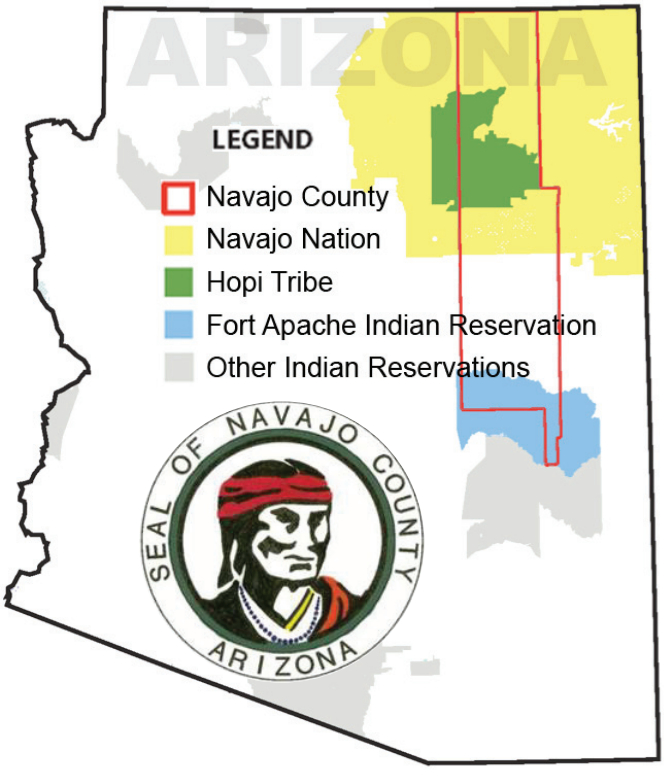
Community Health Status Assessment
Navajo County, Arizona

Conducted in collaboration with
the Navajo County Public Health Services District & Health Research Alliance Arizona at Northern Arizona University

January 2010



Kelly A. Harris, MA
Robert T. Trotter, PhD

Northern Arizona University

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Acknowledgements

The successful production of this Community Health Status Assessment (CHSA) involved a collaborative effort. Each person that assisted with the completion of the assessment played a key role in its successful completion. I want to personally thank Tara Hoffmann, Douglas Distefano, and Andrea Merrihew, three anthropology graduate students who worked diligently on this assessment. Robert T. Trotter, PhD (Chair and Regents' Professor in Anthropology) oversaw the project progress and provided feedback on the assessment content throughout the process. His expert opinions and direction ensured a well composed set of data that provides a window into the lives and health status of the residents of Navajo County.

Tara Hoffmann created the bar graphs, line graphs and maps distributed throughout the assessment in addition to formatting the document into *In-Design*. Douglas Distefano and Andrea Merrihew dedicated many hours to creating tables to capture the trend and comparison data for the CHSA assessment. Andrea Tsatoke, MPH, Community Outreach Specialist, Navajo County Public Health Services District provided support throughout the assessment process from the planning and organization, data collection, and analysis. I would also like to acknowledge the Navajo County Mobilizing for Action through Planning and Partnerships (MAPP) Subcommittee members for their guidance throughout the entire process. Dr. Wade Kartchner, MD, MPH, Director Navajo County Public Health Services District offered his leadership and support in improving the quality of health care data to raise the health status of Navajo County residents. The Mobilizing Action through Planning and Partnerships (MAPP) subcommittee guides and oversees the MAPP process, and is broadly representative of the community and the local public health system. Geri Hongeva, Multimedia designer created the cover art for the assessment. Completing this assessment within the project timeline would not have been possible without this team.

If you have questions about the assessment please feel free to contact me, Kelly.Harris@nau.edu.

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Contents

Introduction

The MAPP Process:

The Navajo County Public Health Services District made a unanimous decision to develop a strategic community health plan based on the National Association of County and City Health Officials (NACCHO) Mobilizing for Action through Planning and Partnerships (MAPP) Process. According to the NACCHO website MAPP is a community-driven strategic planning tool for improving community health. The Community Health Status Assessment (CHSA) is the third of four assessments and in the third phase of the six phases of the MAPP process.

The CHSA focuses on 11 health status indicators as defined by the NACCHO MAPP process. The health indicators include: demographic characteristics, socioeconomic characteristics, health resource availability, quality of life, behavioral risk factors, environmental health, social and mental health, maternal and child health, death, illness and injury, communicable disease, and sentinel events. For more information on the MAPP process please see http://www.naccho.org/topics/infrastructure/mapp/Phase3CHSA.cfm.

CHSA Purpose:

The purpose of the CHSA is to gather and analyze information regarding the health status of Navajo County residents. Ultimately the CHSA will provide additional data for the stakeholders in the Navajo County local public health system to develop a strategic plan. The CHSA provides a way to measure the health status of Navajo County residents as well as identifying trends in comparison to peer communities, state data, and national data.

Approach:

This health assessment is the result of a partnership between the Navajo County Public Health Services District and the Health Research Alliance Arizona (HRAA) office situated within Northern Arizona University. The CHSA assessment process was reviewed and approved by the Northern Arizona University Institutional Review Board (IRB) prior to data collection.

The primary method for the assessment was secondary data collection and analysis. The data collection process began in August of 2009 and continued throughout the assessment period (December 2009). The Navajo County MAPP subcommittee provided feedback to identify any additional indicators from the "extended indicator list" (as defined by MAPP) that were directly relevant to Navajo County. We planned approximately one week per indicator (11 total indicators, each with multiple sub-categories). Each indicator required additional research to identify the data needed to accurately examine the sub-categories. When there was additional data that related to the core indicators we included it to provide the most detailed information about health status in Navajo County.

The data included in the assessment targets a five year span from 2004 through 2008. When data was available from 2009 it was included. However, the assessment is being finalized in December of 2009 so any 2009 data is not from the full year. When the most recent data was not available but other years (ranging from the late 1990s through 2003) were we included those data sets. Older data sets were recommended as an area for future research in the CHSA.

Limitations:

One of the largest limitations for this assessment was the time constraint. The project time line was approximately six months. Data collection, organization, and analysis took a significant amount of time. During three months of the project period three graduate assistants devoted approximately 40 hours a week creating data tables and making phone calls when necessary to collect more recent data sets. The Project Coordinator, Kelly Harris, MA spent between 8 and 25 hours a week throughout the 6 month period writing, collecting and organizing data for Graduate Assistants.

Secondary data collection posed several problems. Not all of the data sets matched the time period from 2004 through 2008 that we were try-

ing to cover in the assessment. In order to collect trend data we used some data sets that were older than 2004 to help provide a broader span of time which enables the identification of trends in the health status of residents of Navajo County. Not all available data sets included the preferred data for each indicator (demographic data, trend data or data from multiple years etc.). All data sources are cited in the back of this assessment. Those interested in additional information on any topic included in the CHSA may want to retrieve the actual data source in order to retrieve additional information that was not included in the assessment due to time constraints.

Limitations associated with specific data sets are mentioned within the indicator as the data is presented. However, data from the Behavioral Risk Factor Surveillance System (BRFSS) is included throughout the entire assessment, which is why we chose to explain the limitations of the BRFSS data set herein. The information recorded in the BRFSS is recorded directly by the respondent, making a margin for error based on self-reporting. The BRFSS survey is a telephone survey. In Navajo County, Arizona, this may be problematic as a large portion of the population residing in the county may not have access to a phone. The questionnaire was provided both in English and Spanish, which could pose an issue in Navajo County where over 40% of the population is Native American, and a language barrier may exist. Unlisted phone numbers are included in the random dialing method used for the BRFSS. In 2008 the survey method began to include the use of cell phones to contact respondents. Prior to 2008 all phone surveys for the BRFSS were conducted on land-lines.

Countless sources were used to create this health status assessment including data sets from the Arizona and U.S. Departments of Health and Human Services, Centers for Disease Control and Prevention(CDC) statistical databases, the U.S. Census, in addition to county-level reports, personal communication with representatives from Indian Health Services (IHS), Environmental Protection Agency (EPA), Arizona Department of Environmental Quality (ADEQ), School districts, and many other individuals. For the complete list of sources please see the references cited at the end of the assessment.

Core Health Status Indicators

1) Demographic Characteristics

Demographic characteristics include measures of total population as well as percent of total population by age group, gender, race and ethnicity, where these populations and subpopulations are located, and the rate of change in population density over time, due to births, deaths and migration patterns.

2) Socioeconomic Characteristics

Socioeconomic characteristics include measures that have been shown to affect health status, such as income, education, and employment, and the proportion of the population represented by various levels of these variables.

3) Health Resource Availability

This domain represents factors associated with health system capacity, which may include both the number of licensed and credentialed health personnel and the physical capacity of health facilities. In addition, the category of health resources includes measures of access, utilization, cost and quality of health care and prevention services. Service delivery patterns and roles of public and private sectors as payers and/or providers may also be relevant.

4) Quality of Life

Quality of Life (QOL) is a construct that "connotes an overall sense of well-being when applied to an individual" and a "supportive environment when applied to a community" (Moriarty, 1996). While some dimensions of QOL can be quantified using indicators research has shown to be related to determinants of health and community-well being, other valid dimensions of QOL include perceptions of community residents about aspects of their neighborhoods and communities that either enhance or diminish their quality of life.

5) Behavioral Risk Factors

Risk factors in this category include behaviors which are believed to cause, or to be contributing factors to, injuries, disease, and death during youth and adolescence and significant morbidity and mortality in later life.

6) Environmental Health Factors

The physical environment directly impacts health and quality of life. Clean air and water, as well as safely prepared food, are essential to physical health. Exposure to environmental substances such as lead or hazardous waste increases risk for preventable disease. Unintentional home, workplace, or recreational injuries affect all age groups and may result in premature disability or mortality.

7) Social and Mental Health

This category represents social and mental factors and conditions which directly or indirectly influence overall health status and individual and community quality of life. Mental health conditions and overall psychological well-being and safety may be influenced by substance abuse and violence within the home and within the community.

8) Maternal and Child Health

One of the most significant areas for monitoring and comparison relates to the health of a vulnerable population: infants and children. This category focuses on birth data and outcomes as well as mortality data for infants and children. Because maternal care is correlated with birth outcomes, measures of maternal access to, and/or utilization of, care is included. Number of births to teen mothers is a critical indicator of increased risk for both mother and child.

9) Death Illness and Injury

Health status in a community is measured in terms of mortality (rates of death within a popu-

lation) and morbidity (rates of the incidence and prevalence of disease). Mortality may be represented by crude rates or age-adjusted rates (AAM); by degree of premature death (Years of Productive Life Lost or YPLL); and by cause (disease - cancer and non-cancer or injury - intentional, unintentional). Morbidity may be represented by age-adjusted (AA) incidence of cancer and chronic disease.

10) Communicable Diseases

Measures within this category include diseases which are usually transmitted through person-to-person contact or shared use of contaminated instruments / materials. Many of these diseases can be prevented through a high level of vaccine coverage of vulnerable populations, or though the use of protective measures, such as condoms for the prevention of sexually-transmitted diseases.

11) Sentinel Events

Sentinel events are those cases of unnecessary disease, disability, or untimely death that could be avoided if appropriate and timely medical care or preventive services were provided. These include vaccine-preventable illness, late stage cancer diagnosis, and unexpected syndromes or infections. Sentinel events may alert the community to health system problems such as inadequate vaccine coverage, lack of primary care and/or screening, a bioterrorist event, or the introduction of globally transmitted infections.

Definition of Indicator

Demographic characteristics include measures of total population as well as percent of total population by age group, gender, race and ethnicity, where these populations and subpopulations are located, and the rate of change in population density over time, due to births, deaths and migration patterns.

Trends

Between 2000 and 2008, the population of Navajo County experienced a 14% growth, while population in the state of Arizona grew 21% and population in the US grew 7% in the same period. Navajo County has the second highest percentage of Native American population in the US (43.97%), and is home to three Native American tribes and their associated reservation land, covering approximately 40% of the county.

Comments on Net Change in Population:

Navajo County experienced a 14% growth in population between 2000 and 2008. The Arizona population grew from 5,130,632 in 2000 to 6,500,180 in 2008. This is a 1,369,548 (21%) net change in population in 8 years. In comparison to the total US population which grew from 281,421,906 (2000) to 304,059,724 (2008), with a net change of 22,637,818 (7%).

Between 2000 and 2004 Navajo County experienced a total population change of 20.7 (per 1,000) total population change including residual[1]. The natural increase in population was 8.9 (per 1,000). The birth rate was 16.1 (per 1,000) while the death rate was 7.2 (per 1,000). The net migration[2] in Navajo County during that period was 12 (per 1,000). Between 2007 and 2008 Navajo County experienced a total population change of 1,678 (actual). There were 2,089 births and 839 deaths. The net migration was 378.

Table 1.0 Demographic Information for Navajo County

Overall Demographic Information in Navajo County, AZ from 2000-2008			
2000 Population	**2008 Population**	**Net Change**	**Population Density**
97,470	112,757	15,287	11 people/ square mile

US Census Bureau, Community Health Status Indicators (CHSI) 2008; Estimates of Average Annual Rates of the Components of Population Change for Counties of Arizona, US Census Bureau, Population Division (2005) (2009);

Table 1.1

Projected Population Growth in Navajo County					
Year	**Total Reservation**	**Total Hopi**	**Total Navajo Nation**	**Total White Mountain Apache**	**Total Non-Reservation**
Current (2009)	50,352	5,812	32,095	12,446	70,239
2010	51,147	5,812	32,677	12,658	72,025
2015	54,992	5,812	35,495	13,685	80,679
2020	58,492	5,812	38,060	14,620	88,553
2025	61,555	5,812	40,305	15,438	95,445
2030	64,216	5,812	42,255	16,149	101,431

1 The total population change includes a residual. The residual represents the change in population that cannot be attributed to any specific demographic component. (State & County terms & Definitions http://www.census.gov/popest/topics/terms/states.html

2 Net migration includes internal and international migration.

Table 1.2

Demographic Profile: Age and Sex							
Total Population	**Navajo County Total Population** 109,130				**Arizona Total Population** 6,152,175		
Age Group	**Navajo County**				**Arizona**		
	Total Percent	**Total Number**	**Male**	**Female**	**Total Percent**	**Male**	**Female**
Under 5	7.8%	4,785	7.9%	7.6%	7.8%	8.0%	7.7%
5 to 9 years	7.3%	4,542	7.2%	7.4%	7.2%	7.2%	7.1%
10 to 14 years	9.5%	4,544	9.9%	9.1%	7.1%	7.4%	6.9%
15 to 19 years	9.4%	4,592	9.7%	9.0%	6.9%	7.1%	6.6%
20 to 24 years	7.7%	3,682	7.9%	7.5%	6.8%	7.2%	6.4%
25 to 29 years	7.0%	3,698	7.6%	6.5%	7.5%	7.9%	7.1%
30 to 34 years	5.2%	3,180	5.2%	5.3%	6.9%	7.2%	6.7%
35 to 39 years	6.4%	3,199	6.4%	6.3%	6.9%	7.1%	6.7%
40 to 44 years	5.8%	3,276	5.9%	5.8%	6.9%	7.0%	6.8%
45 to 49 years	6.6%	3,669	6.6%	6.7%	6.8%	6.8%	6.9%
50 to 54 years	5.9%	3,498	5.4%	6.3%	6.1%	5.9%	6.3%
55 to 59 years	5.6%	3,358	5.2%	6.1%	5.5%	5.3%	5.8%
60 to 64 years	4.3%	2,750	4.2%	4.3%	4.6%	4.4%	4.9%
65 to 69 years	3.3%	2,207	3.5%	3.2%	3.6%	3.4%	3.8%
70 to 74 years	3.4%	1,620	2.9%	3.8%	2.9%	2.7%	3.1%
75 to 79 years	2.1%	1,145	1.9%	2.2%	2.8%	2.6%	3.0%
80 to 84 years	1.6%	792	1.4%	1.8%	2.0%	1.6%	2.3%
85 years and over	1.1%	665	1.0%	1.1%	1.5%	1.1%	1.9%

US Census (American Community Survey 2005-2007 data), Navajo County Asset Inventory (2008, data for total number of people by age, data from “Arizona Sub-county ESRI Census Defined Place Data Proportions”), Total population numbers for the county and the state are a three year estimate.

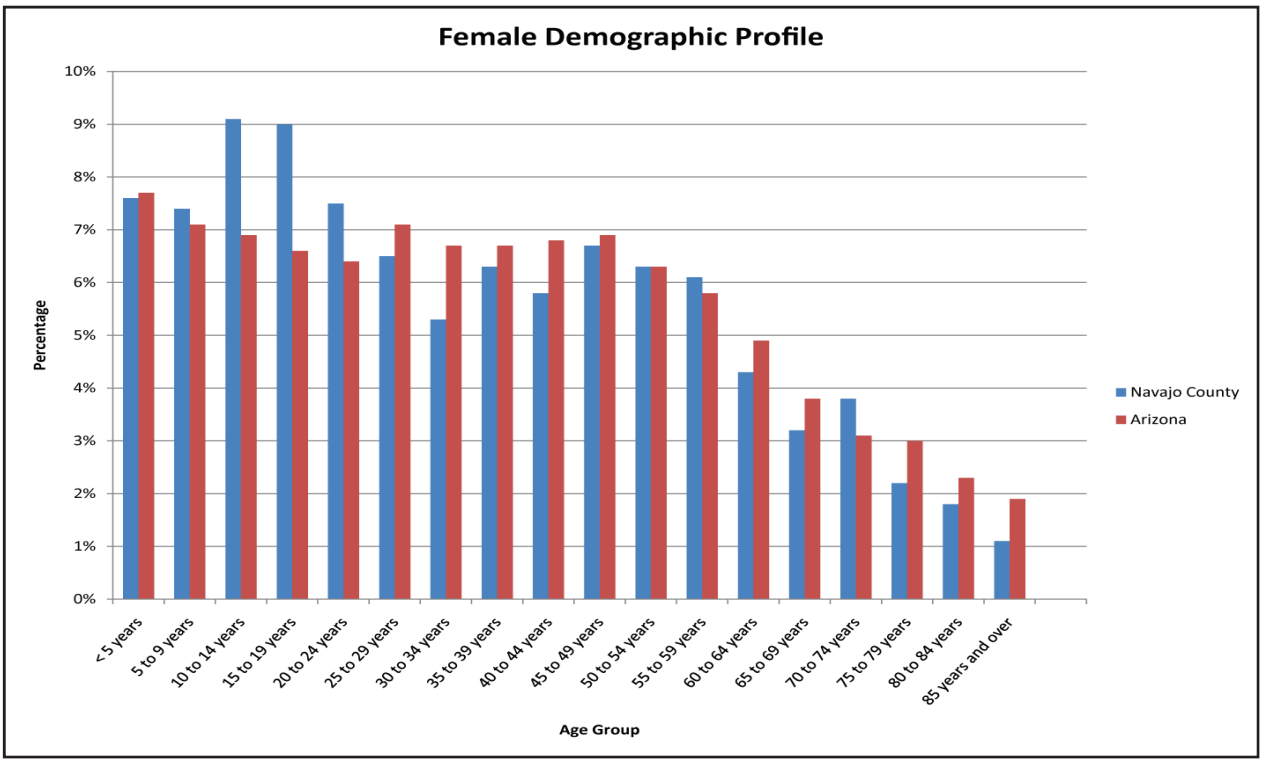


Figure 1.3. Demographic comparison between Arizona and Navajo County: Females by Age

Data from Figure 1.3 above, US Census (American Community Survey 2005-2007 data), Navajo County Asset Inventory (2008, data for total number of people by age, data from "Arizona Sub-county ESRI Census Defined Place Data Proportions"), Total population numbers for the county and the state are a three year estimate.

