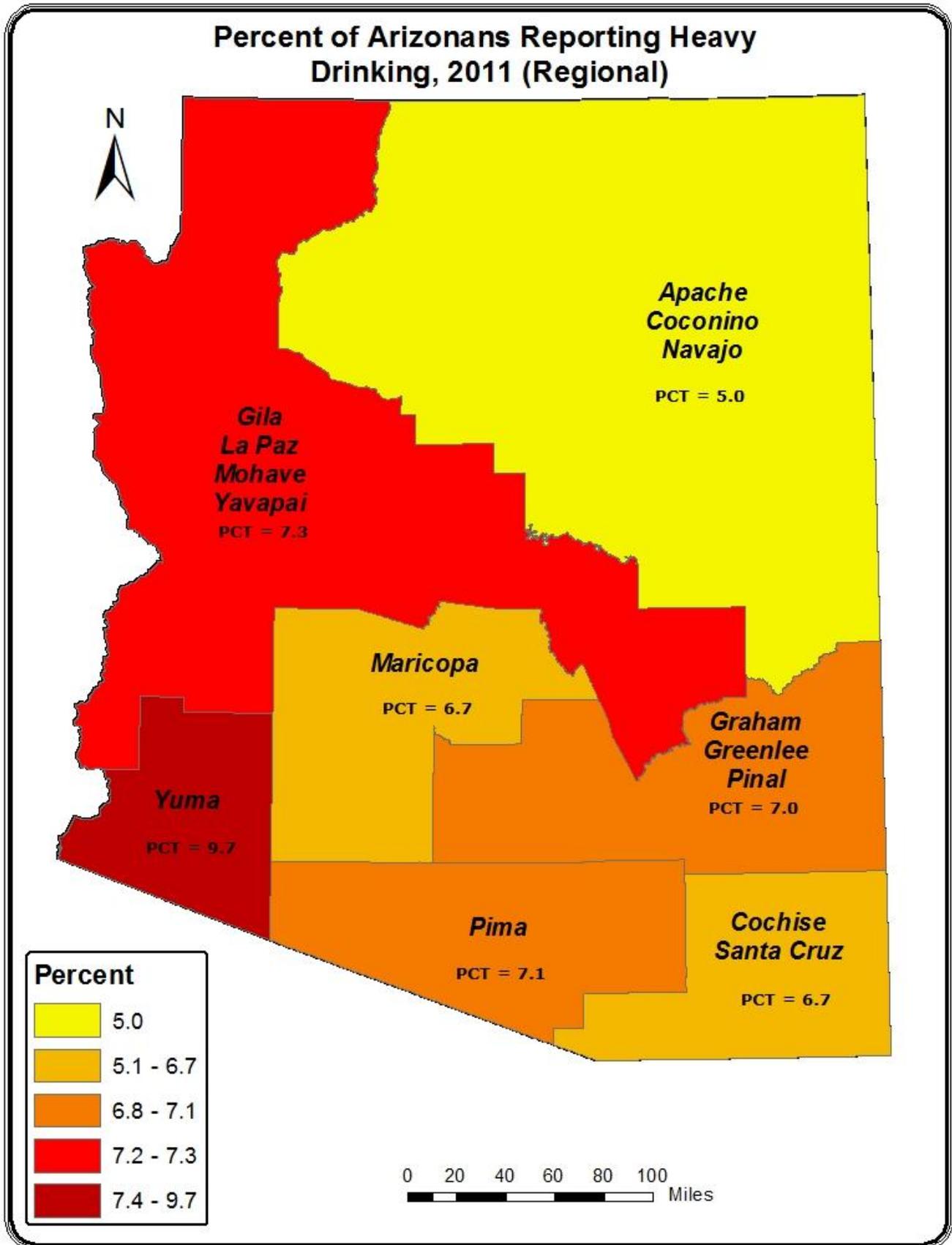
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Percent of Arizonans Reporting Heavy Drinking, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Seat Belt Use

“Motor vehicle crashes are the leading cause of death among those ages 5-34 in the U.S. More than 2.3 million adult drivers and passengers were treated in emergency departments as the result of being injured in motor vehicle crashes in 2009.”⁴⁹ The economic impact is also notable: the lifetime costs of crash-related deaths and injuries among drivers and passengers were \$70 billion in 2005.⁵⁰

According to the National Highway Traffic Safety Administration, as seat belt usage increased the percent of unrestrained passenger fatalities has decreased (See figure 21A below). It is important to note that teenagers and young adults (16-24) are the least likely to wear seat belts (in 2008 the estimate was only 80% wore seat belts). Additionally, 56% of crash fatalities involving young adults were due to an unbuckled seat belt.⁵¹

By collecting data on seat belt use, the BRFSS is providing Arizona with a tool to measure the effects of programs and interventions on public health risks. Addressing public health risk is a part of promoting and protecting public health and safety as outlined in C2 of the ADHS Strategic Map. (See page 6)

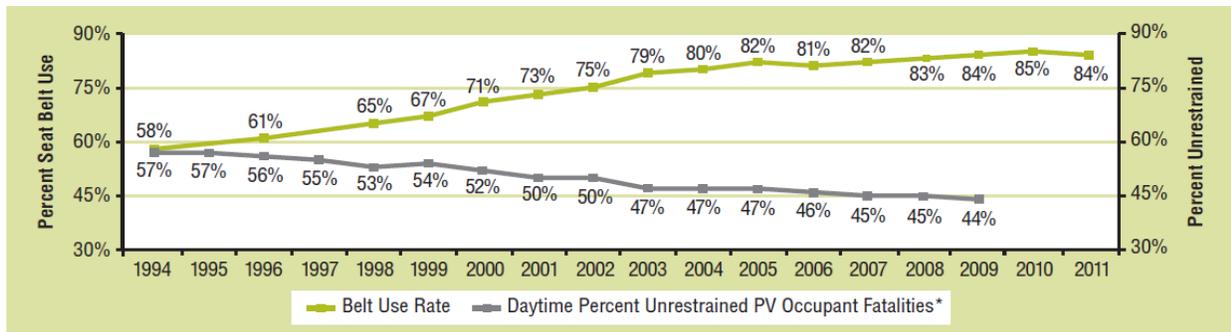


Figure 21A. Seat Belt Use Rate and Daytime Percent of Unrestrained Passenger Vehicle Occupant Fatalities⁴⁷

Survey Questions: How often do you use seat belts when you drive or ride in a car?

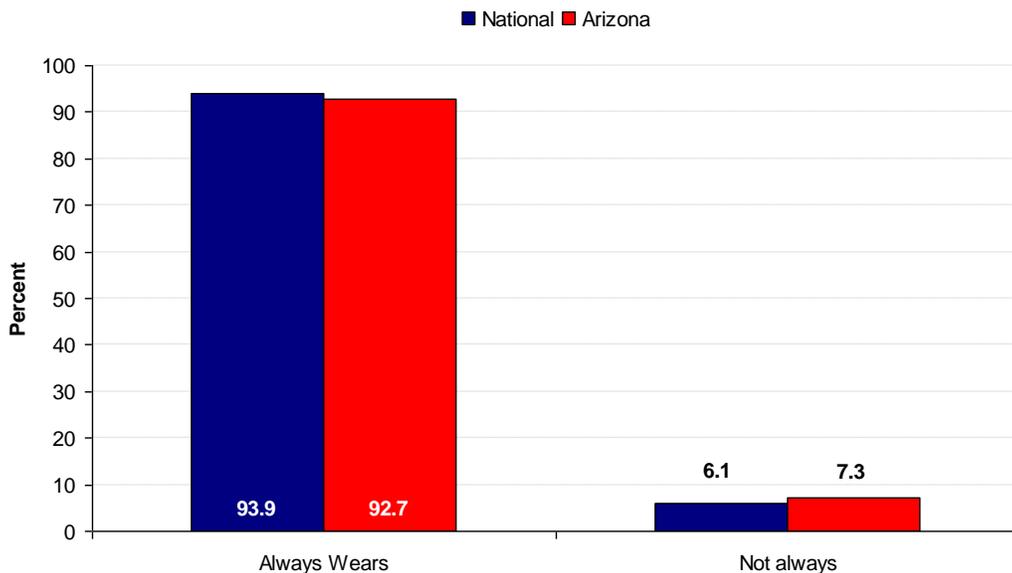


Figure 21B. Arizona and National 2011 BRFSS respondents reporting seat belt use for 2011.

Seat Belt Use

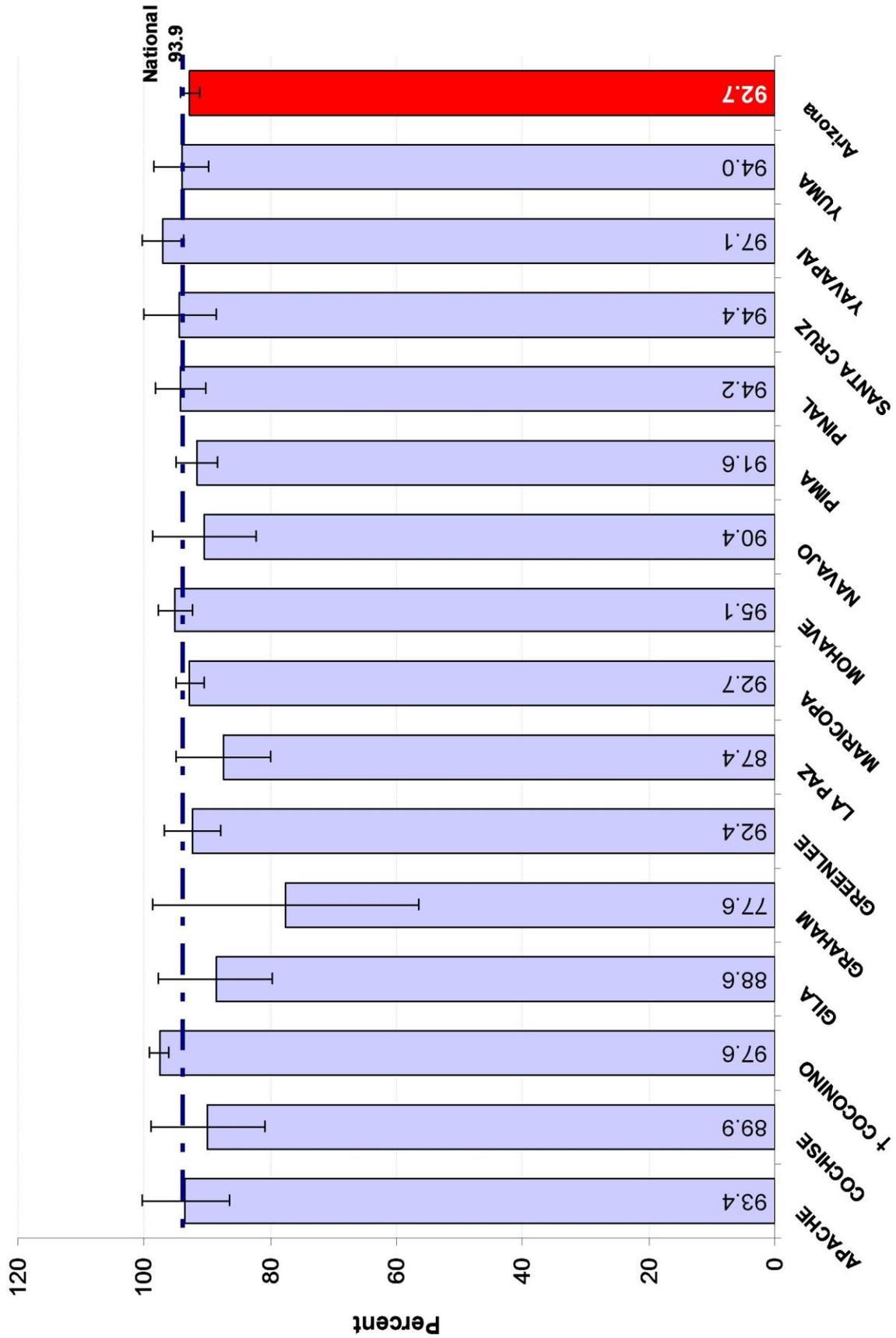
According to the 2011 BRFSS, Arizona has fewer individuals reporting that they always wear a seat belt when compared to the nation as a whole (**Figure 21**). **Table 21** below indicates that 92.7% of all respondents reported they always wear seat belts. Some of the highlights of this table include:

- The age group 65+ was most likely to wear a seat belt, at 95.0%.
- The marital status categories “Separated” and “Married” reported the highest percentages of people who always wear a seat belt, at 99.5% and 95.7% respectively.
- As education increased so did the likelihood of always wearing a seatbelt.
- The household income level \$75,000 and above had the highest percentage who always wear a seat belt, at 96.8%.
- By race/ethnicity, Blacks were the reporting group with the highest percentage always wearing a seat belt, at 96.7%.

Arizona 2011 BRFSS: Respondents Who Always Wear Seatbelts							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	92.7	5750	4197869	EMPLOYMENT			
SEX				Employed for wages	91.7	1799	1820399
Male	90.5	2203	2023986	Self employed	91.2	404	326118
Female	94.8	3547	2173883	Out of work	92.0	383	425499
AGE				Homemaker	93.3	530	389228
18-24	88.9	214	504727	Student	97.1	121	222175
25-34	90.4	452	777570	Retired	94.6	2108	761789
35-44	92.4	606	744952	Unable to Work	93.5	387	238522
45-54	94.5	912	747253	INCOME			
55-64	94.4	1283	636223	<\$25,000	88.2	1643	1160269
65+	95.0	2283	787145	\$25,000-\$34,999	90.0	601	454581
MARITAL STATUS				\$35,000-\$49,999	96.4	792	554569
Married	95.7	3163	2195804	\$50,000-\$74,999	92.5	791	522541
Divorced	92.5	838	471201	\$75,000+	96.8	1119	942860
Widowed	92.6	879	293460	RACE			
Separated	99.5	99	87744	White Non-Hispanic	93.9	4205	2572010
Never Married	86.2	594	887719	Black	96.7	94	145679
Unmarried Couple	91.7	156	250445	Asian/PI	90.4	71	86732
EDUCATION				American Indian	91.8	237	151860
Less than High School	88.9	489	626223	Other	93.8	115	82436
High School Graduate/GED	92.3	1541	1085393	Hispanic	90.0	948	1110537
Some College/Tech School	92.5	1736	1429817				
College Grad	95.8	1973	1045441				

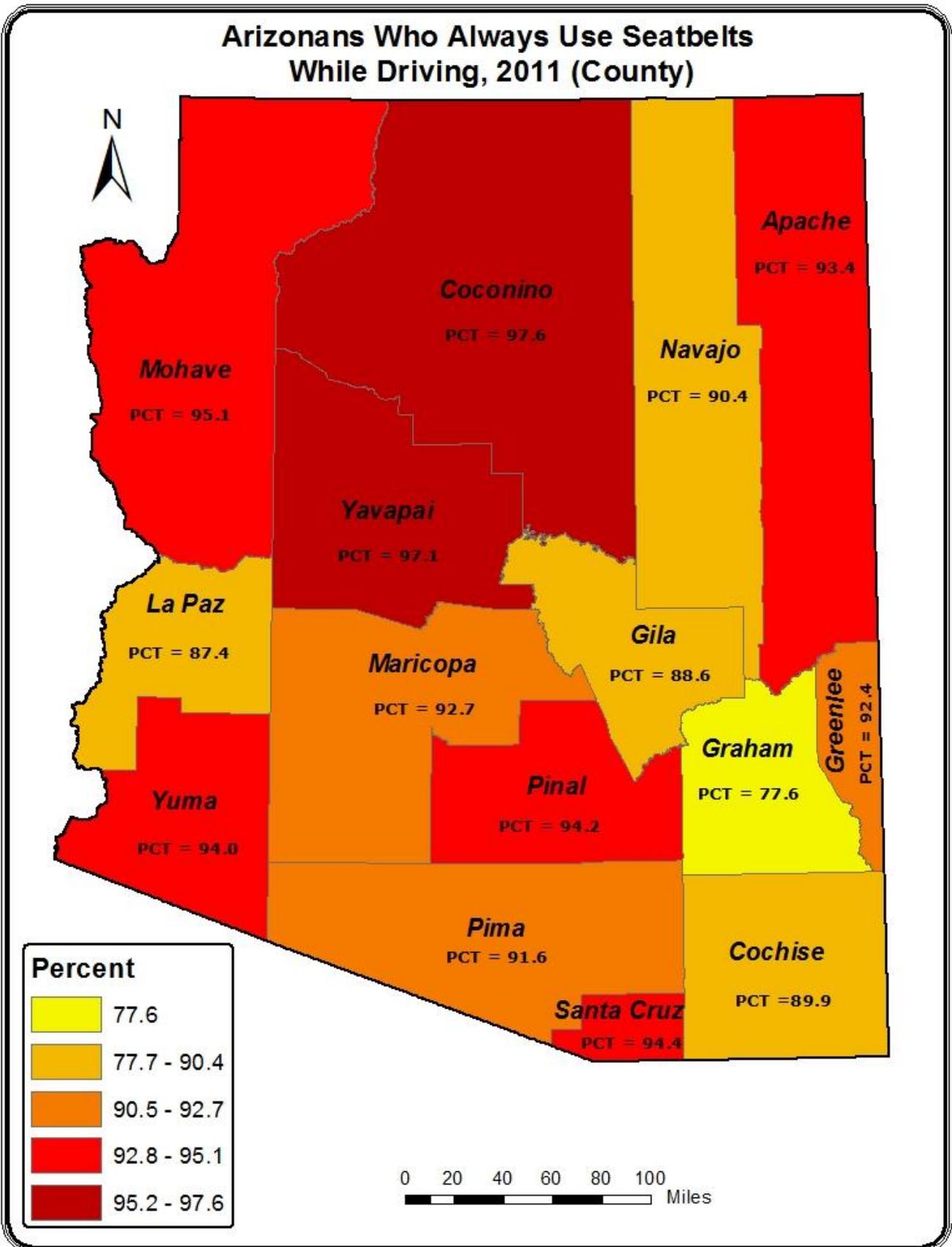
Table 21. N* is unweighted. The variable SEATBELT was used to generate all tables and charts.