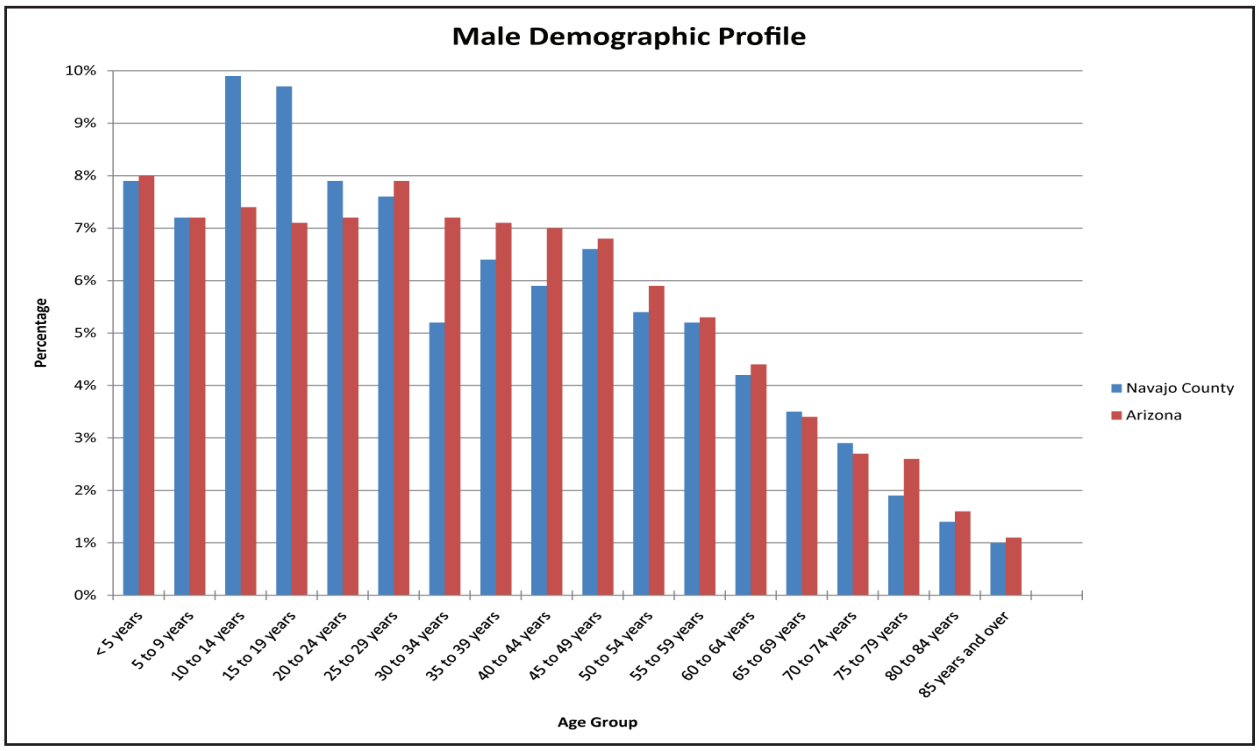


Figure 1.4. Demographic Comparisons between Arizona and Navajo County: Males by Age

Data from Figure 1.4 above, US Census (American Community Survey 2005-2007 data), Navajo County Asset Inventory (2008, data for total number of people by age, data from "Arizona Sub-county ESRI Census Defined Place Data Proportions"), Total population numbers for the county and the state are a three year estimate

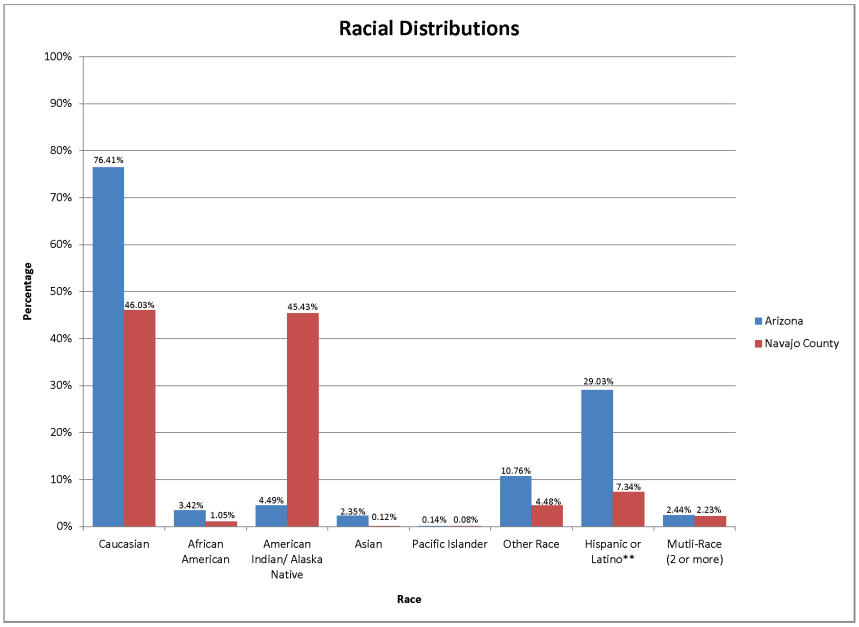


Figure 1.5. Demographic Comparisons between Arizona and Navajo County: Males by Age

Data from table 1.3 above, US Census (American Community Survey 2005-2007 data), Navajo County Asset Inventory (2008, data for total number of people by age, data from "Arizona Sub-county ESRI

Trends and Disparities

The US Census Bureau News reported that America is becoming more racially and ethically diverse. Of all the counties in the United States with a minimum population of 100,000 Navajo County, American Indians made up the highest percentage of the total population of the county (second to Los Angeles County, California, with the largest Native American Population in the country) (US Census Bureau, Public Information Office (2009) .

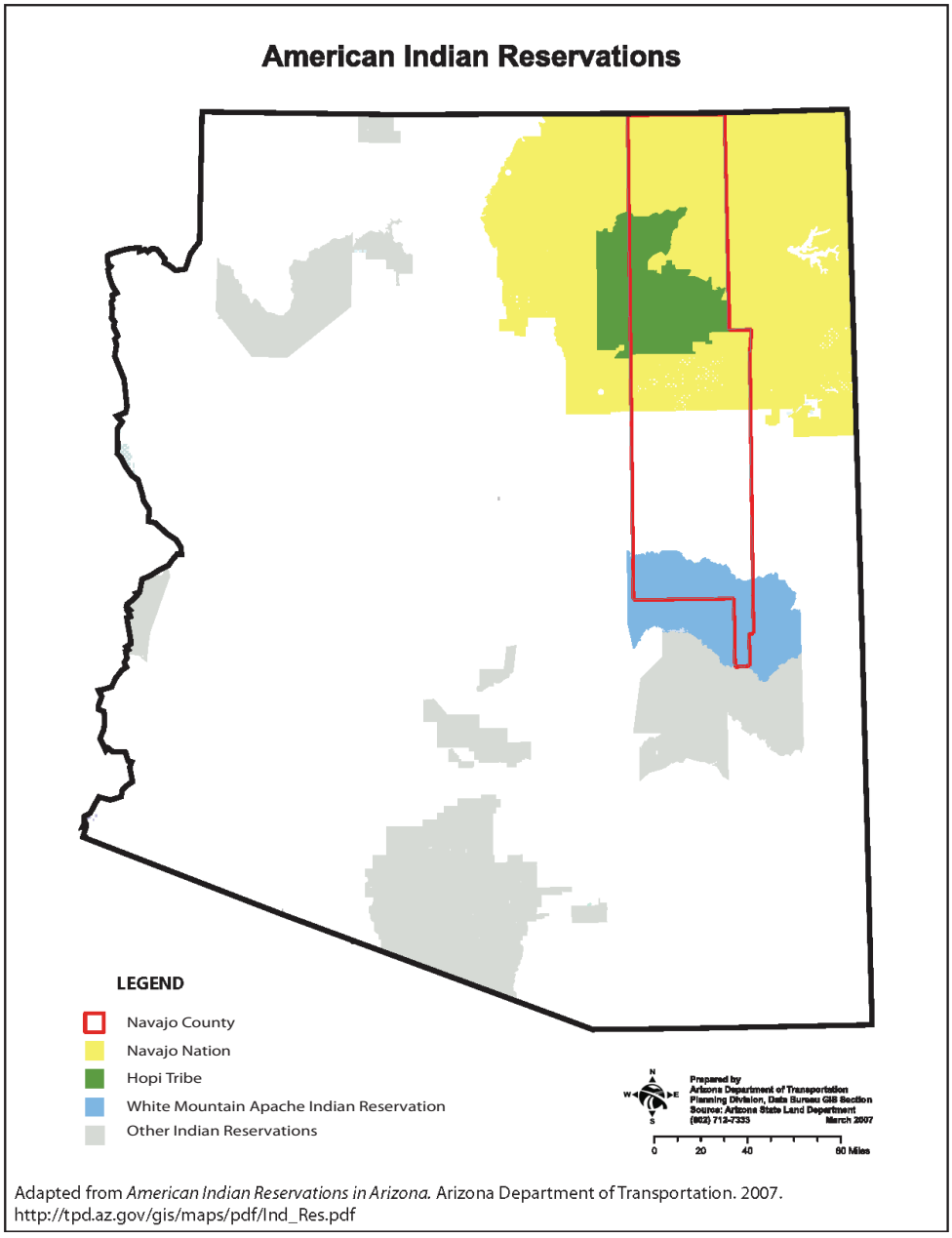
Navajo County is home to three Native American tribes and associated reservation land. The Hopi, Navajo, and White Mountain Apache reservations span a significant part of the county. The total population of the county is approximately 112,757 (2008) and 49,583 are American Indians or Alaska Natives (Table 1.7).

Table 1.7

Racial Distribution: Navajo County, Arizona (2005-2007)

State & Navajo County	Caucasian	African American	American Indian/ Alaska Native	Asian	Pacific Islander	Other Race	Hispanic or Latino**	Multi-Race (2 or more)
Arizona	4,701,013	210,069	276,132	144,389	8,878	661,797	1,785,737	149,897
Navajo County	50,233	1,151	49,583	131	82	4,888	8,011	2,436
Winslow	5,102 (49.77%)	593 (5.78%)	2,350 (22.92%)	132 (1.29%)	10 (.09%)	1,595 (15.56%)	3,422 (33%)	471 (4.60%)
Holbrook	3,275 (57.47%)	129 (2.29%)	1,335 (23.64%)	77 (1.36%)	1 (.02%)	546 (9.67%)	1,521 (27%)	313 (5.55%)
Snowflake	4,804 (85.73%)	28 (.49%)	379 (6.77%)	28 (.49%)	4 (.07%)	228 (4.07%)	605 (11%)	132 (2.36%)
Taylor	3,874 (86.39%)	37 (.83%)	257 (5.73%)	7 (.16%)	4 (.08%)	186 (4.14%)	585 (13%)	120 (2.68%)
Show Low	10,796 (87.07)	46 (.37%)	447 (3.60%)	102 (.82%)	12 (.10%)	684 (5.52%)	1,741 (14%)	313 (2.53%)
Pinetop-Lakeside	4,159 (86.68%)	62 (1.29%)	103 (2.15%)	26 (.55%)	1 (.02%)	317 (6.60%)	747 (16%)	130 (2.70%)
Heber-Overgaard	3,383 (93.76%)	2 (.06%)	78 (2.15%)	8 (.22%)	5 (.14%)	77 (2.13%)	295 (8%)	55 (1.52%)
Hon-Dah McNary	32 (8.06%)	11 (2.77%)	326 (82.12%)	0 (.00%)	0 (.00%)	14 (3.53%)	48 (12%)	14 (3.53%)
Cibecue	34 (2.05%)	2 (.12%)	1,600 (96.27%)	3 (.18%)	0 (.00%)	4 (.24%)	31 (2%)	19 (1.14%)
Whiteriver	187 (2.94%)	2 (.03%)	6,035 (94.99%)	2 (.03%)	0 (.00%)	28 (.44%)	134 (2%)	99 (1.56%)

Navajo County Community Asset Inventory 2008 source: Arizona Sub-county population projections distributed by ESRI Census Defined Place Data Proportions, US Census Bureau American Community Survey 2005-2007. ** Please note the percentages for the Hispanic/Latino population include the Hispanic/Latino percentage of the total population in that area. Please note data for Navajo Nation and Hopi (within Navajo County) were unavailable.



Adapted from *American Indian Reservations in Arizona.* Arizona Department of Transportation. 2007. http://tpd.az.gov/gis/maps/pdf/Ind_Res.pdf

Figure 1.8 Racial Distribution between Navajo County and Arizona

The non-reservation areas in Navajo County with the highest concentration of American Indians or Alaska Natives include Winslow (22.92%) and Holbrook (23.64%). Note that the Hispanic and Latino populations in Winslow and Holbrook include a significant proportion of the overall population (33% and 27%, respectively).

The percentage of Native Americans and Alaska Natives in Arizona is 4% while the percentage of Native Americans and Alaska Natives in Navajo County is significantly higher, 43% of the total population in Navajo County.

Category Two - Socioeconomic Characteristics

Definition of Category

Socioeconomic characteristics include measures that have been shown to affect health status, such as income, education, and employment, and the proportion of the population represented by various levels of these variables.

Trends

Between 2004 and 2009, the unemployment rate in Navajo County grew 57.14% while the unemployment rate in the state of Arizona grew 63.26%. Nevertheless, the poverty level in Navajo County between 2005 and 2007 is 1.5 to 2 times higher than the state level, a trend confirmed by the median average income for the same period shows similar data ($37,660 for Navajo County, $46,913 for Arizona, and $50,303 for the US). Navajo County has a multilingual, non-immigrant population, a fact that could contribute to the impact of language barriers in healthcare since 39.9% of the population over 5 years old speaks a language other than English at home (versus 25.9% in the state of Arizona). Comparison of the rate of births to unmarried mothers between Navajo County and the state of Arizona shows considerably higher numbers in Navajo County.

Unemployment

The table below (2.0), Unemployment by region includes data from the regions in Navajo County with the largest labor forces, the Navajo County average unemployment rate for that year and the Arizona unemployment rates.

Due to the current state of the economy (recession) we thought it was important to include 2009 rates even though they do not capture all rates for 2009 (unemployment rates for 2009 data cover the calendar year period from January to July). Table (2.0) includes the unemployment rates for tribal areas within Navajo County. The large percent change between 2004 and 2009 may be distorted by the drop in the economy beginning in 2008 and worsening in 2009. The percent change for all regions in table 2.0 reflects an increase in unemployment rates, there were no decreases in unemployment.

Table 2.0

Region	2004 Unemployment Rate	2009 Unemployment Rate	Percent Change from 2004 to 2009
Winslow	3.8%	6.2%	63.15%
Show Low	4.0%	6.5%	62.5%
Holbrook	5.4%	8.7%	61.11%
Pine Top-Lakeside	4.4%	7.2%	63.63%
Kayenta	13.8%	21.0%	52.17%
Taylor	3.8%	6.1%	60.52%
Snowflake	4.6%	7.4%	60.87%
Heber-Overgaard	2.1%	3.4%	61.90%
Navajo County	8.4%	13.2%	57.14%

Percent change is approximate change. Arizona, State and County data from Bureau of Labor Statistics www.bls.gov 2004, 2009 Special Unemployment Report.

Table 2.1 Unemployment in Tribal Regions in Navajo County

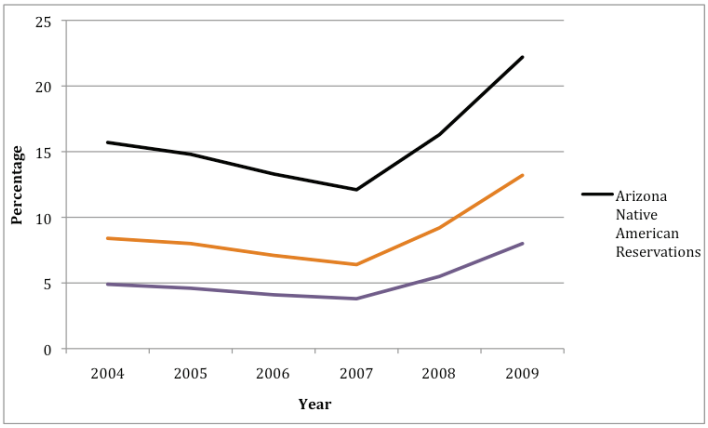
Tribal Area	Unemployment 2004	Unemployment 2009	Percent Change 2004 to 2009
*Navajo Nation	16.0%	20.6%	28.75%
*Hopi Tribe	12.5%	18.8%	50.4%
White Mountain Apache Indian Reservation	15.7%	23.5%	49.68%
Arizona Native American Reservations in Arizona	15.7%	22.2%	41.40%
Navajo County	8.4%	13.2%	57.14%
Arizona	4.9%	8.0%	63.26%

Arizona Department of Economic Security, Arizona Workforce information www.workforce.az.gov (2000, 2004, 2009 Special Unemployment Report)

* An asterisk indicates the unemployment rates include reservation and off-reservation trust land.

The unemployment rate for Caucasians in Navajo County (2005-2007 average) was 6.2% in comparison with 20.8% for American Indian and Alaska Natives and 10.0% for people of Hispanic or Latino origin (Employee Status, 2005-2007 American Community Survey). A study conducted in 2008 through the Center for Competitiveness and Prosperity Research at W.P. Carey School of Business at Arizona State University examined the economy of Navajo Nation within Navajo County, Arizona.

The study concluded that in 2004 the total unemployment of Navajo Nation (in Navajo County) was "very low 109 per 1,000 residents, approximately 75 percent less than the national and state averages" (Economy of Navajo Nation in Navajo County, ASU and the Arizona Department of Commerce 2008).

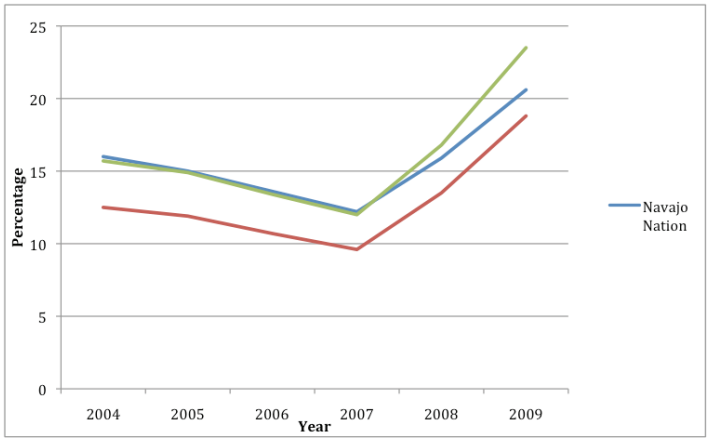


Arizona.Workforce.gov (2004, 2005, 2006, 2007, 2008 & 2009).

Figure 2.2 Unemployment Trends: Navajo County, Arizona, and Arizona Native American Reservation. Arizona.Workforce.gov (2004, 2005, 2006, 2007, 2008 & 2009)

Analysis of Unemployment

According to the Bureau of Labor Statistics (BLS), unemployment is defined as, people who are jobless, looking for jobs or available to work. Workers that are expecting to be recalled from a temporary layoff are considered unemployed as



Arizona.Workforce.gov (2004, 2005, 2006, 2007, 2008 & 2009)

Figure 2.3 Unemployment Trends: Navajo Nation, Hopi Tribe, and White Mountain Apache Indian Reservation
Arizona.Workforce.gov (2004, 2005, 2006, 2007, 2008 & 2009)

well. Furthermore, part-time and temporary work, as well as regular full-time, year round employment are included in the employed population.

In order to gain Local Area Unemployment Statistics (LAUS) program generates monthly and annual employment/unemployment and labor force data for states and counties. Labor force data is derived by surveys from the U.S. Census Bureau. Counties are grouped into a number of geographic areas and the U.S. Census Bureau selects a percentage (sample) of homes to represent the population of each county and state. The survey is conducted through interviews by visiting households and conducting telephone interviews (70% via telephone).

To reduce variability, the survey reflects a sample with different demographic, personal and socioeconomic characteristics of the current population survey. The sample of household used to determine unemployment statistics vary from month to month (US Department of Labor. Bureau of Labor Statistics, Overview, 2009).

Figures 2.2 and 2.3 were created to show the actual changes in unemployment year by year (between 2004 and 2009). The percent change in Figure 2.2 is distorted by the increased unemployment in between 2007 and 2009 with the current state of the economy. The percent change in Figure 2.2 suggests that the unemployment rates for Arizona, Navajo County, and the Native American reservations in the county has only increased. When in reality the unemployment rates (across the board) decreased from 2004 to mid-2007. In order to show the change that occurred each year we created these line graphs (Figures 2.2 and 2.3). The overall trends (Arizona, Navajo County and Native American reservations in the County) are similar. However, Navajo County and the Native American Reservations in the county have considerably higher unemployment rates when compared to Arizona unemployment rates during that period.

Figure 2.3 illustrates the trends in unemployment for the three Native American Reservations in Navajo County. Trends on the Native American reservations are similar to those illustrated above in Figure 2.2, however there are slight differences among the tribes. The White Mountain Apache Indian Reservation has the highest unemployment of the three tribes with Navajo Nation the second highest for unemployment. On a national level, the rate of unemployment for Native Americans living on reservation land is more than two times as high as the US rate (Harvard Project on American Indian Economic Development: A Data Book of Socioeconomic Change between the 1990 and 2000 Censuses).

Table 2.4

Percent Below Poverty Level (2004-2007)		
Core Indicators	**2005-2007 Navajo County**	**2005-2007 Arizona Averages**
Total (106,760, total population for whom poverty status is determined)	24.4%	14.2%
Children (under 18 years)	33%	20%
Educational Attainment		
Less than a high school graduate	38.7%	23.7%
High school graduate	20.3%	12.4%
Some college, associate's degree	13.6%	7.9%
Bachelor's degree or higher	1.6%	4.0%

American Fact finder: American Community Survey 2004-2007.

Poverty Analysis

The Office of Management and Budget's (OMB) Statistical Policy Directive 14 of the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or non cash benefits (such as public housing, Medicaid, and food stamps). The percentage of people (or families) who are below poverty equals the "poverty rate" *(U.S. Census Bureau, Housing and Household Economic Statistics Division).*

According to the *U.S. Census Bureau, Housing and Household Economic Statistics Division* the Percentages of the poverty level are referred to as "Ratio of income to poverty".

"Ratio of income to poverty" classifies people and families as being in poverty if their income is less than their poverty threshold. If their income is less than half their poverty threshold, they are below 50% of poverty; less than the threshold itself, they are in poverty (below 100% of poverty); less than 1.25 times the threshold, below 125% of poverty, and so on. The greater the ratio of income to poverty, the more people fall under the category, because higher ratios include more people with higher incomes *(U.S. Census Bureau, Housing and Household Economic Statistics Division).*

Table 2.4 shows a direct correlation between educational attainment and poverty status. Navajo County's percentage below poverty level for those with less than a high school diploma is 38.7% this is a 15% increase over the state poverty level. In 2008, 44.7% of people in Navajo County were living at or below 200% of the poverty level (Northern Arizona

Table 2.5

Median Household Income (2008)										
Income Level	**Winslow**	**Holbrook**	**Snowflake**	**Taylor**	**Show Low**	**Pine Top-Lakeside**	**Heber-Overgaard**	**Hon-Dah McNary**	**Cibecue**	**Whiteriver**
Median Income	$35,351	$40,325	$44,999	$40,386	$40,288	$45,292	$35,305	$15,866	$20,729	$25,519
<$50K	61%	61%	55%	61%	59%	54%	63%	91%	90%	85%
>$50K	27%	28%	33%	30%	32%	36%	31%	9%	5%	13%
>$100K	13%	11%	12%	10%	9%	11%	6%	0%	5%	2%

Community Asset Report, Navajo County, Conducted by Northern Arizona University, 2008

Table 2.6

Median Household Income: Navajo County, Arizona, and United States			
Median Average Income	**Navajo County**	**Arizona**	**United States**
	$37, 660	$46,914	$50,303

Sources: U.S. Census Bureau, 2005-2007 American Community Survey (Navajo County Average); US Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 2008 (Arizona and United States

Council of Governments, Poverty Awareness and Action Workshop, 2009).

Navajo County poverty level (24.4%) is 1.5 to 2 times the Arizona average (14.2%) thus poverty is an issue in Navajo County that affects health status. According to the US Census Bureau Historical Poverty Tables (www.census.gov/hhes/www/poverty/histpov, accessed 10/14/09) the US poverty rate in 2006 was 296,450 (number of all people living below poverty in thousands) or 12.3%.

Drop Out Rates

The dropout rate in Navajo County (6.3%, or 759 students) is relatively high in comparison to the state dropout rates (4.2%, or 21,750) (based on 2006-2007 data, Arizona Department of Education). The U.S. dropout rate for 2006 was 9.3% and dropped to 8.7% in 2007. Dropout rates for males are relatively higher than the female rates in relation to the overall U.S. rates. In 2006 male dropout rates were 10.3% while female rates were 8.3%. In 2007 dropout rates in the U.S. for males dropped to 9.8% (still higher than the national average) while dropout rates for females were 7.7% (Digest of Education Statistics, National Center for Education Statistics, table 109, Percentage of high school dropouts among persons 16 through 24, 2006-2007, accessed 10/14/09, nces.ed.gov/programs/digest).

Special Populations

Homeless

The 2008 annual report, "Governor's Interagency and Community Council on Homelessness" conducted by Arizona Department of Economic Security (DES) uses the Arizona Temporary Assistance for Needy Families (TANF) definition of homelessness:

> *According to the McKinney-Vento Act, 42 U.S. Code §11301, et seq. (1994), a person is considered homeless who lacks a fixed, regular, and adequate night-time residence and has a primary night-time residency that is: a supervised publicly or privately operated shelter designed to provide temporary living accommodations, such as congregate shelters, transitional housing, or welfare hotels; an institution that provides a temporary residence for individuals intended to be institutionalized; or a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings, such as street sidewalks, abandoned buildings, parks, and subway tunnels.*

In 2009 there are a large number of school aged children and youth who are eligible for the McKinney-Vento support in Navajo County. McKinney-Vento provides funding to state and local educational agencies (LEAs) in addition to the American

Table 2.7

Homelessness in Arizona & Navajo County				
Group/population	**2007**		**2008**	
	Arizona	**Navajo County**	**Arizona**	**Navajo County**
Unaccompanied Youth	44	0	Not available	Not available
Children in Families	155	0	707	0
Individual Men	1,212	0	2,750	Not available
Individual Women	292	2	504	Not available
Serious Mental Illness & Substance Abuse	Not available	Not available	408	2
Serious Mental Illness	Not available	Not available	2,139	6

Homelessness Rates, Tracy L. Wareing, Current Status of Homelessness in Arizona 2008

Recovery and Reinvestment Act of 2009 to address the educational and related needs of some of the most vulnerable members of our society – homeless children and youth – during a time of economic crisis in the United States (US Department of Education, American Recovery and Reinvestment Act of 2009). The number of school aged children in Navajo County (Kindergarten through 12th grade) who are eligible for McKinney-Vento funding is 295. McKinney-Vento federal regulations require that schools remove barriers to enrollment, attendance, and other barriers to ensure success in the public school system and promote stability for children and youth who are experiencing instability in their housing.

Non-English Speaking Persons

60.1% of Navajo County residents speak English at home while 4.7% of Navajo County residents speak Spanish at home (68% of these people speak English very well). 0.7% of residents speak other Indo-European language at home (of these 90% also speak English very well). 0.2% of Navajo County residents speak Asian or Pacific Island language at home (of those 52% speak English very well). 34.3% of residents speak another language at home and 57% speak English very well (Citydata.com).

Normally an indicator looking at non-English speaking populations is usually directed at immigrant populations. In the case of Navajo County it is important to consider the implications for a multilingual population that is not made up of immigrants (43% of the population in the county is Native American). There are often language barriers that can affect health care.

In comparison with the state where 25.9% of those over age 5 speak a language other than English at home, 39.9% of Navajo County residents speak a language other than English at home.

Table 2.8

Unmarried Mothers				
Year	Navajo County		Arizona	
	Number	Ratio**	Number	Ratio**
2005	1,080	56.8	40,993	42.8
2006	1,092	58.2	44,746	43.9
2007	1,165	Not available	Not available	Not available
2008	1,145	58.9	44,728	45.1

Arizona Advanced Vital Statistics, 2005-2008 ** Indicates that the ratio is per 100 births.

Table 2.9

Migrant and Seasonal Farm Worker Estimates					
Region	MSFW farm worker estimates	Migrant farm workers	Seasonal farm workers	Non-farm workers in migrant households	Non-farm workers in seasonal households
Navajo County	59	34	25	29	21
Arizona	67,704	39,913	27,791	26,940	20,728

Larson. Migrant and Seasonal Farm Worker Enumeration Profiles Study, Arizona, 2008 (data adapted

The issue of homelessness in Navajo County may be dealt with effectively within each community more so than is usually the case, because the homeless rates are quite low (see table 2.7). However, there is a good deal of missing data and an assessment of homelessness in the county is recommended.

Single/Unmarried Parents

The occurrence of births to unmarried mothers is considerably higher in Navajo County over a four year span. In Navajo County there is an average (between 2005 and 2008) of 14 more births (per 100) to unmarried mothers in comparison to Arizona. Table 2.8 below provides additional data comparing the number of unmarried mothers in Navajo County with the number of unmarried mothers in the state during the period between 2005 and 2008.

Migrant Populations

Migrant and Seasonal Farm workers (MSFWs) are defined as, *an individual whose principal employment (51% of time) is in agriculture on a seasonal basis, who has been so employed within the last twenty-four months* (Larson. Migrant and Seasonal Farm Worker Enumeration Profiles Study, Arizona, 2008[1]). A migrant farm worker is slightly different, *establishes for the purposes of such employment a temporary* abode (US Code, Public Health Services Act, "Migrant Work").

Although the projected numbers of MSFWs may be relatively low (approximately 110 total people in the county, including farm workers and MSFW) in comparison to other regions in the state, there are particular health related vulnerabilities for these populations (Larson 2008). Working and housing conditions are often unsanitary making these workers more vulnerable to health conditions. Poverty is high for MSFWs as more than half of individual farm workers earn less than $7,500 a year while almost seventy five percent of farm worker families earn less than $10,000 a year (US Department of Labor, NAWS, 2005). Poverty rates in some cases may be related to citizenship; an estimated 52% of farm workers are not citizens or legal residents of the United States[2] (US Department of Labor, NAWS, 2005). Undocumented MSFW are not guaranteed the same rights as working American Citizens, such as minimum wage.

According to the National Agricultural Workers Survey (2005), the educational level of MSFWs averages about six years and 56% have less than twelve years of education. Other common social, cultural, economic and political factors that affect the vulnerability of MSFW include; poverty, frequent mobility, low literacy, language and cultural barriers, and logistic barriers to social services and health care that is cost-effective. For example, few MSFW have sick leave or insurance so they tend to prolong seeking health care services to avoid job loss. Thus often times they rely on emergency department services for care.

Additional Considerations for Migrant Populations

Table 2.9 above identifies the number of MSFW as they are defined in the traditional sense.

Ranch hands are arguably a second population in the county that are in fact migrant workers and are not included in the migrant population counts. Navajo County should consider examining the prevalence and presence of smokejumpers and ranch hands in their counts of migrant workers, as these groups have an important role in the county.

1 Limitations in the scope of this study include the use of secondary data analysis through database information, and individuals. Data was collected from a five year period (1998-2002) from the AZ-MSFW EPS, as found in the National Agricultural Workers Survey (NAWS) Public Access Database.

2 However, other sources indicate that a majority of MSFW are indeed legal residents or U.S. citizens.

Table 2.10

Uninsured

Arizona has one of the highest rates of uninsured citizens in the nation (Arizona Hospital and Health Care Association, 2007). In 2007 Arizona ranked 6th in the nation for the number of uninsured children (Robert Wood Johnson, 2007). According to the Arizona Hospital and Healthcare Association, the average for children (under the age of19) in Arizona who were uninsured and were at or below 200% of the poverty level was 11.2% compared to a national rate of 6.8% for uninsured children (UA Census Bureau, Current Population Survey, 2007-2009 Annual Social and Economic Supplements). Uninsured children are less likely to receive medical care for ear infections, iron deficiency anemia, which if left untreated may affect language development and ultimate success in life (Emergency Department Visits 2006).

In the 2000 census, 23% of Navajo County residents were uninsured (citydata.com, 2000).

Number of Uninsured in Arizona (2006)					
Arizona			United States		
Age Range	Number	Percent	Age Range	Number	Percent
Under 18	282,000	15.9%	Under 18	8,872,090	11.3%
19-64	938,820	24.5%	19-64	36,098,690	19.7%
Total 0-64	1,220,820	21.8%	Total 0-64	44,970,780	17.2%

Navajo County (2006) Data Sponsored By: U.S. Census Bureau and the Centers for Disease Control and Prevention; Data Source: SAHIE//State and County by Demographic and Income Characteristics/2006 (See table 2.11 below for more data based on income levels)
Arizona (2006-2007) and United States (2007) Sources: Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2007 and 2008 Current Population Survey (CPS: Annual Social and Economic Supplements).

Table 2.11

Number of Uninsured in Navajo County (2006)			
Age	Number Uninsured	Number in a Demographic Group for all Income Levels*	% Uninsured for Number in a Demographic Group for all Income Levels*
Under 19	3,613	34,351	10.5%
18-64	9,956	63,836	15.6%
Total Under 65	14,257	96,394	14.8%

Navajo County Data Sponsored By: U.S. Census Bureau and the Centers for Disease Control and Prevention; Data Source: SAHIE//State and County by Demographic and Income Characteristics/2006.* The number in a demographic group is the number of people in the poverty universe in that age, sex, and race/Hispanic origin group.

Table 2.12 Number of Uninsured Based on Sex

Uninsured Based on Sex (0-64)				
Region	Male		Female	
	Number	Percent	Number	Percent
Navajo County	5,408	17.5%	4,548	13.8%
	Total Number*: 30,861		Total Number*: 32,976	
Arizona	654,230	53.6%	566,590	46.4%
	Total Number: 1,220,820		Total Number: 1,220,820	
United States	24,247,040	53.9%	20,723,740	46.1%
	Total Number: 44,970,780		Total Number: 44,970,780	

[Navajo County (2006) Data Sponsored By: U.S. Census Bureau and the Centers for Disease Control and Prevention; Data Source: SAHIE//State and County by Demographic and Income Characteristics/2006. Only ages 18-64 available.]

* Total numbers specific to sex for Navajo County (# out of total males/ # out of total females)

[Arizona (2006-2007) and United States (2007) Data Sources: Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2007 and 2008 Current Population Survey (CPS: Annual Social and Economic Supplements) Ages 0-64.]

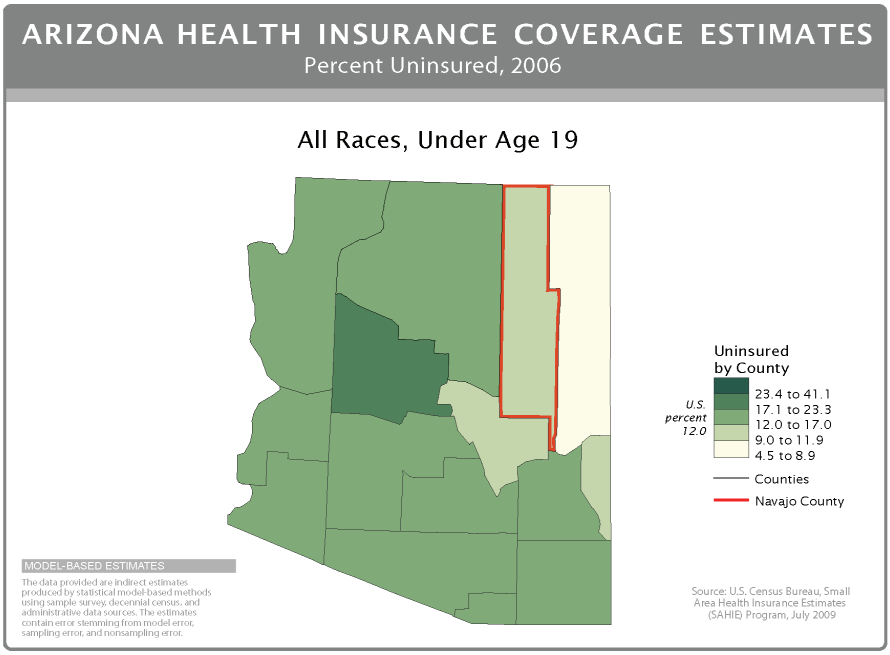


Figure 2.13 Arizona Health Insurance Coverage

Adapted from: US Department of Commerce and Statistics Administration, US Census Bureau, 2009

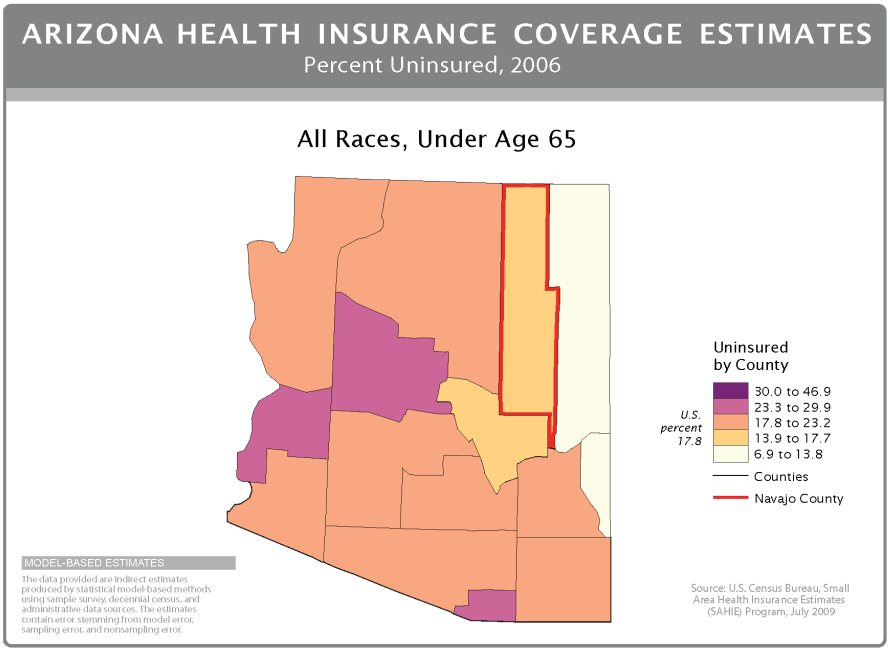


Figure 2.14 Arizona Health Insurance Coverage

Adapted from: US Department of Commerce and Statistics Administration, US Census Bureau, 2009

Data on Insurance Portability Indian Health Services (IHS)

Although Navajo County has a considerably low rate (13.9 to 17.7%) of uninsured residents (relative the state) approximately 43% of the county includes Native American reservation land. Figures 2.13 and 2.14 above illustrate the percent of uninsured in Navajo County. Indian Health Services (IHS), United States Public Health Services is the principle federal health care provider of services and advocacy to American Indians and Alaska Natives; it is not an entitlement program nor is it an insurance program or established benefits (www.rho.arizona.edu/resources/dataline/tribal%health). The coverage for Native American populations is relatively strong. However there are issues with health coverage portability for Native American populations off the reservation.