Arizonans Who Always Use Seatbelts While Driving, 2011 (County)

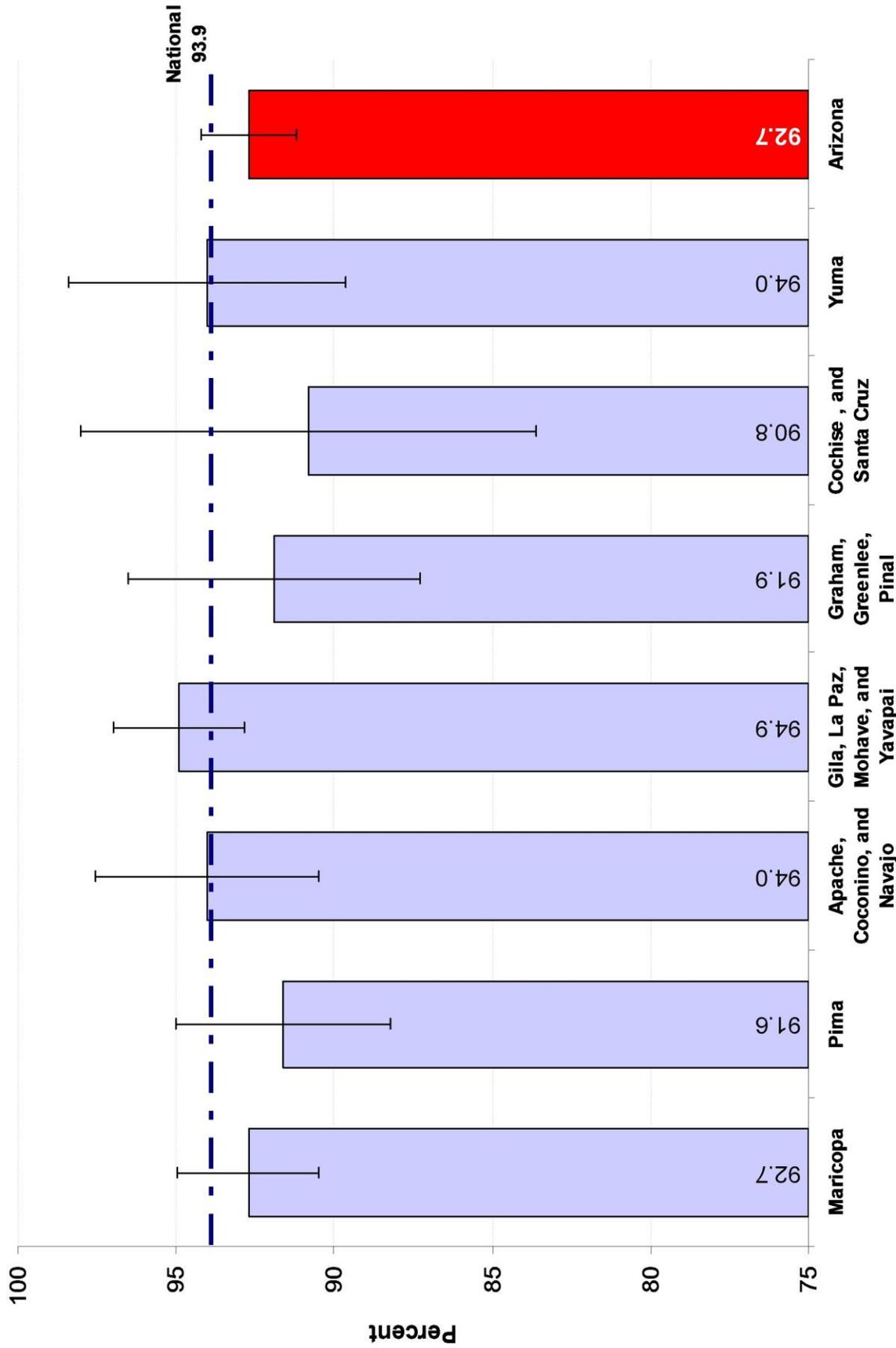


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who reported always wearing a seatbelt when compared to the state level

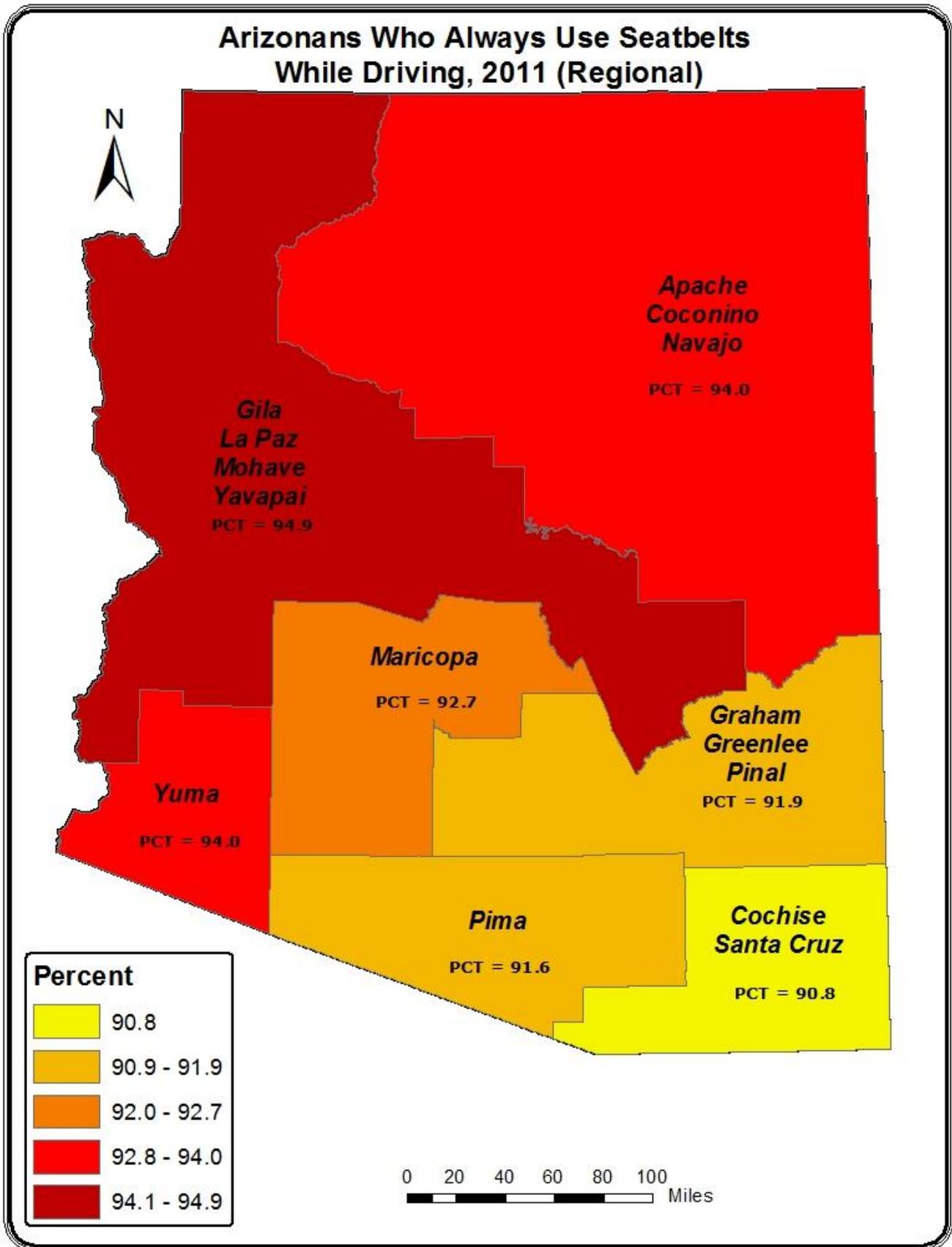
Arizonans Who Always Use Seatbelts While Driving, 2011 (County)



Arizonans Who Always Use Seatbelts While Driving, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



HEALTHCARE COVERAGE
AND
UTILIZATION

Health Care Coverage

Health insurance coverage is an important determinant of access to health care. Uninsured children and adults under 65 years of age are substantially less likely to have a usual source of health care or a recent health care visit than their insured counterparts. Uninsured people are more likely to forego needed health care due to cost concerns.⁵²

The recent analysis of the Commonwealth Fund 2010 Biennial Health Insurance Survey indicates that having health insurance can drastically reduce health and healthcare disparities. Their analysis confirms that insurance coverage is a critical component in improving the quality of care in low-income populations.⁵³

Health insurance is an important contributor in assessing the quality of healthcare. Therefore, by collecting data on insurance coverage rates, the BRFSS provides Arizona with a tool to assess if the interventions and programs targeting quality of care are making an impact. Quality of care is a part of promoting and protecting public health and safety as outlined in C2 of the ADHS Strategic Map. (See page 6)

2011 Hospital Stays by Payee (HCUP)				
	Number of Discharges	Average Length of Stay	Average Cost	Aggregate Cost
Medicare	281,925	4.7	47,345	13,351,500,792
Medicaid	197,759	3.7	28,298	5,599,322,595
Private insurance	211,379	3.7	34,623	7,322,047,892
Uninsured	35,175	3.6	35,278	1,240,724,938
Other	32,727	3.8	36,141	1,182,908,822
Missing	11	2.5	28,715	315,860

Survey Question: Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

Percent of Respondents who are Uninsured

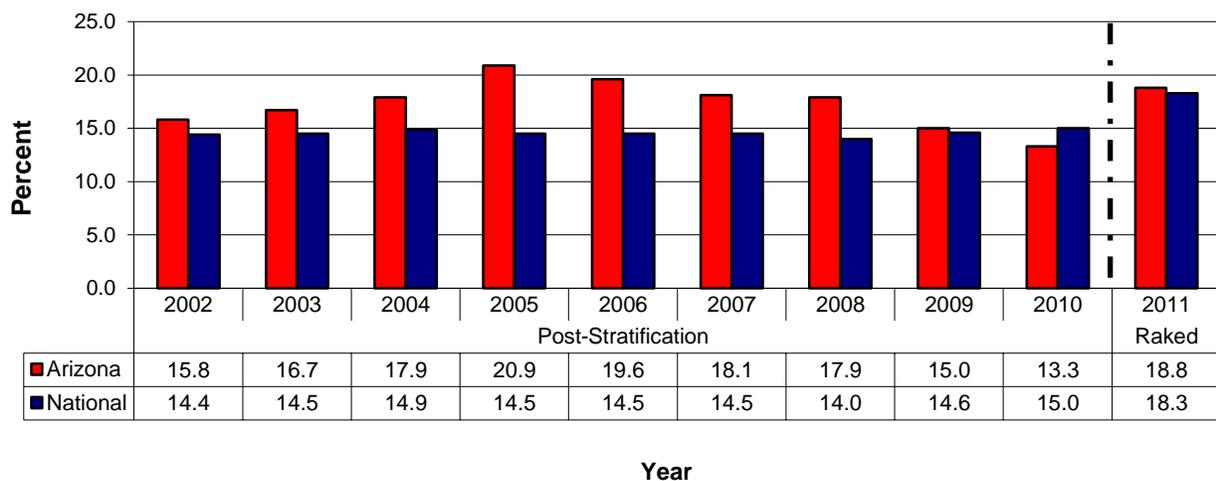


Figure 22. Percentage of BRFSS respondents who reported they were uninsured in 2002-2011. The vertical-dashed line indicates that you cannot compare data beyond this point due to the change in weighting procedure. The *Healthy People 2020* objective (AHS-2) set a goal of reducing the percentage of uninsured persons to 16.1%.¹⁰

Health Care Coverage

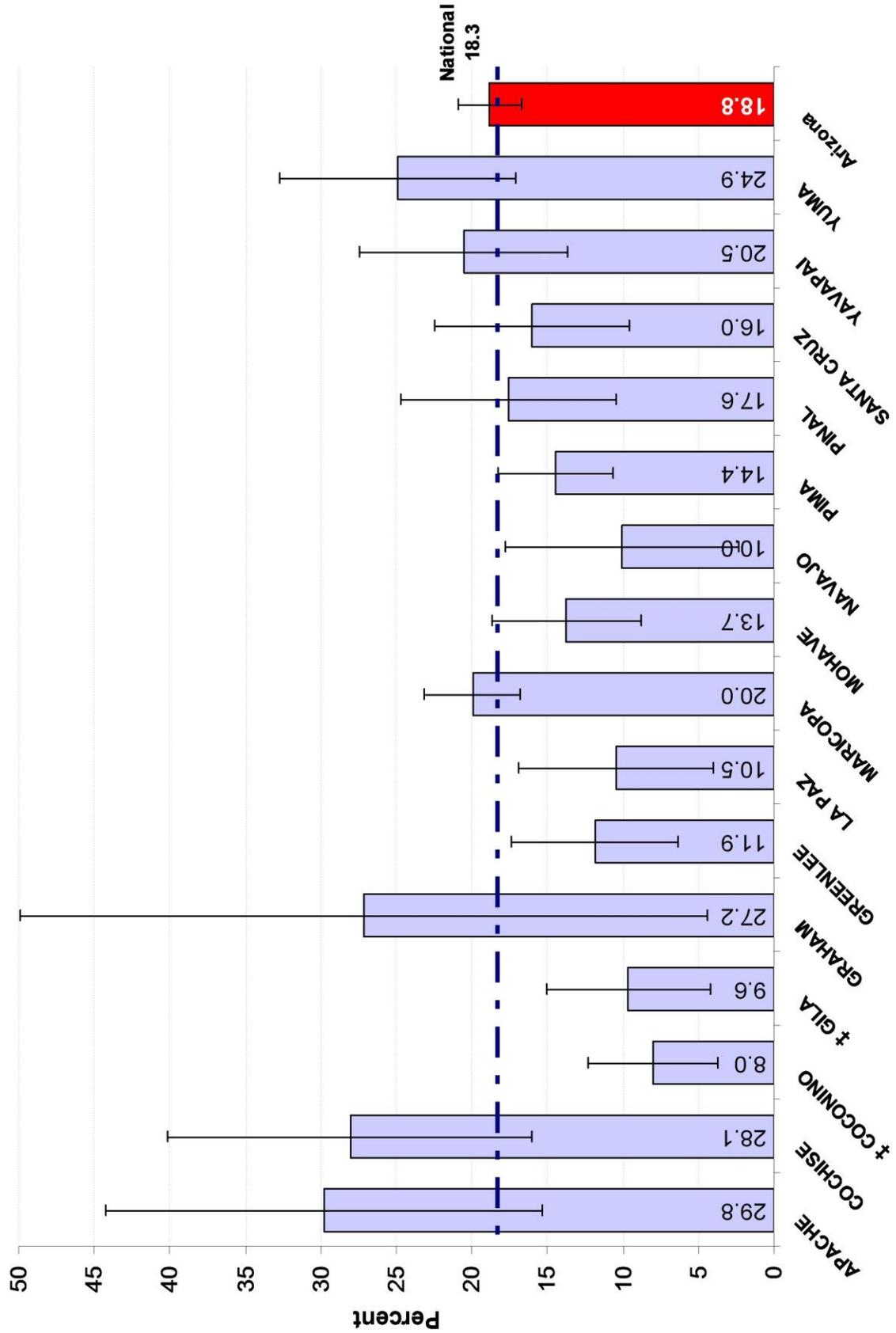
According to the 2011 BRFSS, Arizonans are more likely to be insured when compared to the nation as a whole (**Figure 22**). **Table 22** below indicates that 18.8% of respondents reported that they did not have health insurance. Some of the highlights of this table include:

- When looking at marital status subgroups, widows were least likely to be uninsured, at 10.3%.
- As education increased so did the likelihood of being insured.
- Adults who reported their employment status as “Unable to work” were least likely to be uninsured, at 4.1%.
- Hispanics are approximately 2.6 times less likely to be insured when compared to white non-Hispanic category. Furthermore, these two subgroups had the largest unweighted (N*), 280 and 368 respectively.

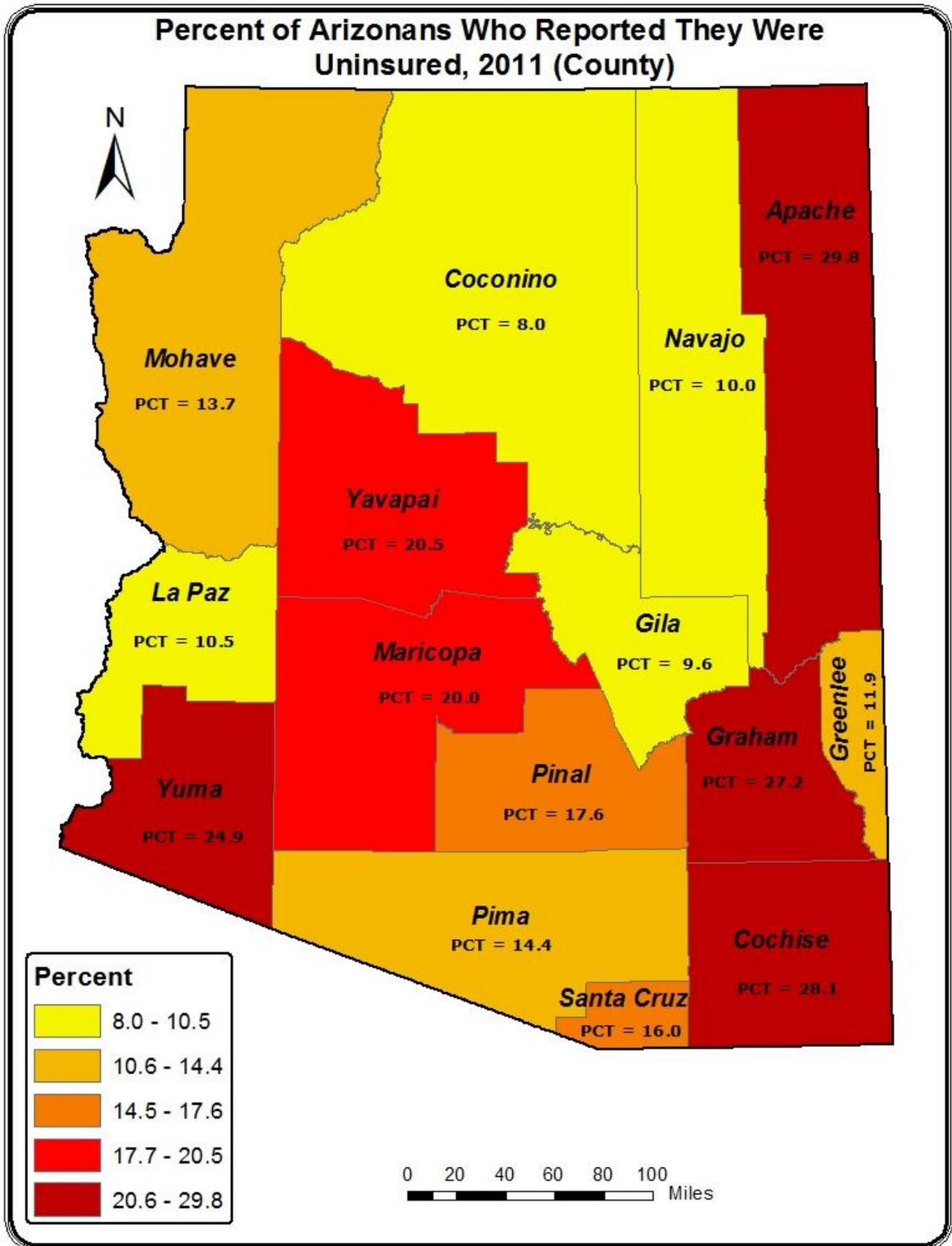
Arizona 2011 BRFSS: Uninsured Respondents							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	18.8	736	894406	EMPLOYMENT			
SEX				Employed for wages	18.0	237	377455
Male	22.5	314	528567	Self employed	27.6	104	101267
Female	15.2	422	365839	Out of work	45.6	157	217034
AGE				Homemaker	22.7	100	100591
18-24	27.8	66	160660	Student	19.9	25	46328
25-34	23.8	93	217294	Retired	4.6	79	38436
35-44	23.1	131	198195	Unable to Work	4.1	33	11318
45-54	21.1	194	174909	INCOME			
55-64	16.7	200	117978	<\$25,000	32.3	384	451368
65+	2.9	52	25370	\$25,000-\$34,999	25.5	102	138726
MARITAL STATUS				\$35,000-\$49,999	13.9	63	82508
Married	13.9	339	334703	\$50,000-\$74,999	5.0	33	29364
Divorced	20.5	137	109941	\$75,000+	4.7	34	47442
Widowed	10.3	49	34377	RACE			
Separated	17.5	20	15976	White Non-Hispanic	12.6	368	361081
Never Married	29.1	155	312232	Black	23.1	18	38268
Unmarried Couple	27.5	33	79098	Asian/PI	15.9	12	17719
EDUCATION				American Indian	16.7	31	28610
Less than High School	35.1	154	263230	Other	17.6	12	16741
High School Graduate/GED	22.4	250	273831	Hispanic	32.8	280	419101
Some College/Tech School	15.9	199	261261				
College Grad	8.4	130	94532				

Table 22. N* is unweighted. The variable HLTHPLN1 was used to construct the tables and charts.

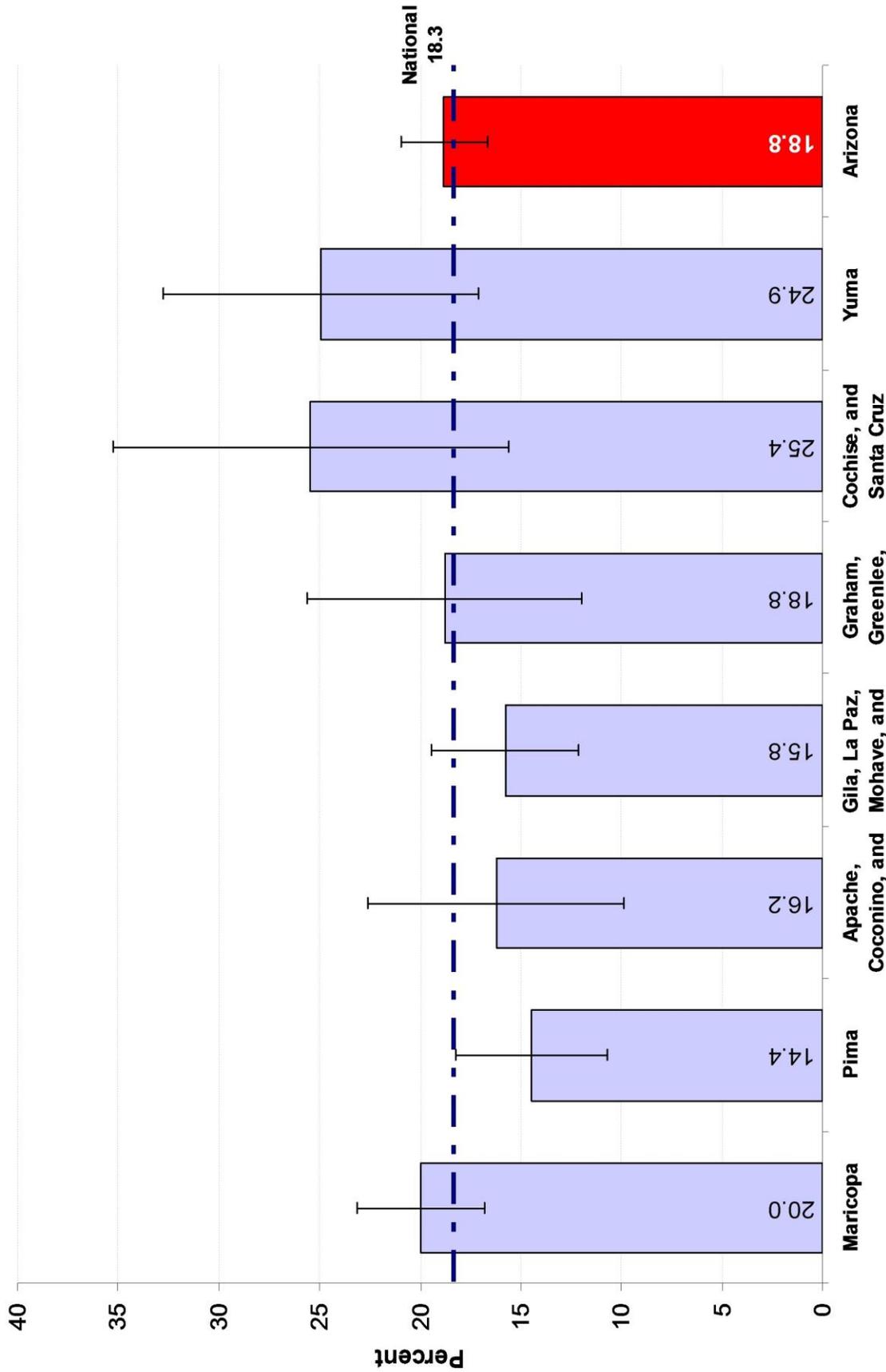
Percent of Arizonans Who Reported They Were Uninsured, 2011 (County)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ‡ indicates that the county has a significantly lower percentage of individuals who reported having some form of insurance when compared to the state level

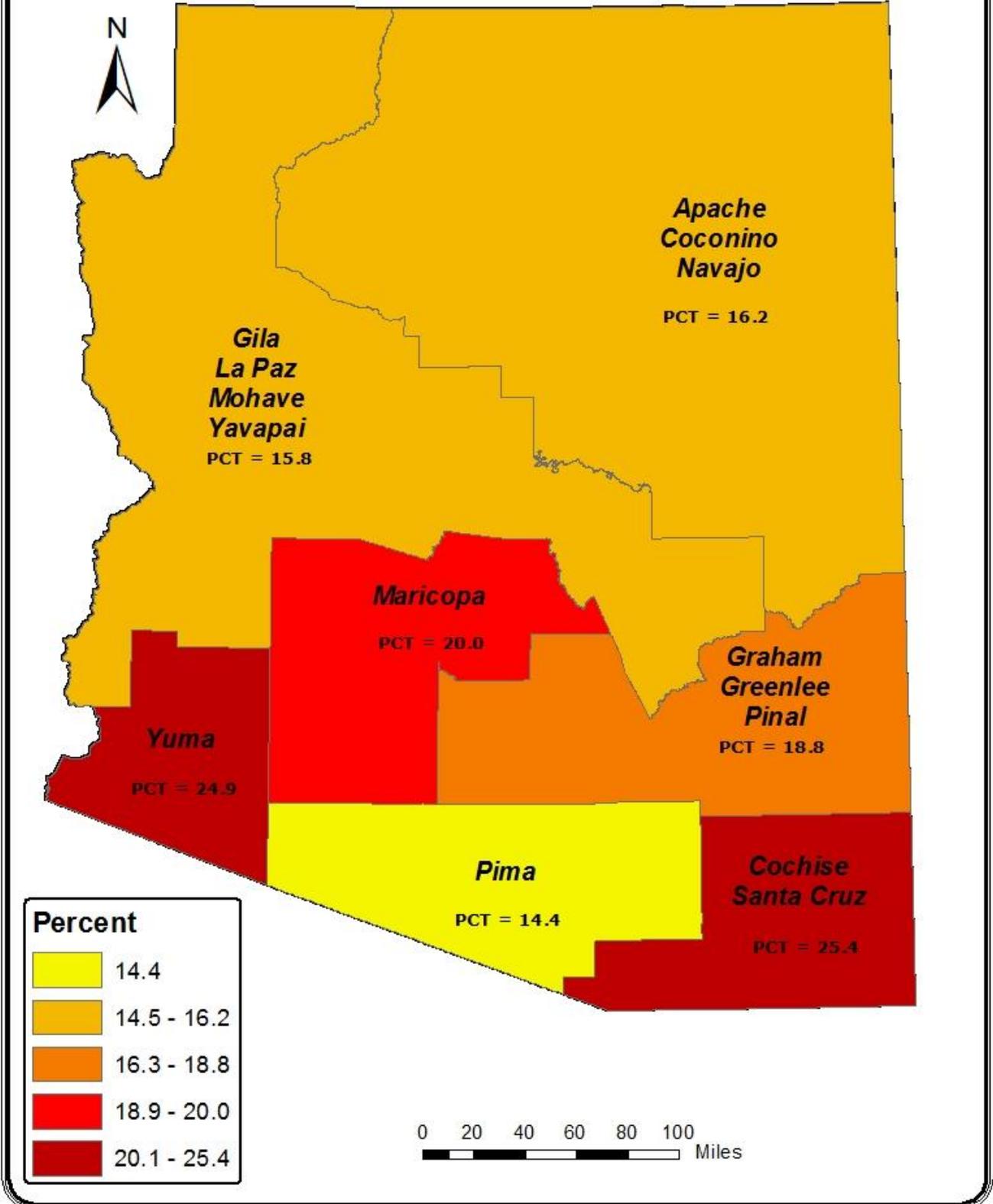


Percent of Arizonans Who Reported They Were Uninsured, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFFS website is provisional and values are subject to change

Percent of Arizonans Who Reported They Were Uninsured, 2011 (Regional)



Usual Source of Healthcare

More than 40 million Americans do not have a doctor's office, clinic, health center or other where they regularly go for health care or health-advice. Even among privately-insured persons, a substantial number lacked a usual source of care or reported difficulty in accessing needed care due to financial constraints or insurance problems.⁵⁴

Strong predictors of access to quality health care having health insurance, a higher income level, regular primary care provider or other source of health care. Use of clinical preventive services early prenatal care can also serve as indicators of to quality health care services.⁵⁵

Survey Question: Do you have one person you think of as your personal health care provider?

Patient satisfaction is an important contributor in assessing the quality of healthcare. Therefore, collecting data on the sources of healthcare provides Arizona with a tool to assess if the interventions and programs targeting quality of care. Quality of care is a part of promoting and protecting public health and safety as outlined in C2 of the ADHS Strategic Map. (See page 6)

specific location related

include and a ongoing such as access

doctor or

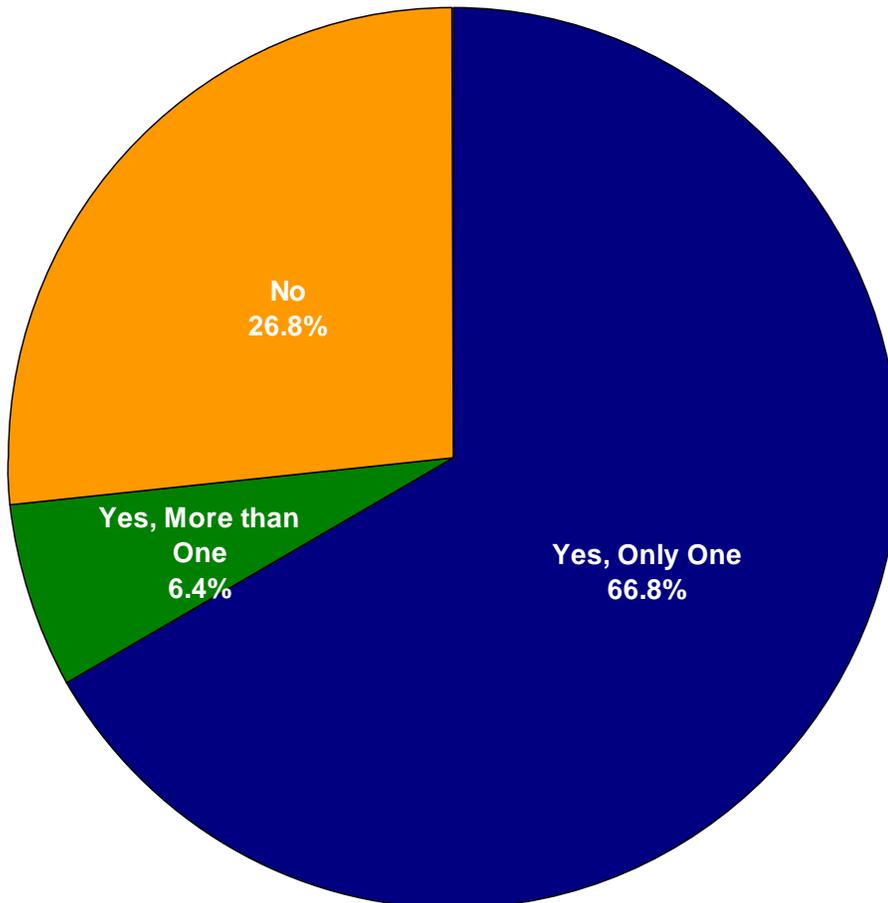


Figure 23. Percentage of Arizona 2011 BRFSS respondents reporting having multiple health care professionals.