Personal communication with Environmental Health Services, Winslow Indian Health Care Center, (October 1, 2009) revealed that medical services for Native American populations (in locations other than the facility they frequent in the region they live in) off the reservation is complicated dependant on the status of the individual, close economic ties, student status, and if the individual has third party payer. Thus, coverage for Native American populations who travel off of the reservation and receive care (outside the normal facility where they get care) may not be as secure as it is on the reservation. Additional sources explain that services that a facility is unable to provide may be provided through Contract Health Services (CHS). CHS services are those that IHS staff or a facility can not provide and payments can be authorized to another provider under a strict set of guidelines (Indian Health Services Coverage, Rural Health Office, UA www.rho.arizona.edu). Many Indian people who move away from their home reservation are not eligible for CHS as they are moving away from the CHSA (Contract Health Service Area) where they have eligibility, urgent care needs may be met (defined by the local service unit).

Category Three - Health Resource Availability

Definition of Category

This domain represents factors associated with health system capacity, which may include both the number of licensed and credentialed health personnel and the physical capacity of health facilities. In addition, the category of health resources includes measures of access, utilization, cost and quality of health care and prevention services. Service delivery patterns and roles of public and private sectors as payers and/or providers may also be relevant.

Trends

In general, the number of health professionals in Navajo County is lower than the average for the state of Arizona and the US; numbers are especially low for registered nurses and psychologists. Some healthcare areas like dental care are covered at similar or superior levels than the state of Arizona, other healthcare areas (e.g. specialist care, mental health, and counseling services) are perceived by the residents as very difficult to access in Navajo County.

Arizona Health Care Cost Containment System AHCCCS

The Arizona Health Care Cost Containment System was implemented on October 1, 1982, as the nation's first statewide indigent health care program designed to provide services to eligible persons primarily through a prepaid managed care system. Operating as a demonstration project under the federal Medicaid program, AHCCCS receives federal, state and county funds to operate, plus some monies from Arizona's tobacco tax. AHCCCS enrolls most eligible persons with acute care health plans and long term care program contractors. The health plans assume responsibility for the provision of all acute care covered services to enrolled recipients (Chapter 1, Introduction to AHCCCS http://www.azahcccs.gov/commercial/Downloads/FFSProviderManual/FFS_Chap01Introduction.pdf).

The total Arizona Health Care Cost Containment System (AHCCCS) population in Navajo County is 41,197 (AHCCCS population highlights, 2009). Between 2008 and 2009 the AHCCCS population grew 12% in Navajo County (Arizona Cost Containment System http://www.ahcccs.state.az.us).

Per Capita Health Care Spending for Medicare Beneficiaries

(Medicare adjusted average per capita cost)

The AHCCCS population (including KidsCare) as of July 1, 2009 was 1,275,109 (AHCCCS population highlights, 2009).

Primary Care Providers

Per 100,000 people in Navajo County there are 49.8 primary care physicians (HRSA Area Resource Files, 2005). The number of registered nurses in Navajo County is 589, or 529 RNs per 100,000 people, in comparison with the Arizona ratio of 681 per 100,000 people and the national average 825 per 100,000 people (Arizona Hospital and Healthcare Association; Arizona Healthcare Workforce Data Center, 2007).

Table 3.1

Number of Licensed Medical Doctors in Navajo County (2009)

Provider Type	Cibecue	Holbrook	Kayenta	Lakeside	Pinetop-	Polacca	Second Mesa	Show Low	Snowflake	Taylor	Whiteriver	Winslow
Number of Licensed Medical Doctors	1	5	2	19	5	4	1	47	5	1	16	19

Data from 2009 Arizona Medical Doctor database, Arizona Medical Board Directory

The rate per total population (CHSI Report, Navajo County Community Assets) of Dentists per 100,000 of the population is 24 (approximately 4,000 patients per dentist) (HRSA Area Resource Files, 2005). Table 3.1 provides data on the number of licensed Medical Doctors (MD's) in Navajo County. The numbers reflect those MDs who are licensed, not necessarily practicing in the area.

IHS Health Care Providers (On-Reservation)

Tables 3.2 through 3.6 offer data on several types of health care providers (Nurses, Dentists, Medical Doctors, Social Workers, and Psychologists) working through Indian Health Services (IHS) on the three reservations in Navajo County. Unfortunately, the data does not match the specific "trend" years (2004-2008) we are examining in this assessment. These data are useful for understanding where there are gaps in provider coverage for IHS facilities for Navajo Nation, the Hopi Tribe, and the White Mountain Apache Tribe (relative to Navajo County). We recommend that a more recent examination of the number of IHS providers in the tribal regions of Navajo County be conducted.

Table 3.2

Number of Dentists: Indian Health Services (IHS) (1997-2001)				
Region / **Navajo Service Area**	**Number in 1998**	**Number in 1999**	**Number in 2000**	**Number in 2001**
Chinle Service Unit	6	5	6	5
Fort Defiance Service Unit	3	4	4	4
Kayenta Service Unit	4	5	3	2
Navajo Area IHS	3	1	1	1
Tuba City Service Unit	8	5	8	8
Winslow Service Unit	5	4	4	5
Hopi Service Unit	3	3	5	5
Whiteriver Service Area	3	3	4	4
Arizona Total IHS	56	53	62	60

Rural Health Office, University of Arizona

Table 3.3

Oral Health Professionals, Licensed or Certified (2005)								
Dentist Type	**Snowflake**	**Winslow**	**Holbrook**	**Show Low**	**Taylor**	**Heber-Overgaard**	**Navajo County**	**Arizona**
Dentists	4	2	3	6	Not Available	1	30	2,870
Dental Hygienists	7	1	Not Available	7	1	2	26	2,299
Denturists	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	10
AHCCCS Dentists	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	26	840

Arizona Department of Health Services, *Community Oral Health Profiles*, 2005

According to the White Mountain Head Start 2007 health screening among children from the White Mountain Apache Tribe, 79% of children screened (ages 3-5 years) had active dental disease. Only 82% of these children received treatment (The White Mountain Apache Tribe Regional Partnership Council Funding Plan, Overview of the three year strategic Plan, July 1, 2009 through June 30, 2012). We recommend future research on access to dental care, barriers to care, and causes of poor dental health including samples from across Navajo County including Native American populations and non-Native populations, among others.

According to the White Mountain Head Start 2007 health screening among children from the White Mountain Apache Tribe, 79% of children screened (ages 3-5 years) had active dental disease. Only 82% of these children received treatment (The White Mountain Apache Tribe Regional Partnership Council Funding Plan, Overview of the three year strategic Plan, July 1, 2009 through June 30, 2012). We recommend future research on access to dental care, barriers to care, and causes of poor dental health including samples from across Navajo County including Native American populations and non-Native populations, among others.

Table 3.4

Access To Care/Dental Utilization- Visits to a Dentist/Clinic (2005)		
Elementary School Grades K-3	**Navajo County**	**Arizona**
within past year	60%	54%
one or more years	29%	27%
never	9%	16%
Middle School Grades 6-8		
within past year	Not Available	79.5%
five or more years	Not Available	1.7%
never	Not Available	3.1%
High School Grades 9-12		
within past year	Not Available	76.2%
five or more years	Not Available	3.4%
never	Not Available	2.6%
Adults 18-64		
within past year	63.8%	67.3%
five or more years	11.2%	8.8%
never	1.2%	0.7%
Older Adults 65+ years		
within past year	70.4%	71.2%
five or more years	11.5%	13.4%
never	0.0%	0.5%
Total Population	**97,470**	**5,130,632**

Arizona Department of Health Services, *Community Oral Health Profiles*, 2005

Table 3.5

Oral Health Indicators; Dental Health Status (2005)		
Infants 6 months to 24 months	**Navajo County**	**Arizona**
with decay experience	6%	5%
with untreated tooth decay	6%	5%
with urgent treatment needs	2%	3%
Toddlers 2-4 years		
with decay experience	40%	37%
with untreated tooth decay	33%	33%
with urgent treatment needs	5%	4%
Children 6-8 years		
with decay experience	71%	62%
with untreated tooth decay	51%	40%
with urgent treatment needs	19%	9%
with dental sealants (8 years)	33%	28%
Adolescents 11-13 years		
with decay experience	Not Available	65%
with untreated tooth decay	Not Available	32%
with urgent treatment needs	Not Available	5%
with dental sealants	Not Available	16%
Adults 35-44 years		
never lost a tooth due to disease	52.5%	63.5%
Older Adults 60+ years		
with untreated tooth decay	Not Available	41%
with moderate to severe loose teeth	Not Available	15%
with no molars for chewing	Not Available	11%
with dental pain/infection	Not Available	14%
with complete tooth loss (65-74 years)	9%	13.7%
Total Population	**97,470**	**5,130,632**

Arizona Department of Health Services, *Community Oral Health Profiles,* 2005

Table 3.6

Number of Medical Doctors (MD) & Doctor of Osteopathic Medicine (DO): Indian Health Services (IHS) (1997-2001)

Region Navajo Service Area	Number in 1998	Number in 1999	Number in 2000	Number in 2001
Chinle Service Unit	53	37	34	38
Fort Defiance Service Unit	18	17	21	21
Kayenta Service Unit	17	17	17	16
Navajo Area IHS	4	4	4	4
Tuba City Service Unit	46	49	51	48
Winslow Service Unit	10	12	11	11
Hopi Service Unit	9	11	12	11
Whiteriver Service Area	18	18	20	19
Arizona Total IHS	302	314	318	336

Rural Health Office, University of Arizona

Table 3.7

Social Workers: Indian Health Services (IHS) (1997-2001)

Region Navajo Service Area	Number in 1998	Number in 1999	Number in 2000	Number in 2001
Chinle Service Unit	2	2	2	2
Fort Defiance Service Unit	2	3	3	4
Kayenta Service Unit	2	2	2	2
Navajo Area IHS	0	0	0	0
Tuba City Service Unit	2	2	2	3
Winslow Service Unit	1	1	1	1
Hopi Service Unit	2	1	2	2
Whiteriver Service Area	4	4	4	4
Arizona Total IHS	24	30	34	36

Rural Health Office, University of Arizona

Table 3.8

Psychologists: Indian Health Services (IHS) (1997-2001)				
Region / **Navajo Service Area**	**Number in 1998**	**Number in 1999**	**Number in 2000**	**Number in 2001**
Chinle Service Unit	1	2	2	2
Fort Defiance Service Unit	0	0	0	1
Kayenta Service Unit	0	0	0	0
Navajo Area IHS	0	0	0	0
Tuba City Service Unit	0	0	0	0
Winslow Service Unit	0	0	0	0
Hopi Service Unit	0	0	0	0
Whiteriver Service Area	1	1	0	0
Arizona Total IHS	3	4	5	9

Rural Health Office, University of Arizona

Table 3.9

Hospital Beds in Navajo County				
Hospital	**Number of (acute care) beds**	**Number of specialty beds**	**Occupancy Rate per total population**	**Number of available in-patient beds**
Winslow Memorial Hospital	25	0	13 (average per day of 32,000)	25*
Summit Health Care Regional Medical Center	81	12 (ICU) 14 (OB/GYN) 42 (Med/Surgery) 20 (Postpartum) 7 (LDR)	Not available	Not available
Whiteriver IHS Hospital	42	14 (ER) 5 (OB/GYN) 24 (Med Surg)	Not available	25
Hopi Health Care Center	15	0	4	4
Winslow Indian Health Care Center	8	1 (OB/GYN) 7 (Urgent Care)	Not available	0 (Outpatient only)

(Hospital website search/phone calls to the facility were made September-October 2009)
(* All acute care beds can become inpatient beds in the swing bed Medicaid program when needed)
(N/A describes information that was Not Available at the time of the Community Health Status Assessment)

Table 3.10

Community Health Centers in Navajo County		
Location	**Clinic**	**Population Served**
Show Low	North Country Healthcare	All populations
	Show Low Veterans Affairs Health Care Clinic	Eligible veteran populations
	Show Low Medical Clinic	All populations
	Summit Healthcare	All populations
	Women's Choice Pregnancy Clinic	Women
	StatClinix, PLC	All populations
Holbrook	North Country Healthcare	All populations
	Petrified Forest Medical Center, Inc.	All populations
Winslow	North Country Healthcare	All populations
Snowflake	Snowflake Medical Center	All populations
Kayenta	Kayenta Health Center	Native populations only
Chilchinbeto	Canyonlands Community Health Care Chilchinbeto Clinic	All populations
Heber-Overgaard	Summit Healthcare Community Clinic	All populations
Piñon	Piñon Health Center	All populations

Source: AZDHS

The number of psychologists on the reservations is alarmingly low. An assessment to identify the current numbers of providers on the reservation and the need for psychologists may be a worthwhile endeavor.

Table 3.11

Mental Health Facilities in Navajo County														
Location	**Facility Name**	**Services**												
		Individual Counseling	Adolescent/Youth Counseling	Spouse/Domestic Partner Abuse Counseling	Psychiatric Medication Services	Mental Health Evaluation	Addiction Recovery: Methadone Maintenance	Addiction Recovery: Dual Diagnosis	Addiction Recovery: Substance Abuse Counseling	Addiction Recovery: Substance Abuse Treatment Programs	Psychiatric Medication Services	Mental Health Hotlines	Sexual Assault Hotlines	Community Mental Health Agencies
Holbrook	Community Counseling Centers (CCC): Holbrook Outpatient Clinic	●	●			●	●	●	●	●		●		
Kayenta	Kayenta Public Health Service (PHS) Indian Health Services	●							●					
	Tohenasshai Shelter/ Kayenta DV Task Force	●	●	●										
	Kayenta Outpatient Treatment Center		●						●	●				
Pinetop	White Mountain Safe House	●		●					●					
Polacca	Hopi Behavioral Health & Social Services Program	●							●	●				
	Hopi Health Center: PHS Indian Health Services	●				●								
Second Mesa	Hopi Guidance Center: Keams Canyon	●	●	●										
Show Low	White Mountain Counseling	●												
	Community Counseling Centers (CCC): Show Low Outpatient Clinic	●		●		●			●	●		●		
	Pineview Behavioral Health Center					●					●			
	Big Brothers and Big Sisters of Northeastern Arizona		●											
Whiteriver	Apache Tribal Behavioral Health Services (ABHS)	●		●					●	●				
	Rainbow Center								●	●				
Winslow	Winslow Indian Health Care Center	●												
	Community Counseling Centers (CCC): Winslow Outpatient Clinic						●		●			●		
	Winslow Guidance Associates								●	●				
Flagstaff	Northern Arizona Regional Behavioral Health Authority (NARBHA) Navajo County**											●		●
---	National Sexual Assault Hotline: RAINN												●	
---	National 24 Hour Domestic Violence Hotline			●									●	

**NARBHA is located in Flagstaff, Arizona (Coconino County) but also serves Navajo County(Northern Arizona Regional Behavioral Health Authority, network of care, accessed 9/28/09 www.narbha.org)

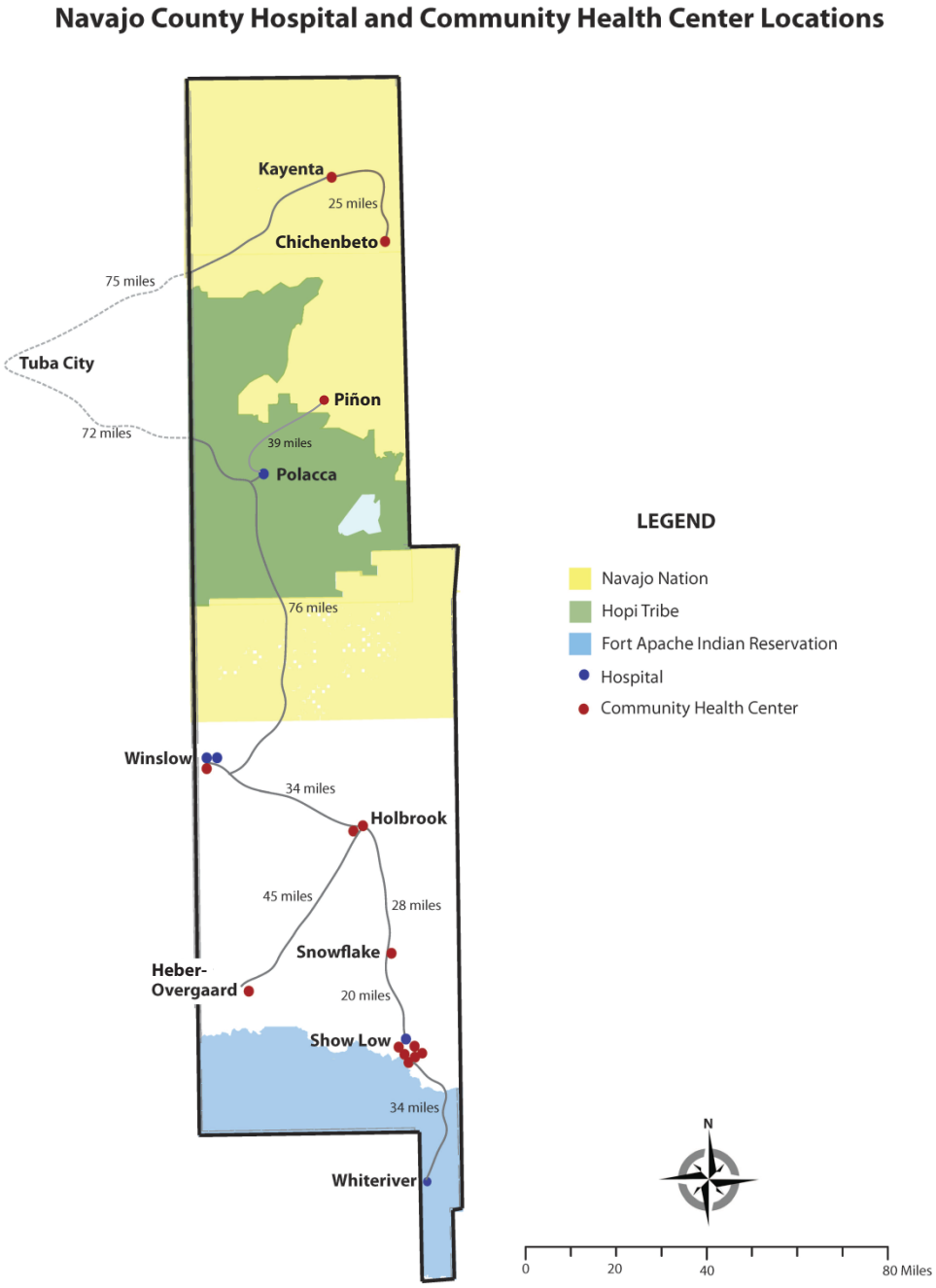


Figure 3.12 Community Health Centers and Hospitals in Navajo County

Mental Health

According to Healthy Arizona 2010, approximately 20% of the US population is affected by mental illness during a given year. Of all mental illnesses, depression is the most common. In Arizona, the 1997 suicide mortality rate among adolescents 15-19 years old was 23.7 per 100,000 (the second highest rate in the US). Another area of concern for Arizona is the elderly (ages 75-79) who ranked third in the nation in 1997 for suicide (Arizona Division of Public Health Services, Healthy Arizona 2010 Strategic Plan) Accessed on 9/28/09, http://www.azdhs.gov/phs/healthy-az2010/strtgc.htm).

Strategies for Healthy Arizona 2010 to decrease the occurrence of depression among Arizona residents include improvement of diagnosis and treatment, better integration of behavioral and public health and boarding awareness of depressive illness among primary care providers (Arizona Division of Public Health Services, Healthy Arizona 2010 Strategic Plan) Accessed on 9/28/09, http://www.azdhs.gov/phs/healthyaz2010/strtgc.htm).

Health Care Access

The Community Themes and Strengths Assessment (CTSA) conducted by the MAPP subcommittee asked the question, "How easy or difficult is it for you to receive these types of health care?" The top five responses indicating that it is very difficult to receive care (in Navajo County). Survey findings showed that 30.5% of respondents stated that specialist care was very difficult to receive, 21.8% of respondents said mental health care was very difficult to access, 21.3% stated there are not enough medical providers, and 20.3% said that counseling services were very difficult to receive in the County.

On the other hand, 19.3% of survey respondents said eye care was very easy to access, 18.4% of respondents said that dental care was very easy to access, 18.4% said that emergency care was very easy to access in Navajo County, general health care was also reported to be very easy to access, while 10.4% of respondents stated that pediatric care is very easy to access (Community Themes and Assets, Navajo County Public Health District, Survey results, PowerPoint summary of findings. 2009).

Local Health Department Full-time Equivalent Employees (FTEs)

The Navajo County Health Department has 42 full time employees (August 2009, personal communication).

Total Operating Budget of Local Health Department

Navajo County Health Services District total fiscal year 2010 operating budget $6,838,248.58 (August 2009, personal communication).

Table 3.13

Healthcare Access, Navajo County						
Year	Do not have healthcare coverage		Do not have a personal healthcare provider		Could not see a doctor because of cost	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2004	11,444	17.8%	15,929	24.7%	10,630	16.5%
2005	15,709	25.1%	17,589	28.1%	8,257	13.2%
2006	15,306	20.9%	Not available	Not available	11,698	16%
2007	19,468	25.9%	Not available	Not available	12,714	16.9%

BRFSS data, 2004-2007

Table 3.14

Navajo County Airports		
Airport Paved/Unpaved	**Runway Length**	**Type of Runway**
Holbrook	6698 x 75 3200 x 120	Paved Gravel/Dirt
Show Low	3937 x 60 7200 x 100	Paved Paved
Taylor	7000 x 75	Paved
Whiteriver	6350 x 75	Paved
Winslow	7499 x 150 7100 x 150	Paved
Low Use Airports		
Heber-Overgaard	3420 x 50	Paved
Kayenta	7140 x 75	Rough/rutted/ loose rock
Polacca/Keams Canyon	4200 x 50	Paved

No airports in Navajo County have towers. If an emergency occurs, the FAA will provide a provisional tower, just as they did in Show Low for the Rodeo fire. Helicopters can land anywhere. There are no active military airports in Navajo County (Personal Communication, MAPP Subcommittee

Care for the Elderly in Navajo County

Definitions

(Source: Arizona Administrative Code, Title 9, Chapter 10, Article 1)

- **Assisted living center** or "center" means an assisted living facility that provides resident rooms or residential units to eleven or more residents.
- **Assisted living facility** means a residential care institution, including adult foster care, that provides or contracts to provide supervisory care services, personal care services or directed care services on a continuing basis.
- **Assisted living home** or "home" means an assisted living facility that provides resident rooms to ten or fewer residents.

Nursing Care Facility:

'Nursing care institution' means a health care institution providing inpatient beds or resident beds and nursing services to persons who need nursing services on a continuing basis but who do not require hospital care or direct daily care from a physician.

Table 3.15

Senior Care Facility Availability in Navajo County			
Category	**Facility**	**Total number of beds**	**Number of available beds**
Assisted Living Facilities	Aspen Pond Assisted Living	114 (apartments)*†	63 (apartments)*
	Carriage House on West Garden Lane	30	0
	Webb's Adult Care Home	20	1
Nursing Homes	Tall Pines Care and Rehab, Inc.	100	40
	Winslow Campus of Care	120	24
Home Health Agencies	Summit Healthcare Home Health	179 (patients)	Not applicable
Hospice	Hospice Compassus	7	Not available

* 60 apartments awaiting Arizona State License as of 09/2009.
† One to two persons per apartment. (Phone calls to facilities made September 2009).
Hospice data from www.amenityhospice.com, accessed 12/16/09

Home Health Agency:

'Home health agency' means an agency or organization, or a subdivision of such an agency or organization, which meets all of the following requirements:

a. Is primarily engaged in providing skilled nursing services and other therapeutic services.
b. Has policies, established by a group of professional personnel, associated with the agency or organization, including one or more physicians and one or more registered professional nurses, to govern the services referred to in subdivision (a), which it provides, and provides for supervision of such services by a physician or registered professional nurse.
c. Maintains clinical records on all patients.

It is recommended to conduct an assessment on the number senior care facilities in Navajo County for Navajo Nation, Hopi Tribe, and the White Mountain Apache Tribe. There are a number of Community Health Representatives (CHR) who work on the reservations. A survey of how many work directly with elderly populations is also recommended.

Category Four - Quality of Life

Definition of Category:

Quality of Life (QOL) is a construct that "connotes an overall sense of well-being when applied to an individual" and a "supportive environment when applied to a community" (Moriarty, 1996). While some dimensions of QOL can be quantified using indicators research has shown to be related to determinants of health and community-well being, other valid dimensions of QOL include perceptions of community residents about aspects of their neighborhoods and communities that either enhance or diminish their quality of life.

Trends

During 2008, Navajo County data about satisfaction with the healthcare system in the community showed satisfaction levels. Eligibility for DES (Department of Economic Security) Childcare programs has dropped in Navajo County, creating longer waiting lists for child care in addition to other child care issues. The alarmingly low number of psychologists presented in the previous indicator, there is no data on outreach programs to the physically, mentally, or psychologically challenged in Navajo County.

Satisfaction with Life

Proportion of Adults Satisfied with the Health Care System in the Community

The proportion of adults satisfied with the health care system data was not recovered. However, the 2008 CTSA collected similar data. The percentage of adults who reported fair or poor health in Navajo County was 16.5%. This is slightly lower than the median for all U.S. counties (17.1%).

Proportion of Parents Involved in Parent Teacher Type Organizations

For a detailed table with parent teacher organization involvement by school in Navajo County, please see Appendix A.

There are a total of 79 schools in Navajo County (elementary, middle and high schools). Approximately 45% of these schools have an active Parent Teacher Association (PTA) the 2009-2010 school years.

Table 4.0

Satisfaction With Life: Navajo County, Arizona (2005-2007)

Years	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		DK/NS		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2005	33,374	56.1	24,441	41.1	1,355	2.3	125	0.2	227	0.4	59,522	100.0
2006	33,319	47.5	31,219	44.5	3,241	4.6	1,385	2.0	915	1.3	70,080	100.0
2007	34,296	48.2	34,776	48.9	976	1.4	1,082	1.5	Not Available	Not Available	71,130	100.0

BRFSS Reports, 2005-2007

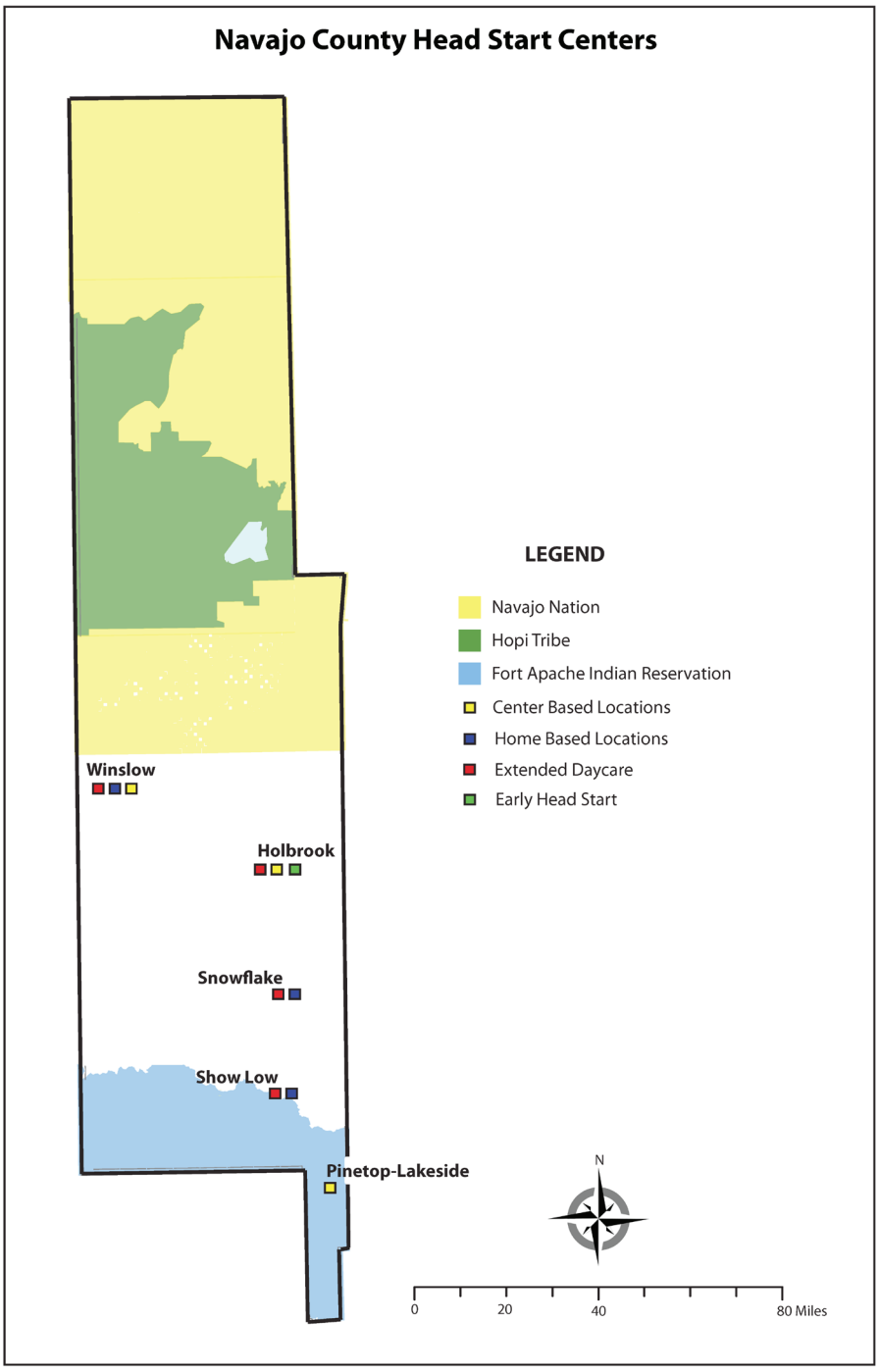


Figure 4.1 Location of Head Start Centers in Navajo County*

* Does not include Navajo Nation, Hopi Reservation, and White Mountain Apache Head Start Centers

Involvement in parent teacher organizations ranges from 0.60% to 11.32% (percent of parents involved in parent teacher organizations[1]). The Snowflake Intermediate School located in Snowflake, Arizona is an outlier, with 35.63% involvement in the parent volunteers (Primary data collection, phone calls to all schools in Navajo County, between October and November 2009).

Table 4.2

Number of Openings in Head Start Facilities for Low Income Families (October – December 2009)

Facility	Location	Number of Openings
Head Start	Winslow	141
Head Start	Show Low	96
Head Start	Snowflake	38
Head Start	Pinetop-Lakeside	38
AI/AN Head Start, Hopi Tribe	Polacca	0 (Waiting List)
AI/AN Head Start, Hopi Tribe	Hotevilla	0 (Waiting List)
AI/AN Head Start, Hopi Tribe	Second Mesa	0 (Waiting List)
AI/AN Head Start, Hopi Tribe	Kykotsmovi	0 (Waiting List)
AI/AN Head Start, White Mountain Apache	Cibecue	0 (Waiting List)
AI/AN Head Start, White Mountain Apache	Whiteriver	0 (Waiting List)
Navajo Head Start Center	Kayenta	Unknown
Navajo Head Start Center	Winslow	Unknown

The numbers above were collected via phone calls to the facilities in August 2009 and December 2009 (personal communication). * There are 11 separate in-home facilities that take low income clients (http://www.nacog.org/hs/components.htm). The list of Head Start locations for native American/Alaska Natives was retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/HeadStartOffices

Child Care for Low Income Families

Head Start is a federal program for preschool children from low-income families. Children who participate in Head Start are eligible to receive a number of additional resources including free dental and medical care and healthy meals. Table 4.2 provides an overview of the number of openings for low income families (accessed 10/14/09, www.nacog.org).

DES Child Care for Low Income Families

The percentage of DES (Department of Economic Security) eligible applicants has dropped. Once a parent is off of DES, it is hard to get back on DES. There is a scholarship for kids offered previously through *First Things First* that was dropped through DES. If the family is new to the scholarship, it takes 6 months to be approved. Problems developed when the scholarship runs out then the parents are in a bind. Many parents are not working because of the current state of the economy. Several DES certified childcare providers raised the issue that community health is suffering because parents are not qualified for DES services. There are very few jobs that pay enough to afford day care. To be eligible for DES services (such as child care reimbursement) parents must either be working or going to school[2]. Please see Table 4.3 for a detailed list of DES certified child care providers in the county (names and contact information acquired from local DES childcare of-

1 Percent of parent involvement derived by dividing the number of involved parents by the total number of students enrolled at each school. This included primary data collection through the Health Research Alliance Arizona Northern Arizona University (NAU) office (Personal communication via phone calls, and written requests when asked, data collected between October-November 2009).

2 Eligibility for DES child care reimbursement requires that the parent is working at least 20 hours every week (this includes full time students).

fices in Navajo County, and accompanying phone calls to identify capacity, number of openings, and wait lists, calls made in October 2009).

Childcare on the Reservations (In Navajo County)

On the Navajo Nation, childcare for low-income families is provided by the Navajo Head Start program, which is one of the largest Head Start organizations in the United States. NHS is funded to provide services to 4,013 children aged 3 to 5 years enrolled at 206 Head Start centers and Home Base programs. 60 children aged 0 to 3 and expectant mothers are enrolled in 5 Early Head Start Centers (accessed 02/8/2010, www.nnheadstart.org).

In addition to NHS, There is childcare provided through "relative providers" on Navajo Nation but these are not certified childcare providers (Personal Communication, Stacey Apodaca, DES, Office of Childcare Administration, Winslow, Arizona, 12/16/09). According to "Indian Country Today" in March 2009 the Navajo Nation received $2.6 million from the Arizona program, *First Things First*[3], for the development of culturally relative early childcare and education for children aged 0 to 5 years. The funds will be used to "increase culturally-responsive quality early care and education in childcare centers, help home-based childcare providers across Navajo nation become licensed, increase the number of well-trained childcare education professionals with educational assistance and scholarships to pursue degrees". The program will provide services to about 12,000 Navajo children. Each chapter house is in need of child care centers. In the Navajo program children will learn to speak in the Navajo language (March 19, 2009, accessed 12/16/09 www.indiancountrytoday.com/national/southwest/41310777.html). DES currently does not provide formal childcare assistance on the Navajo Reservation as DES has no jurisdiction.

The Hopi Childcare Program provides high quality childcare to Hopi families whose work or educational pursuits require them to be away from the home. Traditionally childcare has been integral to Hopi community life through parents, extended family and other community members. In recent years there has been an increase in single parent families, families with two working parents, making the demand for childcare based within community (as previously mentioned) too great. The Hopi Tribe has responded by creating the Hopi Child Care Program (HCCP) in 1993. Primary services are focused on working families, parents attending school and participants in the Temporary Assistance to Needy Families (TANF) program. During the first year of the program in-home care was offered for 114 children (birth to age 5). In 2001 a facility was secured near the tribal government offices to build a child care facility. The program currently has 56 certified in-home care providers and requires "training or certification in first aid, CPR, nutrition, food handling, child development, health and safety, communicable diseases, and recognizing negligence and abuse". The program also encourages and supports employees professional development in obtaining certification and enrolling in 2 and 4 year degree programs (The Harvard Project on American Indian Economic Development, JFK School of Government, Harvard University, Honoring Nations: 2006 Honoree, The Hopi Child Program, The Hopi Tribe, www.hks.harvard.edu, accessed 12/17/09).

The White Mountain Apache Tribe administers Head Start (100 children receive full-day, year-round services through the White Mountain Apache head Start/Child Care Partnership) and Child Care and Development Funds (CCDF) grants (serves about 400 children a year through a center-based care and a certificate program that allows families to choose from a range of care options in the community). In 1994 a community needs assessment showed that parents would benefit from full day care for their children. As a result the Head Start program and the Childcare program combined forces to provide tribal members with child care (U.S. Department of Health

3 *First Things First* is a non-profit organization that oversees the use of state taxes from tobacco sales.