Usual Source of Healthcare

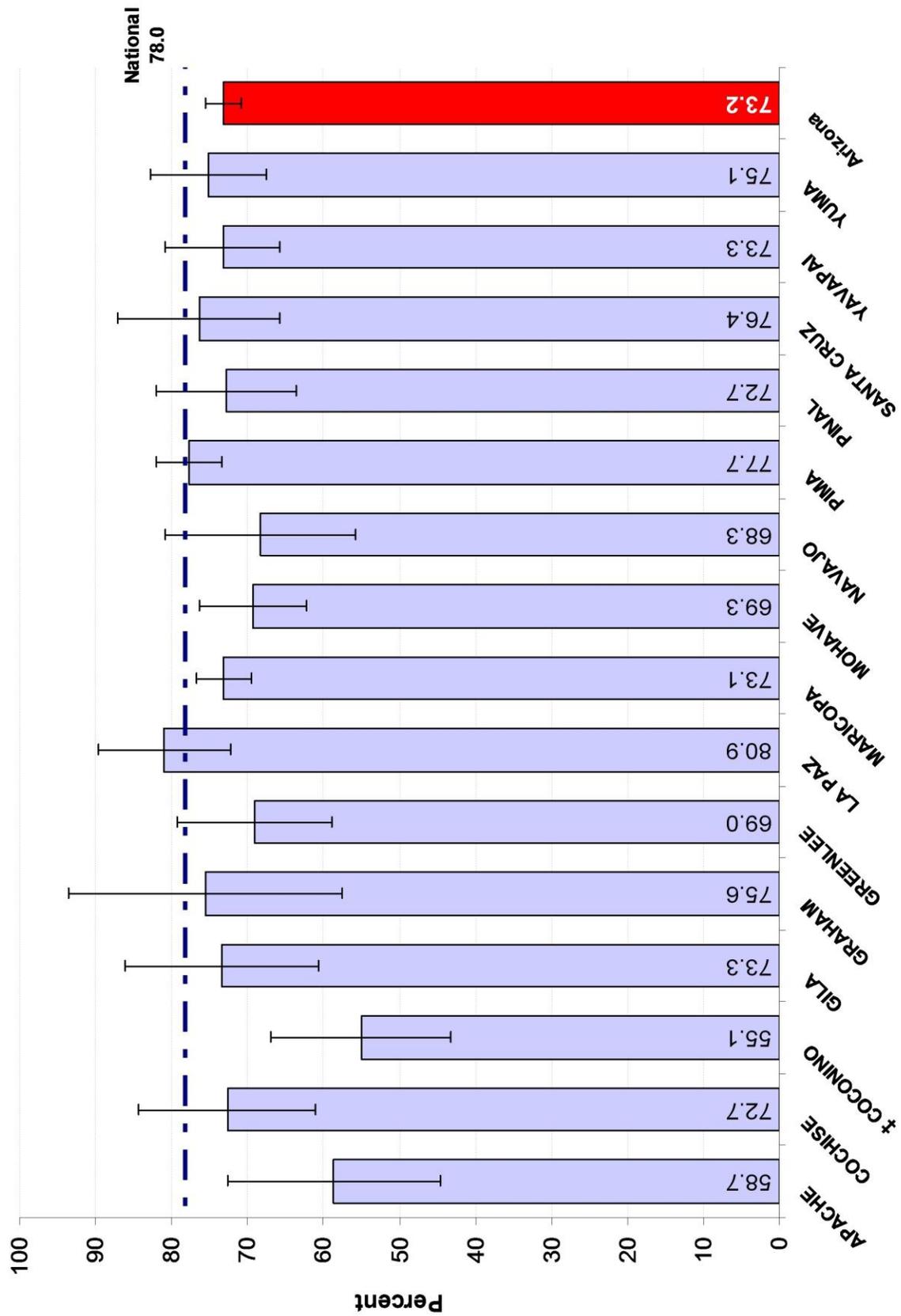
According to the 2011 BRFSS, the majority of Arizonans (66.8%) see only one healthcare professional (Figure 23). Table 23 below indicates that 73.2% of all respondents reported having a usual source of health care. Some of the highlights of this table include:

- Adults 65+ years old reported they were more likely than those who were younger to have a personal health care professional, at 94.2%.
- Adults who reported that they were widowed or married were more likely to have a personal health care professional, at 88% and 80.9% respectively.
- Adults reporting that they were retired were more likely to have a personal health care professional, at 93.5%.
- Individuals with higher household incomes (above \$50,000) were the most likely to have a personal health care professional.

Arizona 2011 BRFSS: Respondents Reporting Having a Personal Healthcare Provider							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	73.2	5374	3509825	EMPLOYMENT			
SEX				Employed for wages	69.6	1558	1469107
Male	67.4	1985	1602060	Self employed	69.0	354	255810
Female	78.9	3389	1907765	Out of work	57.2	293	276737
AGE				Homemaker	73.8	475	329174
18-24	56.9	144	341848	Student	59.3	82	143114
25-34	54.9	316	502351	Retired	93.5	2166	789839
35-44	71.0	530	608351	Unable to Work	82.8	424	228548
45-54	78.8	801	662275	INCOME			
55-64	80.9	1194	568261	<\$25,000	62.8	1489	876743
65+	94.2	2389	826738	\$25,000-\$34,999	68.0	541	372206
MARITAL STATUS				\$35,000-\$49,999	75.1	722	449582
Married	80.9	2963	1959901	\$50,000-\$74,999	84.5	759	504572
Divorced	74.0	790	398995	\$75,000+	82.6	1072	849207
Widowed	88.0	922	294810	RACE			
Separated	69.6	87	63477	White Non-Hispanic	80.2	4037	2312913
Never Married	55.3	460	606878	Black	68.4	90	116096
Unmarried Couple	60.6	127	175424	Asian/PI	73.0	64	83295
EDUCATION				American Indian	57.8	185	96880
Less than High School	55.9	421	418711	Other	85.2	113	82255
High School Graduate/GED	71.8	1429	895307	Hispanic	58.7	797	762374
Some College/Tech School	76.4	1666	1259429				
College Grad	81.3	1844	924147				

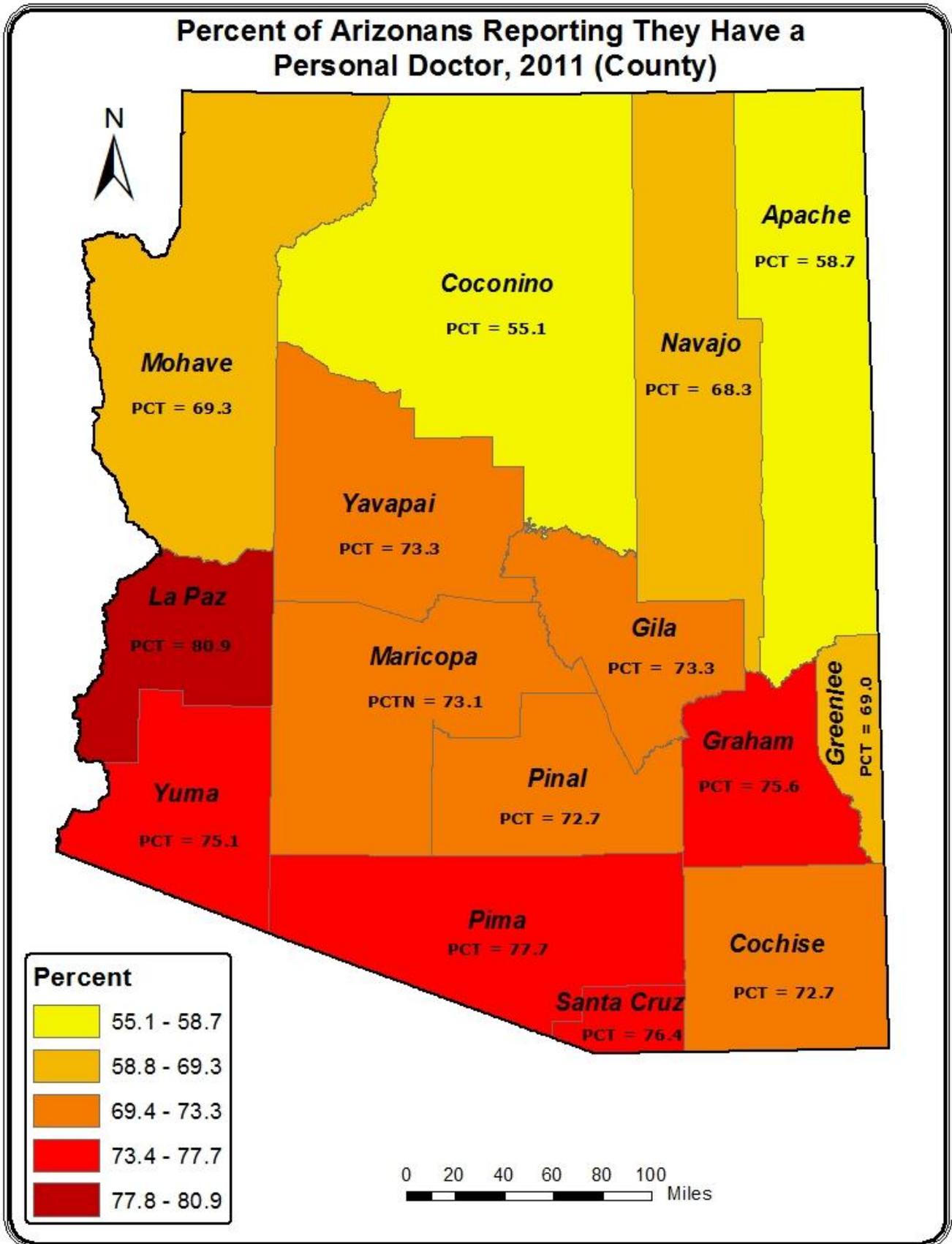
Table 23. N* is unweighted. The variable PERSDOC2 was used to generate the tables and charts.

Percent of Arizonans Reporting They Have a Personal Doctor, 2011 (County)

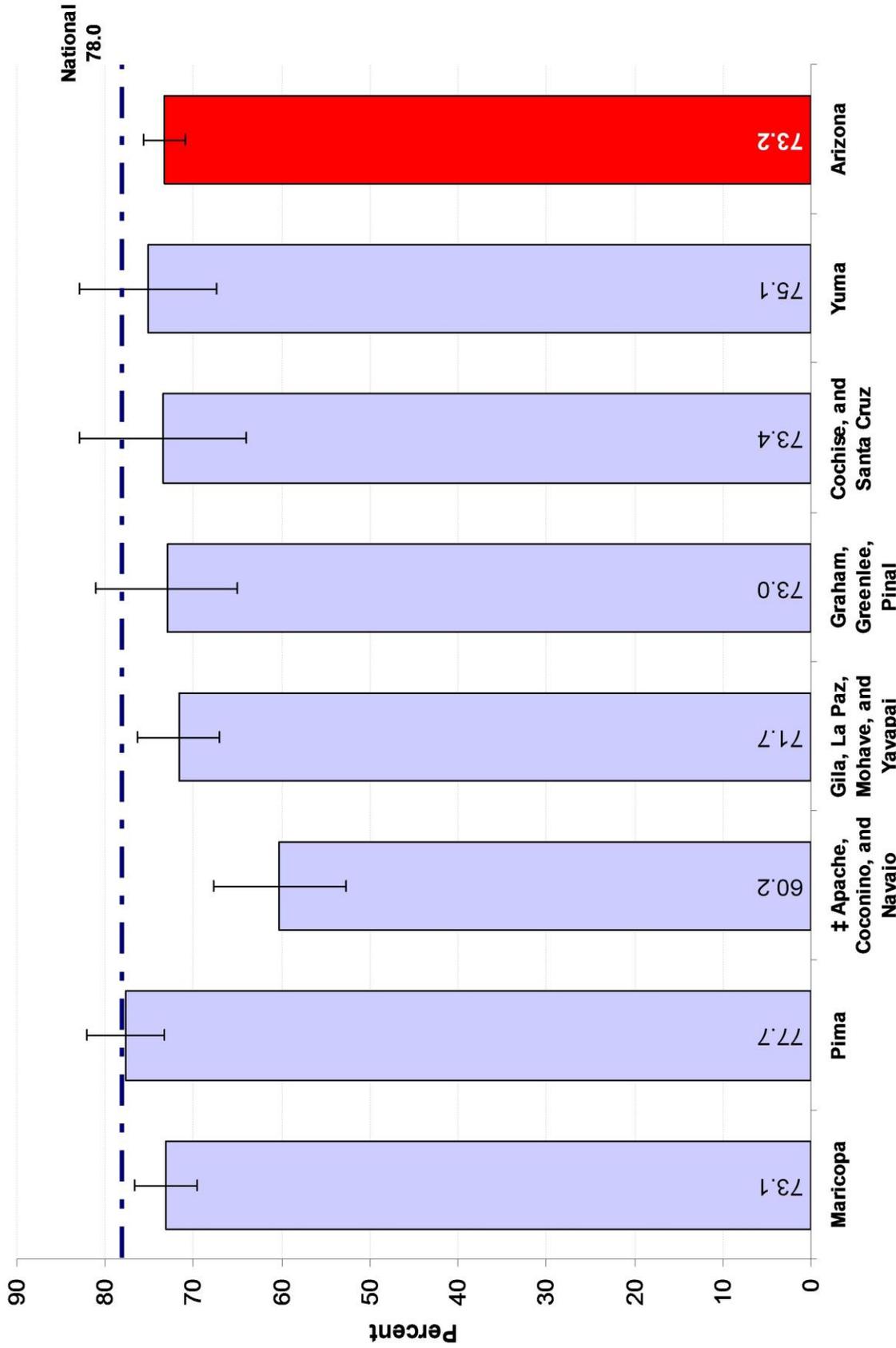


* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change

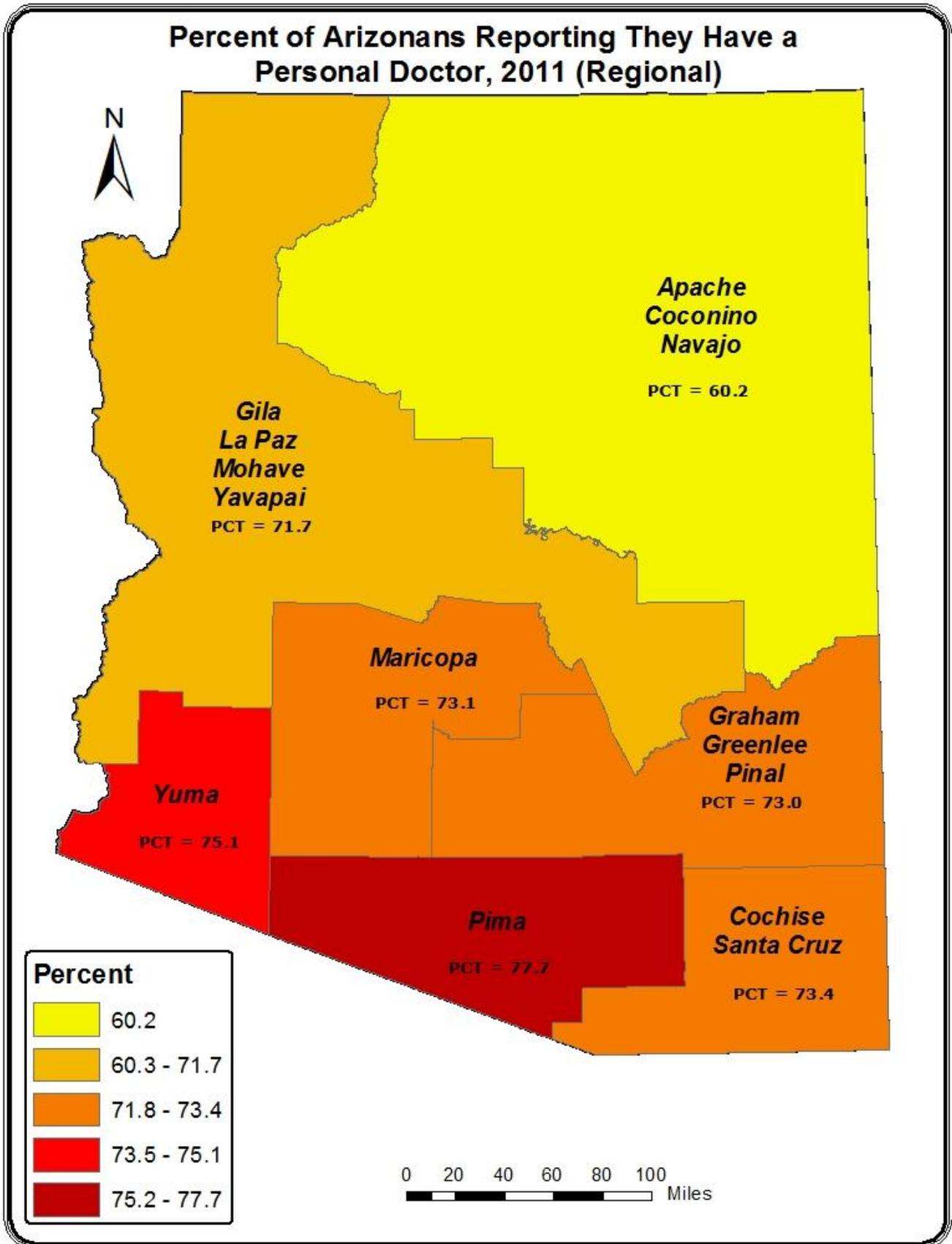
‡ indicates that the county has a significantly lower percentage of individuals who reported having a personal doctor when compared to the state level



Percent of Arizonans Reporting They Have a Personal Doctor, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ‡ indicates that the region has a significantly lower percentage of individuals who reported having a personal doctor when compared to the state level



Time Since Last Checkup

The routine medical checkup includes clinical preventive services usually delivered by primary health care clinicians to persons with no signs and symptoms of illness, as part of a routine health care process. Central to the periodic health examination is the effectiveness of prevention for improving health outcomes. The US Preventive Services Task Force developed recommendations for components of a periodic health examination based upon age, sex, and risk factors.⁵⁶

Figure 24 below contains information on the health care needs of Arizona population, based upon data about the respondents' last visit or talks with a doctor.