Table 4.3

Arizona Department of Economic Security (DES) Certified Child Care Facilities & Preschools (October 2009)				
Facility	**Location**	**Total Capacity**	**Number of Openings**	**Wait List**
Show Low				
Tracy Ison Family Child Care	Show Low	10	2	0
Kidz Town Day Care	Show Low	75	10	11
Ehmke's Child Haven	Show Low	100	50	0
Little Bears Den	Show Low	8	0	0
Dragonfly Preschool	Show Low	46	24	0
Miss Dinah's	Show Low	49	15	0
Tiny Treasures Group	Show Low	10	0	0
Jamie Kulish	Show Low	6	4	0
Judy Watson	Show Low	6	0	0
Patricia Guevara	Show Low	6	1	0
Lakeside				
Discovery Zone Learning	Lakeside	Not available	Not available	Not available
One Step Ahead Preschool	Lakeside	93	45	0
Tender Times Child Care	Lakeside	25	15	0
Whiteriver				
Chagahache Day Care	Whiteriver	100	0	100
Alchesay Beginnings	Whiteriver	102	0	40
Overgaard				
Christine Bonn	Overgaard	6	2	0
Kathryn Forge	Overgarrd	6	4	0
Snowflake				
Andrea Rogers	Snowflake	4	1	0
Carousel Day Care	Snowflake	57	35	0
Holbrook				
Holbrook Educational Day Care	Holbrook	46 (15 on DES)	10	10 (on DES)
Tommy Young	Holbrook	6	0	2
Winslow				
Aruna Kothari	Winslow	6	4	0
Josephine Chavez	Winslow	No info available	--	--
Katherine Echoles	Winslow	4 per shift (2 shifts)	0	0
Angela Thomas	Winslow	6	0	0
Lena Nelson	Winslow	4	2	0
Pooh's Playhouse	Winslow	49: 32 kids on DES & first step	17	0
Mary's Little Lambs	Winslow	26	13	0
Mini's Group Home	Winslow	10	4	0
Melissa Salazur	Winslow	14 (10 kids per shift.(3 shifts)	4	0

Facilities identified through the DES childcare website https://egov.azdes.gov. Current DES childcare provider lists were faxed from the Office of Childcare Administration (phone calls made to each facility to obtain data made between October 1 and October 25, 2009)

and Human Services, Administration for Children and Families, Tribal Child Care Technical Assistance Center (TriTAC) Effective Program Strategies, White Mountain Apache, http://nccic.acf.hhs.gov accessed 12/17/09).

Number of Neighborhood Crime Watch Areas

The Navajo County Sheriff's Office has several categories of volunteer support. Auxiliary has five units throughout the county. The Sheriff's Auxiliary Volunteers (SAV) patrol and assist with the neighborhood watch program. The SAV program started in 1990 and now includes over 30 members. The members participate in a six week training program which includes self-defense training, defensive driving, report writing, officer safety, and gang identification (September 23,2005, AzJournal.com, www.policevolunteers.org/newsletter).

Civic Organizations/Association Members per 1,000 of the Population

Data for this indicator was not available. Navajo County may want to consider conducting a needs assessment to collect data on what civic organizations exist in the county.

Number of Registered Voters

See Table 4.4 for the number of registered voters in Navajo County from 2004 through 2009.

Outreach to the physically and mentally or psychologically challenged

Unfortunately there is no compiled data on outreach to physically or psychology challenged peoples in Navajo County. Table 3.11 identifies facilities and organizations that provide behavioral health care to Navajo County residents. The data in Table 3.11 may prove useful in a future needs assessment of resources and outreach to the physically and mentally challenged.

Households without Piped Water or Electricity

Navajo Nation

No data is available for homes without piped water or electricity on non-reservation lands in Navajo County. According to the United States Environmental Protection Agency (USEPA) Region 9, approximately 40% of residents on the Navajo Nation lack piped water. Of the fifty chapters in Navajo Nation, 17 are fully or partially located within Navajo County. Table 4.5 summarizes the data for households without piped water for those chapters located within Navajo County.

Hopi Reservation

On the Hopi Reservation, data is available for each village regarding utility services to individual households. These data stem from village surveys conducted between 2006 and 2009. The data provide the most recent estimates of homes without utilities (Table 4.6). According to Peter Mitchell, Environmental Engineer for Indian Health Services, homes without piped water or sewer likely do not have electricity, but may operate off of generators (Peter Mitchell, personal communication, 2009).

White Mountain Apache

On the White Mountain Apache Reservation, nearly all homes have piped water, sewer, and electrical utilities (Rick Rivers, personal communication, 2009).

Table 4.4

Percent of Registered Voters, Navajo County, AZ (2004-2009)						
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Number of Registered Voters	47,858	55,304	52,974	57,992	52,729	59,951

(Personal communication, Navajo County Recorder, September 23,2009)

TB

No data were available for tuberculosis rates in Navajo County.

Navajo County Medical Reserve Corps

The Navajo County Medical Reserve Corps provides the structure needed to set up medical and non medical personnel in response to an emergency (www.navajocountymrc.com). For example, during the H1N1 outbreak, between October 27, 2009 and November 4, 2009 Navajo County was able to offer some support (Medical Reserve) to other areas in need. Volunteer health professionals allow the Arizona Department of Health Services (ADHS), local health departments and emergency management to swiftly identify and utilize health care volunteers. In order to have an effective emergency response plan and system in Arizona, the region must be able to properly disperse volunteer health professional who have proper skills to care for people in need of services (www.azdhs.gov/volunteer).

Navajo County currently (fall 2009) has a number of health volunteers available including five clinical social workers, two marriage and family counselors, two mental health counselors, one pharmacist, twenty-four registered nurses, and one veterinarian. The current numbers of health volunteers have the ability to meet the local public health need.

To find the closest provider call the Public Health Help Line at 532-6057 or visit the Navajo County Medical Reserve Corps web site www.navajocountymrc.com Health Alerts tab (2009 H1N1 Health Volunteer Activity Report).

Table 4.5.

Navajo Reservation Chapters without Piped Water*				
CHAPTER	**No Water**	**IHS Total**	**Census Total**	**Percent**
Forest Lake	165	194	293	85%
Hardrock	73	305	592	24%
Dilkon	166	403	806	41%
Pinon	139	890	1097	16%
Teesto	145	247	429	59%
Whippoorwill	4	250	492	2%
Whitecone	132	332	589	40%
Shonto	155	236	1084	66%
Black Mesa	63	185	240	34%
Chilchinbeto	120	360	520	33%
Dennehotso	231	496	670	47%
Inscription House	47	317	447	15%
Jeddito	277	339	604	82%
Kayenta	221	1168	2108	19%
Low Mountain	4	119	380	3%
Oljiato	220	482	953	46%
Steamboat	59	123	790	48%
Tachee/Blue Gap	0	352	722	0%

* Some chapters are only partially located in Navajo County.
Source: Navajo Nation Department of Water Resources (2008)

Table 4.6

Hopi Village Households without Piped Water or Sewer					
Village	**Total Homes**	**No Piped water**	**No Sewer**	**No Water or Sewer**	**Data last updated**
Bacavi	158	0	8	48	2007
Hotelvilla	205	0	0	0	---
Kykotsmovi	287	0	6	7	2007
Mishongovi	124	4	10	64	2009
Lower Moenkopi	46	approx. 26	---	---	2009
Upper Moenkopi	343	0	4	6	2009
Old Oraibi	55	50-52	50-52	50-52	---
Sipaulovi	87			18	2009
Spider Mound	28	0	0	0	---
Polacca	508	---	---	25	2006
Shungopavi	287	---	---	62	2006

Sources: Indian Health Services *WSTARS* (2009) and Upper Village of Moenkopi (2009).

Category Five - Behavioral Risk Factors

Definition of Category

Risk factors in this category include behaviors which are believed to cause, or to be contributing factors to, injuries, disease, and death during youth and adolescence and significant morbidity and mortality in later life.

Trends

High school students in Navajo County have higher levels of drug use and abuse when compared to Arizona state levels, especially regarding the use of marijuana and methamphetamines by 10th and 12th graders. Cocaine use levels are lower than the Arizona levels (9.2% and 12.7% versus 14.4% for Arizona) but much higher than national levels (7.2%). Among adults, the percentage of people who have at least one drink every day of the week has increased significantly (2.6% in 2006 versus 6.7% in 2007). Other behavioral risk factors include smoking (13.3% in Navajo County versus 1.9% in Arizona) and being overweight. In Navajo County, 53.3% of the population exercises regularly, compared to 35.9% in Arizona and 37.3% in the US. The two most risky behaviors identified include not wearing a seatbelt when driving and having unprotected sex.

Table 5.0

Alcohol, Tobacco and other Drug Use (ATOD) Use and Abuse among Youth (2008)
Lifetime Use**

Substance	Arizona			Navajo County			Apache County		
	Grade 8	Grade 10	Grade 12	Grade 8	Grade 10	Grade 12	Grade 8	Grade 10	Grade 12
Tobacco (Cigarettes)	25.9%	39.9%	50.8%	33.5%	49.1%	57.1%	46%	Not available	Not available
Illegal Drugs									
Prescription Drugs	17.1%	25.7%	28.7%	18.4%	26.3%	32.1%	22.3%	Not available	Not available
Marijuana	16.2%	32.5%	43.1%	27%	42.5%	55.7%	44%	Not available	Not available
Inhalants	14.3%	12.6%	9.2%	14%	14%	8%	15.8%	Not available	Not available
Prescription Pain Relievers	12.2%	20.5%	24.6%	13.4%	22.3%	29.4%	19.2%	Not available	Not available
Methamphetamines	1.2%	2.4%	4.0%	1.3%	6.3%	7.7%	2.3%	Not available	Not available
Cocaine	2.7%	6.8%	11.2%	2.5%	9.2%	12.7%	4.9%	Not available	Not available
Alcohol*	47.8%	66.2%	74.8%	45.9%	61.2%	72.9%	40.7%	Not available	Not available

*Alcohol has been categorized as an illegal substance because all survey participants are under the legal drinking age.

**Lifetime use is a measure of the percentage of students who tried the particular substance at least once in their lifetime and is used to show the percentage of students who have has an experience with a particular substance.

Arizona Youth Survey 2008

Table 5.1

Alcohol, Tobacco and other Drug Use (ATOD) Use and Abuse among Youth (2008) 30-Day Use**									
Substance	Arizona			Navajo County			Apache County		
	Grade 8	Grade 10	Grade 12	Grade 8	Grade 10	Grade 12	Grade 8	Grade 10	Grade 12
Tobacco (Cigarettes)	8.7%	16.6%	23.9%	13.3%	18.9%	23.9%	12.7%	Not available	Not available
Illegal Drugs									
Prescription Drugs	8.6%	12.2%	13.1%	9.6%	12.5%	16.1%	14.0%	Not available	Not available
Marijuana	7.6%	15.1%	18.7%	13.5%	20.5%	23.0%	22.0%	Not available	Not available
Inhalants	5.4%	3.0%	1.6%	4.6%	2.7%	1.5%	4.1%	Not available	Not available
Prescription Pain Relievers	6.0%	9.4%	10.5%	6.5%	10.7%	13.5%	12.5%	Not available	Not available
Methamphetamines	0.4%	0.6%	0.8%	0.4%	1.2%	0.8%	1.1%	Not available	Not available
Cocaine	1.0%	2.2%	3.2%	0.8%	3.4%	4%	1.9%	Not available	Not available
Alcohol*	23.2%	37.7%	46.8%	24.0%	32.3%	39.3%	16.0%	Not available	Not available

*Alcohol has been categorized as an illegal substance because all survey participants are under the legal drinking age.

**30-day use is a measure of the percentage of students who used the substance at least once in the 30 days prior to taking the survey. It provides a more sensitive indicator of the level of current use of the substance. Arizona Youth Survey 2008

General Risk:

For each of the following, look at risk by percent of total population, by subgroups: age, gender, race, ethnicity, income, education (as appropriate to describe prevalence and to design appropriate subgroup interventions).

Behavioral Risk Factor: Substance Use and Abuse

The Arizona Youth Survey contains data from 2004, 2006, and 2008 for youth in the state of Arizona. The data was also collected and complied by County. The characteristics of the youth population surveyed are as follows; 47.4% male, 52.6% female; 39% Native American, 43.6% White, 13.2% Hispanic, 2.5% African American, 1.0% Asian, and .7% Pacific Islander (2008, Arizona Youth Survey).

Binge Drinking Among Youth in Arizona

Binge Drinking is defined in the Arizona Youth Survey as having five or more drinks in a row during the two weeks prior to the survey.

According to the Arizona Youth Survey 14% of 8th graders reported binge drinking at least once in their lives, compared to 22% of 10th graders who reported binge drinking (2008, Arizona Youth Survey, p. 10-11). High school seniors reported binge drinking at least once in their lives at 30% (2008, Arizona Youth Survey p. 13). In 2008 16% of 8th graders in Navajo County reported binge drinking while 22% of 10th graders reported binge drinking. Twenty-six percent of high school seniors reported binge drinking at least once in their lives.

National data provided by the Youth Risk Behavior Surveillance System (YRBSS) indicates that in 2007 26% of youth in the United States reported episodic heavy drinking[1] while 30.4% of Arizona youth reported episodic heavy drinking during that time (Comparison Between Arizona Students and U.S. Students, YRBSS, 2007).

Trends in Drug Use in Navajo County Among Youth

Methamphetamine use among high school seniors in Navajo County is twice the rate of the state (4%) (Table 5.1). Marijuana use among high school seniors in Navajo County is 13% higher than the state rate (Table 5.1).

According to the Tri-Ethic Center, Colorado State University, Lifetime prevalence of inhalant use among all Native American Populations (7th-12th graders) has decreased from approximately 16% in 2001 to about 14% in 2006. Lifetime prevalence of Marijuana use among all American Indian populations (7th-12th graders) has also decreased from approximately 70% in 2001 to 57% in 2006 (Tri-Ethic Center, Colorado State University, American Drug and Alcohol Survey ADAS[2]). The decreased use of inhalants among Native American youth may be, in part, attributed to information Native communities received from the ADAS about the prevalence of these substances and the dissemination of targeted anti-inhalant messages (Tri-Ethic Center, Colorado State University).

Cocaine Use among Youth

In 2007, lifetime cocaine[3] use among Arizona youth (9th-12th graders in public and private schools) was 14.4% nearly twice the United States average of 7.2%, putting Arizona youth at greater

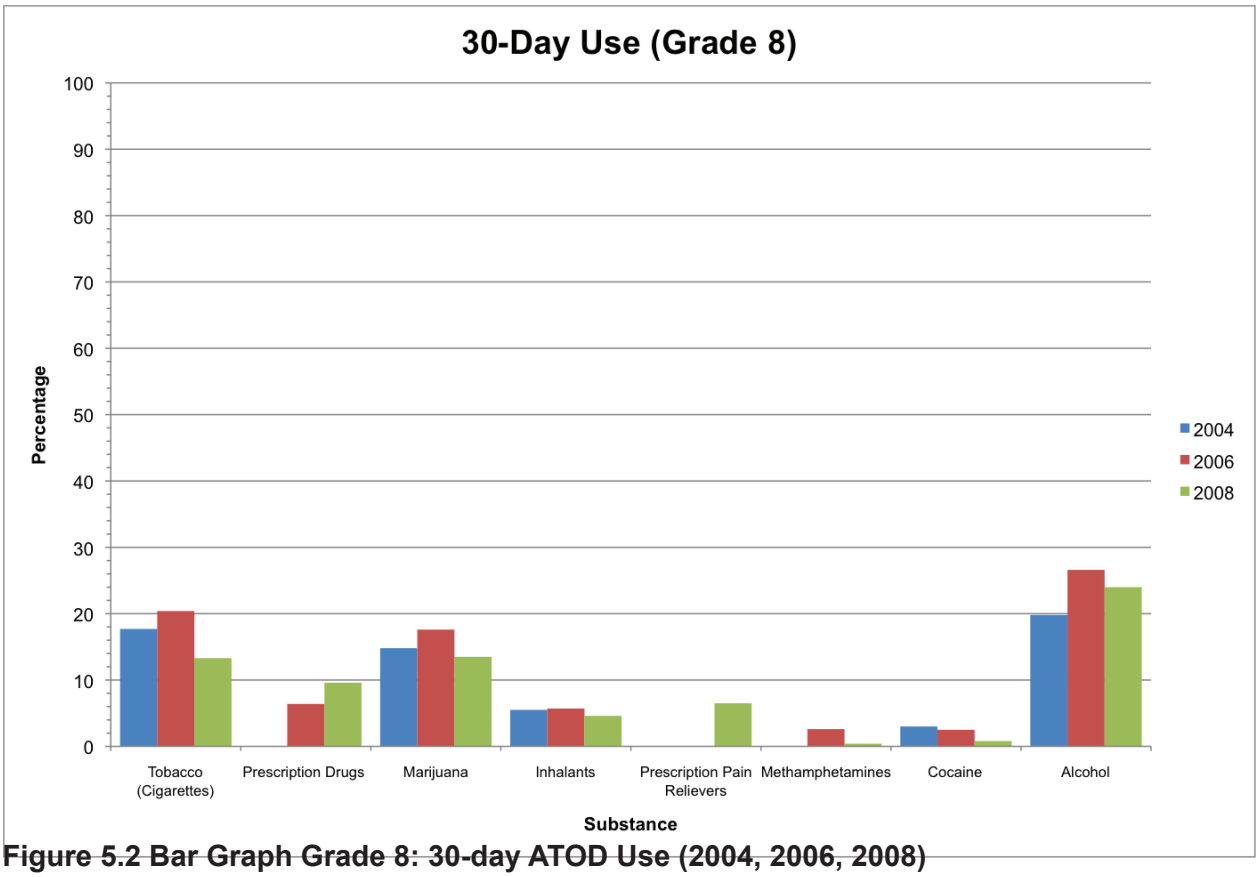


Figure 5.2 Bar Graph Grade 8: 30-day ATOD Use (2004, 2006, 2008)

1 Episodic heavy drinking refers to having five or more drinks of alcohol in a row within a couple of hours on at least one day during the 30 days leading up to the survey (Comparison Between Arizona Students and U.S. Students, YRBSS, 2007)

2 The ADAS survey is administered to over 70,000 American Indian students in reservation schools and communities since 1974, funded by the National Institutes of Health (NIH), #R01DA003371.

3 Cocaine indicates any form of the substance including powder, crack or freebase.

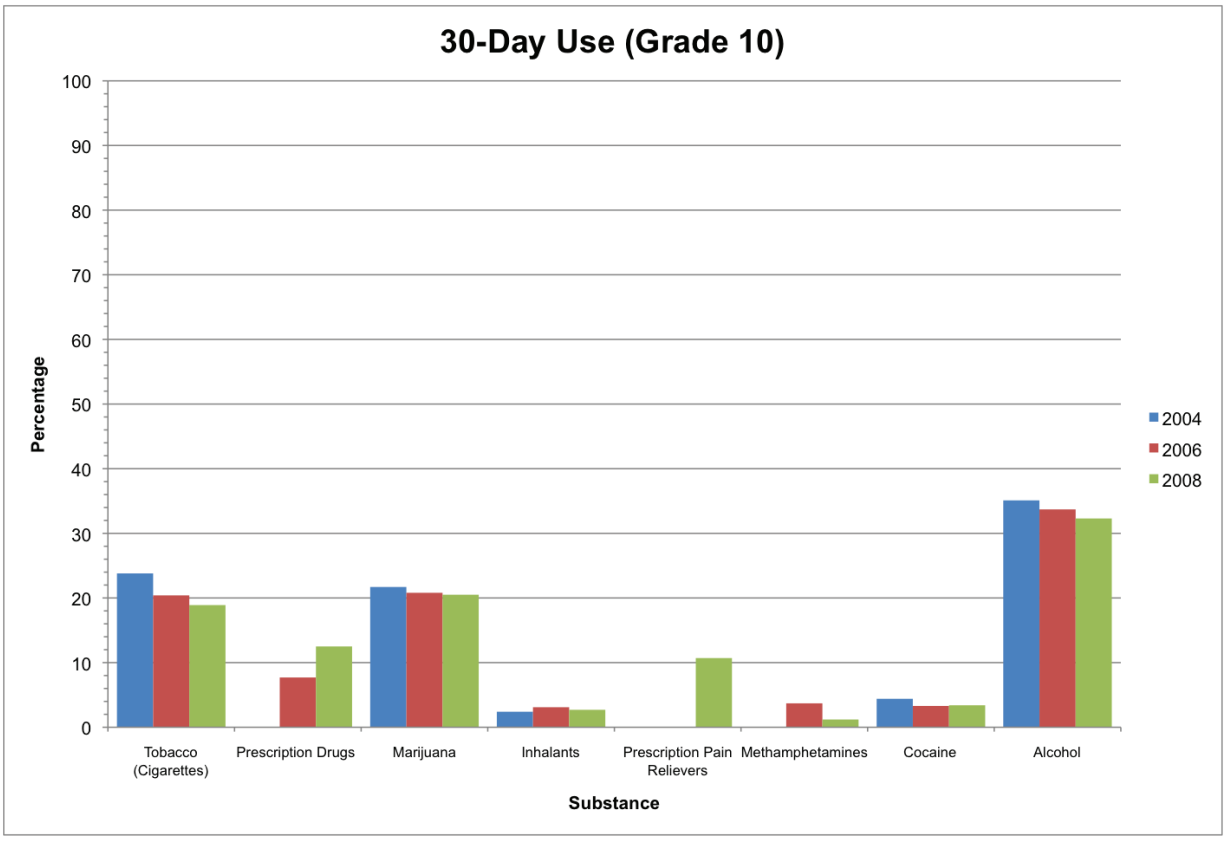


Figure 5.3 Bar Graph Grade 10: 30-day AOTD Use (2004, 2006, 2008)

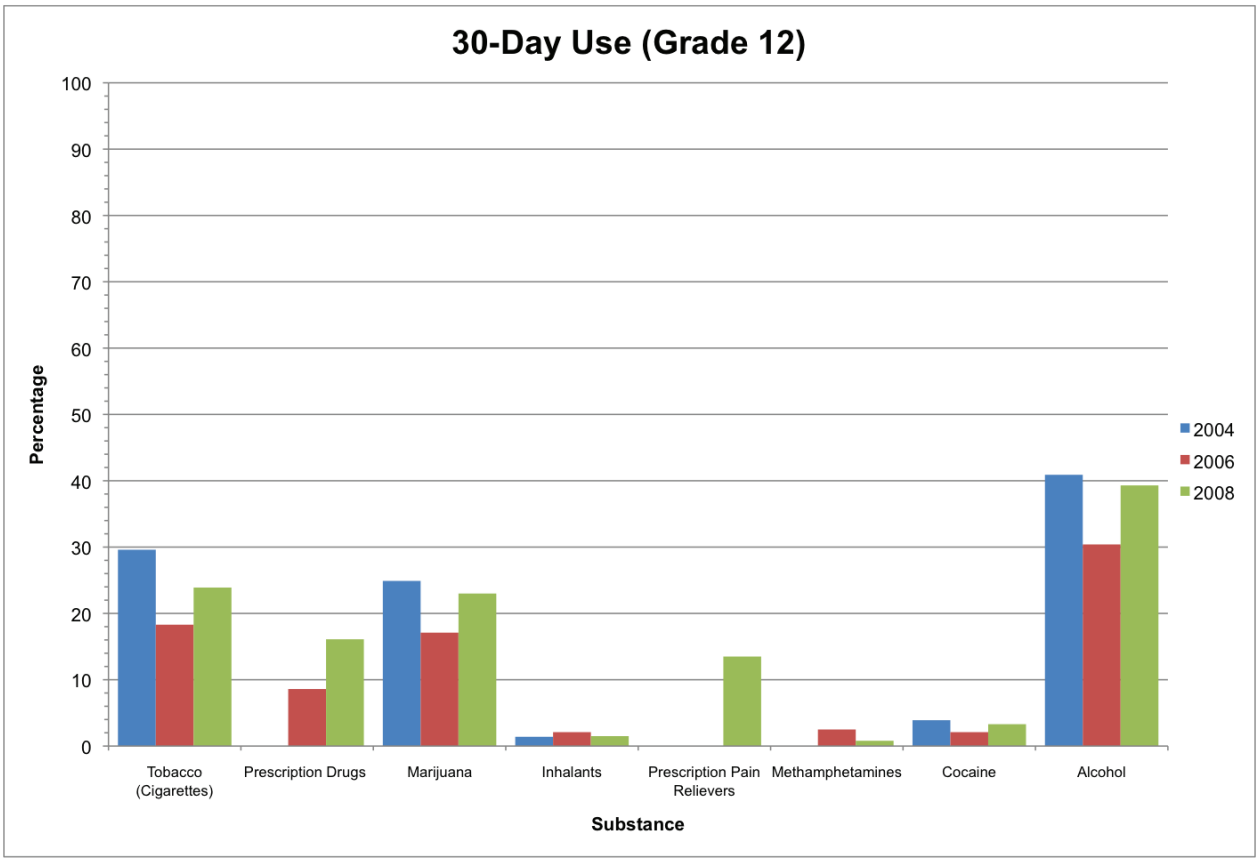


Figure 5.4 Bar Graph Grade 12: 30-day ATOD Use (2004, 2006, 2008)

risk (2007 National Youth Risk Behavior Survey Overview, CDC, YRBSS). Although cocaine use among youth in Navajo County (9.2% for 10th graders and 12.7% for 12th graders) is lower than the Arizona rates (14.4%), levels of lifetime use are still much higher than national levels (7.2%) (Table 5.1 above, Arizona Youth Survey, Lifetime AOTD Use, 2008).

Data for 30 day use of cocaine among youth in the United States is 3.3% (grades 9-12, public and private schools, YRBSS Overview 2007, CDC) while 30 day use of cocaine in Navajo County was 3.4 (9th graders) and 4% (12th graders) (Arizona Youth Survey, 2008).

Prescription Drug Use and Abuse among Youth

Prescription drug use (non-medical) among youth is increasing among teens; nationwide prescription drug usage among teens is only second to marijuana use. The availability of these drugs may contribute to this problem. In addition to increased use of prescription drugs among teens there is also an increase in mixing prescription drugs and alcohol, or other substances (Dr. Jane Maxwell, National Institute on Drug Abuse (NIDA), www.UniversityTexas.edu/features, *Generation Rx? Increased Prescription Drug Use by teens recent national drug trends*).

According to the NIDA Info Facts 15.4% of 12th graders (nationally) reported using a prescription drug non-medically in the past year. Vicodin was reported to be abused at 'unacceptably" high levels (www.drugabuse.gov, NIDA, National Institutes of Health, US Department of Health and Human Services, 2008). 30-day use of prescription drugs among 12th graders in Navajo County was reported in the Arizona Youth Survey (2008) at a rate of 16.1%, considerably higher than the 13.1% Arizona rate for 12th graders. Specific data on the use of prescription pain relievers use among youth showed similar trends in Navajo county. Approximately 13.5% of Navajo County 12th graders reported 30-day use of prescription pain relievers, higher than the state rates (10.5%) (Arizona Youth Survey, 2008).

Drinking Among Adults in Arizona

Two categories were considered for adults drinking habits in Navajo County; the number of drinks consumed in a week and a month, and binge drinking among adults in Navajo County. In 2006, 1.6% of respondents (BRFSS, 2006) had at least one alcoholic beverage seven days a week while 9% of respondents had at least one alcoholic beverage one day a week. In 2007, 6.7% of respondents (BRFSS, 2007) had at least one alcoholic beverage seven days a week while 14.3% of respondents had at least one alcoholic beverage one day a week. This is a significant increase in one year (almost double) in drinking among adults in Navajo County seven days a week.

Over the period of a month (2006, BRFSS) 2.9% of adults reported having at least one alcoholic beverage fifteen days in the month while 6% reported having at least one drink thirty days in a month. Six percent of adults reported consuming at least one drink thirty days a month in 2006. During 2007 2.7% of adult respondents reported having at least one beverage fifteen days in a month, while 2.3% reported drinking at least one drink a day thirty days in a month (BRFSS).

Binge Drinking Among Adults in Navajo County

Trend data indicates there is a small amount of change (from 2003 to 2005) in binge drinking among adult populations. However approximately 12% of the population surveyed in the Behavioral Risk Factor Surveillance System (BRFSS) are considered to be at-risk for binge drinking (see Table 5.6).

In 2005, binge drinking risk comparisons between males and females in Navajo County showed that 10.9% of males were considered at-risk for binge drinking compared to 1.6% for females (Table 5.7 and 5.8, BRFSS data).

Between 9.0% and 10.9% of males in Navajo County are at risk for heavy drinking (see table 5.7). Approximately 1.1% to 4.1% of females are at risk for heavy drinking (see table 5.6). Risk for heavy drinking is clearly a higher risk for males in Navajo

Table 5.5

During the past 30 days, how many days per week or per month did you have at least one alcoholic beverage? (Navajo County (2007)			
Year	**Number of Drinks**	**Frequency**	**Percent**
2006	**In a Week**		
	1 day per week, had at least one drink	2,228	9.0
	2 days per week, had at least one drink	2,699	10.9
	3 days per week, had at least one drink	315	1.3
	4 days per week, had at least one drink	1,618	6.5
	5 days per week, had at least one drink	292	1.2
	6 days per week, had at least one drink	195	0.8
	7 days per week, had at least one drink	389	1.6
	In a Month		
	1 day in the month, had at least one drink	5,664	22.8
	2 days in the month, had at least one drink	3,660	14.7
	3 days in the month, had at least one drink	3,138	12.6
	4 days in the month, had at least one drink	1,193	4.8
	5 days in the month, had at least one drink	613	2.5
	6 days in the month, had at least one drink	414	1.7
	7 days in the month, had at least one drink	105	0.4
	10 days in the month, had at least one drink	442	1.8
	15 days in the month, had at least one drink	732	2.9
	30 days in the month, had at least one drink	683	0.6
	Don't Know/Not Sure	289	1.2
	Refused	158	0.6
Totals		**24,826**	**100.0**

County (BRFSS Navajo County Data, 2003, 2004, 2005). Alcohol and Drug use was identified in the 2008 Community Themes and Strengths Assessment (CTSA) as the top two most important health problems among Navajo County residents, 56.9% and 40.5 respectively (N=1,084). In addition the CTSA also cited alcohol abuse (73.1%) and drug abuse (58.9%) as the most risky behaviors among Navajo County residents (N=1,078) (CTSA, 2008, PowerPoint).

Exercise

A considerably large portion of respondents in the BRFSS (26.7%) reported being physically inactive. Approximately 73.3% of respondents reported participating in a physical activity, although only 53.3% of survey respondents exercised at the recommended activity level of 20 minutes or more on 3 or more days per week. Navajo County rates are higher than the state and national reported exercising 20 minutes or more 35.9% and 37.3%, respectively (ADHS, Division of Public Health Services 2007).

Table 5.6

Binge Drinking Risk Factors (Navajo County, AZ) 2003-2005

Year	Not At Risk		At Risk		Don't Know/Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	57,836	87.9	7,939	12.1	Not Available	Not Available	65,775	100.0
2004	56,078	87.1	7,961	12.4	350	0.5	64,388	100.0
2005	54,344	86.8	7,915	12.6	350	0.6	62,609	100.0

* CDC, BRFSS Navajo County (2003-2005)

Table 5.7

Heavy Drinking Among Men Risk Factor: Navajo County, AZ (2003-2005)

Year	Not At Risk		At Risk		Don't Know/ Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	28,709	89.4	2,892	9.0	511	1.6	32,111	100.0
2004	25,448	89.0	2,629	9.2	508	1.8	28,585	100.0
2005	25,807	89.1	3,148	10.9	Not Available	Not Available	28,955	100.0

* CDC, BRFSS Navajo County (2003-2005)

Table 5.8

Heavy Drinking Among Females Risk Factor: Navajo County, AZ (2003-2005)

Year	Not At Risk		At Risk		Don't Know/ Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	33,306	98.9	358	1.1	Not Available	Not Available	33,664	100.0
2004	34,321	95.9	1,482	4.1	Not Available	Not Available	35,803	100.0
2005	32,061	95.3	546	1.6	1,047	3.1	33,653	100.0

*CDC, BRFSS Navajo County (2003-2005)

Obesity

According to the 2000 Behavioral Risk Factor Survey 46.7% of older adults in Navajo County are classified as overweight or obese by national health standards; however only 20.0% of respondents reported current attempts at losing weight (CDC, BRFSS, Navajo County data 2000). (The White Mountain Apache Tribe Regional Partnership Council Funding Plan, Overview of the three year strategic Plan, July 1, 2009 through June 30, 2012). According to the 2008 Community Themes and Strengths Assessment (CTSA) 29.1% of respondents reported being overweight, 16.4% reported lack of exercise, and 16.1% reported poor eating habits as the most risky behaviors among Navajo County residents.

Nutrition

Being overweight or obese, poor dietary habits, little or no physical activity, and tobacco use are all associated with an increase in health problems. Over half of the respondents in Navajo County (53.3%) reported that they did not consume the recommended 5 or more servings of fruits and vegetables a day. According to Healthy Arizona 2010 approximately 75.4% of individuals living in Arizona eat few fruits and vegetables (ADHS, Healthy Aging 2010. Health Status of Older Adults. Accessed 20 October, 2009).

In 2005 only 23.7% of Arizona adults consumed five or more fruits or vegetables a day, while 76.3%

Table 5.9

Exercise Last 30 Days, Adults (2003-2007)

Year	Yes		No		Don't Know/ Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	49,256	74.9	16,391	24.9	128	0.2	65,775	100.0
2004	51,608	80.2	12,504	19.4	276	0.4	64,388	100.0
2005	45,489	72.7	16,516	26.4	604	1.0	62,609	100.0
2006	57,892	79.1	14,864	20.3	417	0.6	73,173	100.0
2007	59,460	79.0	15,836	21.0	Not Available	Not Available	75,296	100.0

*CDC, BRFSS, Navajo County (2003-2007)

Table 5.10

Youth Trends in Physical Activity (2003, 2005, 2007)

Behavioral Risk Factors	2003	2005	2007
Met recommended levels of physical activity (physically active total of at least 60 minutes per day on 5 or more days the week before the survey) (**National data**)	Not available	35.8%	34.7%
Attended physical education classes (on 1 or more days in a week when they were in school) (**National Data**)	55.7%	54.2%	53.6%
Attended physical education classes daily (5 days a week when in school) (**National Data**)	28.4%	33.0%	30.3%
*** Did not attend physical education classes daily** (**Arizona data**)	Not available	Not available	73.1%

(CDC, National Youth Behavioral Risk Survey (YRBSS) 2003, 2005, 2007)

of adults consume less than the recommended five per day (CDC, BRFSS, Prevalence and Trend Data, Arizona, 2005). In 2007 28.3% of Arizona adults reported eating five or more fruits or vegetables in a day while 71.7% of adults did not consume the recommended daily servings of fruit and vegetables (CDC, BRFSS, Prevalence and Trend Data, Arizona, 2007). Nutrition (as measured by fruit and vegetable intake) in Navajo County is poor in relation to overall state rates.

Table 5.11

Risk Factor for Overweight or Obese								
Year	Not At Risk		At Risk		Don't Know/ Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	19,174	29.2	43,909	66.8	2,692	4.1	65,775	100.0
2004	24,433	37.9	38,891	60.4	1,064	1.7	64,388	100.0
2005	21,203	33.7	38,697	61.8	2,809	4.5	62,609	100.0

*CDC, RFSS, Navajo County (2003-2005)

Table 5.12

Body Mass Index: Three Levels Category										
Year	Neither Overweight nor Obese		Overweight		Obese		Don't Know/ Not Sure/ Refused		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
2003	19,173	29.2	26,562	40.4	17,346	26.4	2,692	4.1	65,775	100.0
2004	24,433	37.9	26,461	41.1	12,430	19.3	1,064	1.7	64,388	100.0
2005	21,103	33.7	16,278	26.0	22,419	35.8	2,809	4.5	62,609	100.0

* CDC, BRFSS, Navajo County (2003-2005)

Table 5.13

State Indicator Report on Fruits and Vegetables, 2009 Fruit and Vegetable Consumption (%)		
Adults	**Arizona**	**United States**
Adults eating 2+ fruits a day	32.8%	32.8%
Adults eating 3+ vegetables a day	30.4%	27.4%
Adults eating both 2+ fruit and 3+ vegetables a day	16.1%	14.0%
Adolescents		
Adolescents eating 2+ fruits a day	27.1%	32.2%
Adolescents eating 3+ vegetables a day	11.0%	13.2%
Adolescents eating both 2+ and 3+ vegetables a day	7.4%	9.5%

State Indicator Report on Fruits and Vegetables, 2009. Center for Disease Control; Department of Health and Human Services, 2009. Web. <http://www.fruitsandveggiesmatter.gov/health_professionals/statereport.html#Behavioral;

<http://www.fruitsandveggiesmatter.gov/downloads/StateIndicatorReport2009.pdf>.

2007 BRFSS, 2007 YRBSS

Behavioral Health Risk Factors among Respondents Age 65 and Older

Table 5.14

Risk Factors Among Respondents Age 65 and Older			
Risk Factors	**Navajo County**	**Arizona**	**United States**
Weight Group			
Normal Weight	43.3%	46.8%	42.5%
Overweight	46.7%	35.1%	36.7%
Obese	0.0%	17.0%	16.8%
Unknown	10.0%	1.1%	4.0%
Daily Servings of Fruits and Vegetables			
Less than once a day or never	0.0%	1.4%	3.3%
1 to less than 3 times per day	23.3%	16.8%	21.9%
3 to less than 5 times per day	30.0%	38.8%	43.3%
5 or more times per day	46.7%	42.9%	31.5%
Activity Level/ Exercise			
Physically inactive	26.7%	37.5%	37.0%
Less than recommended activity	20.0%	26.6%	25.7%
Meets recommended activity level	53.3%	35.9%	37.3%
Smoking Status			
Current smoker, smoke everyday	6.7%	7.4%	7.9%
Current smoker, smoke some days	13.3%	1.9%	2.1%
Former smoker	43.3%	41.3%	37.4%
Never smoked	36.7%	48.7%	52.1%
Don't know/ Refused question	0.0%	0.6%	0.5%

Report on the Health Status of Older Adults, Navajo County, Arizona, AZHS, Healthy Aging 2010 (2002)

1 Based on Body Mass Index, BMI<25.0 normal weight, BMI _ 25.0 and < 30.0 overweight, BMI _ 30.0 obese

2 Recommended activity is exercise 3 or more days per week for 20 minutes or more

Seatbelt Use in Navajo County

According to the 2008 CTSA 10.8% of respondents reported not using seatbelts as one of the most risky behaviors in Navajo County.