Routine checkups ensure that patients receive the best quality of care when they are ill. Therefore, collecting data from respondents on how long it has been since their last routine checkup, can provide Arizona with effective interventions and programs that target the quality of care. Quality of care is a part of promoting and protecting public health and safety as outlined in C2 of the ADHS Strategic Map. (See page 6)

Survey Question: About how long has it been since you last visited a doctor for a routine checkup?

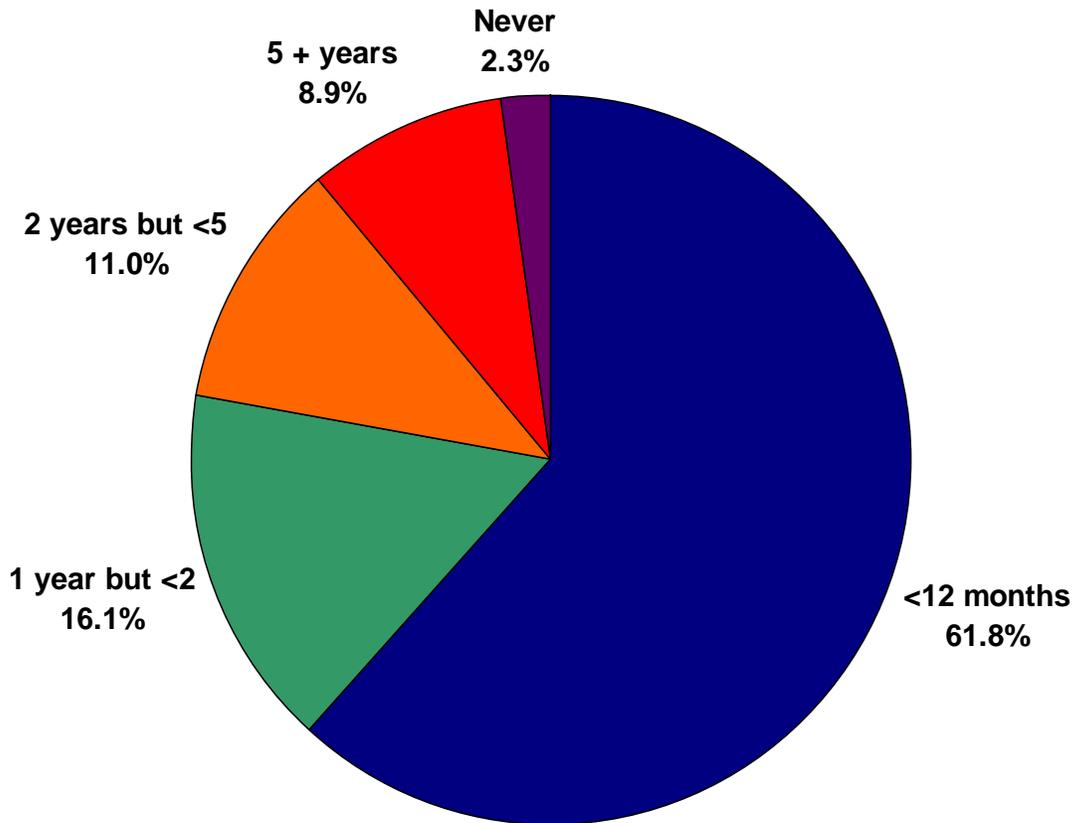


Figure 24. Distribution of 2011 Arizona BRFSS respondents who reported how long it had been since their last routine checkup in 2011.

Time Since Last Checkup

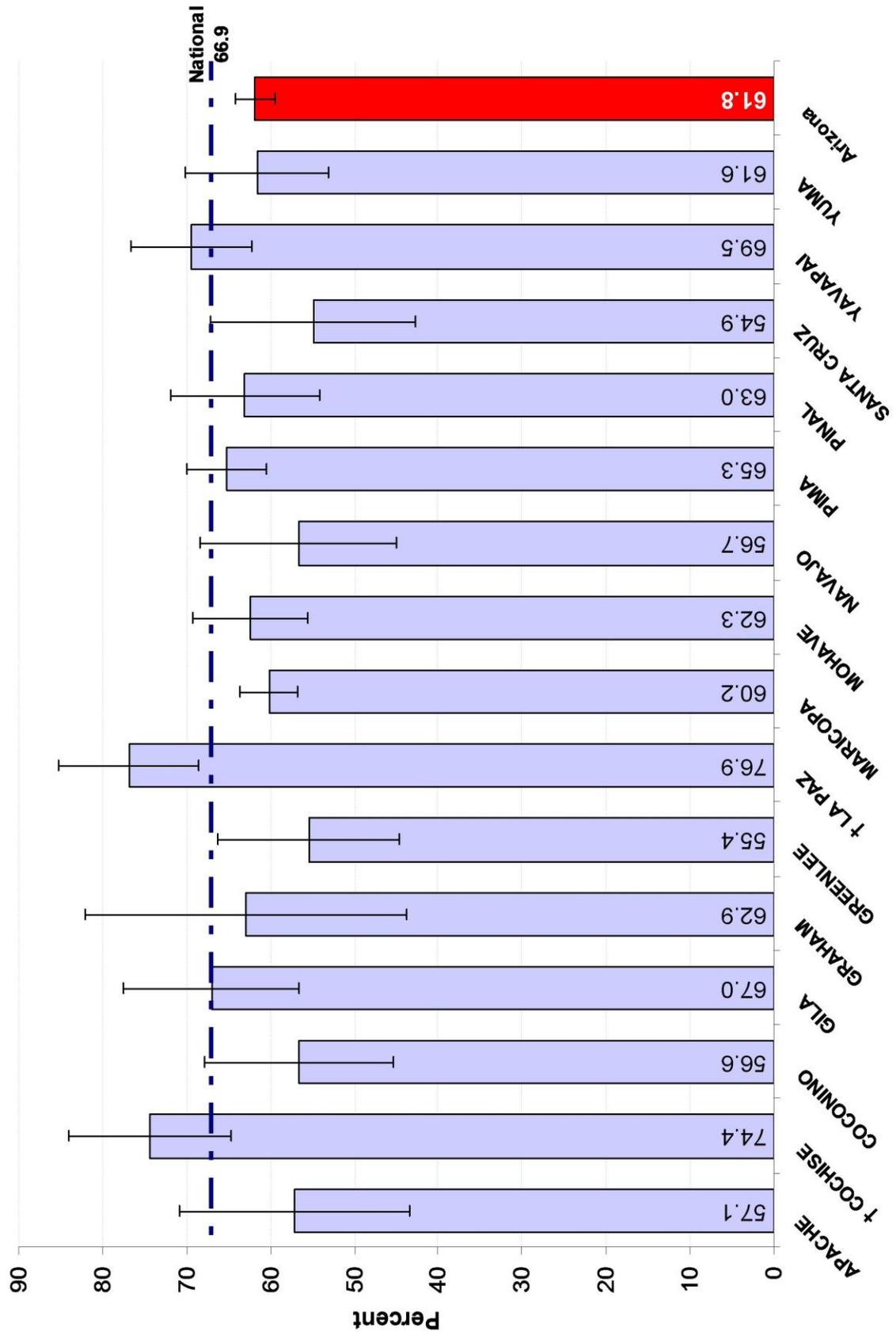
According to the 2011 BRFSS, the majority of Arizonans (61.8%) had had a routine checkup within the last year (**Figure 24 & Table 24**). Some of the highlights of this table include:

- Females were more likely than males to have had a routine checkup, at 66.2% versus 57.4% respectively.
- Adults 65+ years old were more likely than those who were younger to have had a routine checkup, at 83.6%.
- Marital status: “Widowed” were more likely than the other marital categories to have had a routine checkup, at 75.1%.
- Adults’ employment status: “Retired” were more likely to have a routine checkup in the past year, at 83.2%.

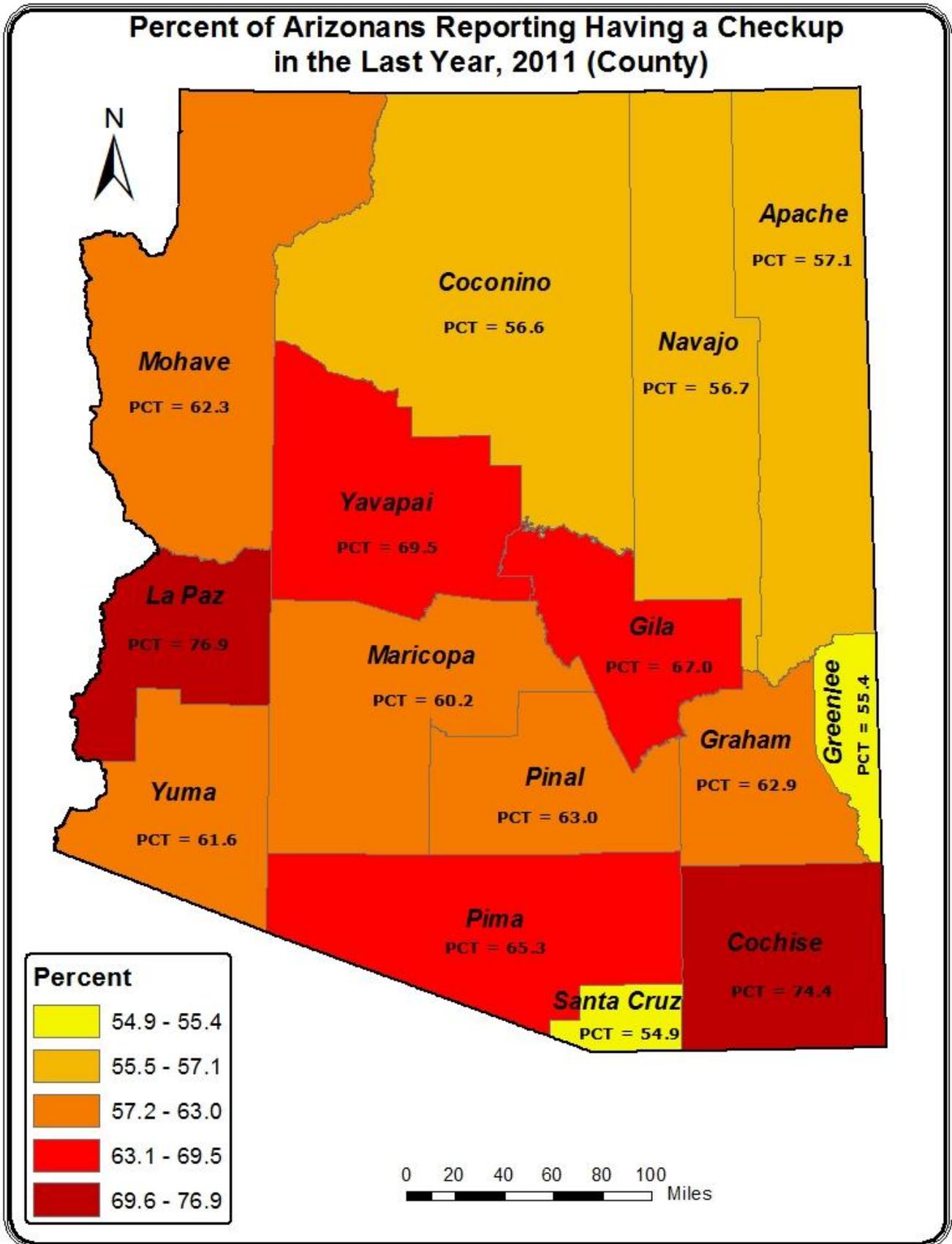
Arizona 2011 BRFSS: Respondents Who Had a Routine Checkup in the Past Year							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	61.8	4505	2910310	EMPLOYMENT			
SEX				Employed for wages	57.2	1230	1187341
Male	57.4	1655	1346671	Self employed	56.3	286	211585
Female	66.2	2850	1563639	Out of work	39.8	226	189812
AGE				Homemaker	62.0	395	274329
18-24	51.7	133	303491	Student	67.8	87	160430
25-34	47.2	265	419873	Retired	83.2	1919	697416
35-44	56.9	405	476867	Unable to Work	71.3	341	173518
45-54	61.5	622	511765	INCOME			
55-64	67.9	965	473549	<\$25,000	53.4	1279	718364
65+	83.6	2115	724765	\$25,000-\$34,999	53.8	450	289923
MARITAL STATUS				\$35,000-\$49,999	65.2	612	387153
Married	66.2	2450	1588247	\$50,000-\$74,999	66.1	614	390080
Divorced	68.8	671	363346	\$75,000+	69.2	864	712504
Widowed	75.1	800	248571	RACE			
Separated	56.4	70	51372	White Non-Hispanic	64.5	3301	1823194
Never Married	45.1	388	474287	Black	65.6	80	106819
Unmarried Couple	58.0	100	167601	Asian/PI	60.0	51	68786
EDUCATION				American Indian	59.4	191	101127
Less than High School	54.0	387	381731	Other	67.3	92	63712
High School Graduate/GED	59.5	1205	726140	Hispanic	54.7	714	697714
Some College/Tech School	64.4	1388	1057407				
College Grad	65.3	1513	736833				

Table 24. N* is unweighted. The variable CHECKUP1 was used to generate all the charts and tables.

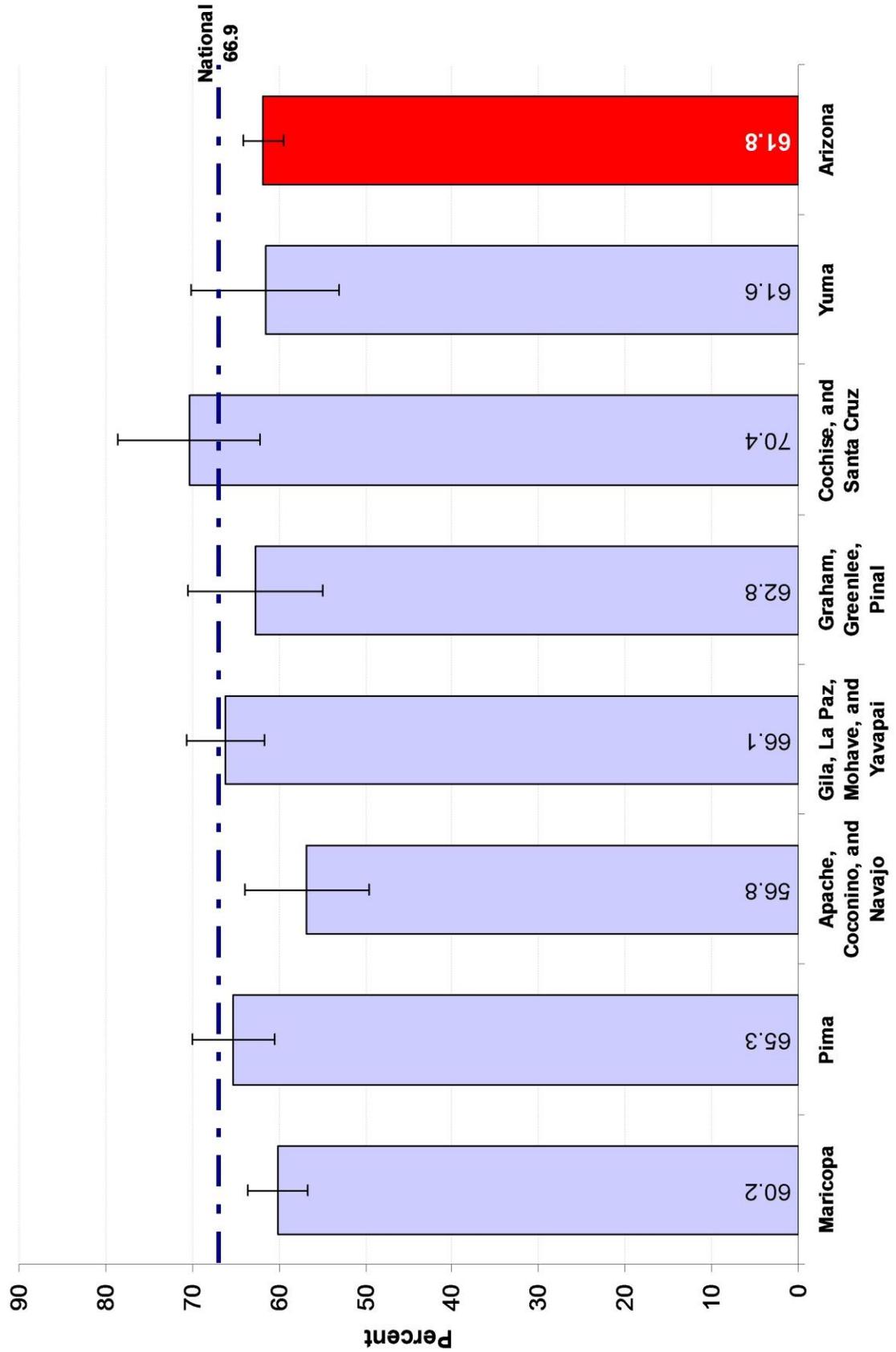
Percent of Arizonans Reporting Having a Checkup in the Last Year, 2011 (County)



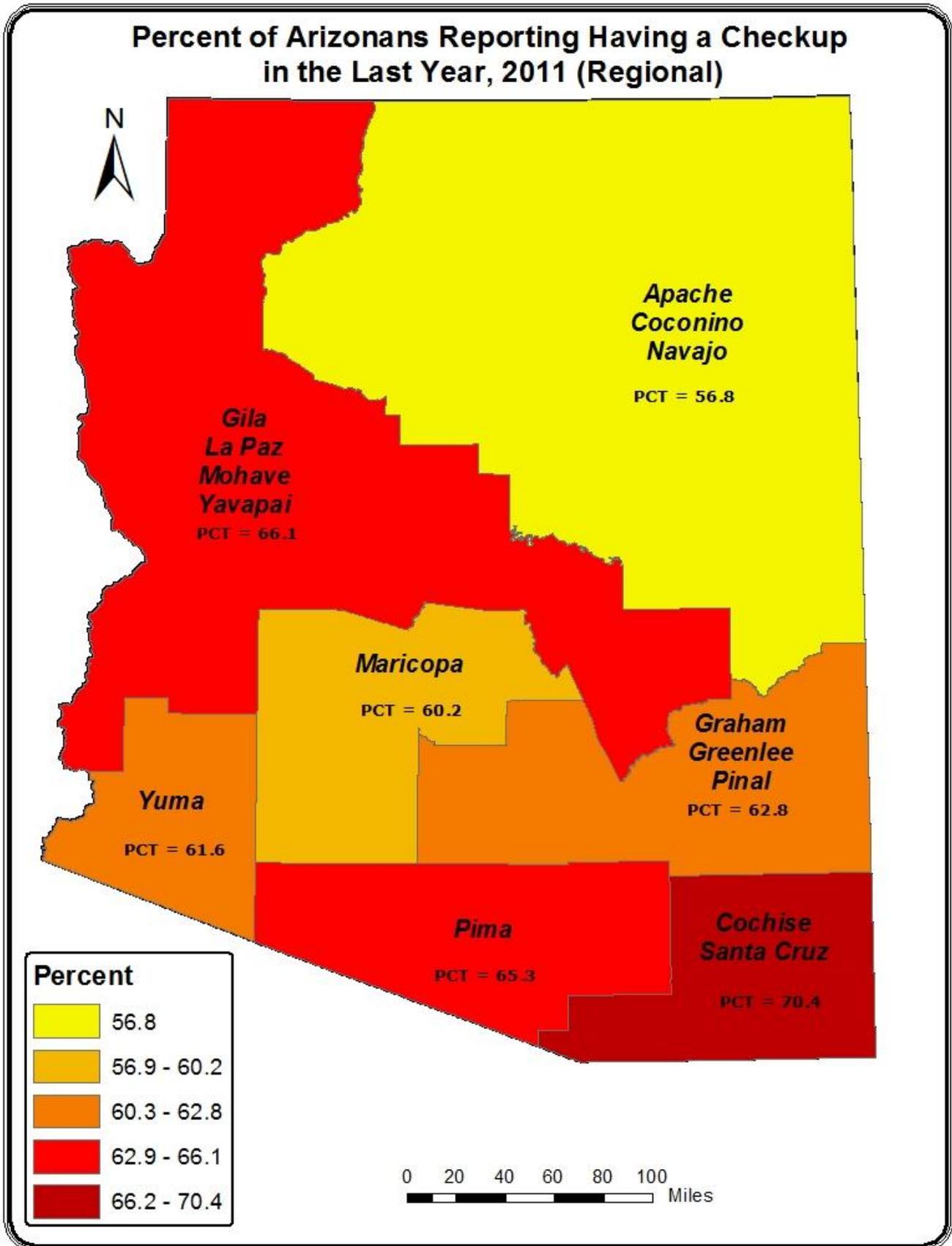
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 † indicates that the county has a significantly higher percentage of individuals who received a routine checkup within the past year when compared to the state level



Percent of Arizonans Reporting Having a Checkup in the Last Year, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFS website is provisional and values are subject to change



Could not Afford Needed Healthcare

According to the CDC, “There has been important progress made in many areas of health such as increased life expectancy and decreases in deaths from leading killers such as heart disease and cancer.”⁵⁷ However, the 2011 BRFSS reported those who could not afford needed health care were not likely to find affordable health care.

Either a lack of health care insurance or inadequate coverage prevents many from getting required care because they are unable to pay for services without the help of insurance. People with health insurance are normally more likely to have a primary care provider and to receive necessary preventive care, such as immunizations, health screening tests, prenatal care and immunizations.

Affordability and insurance coverage are important contributors in assessing the quality of healthcare.

Therefore, by collecting data on those who cannot afford healthcare, the BRFSS provides Arizona with a tool to assess if the interventions and programs targeting quality of care are making an impact.

Quality of care is a part of promoting and protecting public health and safety as outlined in C2 of the ADHS Strategic Map.

(See page 6)

In 2011 alone Arizona had over 35,000 hospital stays by uninsured individuals; incurring costs of over 1.2 billion dollars. On average an uninsured family can only afford approximately 12 percent of hospital stays that they may experience; this figure includes higher income families. The United States Department of Health and Human Services (DHHS) Secretary Kathleen Sebelius stated, “One of the most enduring myths in American health care is that people without health insurance can get care with little or no problem. Nothing could be farther from the truth... The result is families going without care – or facing health care bills they can’t hope to pay.”⁵⁸

Survey Question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?

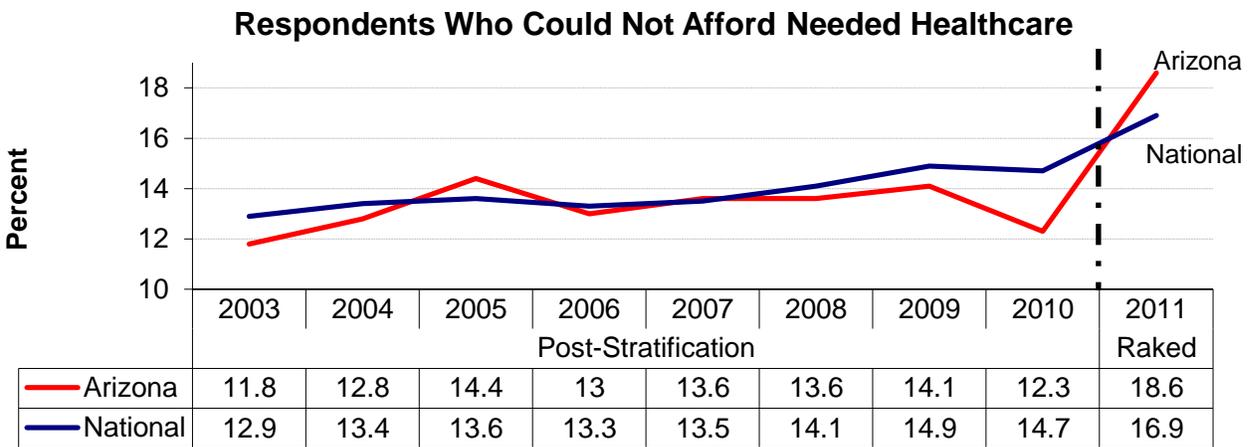


Figure 25. Percentage of Arizona BRFSS respondents reporting they could not afford needed healthcare in the past 12 months. The vertical-dashed line implies establishing any trend using the data beyond this point is not feasible due to the change in weighting procedure.

Could not Afford Needed Healthcare

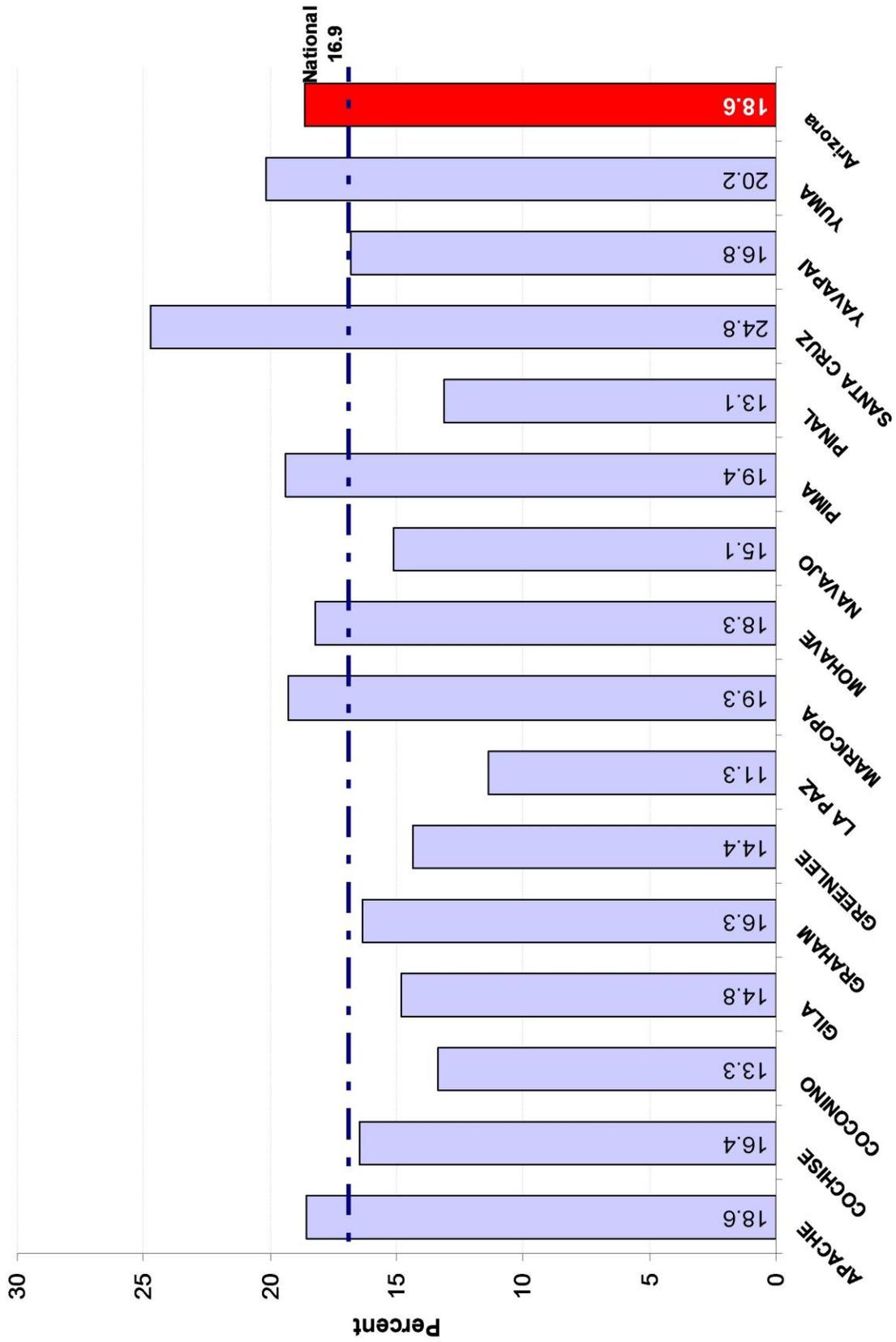
According to the 2011 BRFSS, Arizona had more individuals reporting that they could not afford needed healthcare, when compared to the nation as a whole (**Figure 25**). **Table 25**, below indicates that 18.6% of all respondents reported they could not afford needed health care. Some of the highlights of this table include:

- In 2011 individuals 65 and older were least likely to report that they could not afford needed healthcare, at 6.4%.
- Respondents who were widowed were less likely than those who were separated to report that they could not afford needed healthcare, at 10.6% versus 45.1%.
- Individuals who were retired were the least likely to report that they could not afford needed healthcare, at 6%.
- As income increased the likelihood of an individual being unable to afford needed healthcare decreased.

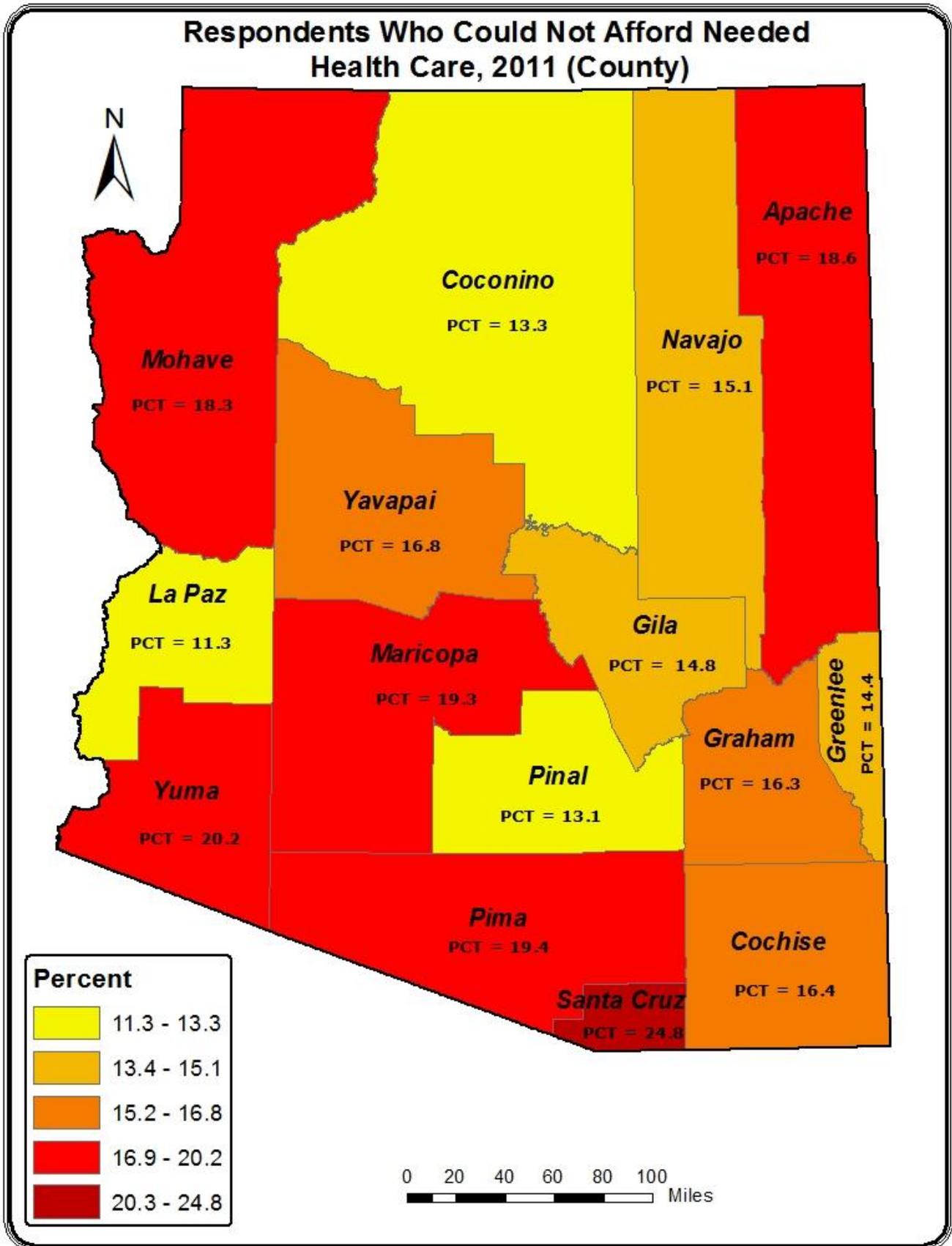
Arizona 2011 BRFSS: Respondents Who Could Not Afford Needed Health Care							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	18.6	881	895414	EMPLOYMENT			
SEX				Employed for wages	17.5	285	371053
Male	18.5	302	440843	Self employed	27.2	82	102692
Female	18.8	579	454571	Out of work	38.7	154	186258
AGE				Homemaker	17.0	87	75734
18-24	17.8	45	107180	Student	13.6	24	33024
25-34	19.4	98	179336	Retired	6.0	130	50522
35-44	21.0	122	180053	Unable to Work	26.0	114	72610
45-54	27.6	238	231951	INCOME			
55-64	19.8	240	140349	<\$25,000	30.6	446	428580
65+	6.4	138	56545	\$25,000-\$34,999	23.8	111	130101
MARITAL STATUS				\$35,000-\$49,999	19.0	98	113566
Married	15.4	407	374216	\$50,000-\$74,999	11.0	64	66036
Divorced	25.9	180	139525	\$75,000+	5.0	52	51561
Widowed	10.6	75	35699	RACE			
Separated	45.1	40	41140	White Non-Hispanic	14.6	499	421927
Never Married	21.1	136	231483	Black	19.4	20	32981
Unmarried Couple	23.7	38	68535	Asian/PI	12.9	10	14930
EDUCATION				American Indian	20.3	55	34450
Less than High School	32.2	167	244119	Other	21.8	21	21024
High School Graduate/GED	18.1	253	224408	Hispanic	27.4	262	358438
Some College/Tech School	19.7	283	326501				
College Grad	8.8	177	100361				

Table 25. N* is unweighted. The variable MEDCOST was used to generate all tables and charts.

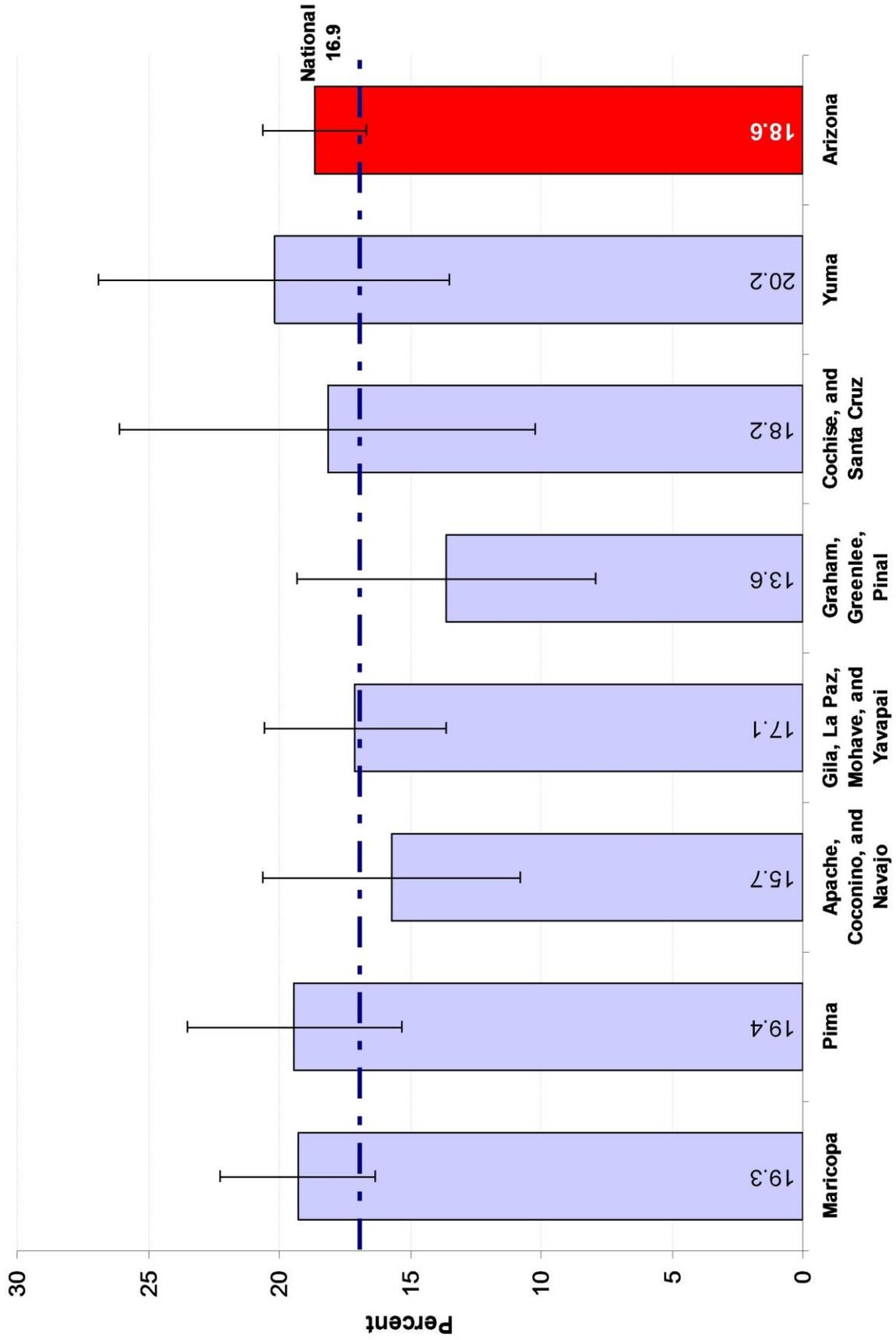
Respondents Who Could Not Afford Needed Health Care, 2011 (County)



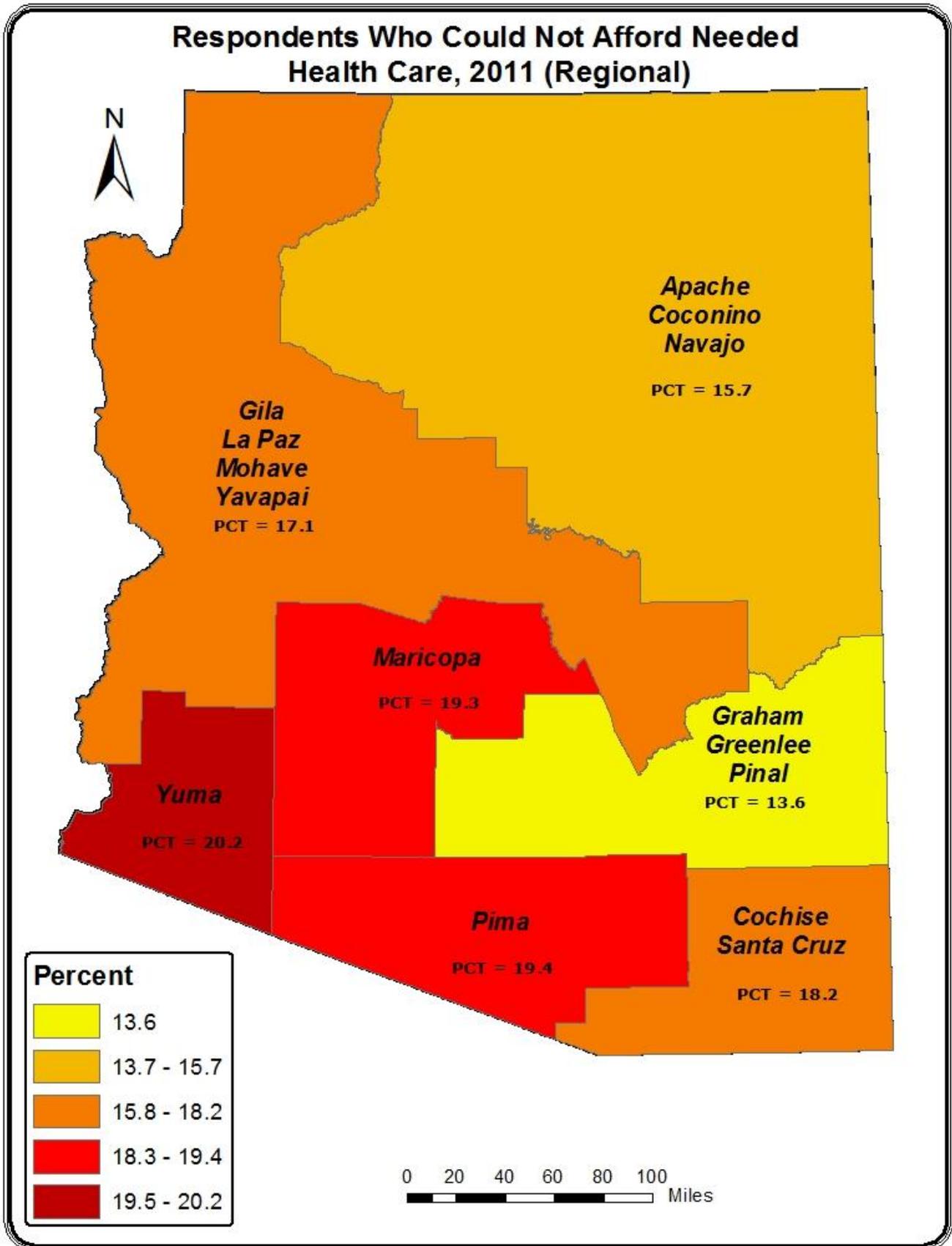
* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change
 ** Confidence intervals are too large to contribute meaningful information and were excluded from this chart.



Respondents Who Could Not Afford Needed Health Care, 2011 (Regional)



* As of 11/26/2012 the data uploaded to the national BRFSS website is provisional and values are subject to change



Appendix

Appendix - Respondent Profile

2011 Arizona Profile							
Groups	Weighted Percent	N*	Weighted N	Groups	Weighted Percent	N*	Weighted N
Total	100.0	6489	4814023	EMPLOYMENT			
SEX				Employed for wages	44.0	2007	2117116
Male	49.6	2524	2389231	Self employed	7.8	460	376904
Female	50.4	3965	2424792	Out of work	10.1	443	484190
AGE				Homemaker	9.3	597	447758
18-24	12.5	254	601989	Student	5.0	134	242558
25-34	19.2	513	923784	Retired	17.6	2362	846543
35-44	17.8	703	858954	Unable to Work	5.8	462	279282
45-54	17.5	1022	840288	INCOME			
55-64	14.7	1416	708190	<\$25,000	29.2	1932	1404503
65+	18.3	2581	880819	\$25,000-\$34,999	11.4	677	547363
MARITAL STATUS				\$35,000-\$49,999	12.4	855	598828
Married	50.7	3481	2436544	\$50,000-\$74,999	12.4	859	597747
Divorced	11.2	962	538987	\$75,000+	21.4	1208	1030129
Widowed	7.0	1016	337605	RACE			
Separated	1.9	113	91161	White Non-Hispanic	60.0	4671	2888128
Never Married	22.9	704	1101558	Black	3.5	110	169674
Unmarried Couple	6.0	182	289474	Asian/PI	2.4	80	115809
EDUCATION				American Indian	3.6	288	172071
Less than High School	15.8	607	760240	Other	2.0	131	96504
High School Graduate/GED	25.9	1760	1246962	Hispanic	27.2	1110	1309104
Some College/Tech School	34.4	1978	1655183				
College Grad	23.7	2127	1139022				

Arthritis Burden

While the word *arthritis* is used by clinicians to specifically mean joint inflammation, it is used in public health to refer more generally to more than 100 rheumatic diseases and conditions that affect joints, the tissues which surround the joint and other connective tissue. The pattern, severity and location of symptoms can vary.

<http://www.cdc.gov/arthritis/basics/general.htm>

Alcohol Consumption

According to the *Dietary Guidelines for Americans*,¹ moderate alcohol consumption is defined as having up to one drink per day for women and up to two drinks per day for men. This definition is referring to the amount consumed on any single day and is not intended as an average over several days.

<http://www.cdc.gov/alcohol/faqs.htm#whatAlcohol>

Asthma

The National Heart, Lung and Blood Institute defines asthma as “...a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role, in particular, mast cells, eosinophil, T lymphocytes, airway macrophages, neutrophils, and epithelial cells. In susceptible individuals, this inflammation causes recurrent episodes of wheezing, breathlessness, chest tightness and coughing, particularly at night or in the early morning. These episodes are usually associated with widespread but variable airflow obstruction that is often reversible either spontaneously or with treatment. The inflammation also causes an associated increase in the existing bronchial hyper-responsiveness to a variety of stimuli” (NHLBI 2003).

<http://www.atsdr.cdc.gov/csem/csem.asp?csem=18&po=4>

Binge Drinking

Respondents who reported having five or more drinks on an occasion, one or more times in the past month.

Cancer

Respondents who reported having been told by a doctor, nurse or other health care professional that they had cancer. In addition, Cancer survivors reported on the type of cancer they had and if they were in clinical trials. For more than 30 years, excess weight, lack of physical activity, and an unhealthy diet have been considered second only to tobacco use as preventable causes of disease and death in the United States. Since the 1960s, tobacco use has decreased by a third while obesity rates have doubled. <http://www.cdc.gov/Features/dsCancerAnnualReport/>

Cancer The special feature section explains how being overweight and not getting enough physical activity increase cancer risk. The following six cancers are associated with being overweight or obese—

- Breast cancer among postmenopausal women
- Colorectal cancer
- Endometrial cancer
- Esophageal adenocarcinoma
- Kidney cancer
- Pancreatic cancer

Several of these cancers also are associated with not getting enough physical activity

Cardiovascular Disease Respondents who reported a doctor told them they had a heart attack, angina or stroke. Coronary artery disease can cause a heart attack. If you have a heart attack, you are more likely to survive if you know the [signs and symptoms](#), call 9-1-1 right away, and get to a hospital quickly. People who have had a heart attack can also reduce the risk of future heart attacks or strokes by making lifestyle changes and taking medication. <http://www.cdc.gov/heartdisease/>

Cholesterol Awareness Cholesterol is a waxy substance that is found in the fats (lipids) in your blood. While your body needs cholesterol to continue building healthy cells, having high cholesterol can increase your risk of heart disease. <http://www.mayoclinic.com/health/high-blood-cholesterol/DS00178> Behavioral Risk Factor Surveillance System respondents who had had their blood cholesterol checked were asked about high blood cholesterol: “Have you EVER been told by a doctor, nurse or other health professional that your blood cholesterol is high?” Responses were grouped into two categories: Yes and No.

Analyses excluded respondents younger than 20 years of age and those who did not report ever having had their cholesterol checked.

<http://dhds.cdc.gov/guides/healthtopics/indicator?i=HighCholesterol>

Chronic obstructive pulmonary disease (COPD) One of the most common lung diseases; there are two main forms of COPD—Chronic Bronchitis (long-term cough, with mucus), and emphysema (Involves the destruction of the lungs over time). Most people have a combination of the two forms. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001153/>

Current Smoking	Respondents who reported smoking at least 100 cigarettes during their lifetime and who smoke now (regularly or irregularly).
Diabetes	Respondents who reported a doctor told them they had diabetes. Diabetes is a serious disease that affects almost every part of your body and can shorten your life. Some complications you can get because of diabetes are kidney disease, heart disease, stroke, eye disease, and having to have a leg or foot amputated. If you already have diabetes, you can still do a lot to keep from getting complications from diabetes. http://www.cdc.gov/Features/LivingWithDiabetes/
Disability	Disability is called secondary conditions, can include pain, depression, and a greater risk for certain illnesses. To be healthy, people with disabilities require health care that meets their needs as a whole person, not just as a person with a disability. http://www.cdc.gov/ncbddd/disabilityandhealth/healthyliving.html
Influenza Vaccination	Respondents 65 years or older who reported not receiving a flu shot in the past 12 months. Influenza illness can include any or all of these symptoms: fever, muscle aches, headache, lack of energy, dry cough, sore throat, and possibly runny nose. http://www.cdc.gov/flu/professionals/diagnosis/labrolesprocedures.htm
Immunization	Immunizations work by stimulating the immune system, the natural disease-fighting system of the body.
Folic Acid Awareness	Female respondents 18 to 44 years of age who reported a reason other than preventing birth defects as the reason experts recommend that women take folic acid. Folic acid is a B vitamin. If a woman has enough folic acid in her body before and during pregnancy, it can help prevent major birth defects of the baby's brain and spine. Women need 400 micrograms (mcg) of folic acid every day
Fruits/Vegetables	Respondents who reported that they consumed fewer than five servings of fruits and vegetables daily. To increase fruit and vegetable consumption of community members, it is important to improve access to these venues, and to increase the availability of high quality, affordable fruits and vegetables sold at these locations. A diet high in fruits and vegetables can reduce the risk for many leading causes of death and can play an important role in weight management. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5935a1.htm

HCUP	Healthcare Cost and Utilization Project http://hcupnet.ahrq.gov/HCUPnet.jsp?Id=6A4B1124FA223267&Form=SelQUERYTYPE&JS=Y&Action=%3E%3ENext%3E%3E&_QUERYTYPE=DxPr
Heart Attack	The death of heart muscle due to the loss of blood supply. The loss of blood supply is usually caused by a complete blockage of a coronary artery, one of the arteries that supplies blood to the heart muscle. Death of the heart muscle, in turn, causes chest pain and electrical instability of the heart muscle tissue. http://www.medterms.com/script/main/art.asp?articlekey=3669
Health Care Coverage	Respondents who reported that they did not have health care coverage.
Hypertension Awareness	Hypertension, also known as high blood pressure, affects one out of every three American adults. But more than half don't have their blood pressure under control. Left untreated, high blood pressure raises your risk for heart disease, stroke, kidney failure, and other conditions. Prevention is your best defense, but lifestyle changes and medications can help get your blood pressure numbers to a healthy level. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6040a1.htm
Heavy Drinking	Adult men having more than two drinks per day and adult women having more than one drink per day. Excessive drinking both in the form of heavy drinking or binge drinking, is associated with numerous health problems, including—Chronic diseases such as liver cirrhosis (damage to liver cells); pancreatitis (inflammation of the pancreas); various cancers, including liver, mouth, throat, larynx (the voice box), and esophagus; high blood pressure; and psychological disorders. Unintentional injuries, such as motor-vehicle traffic crashes, falls, drowning, burns and firearm injuries. Violence, such as child maltreatment, homicide, and suicide. Harm to a developing fetus if a woman drinks while pregnant, such as <u>fetal alcohol spectrum disorders</u> . Sudden infant death syndrome (SIDS). Alcohol abuse or dependence.
HIV/AIDS	HIV is the human immunodeficiency virus. It is the virus that can lead to acquired immune deficiency syndrome, or AIDS. http://www.cdc.gov/hiv/topics/basic/index.htm
Limited Activities	Respondents who reported they were limited in any activities due to any impairment or health problems.

No Leisure-Time Activity	Respondents who reported that they did not participate in physical activity in the past month outside of normal work-related activities.
Pre-Diabetes	The condition of having a hereditary tendency or high probability for developing diabetes mellitus, although neither symptoms nor test results confirms the presence of the disease. HTTP://dictionary.reference.com/browse/prediabetes?s=t
Pre-conception Health	Preconception care and interventions are designed to reduce perinatal risk factors and, for optimal effectiveness, must be successfully implemented before the start of pregnancy. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592248/
Respondent	Arizona residents 18 years of age or older. In some cases various subset(s) of this group may be used.
Seatbelt Use	Respondents who reported that they "sometimes", "seldom", or "never" wear seat belts when driving or riding in a car.
Special Equipment	Respondents reported having a health problem or impairment that required special equipment.
Stroke	Stroke is the stoppage of blood flow to brain: a sudden blockage or rupture of a blood vessel in the brain resulting in, e.g. loss of consciousness, partial loss of movement, or loss of speech. http://www.bing.com/Dictionary/search?q=define+stroke&qpvt=DEFINE+STROKE&FORM=DTPDIA
Tobacco Use	Smoking causes cancer, heart disease, stroke, and lung diseases (including emphysema, bronchitis, and chronic airway obstruction). ¹ For every person who dies from a smoking-related disease, 20 more people suffer with at least one serious illness from smoking. ² Centers for Disease Control and Prevention. <u>Cigarette Smoking-Attributable Morbidity—United States, 2000</u> . <i>Morbidity and Mortality Weekly Report</i> 2003;52(35):842–4 [accessed 2012 Jun 7].

SAMPLE DESIGN

The Arizona BRFSS is a random digit dialing and a Computer Assisted Telephone Interviewing (CATI) system of gathering Health Statistics. Landline sample size of 6,503 and cell-phone sample size of (20 percent of the total number of completes) of whom will be cell-phone only households, interviews over a 12-month period was selected to achieve an acceptable 95 percent This means that the estimated prevalence of a given risk factor can be reliably projected across the total population of Arizona residents. Prevalence estimates of individual demographic variables, especially those that yield smaller sample sizes, do not achieve the same level of accuracy as the total sample. The CDC has stated that County level analysis will not produce reliable values as the sample size may be too small. The CDC has emphasized the use of Regions. Arizona consists of 7 regions; regions are combinations of contiguous counties. See Appendix:

Traditionally, BRFSS relied solely on calling landlines. However, with the progressive increase in cell-phone only households, the BRFSS would be unable to fully capture disease and prevalence trends by solely relying upon landlines. Current estimates show that cell-phone only households have increased by 700 percent from 2003-2009; 3 out of 10 households in the US only have cell-phones. Cell-phone only households are especially prevalent among younger families and among certain racial and ethnic groups. Therefore, to capture data that is representative of the U.S. population BRFSS will include cell-phones sample of 20% starting in 2011.

A demographic profile of the Arizona population surveyed is reported in Appendix: 2011 Arizona Respondent Profile.

NEW METHODOLOGY - RAKING

Sampling weights are needed to correct for imperfections in the sample that might lead to bias. It can include the selection of units with unequal probabilities, non-coverage of the population, and non-response. Data weights incorporate characteristics of the population and the sample.

In the past the CDC has used post stratification to weight BRFSS data; post stratification is based on the known demographics of the population. Essentially, post stratification forces the sum of the weighted frequencies to be equal to the known population estimates.

In 2011, a new weighting methodology, iterative proportional fitting (or “raking”), replaced the post stratification weighting methodology. Raking adjusts the data so that groups which are underrepresented in the sample can be more accurately represented in the final dataset. Raking incorporates additional demographic characteristics and more accurately matches sample distributions to known population demographics. Furthermore, the use of raking reduces non-response bias and has been shown to reduce within-error estimates. BRFSS raking integrates a multitude of categories such as: age by gender, detailed race and ethnicity groups, education levels, marital status, regions within states, gender by race and ethnicity, telephone source, renter/owner status, and age groups by race and ethnicity. In 2011, 50 states, the District of Columbia, Guam, and Puerto Rico collected samples of both landline and cell- phone interviews; the Virgin Islands only collected data via landlines.

ANNUAL QUESTIONNAIRE DEVELOPMENT

The State BRFSS Coordinators Working Group meets three times a year with the Behavioral Risk Factor Surveillance Branch Management. The questionnaire for landlines and cell-phones is the same except for when the respondent is screened for the asthma follow-up question. The asthma follow-up questions are only asked on the land-line. One task of this group is to develop a 5-year, long-term plan for the BRFSS core instrument. The 2011 BRFSS questionnaire was the first year of a 5-year plan.

Before the beginning of the calendar year, CDC provides states with the text of the core component and the optional modules that will be supported for the coming year. States select their optional modules and choose any state-added questions. Each state then constructs its questionnaire. The order of the questioning is always the same: the core component is asked first, optional modules are asked next, and state-added questions last. This ordering ensures comparability across states and follows CDC guidelines. Generally, the only changes allowed are limited insertions of state-added questions on topics related to core questions. Such exceptions are to be agreed upon in consultation with CDC.

Once the questionnaire content (core, modules, and state-added questions) is determined by a state, a hard-copy or electronic version of the instrument is constructed and sent to CDC. For states with Computer-Assisted Telephone Interview (CATI) systems, this document is used for CATI programming and general reference. The questionnaire is used without changes for one calendar year. The questionnaire is available at <http://www.cdc.gov/brfss/questionnaires/questionnaires.htm>. If a significant portion of the state population does not speak English, states have the option of translating the questionnaire into other languages. At the present time, CDC also provides a Spanish version of the core questionnaire and optional modules.

ADMINISTRATION OF THE QUESTIONNAIRE

The ADHS has contracted with a private survey research firm since August, 2000 to contact randomly selected Arizona residences from 9 A.M. until 9 P.M. weekdays, from 11 A.M. until 7 P.M. on weekends. All telephone numbers released in each month's sample received at least 15 attempts over a minimum 14 day period, including at least three attempts during weekends, and at least three attempts during a weekday. Furthermore, selected respondents who were not able to complete the interview at the time of selection received a minimum of 10 call-backs during the interview period. A pre-notification letter was mailed out to alert potential participants that their household was randomly selected from all adults residing in the household to be inter-viewed.

DATA ANALYSIS

All analyses presented are based upon cell size counts of at least eight cases. The demographic information that was collected and presented in these results includes sex, age, education, household income, race, and ethnicity. Comparisons between responses within demographic categories were analyzed for statistical significance at the alpha = .05 level. Throughout the report, statistical difference is noted when analysis provides 95 percent confidence that the categories described are different.

Disclaimer for 2011

Due to significant changes in the BRFSS methodology as described above, Arizona's BRFSS estimates for 2011 data SHOULD NOT be compared to estimates provided herein from previous years. Thus, Arizona's 2011 data is the new BRFSS baseline provided herein. The new methodology changes will cause breaks in the BRFSS trends, but going forward, will also greatly improve the accuracy, coverage, validity and repetitiveness of the Arizona BRFSS. Additional information regarding the new BRFSS METHODS is available at: <http://www.cdc.gov/surveillancepractice/reorts/brfss/brfss.html>.

References

1. Arizona Department of Health Services. Arizona Department of Health Services Strategic Plan FY 2014 – 2018. Retrieved <http://www.azdhs.gov/diro/reports/pdf/adhs-strategic-plan-2014-2018.pdf>
2. Centers for Disease Control and Prevention. (2012). Behavioral Risk Factor Surveillance System FAQs. Retrieved <http://www.cdc.gov/brfss/faqs.htm>
3. Bureau of the Census, U.S. Department of Commerce. 2006-2010 American Community Survey 5-Year Estimates, Table B25043 – Tenure by Telephone Service Available by Age of Householder. (Universe: Occupied housing units, American Fact Finder Database)). Washington, DC: Bureau of the Census; 2010.
<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
4. U.S. Census Bureau. 2010 Census Form. Washington, DC: Bureau of the Census; 2010. <http://www.census.gov/2010census/about/interactive-form.php>
5. Centers for Disease Control and Prevention. (2012). National Health and Nutrition Examination Survey FAQs. Retrieved <http://www.cdc.gov/nchs/nhanes.htm>
6. Idler EL, Benyamini Y. Self-rated health and mortality: A review of twenty-seven community studies. *J Health Soc Behav* 1997; 38:21-37.
7. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention (CDC). Measuring Healthy Days, “What is quality of life?” Atlanta, Georgia: CDC, November 2000; pages 7-10.
8. Quality of life and clinical trials [Editorial]. *Lancet* 1995; 346: 1-2
9. Kevin W. Smith, Nancy E. Avis & Susan F. Assmann. Distinguishing between quality of life and health status in quality of life research: A meta-analysis. *Quality of Life Research* 8: 447±459, 1999
10. U.S. Department of Health and Human Services, Center for Disease Control and Prevention, High Cholesterol Understand your Risk, Internet Accessed June 10, 2010, <http://www.cdc.gov/cholesterol/>
11. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. High Blood Pressure, Internet Accessed: June 10, 2009, <http://www.cdc.gov/bloodpressure/>
12. Mayo Clinic. High Blood Pressure (Hypertension). Accessed 1/18/13. <http://www.mayoclinic.com/health/high-blood-pressure/DS00100/DSECTION=risk-factors>
13. Trust for America’s Health. F as in Fat: How Obesity Threatens America’s Future. September 2012. Accessed 1/28/2013
<http://www.healthymamericans.org/assets/files/TFAH2012FasInFatFnlRv.pdf>
14. U.S. Department of Health and Human Services. Center for Disease and Control, “State -Specific Obesity Prevalence Among Adults U.S., 2009,” Accessed August 2009. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm59e0803a1.htm>
15. U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Diabetes is Common: Disabling, Deadly, and on the Rise National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008.

References

17. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. U.S. Department of Health and Human Services. The Burden of Chronic Diseases and Their Risk Factors: National and State Perspectives, February 2004.
18. U.S. National Library of Medicine. Gestational Diabetes. August 8, 2012
<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001898/>
19. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. How much physical activity do older adults need?
<http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html>
accessed 9/21/12.
20. Federal Emergency Management Agency. National Response Framework. Washington, DC: U.S. Department of Homeland Security; 2008
<http://www.fema.gov/emergency/nrf/> Accessed 9/20/2012
21. CBS. CDC: Uneven Declines In Coronary Heart Disease By State, Ethnicity
<http://detroit.cbslocal.com/2011/11/05/cdc-uneven-declines-in-coronary-heart-disease-by-state-ethnicity/> accessed 9/21/2012.
22. U. S. Department of Health and Human Services, Center for Disease Control and Prevention, "About Heart Disease". Available from http://www.cdc.gov/heartdisease/signs_symptoms.htm: Internet accessed 21 May 2008.
23. U.S. Department of Health and Human Services, Center for Disease Control and Prevention Fact Sheets and At-a-Glance Reports: "Know the Signs and Symptoms of a Stroke" Available from
http://www.cdc.gov/print.do?url=http://www.cdc.gov/dhdsp/library/fs_strokesigns.htm. Internet accessed 21 May 2008
24. National Asthma Education and Prevention Program. Expert Panel Report 3: Guidelines for the diagnosis and management of asthma. NIH pub no 07-4051. Bethesda, MD: National Heart, Lung, and Blood Institute, National Institutes of Health. 2007. Available from: <http://www.nhlbi.nih.gov/guidelines/asthma/>. Accessed January 18, 2011.
25. L. Akinbami, J. E. Moorman, X. Liu. Asthma Prevalence, Health Care Use, and Mortality: United States, 2005-2009.
<http://www.cdc.gov/nchs/data/nhsr/nhsr032.pdf> . January 18, 2011.
26. Asthma: Asthma Speaker's Kit for Health Care Professionals. Retrieved from the Internet May 20, 2004. <http://www.cdc.gov/asthma/speakit/intro.htm>
27. Center of Disease Control and Prevention 'Asthma in U.S.', retrieved on May 30, 2011,
<http://www.cdc.gov/VitalSigns/Asthma/index.html#LatestFindings>
28. Cayley WE Jr. Use of inhaled corticosteroids to treat stable COPD. Am Fam Physician. 2008 Jun 1;77(11):1532-3.
29. National Clinical Guideline Centre. Chronic obstructive pulmonary disease: Management of chronic obstructive pulmonary disease in adults in primary and secondary care. 2004. Royal College of Physicians of London
30. Britton M. The burden of COPD in the U.K.: results from the Confronting COPD survey. Respir Med. 2003 Mar;97 Suppl C:S71-9.
31. Statistics Canada. Lung function results 2007 to 2009. Accessed 1/22/13.
<http://www.statcan.gc.ca/pub/82-625-x/2010001/article/11088-eng.htm>

References

32. American College of Sports Medicine. Acsm American Fitness Index™ Health and Community Fitness Status of the 50 Largest Metropolitan Areas 2011 Edition. Accessed 2/1/2013.
http://www.americanfitnessindex.org/docs/reports/2011_afi_report_final.pdf
33. U.S. Department of Health and Human Services. Center for Disease Control and Prevention, The Burden of Chronic Diseases and Their Risk Factors: National and State Perspectives. CDC. 2004.
34. Katz S, Branch LG, Branson MH., et al., Active Life Expectancy. N Engl J Med. 1983; 309: 1218-1224.
35. The Bureau of Chronic Diseases and Their Risk Factors: National and State Perspectives. Center for Disease Control and Prevention. 2004.
36. March of Dimes. Eating and nutrition. Retrieved from the Internet June 12, 2007.
http://www.marchofdimes.com/pnhec/173_769.asp.
37. HCUP Clinical Classifications Software (CCS) for ICD-9-CM. Healthcare Cost and Utilization Project (HCUP). 2011. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp Accessed 2/1/2013
38. Centers for Disease Control and Prevention. CDC Surveillance Summaries, April 30, 1999. MMWR 1999; 48
39. Honein MA, Paulozzi LJ, Mathews TJ, Erickson JD, Wong LY. Impact of folic acid fortification of the US food supply on the occurrence of neural tube defects. JAMA. 2001 Jun 20;285(23):2981-6.
40. National Center for Health Statistics. Health, United States, 2007. With Chart book on Trends in the Health of Americans. Hyattsville, MD: 2007.
41. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. The Power of Prevention: Reducing the Health and Economic Burden of Chronic Disease. 2003.
42. Reece SM. Preventing Influenza and its Complications: a Public Health Initiative for the Year 2000. Nurse Pract., 1995; 20(9): 32-36, 44.
43. Prevention and Control of Influenza," MMWR, August 8, 2008/Vol 57/No. RR07, Page 4.
44. Department of Health and Human Services. CDC. Alcohol and Public Health Fact Sheet. Accessed 1/22/13 <http://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>
45. NIAAA. Alcohol and cancer. Alcohol Alert. No. 21. Rockville, MD: NIH, 1993.
46. NIAAA. Ninth Special Report to the U.S. Congress on Alcohol and Health from the Secretary of Health and Human Services. NIH Pub. No. 97-4017. Rockville, MD: NIH, 1997.
47. John U, Rumpf HJ, Bischof G, Hapke U, Hanke M, Meyer C. Excess mortality of alcohol-dependent individuals after 14 years and mortality predictors based on treatment participation and severity of alcohol dependence. Alcohol Clin Exp Res. 2013 Jan;37(1):156-63.
48. Arizona Hospital Discharge Public Use Data File, 2011. Arizona Department of Health Services, Phoenix, Arizona.
49. CDC. Vital Signs: Nonfatal, motor vehicle-occupant injuries (2009) and seat belt use (2008) among adults – United States. MMWR 2011; 59.

References

50. Naumann RB, Dellinger AM, Zaloshnja E, Lawrence BA, Miller TR. Incidence and total lifetime costs of motor vehicle-related fatal and nonfatal injury by road user type, United States, 2005. *Traffic Inj Prev* 2010;11:353-60.
51. Pickrell, T. M., & Ye, J. Y. (2011, November). Seat belt use in 2011 – Overall results. (Traffic Safety Facts Research Note. Report No. DOT HS 811 544). Washington, DC: National Highway Traffic Safety Administration.
52. National Center for Health Statistics. *Health, United States, 2006*. With Chart book on Trends in the Health of Americans. Hyattsville, MD: 2006.
53. J. Berenson, M. M. Doty, M. K. Abrams, and A. Shih, *Achieving Better Quality of Care for Low-Income Populations: The Role of Health Insurance and the Medical Home for Reducing Health Inequities*, The Commonwealth Fund, May 2012.
54. U.S. Department of Health and Human Services. Center for Disease Control and Prevention, *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
55. Hjortdahl P, Laerum E. Continuity of care in general practice: effect on patient satisfaction. *BMJ*. 1992 May 16;304(6837):1287-90.
56. *Clinician's Handbook of Preventive Services: Put Prevention Into Practice*. 2nd ed. Washington, DC: Office of Public Health and Science, Office of Disease Prevention and Health Promotion; 1998.
57. U.S. Department of Health and Human Services. Center for Disease Control and Prevention. *Nearly One in Five Americans Say They Can't Afford Needed Health Care*. Accessed 2/11/13.
http://www.cdc.gov/media/pressrel/2007/r071203.htm?s_cid=mediarel_r071203
58. U.S. Department of Health and Human Services. *Most uninsured unable to pay hospital bills according to new HHS report*. Date Updated May 10, 2011.
<http://www.hhs.gov/news/press/2011pres/05/20110510a.html> Date Accessed 2/11/13

**For a list of all questions asked in the 2011
Survey Please Visit:
<http://ADHS.gov/plan/brfs/quest.htm>**

**Arizona Department of Health Services
Bureau of Public Health Statistics**

**150 North 18th Avenue, Suite 550
Phoenix, Arizona 85007
(602) 542-7333**