Table 5.15

Child Restraint Usage in Arizona, 2004-2008 (Children under five years old)				
Year	**Severity of Injury**	**Percent of Restraint Used**	**Percent of No Restraint**	**Percent Unknown**
2004	No Injury	89.79%	63.79%	75.92%
	Possible Injury	6.36%	13.87%	9.19%
	Injury	2.92%	19.88%	8.27%
	Fatality	0.03%	0.62%	0.18%
	Unknown	0.90%	1.85%	6.43%
	TOTALS	100.00%	100.00%	100.00%
2005	No Injury	89.52%	65.40%	58.21%
	Possible Injury	6.35%	10.90%	5.04%
	Injury	2.91%	17.99%	5.91%
	Fatality	0.02%	0.52%	0.14%
	Unknown	1.19%	5.19%	30.69%
	TOTALS	100.00%	100.00%	100.00%
2006	No Injury	89.82%	66.98%	76.40%
	Possible Injury	6.26%	14.49%	4.84%
	Injury	2.70%	15.68%	6.77%
	Fatality	0.05%	1.66%	0.77%
	Unknown	1.17%	1.19%	11.22%
	TOTALS	100.00%	100.00%	100.00%
2007	No Injury	89.93%	68.12%	74.12%
	Unknown Injury	1.13%	0.51%	9.43%
	Possible Injury	6.31%	11.83%	11.40%
	Non-Incapacitating Injury	2.20%	11.57%	4.17%
	Incapacitating Injury	0.35%	6.94%	0.44%
	Fatal Injury	0.08%	1.03%	0.44%
	TOTALS	100.00%	100.00%	100.00%
2008	No Injury	89.62%	72.11%	75.39%
	Unknown Injury	1.30%	2.04%	11.63%
	Possible Injury	6.54%	11.56%	7.83%
	Non-Incapacitating Injury	2.08%	11.22%	3.80%
	Incapacitating Injury	0.44%	2.38%	0.89%
	Fatal Injury	0.03%	0.68%	0.45%
	TOTALS	100.00%	100.00%	100.00%

Information Source from: Arizona Department of Transportation, Motor Vehicle Crash Facts (2004-2008). [http://www.azdot.gov/mvd/Statistics/crash/index.asp]

Table 5.16

Driver Restraint Usage in Arizona, 2004-2008				
Year	**Severity of Injury**	**Percent of Restraint Used**	**Percent of No Restraint**	**Percent Unknown**
2004	No Injury	81.47%	50.93%	36.57%
	Possible Injury	10.72%	12.04%	5.60%
	Injury	6.82%	30.96%	8.03%
	Fatality	0.10%	3.35%	0.35%
	Unknown	0.89%	2.72%	49.45%
	TOTALS	100.00%	100.00%	100.00%
2005	No Injury	82.20%	49.60%	34.98%
	Possible Injury	10.02%	11.67%	5.31%
	Injury	6.62%	29.81%	7.63%
	Fatality	0.10%	3.22%	0.40%
	Unknown	1.06%	5.70%	51.69%
	TOTALS	100.00%	100.00%	100.00%
2006	No Injury	82.61%	47.32%	34.83%
	Possible Injury	10.00%	12.11%	5.33%
	Injury	6.19%	28.99%	7.00%
	Fatality	0.11%	3.90%	0.32%
	Unknown	1.09%	7.69%	52.53%
	TOTALS	100.00%	100.00%	100.00%
2007	No Injury	82.99%	48.05%	36.38%
	Unknown Injury	1.09%	7.35%	51.68%
	Possible Injury	9.70%	11.53%	4.96%
	Non-Incapacitating Injury	5.07%	19.23%	4.84%
	Incapacitating Injury	1.06%	10.24%	1.90%
	Fatal Injury	0.10%	3.61%	0.24%
	TOTALS	100.00%	100.00%	100.00%
2008	No Injury	83.05%	49.19%	39.74%
	Unknown Injury	1.14%	6.32%	47.81%
	Possible Injury	9.53%	11.65%	5.43%
	Non-Incapacitating Injury	5.14%	19.33%	4.79%
	Incapacitating Injury	1.04%	10.14%	1.94%
	Fatal Injury	0.11%	3.37%	0.29%
	TOTALS	100.00%	100.00%	100.00%

Information Source From: Arizona Department of Transportation, Motor Vehicle Crash Facts (2004-2008). [http://www.azdot.gov/mvd/Statistics/crash/index.asp]

Table 5.17

How Often Do You Use Seatbelts in a Car? (Navajo County, 2006)		
Indicator	**Frequency**	**Percent**
Always	48,842	69.1%
Nearly Always	14,245	20.1%
Sometimes	3,557	5.0%
Seldom	1,767	2.5%
Never	457	0.6%
DK/NS	1,844	2.6%
TOTAL	70,712	100.0%

Information Source From: Arizona Behavioral Risk Factor Surveillance System Questionnaire, 2006.

Bike Helmet Data

There was no data available on bicycle helmet use within Navajo County.

Condom Use

The YRBSS Comparison between Arizona and U.S. students indicated that Arizona youth who are sexually active are at greater risk for unintended pregnancies and Sexually Transmitted Diseases (STDs) including HIV infection. According to Healthy Arizona 2010 (ADHS, 2000) about one half of all new HIV infections in the United States are among people under age 25, and are infected through sexual behavior. Using a condom correctly and consistently can help prevent unintended pregnancy and STD's (ADHS, Healthy Arizona 2010, 2000).

The U.S. percent of sexually active youth who reported not using a condom during last sexual intercourse was 38.5% in comparison to 44.5% of Arizona youth (CDC, YRBSS, Comparison between Arizona Students and US Students, 2007). According to the 2008 CTSA 16.6% of respondents reported unsafe sex and not using birth control (7.4%) were some of the most risky activities among Navajo County residents.

Women's Health Screening

According to the CDC Navajo County Community Health Status Report (2008), women 18 and over in Navajo County who get regular Pap-Smears is 75.9%. The percent of women in Navajo County who get a regular Mammography (women age 50 and over) is 70.8% (CDC Navajo County Community Health Status Report, 2008).

Category Six - Environmental Health Indicators

Definition of Category

The physical environment directly impacts health and quality of life. Clean air and water, as well as safely prepared food, are essential to physical health. Exposure to environmental substances such as lead or hazardous waste increases risk for preventable disease. Unintentional home, workplace, or recreational injuries affect all age groups and may result in premature disability or mortality.

Trends

A comprehensive assessment of water quality in Navajo must consider the areas of the county that are part of the three Native American reservations that exist within the county. The measurements for off reservation water show stable levels. Air quality in Navajo County meets national standards, and with 550 homes at risk for lead poisoning, the county holds the 5th place among other Arizona counties.

Food Safety

According to Healthy Arizona 2010, "Food borne illness imposes a burden on public health and contributes to the cost of health care" (2000, Healthy Arizona 2010, Environmental Health). The number of food borne illness complaints in Navajo County is low (see Table 6.0).

Table 6.0

Number of Food-borne Illness Complaints in Navajo County (2004-2008)	
Year	**Number of Food-borne Illness Complaints**
2004	Not reported
2005	0
2006	34
2007	5
2008	3

Data from Food Safety and Environmental Services, Bureau of Epidemiology and Disease Control, Office of Environmental Health (2004-2008)

Rodeo-Chediski Fire Public Health Assessment, Arizona Department of Health Services, Navajo County, Arizona, Office of Environmental Health 2003

Water Quality (Off-Reservation)

Arizona Department of Environmental Quality (ADEQ) is charged with monitoring lakes, streams, and groundwater throughout the state to gather information which is used to determine if water is safe to drink, swim in, suitable for irrigation, and adequate to support aquatic life. The ADEQ conducts ambient water monitoring to comply with the Clean Water Act (CWA) to protect human and aquatic life (The Water Quality of the Little Colorado River Watershed, Fiscal year 2007 data, prepared by the Arizona Department of Environmental Quality, March 2009, Publication number OFR 09-11).

The Little Colorado watershed is located in northeastern Arizona and approximately 50% of the watershed is on Native American Reservations. However the sample sites used for the ADEQ reports are all located on non-reservation land. Most streams (9 out of 10) were reported to be "stable". Approximately 67% of macro invertebrate samples violated the bio-criteria standard for coldwater streams. The main culprit was the crayfish, a known biological stressor in the Little Colorado River Basin (The Water Quality of the Little Colorado River Watershed, Fiscal year 2007 data, prepared by the Arizona Department of Environmental Quality, March 2009, publication number OFR 09-11).

According to the 2008 ADEQ non-point source annual report, sediments, metals, and nutrients are the most common sources of pollution for Arizona streams Non-point sources like grazing and agriculture are the primary cause of stream impairment. "Streams in Arizona are especially vulnerable to sedimentation due to climatic conditions, recent forest fires, as well as past and current unsuitable land management practices which resulted in less vegetative cover." Some of the effects of unstable streams include abnormal flooding of agricultural and urban lands, the alteration of stream channel structure, and lowering of the groundwater table (ADEQ, Arizona, EQR 0803 2008).

In order to better access the water quality of Navajo County it is important to consider the water quality on each Native American reservation in the county as the tribes control water on their land. Please note that the following data are in relation to the entire tribal area, some of which exists outside of Navajo County lines.

There are multiple areas at high-risk for forest fires in Navajo County. Forest fires can negatively impact water resources in a number of ways thus presenting a risk to water quality for those residents. The Rodeo-Chediski fire in 2002 is a case in point. The Rodeo-Chediski fire was the largest forest fire in Arizona history. State-regulated systems sent out boil water advisories to increase water quality that was compromised by the fire. Twenty-two communities were affected by the fire. The affected communities were grouped by the degree of damage sustained (please see Table 6.1) (Rodeo-Chediski Fire Public Health Assessment, Arizona Department of Health Services, Navajo County, Arizona, Office of Environmental Health 2003).

Table 6.1

Communities and Degree of Fire Damage (Rodeo-Chediski Fire) 2002	
Communities Effected	**Degree of Damage**
Pinedale, Linden, Timberline Acres, Clay Springs, Heber, Overgaard, and Alpine	Communities were evacuated, suffered severe loss of homes and community infrastructure
Show Low, Pine Top-Lakeside, Hon-Dah, Forest Lakes, and McNary	Communities that were evacuated but not directly damaged by the fire
Payson, Eager, Snowflake-Taylor, Holbrook, and Winslow	Host communities that mobilized to provide shelter and support to evacuees

Rodeo-Chediski Fire Public Health Assessment, Arizona Department of Health Services, Navajo County, Arizona, Office of Environmental Health 2003

Navajo Nation Water Quality

There are two primary departments on Navajo Nation involved with water quality; The Department of Water Resources (which is under the Department of Natural Resources) and Navajo Nation Environmental Protection Agency. Approximately 60% of water systems within Navajo Nation are under the authority of the Navajo Tribal Utility Authority (NTUA). Approximately 40%[1] of the reservation does not have running water, forcing residents to haul water. An assessment of individual small farms on the reservation (15 acres and less) showed that it does not have a large impact on water. However, the collective impact includes fallow areas because of drought or an inability to get water to areas can cause sediment and nutrient loading from fertilizers and pesticides. Uranium (mining and milling in the 1940s and 1950s) has had some effect (low-level radiation) on groundwater. The affected areas (including Shiprock, Tuba City, Mexican Water, and Cane Valley) are in the process of being cleaned up. (Water Quality for the 21st Century, New Mexico water resources Arvin Trujillo, Division of Natural Resources, Navajo Nation).

Hopi Tribe Water Quality

Surface water on the Hopi reservation consists primarily of intermittent or ephemeral streams. Limited data was available on water quality for the Hopi Tribe. Between 1992 and 1993 the Hopi Tribe accessed 18 springs and revealed that in several springs had one or more cases where they exceeded the allowances of nitrate, selenium, total coli-form, and or fecal coli-form. Overall, ground water quality is good on the Hopi reservation. The N-aquifer provides excellent drinking water to a

1 The percent of residents without running water in some chapters is estimated to be as high as 90% without running water (Water Quality for the 21st Century, New Mexico water resources Arvin Trujillo, Division of Natural Resources, Navajo Nation).

majority of the Hopi villages. Mining actives off of the reservation are the largest threat to the N-aquifer, from the impacts of abandoned uranium tailings in Tuba City. (The Hopi Tribe Water Recourses Program, Philip Tuwaletstiwa, The Hopi Tribe 1994, www.epa.gov/owow/305B/94report/hopi.pdf).

White Mountain Apache Water Quality

The White Mountain Apache Indian Reservation includes twenty-six cold water lakes and over 400 miles of streams. The primary source of drinking water on the reservation is the Coconino aquifer. In 1994 the White Mountain Apache Tribe began their water quality program. As part of the tribe's water quality development initiatives, a water quality database was developed in order to ensure reliable, easy, and secure access to all of the water quality data collected throughout the years. The Rodeo-Chediski fire had a significant impact on water quality as a result of the fire which destroyed almost 275,000 acres. The fire caused winter stream flow to drastically increase causing flooding and turbidity wiping out wetland vegetation. An effort to replant vegetation took place to mitigate the negative impact from the fire (US Environmental Protection Agency, Pacific Southwest Region 9, Water Division, Water Pollution Control Program, EPA-909-K-06-001, 2006 accessed 10/29/09 from http://www.epa.gov/region09/water/tribal/pdf/tribal-water-quality-accomplishments.pdf).

Air Quality

According to the Community Health Status Report from CDC (CSA, FIPS CODE 04-017, 2008) Navajo County meets all Environmental Protection Agency (EPA) National Air Quality standards for Carbon Monoxide, Nitrogen Dioxide, Sulfur Dioxide, Ozone, Particulate Matter, and Lead (EPA AIRSData, 2006).

Workplace Hazards

There was no data available at the County level for workplace hazards. There is however a good deal of data collected at both the state and national levels. According to the Bureau of Labor Statistics the number of (nonfatal) occupational injuries and illnesses requiring days away from work decreased between 2006 and 2007. The median Number of days away from work for all cases of injury and illness was 7 days in 2007. This average remains unchanged from 2004 (see Table 6.6 below for trend data on the number of cases per year in Arizona). (Bureau of Labor Statistics, News: United States Department of Labor, Nonfatal occupational Injuries and Illness Requiring Days Away from Work, Washington, D.C. 20212, 2008).

National data for worker demographic characteristics include gender, age, race, or ethic origin. Workers who were 20 to 24 years old suffered the most work related injuries and illnesses (134 cases per 1,000) a decline from 2006 (Bureau of Labor Statistics, News: United States Department of Labor, Nonfatal occupational Injuries and Illness Requiring Days Away from Work, Washington, D.C. 20212, 2008). Arizona workers age 20-24 suffered work related injuries and illnesses at a rate of 10 cases per 1,000 in 2006) see Table 6.7 below (Bureau of Labor Statistics, Fatal Occupational Injuries by Demographic Characteristic, Arizona, www.bls.gov, (2004-2008).

Males typically suffer more work related injuries/illnesses than women due to the type of industry that men tend to work in industries/jobs with higher incidence rates (Bureau of Labor Statistics, News: United States Department of Labor, Nonfatal occupational Injuries and Illness Requiring Days Away from Work, Washington, D.C. 20212, 2008). This is true in Arizona where the rate of cases for men from 77 per 1,000 in 2004 to 84 per 1,000 in 2007) is much worse than rates of injury for women ranging from 6 per 1,000 in 2005 to 13 per 1,000 in 2007 (see Table 6.7 below) (Bureau of Labor Statistics, Fatal Occupational Injuries by Demographic Characteristic, Arizona, www.bls.gov, (2004-2008). Musculoskeletal disorders (MSD's)[2]

2 MSD's are often referred to as ergonomic injuries that affect the connective tissues of the body (Bureau of Labor Statistics, News: United States Department of Labor, Nonfatal occupational Injuries and Illness Requiring Days Away from Work, Washington, D.C. 20212, 2008).

account for 29% of all workplace injuries nationally in 2007 (Bureau of Labor Statistics, News: United States Department of Labor, Nonfatal occupational Injuries and Illness Requiring Days Away from Work, Washington, D.C. 20212, 2008).

Lead Exposure

The most widespread environmental health problem children face today is lead poisoning (Centers for Disease Control and Prevention: Lead, CDC's National Surveillance Data, 2009). Children ages 6 years and under are at the highest risk of being exposed which can lead to poisoning (Arizona Department of Health Services, Lead Poisoning Prevention Program, 2009). About 1 in 22 children have high levels of lead in their blood, according to the Centers for Disease Control and Prevention (National Head Start Association, Lead Poisoning Prevention, 2009, accessed 10/29/10).

National reports showed that 163 children had contracted lead poisoning (>10ug/dL) in 2001. Lead-based paint in older homes (built before 1960) continues to be a significant source of lead poisoning for children in Arizona (Arizona Department of Health Services. Office of Environmental Health, Childhood Lead Poisoning, 2009 Childhood Lead Poisoning Targeted Screening Plan).

High risk occupations for adults that can result in increased lead exposure include: manufacturing or recycling of storage batteries, metals, and ammunition; mining and smelting; radiator and automotive repair; soldering and welding; production of PVC plastic, crystal, ceramics, and glass; remodeling and demolition of older housing and structures; and indoor/outdoor shooting ranges (Arizona Department of Health Services, Lead Poisoning Prevention Program, 2009).

Navajo County ranks 5th (550 homes) in the state of Arizona for number of housing units with a high level of lead hazards[3] while Maricopa County ranks 1st in the state with (3,800 homes) for high levels of lead. Arizona ranks 41st (11,000 homes) in the nation regarding number of housing units with a high risk of lead hazards while New York state ranks number one with 430,000 units (Scorecard, EPA, 2009).

3 Number of housing units with a high risk of lead hazards: This indicator estimates the percent of housing units in an area with a high risk of lead hazards. It is calculated by dividing the number of housing units with high risk of lead hazards by the total number of occupied housing units (EPA, Scorecard, 2009).

Fluoridated Water

Table 6.2

Water Fluoridation Statistics (2002, 2004, 2006)					
Year	**Region**	**Percent of US Population*** Receiving Fluoridated Water**	**Persons receiving fluoridated water**	**Persons served by Community Water Systems (CWS)**	**National Rank**
2002	**United States**	67.4*	172,209,735	255,443,289	-
	Arizona	55.4	2,737,028	4,944,156	38
2004	**United States**	68.7	180,632,481	262,690,043	-
	Arizona**	55.8	2,890,016	5,183,216	38
2006	**United States**	69.2	184,028,038	265,794,252	-
	Arizona**	56.1	3,147,245	5,611,581	38

Department of Health and Human Services. Centers for Disease Control and Prevention- Community Water Fluoridation

* Estimate has changed from that previously reported due to new methodology or correction of a rounding error.

** Changed over time are due in part to improvements in WFRS data for CWS with naturally occurring fluoride concentrations.

*** Percent of US Population on Public Water Systems

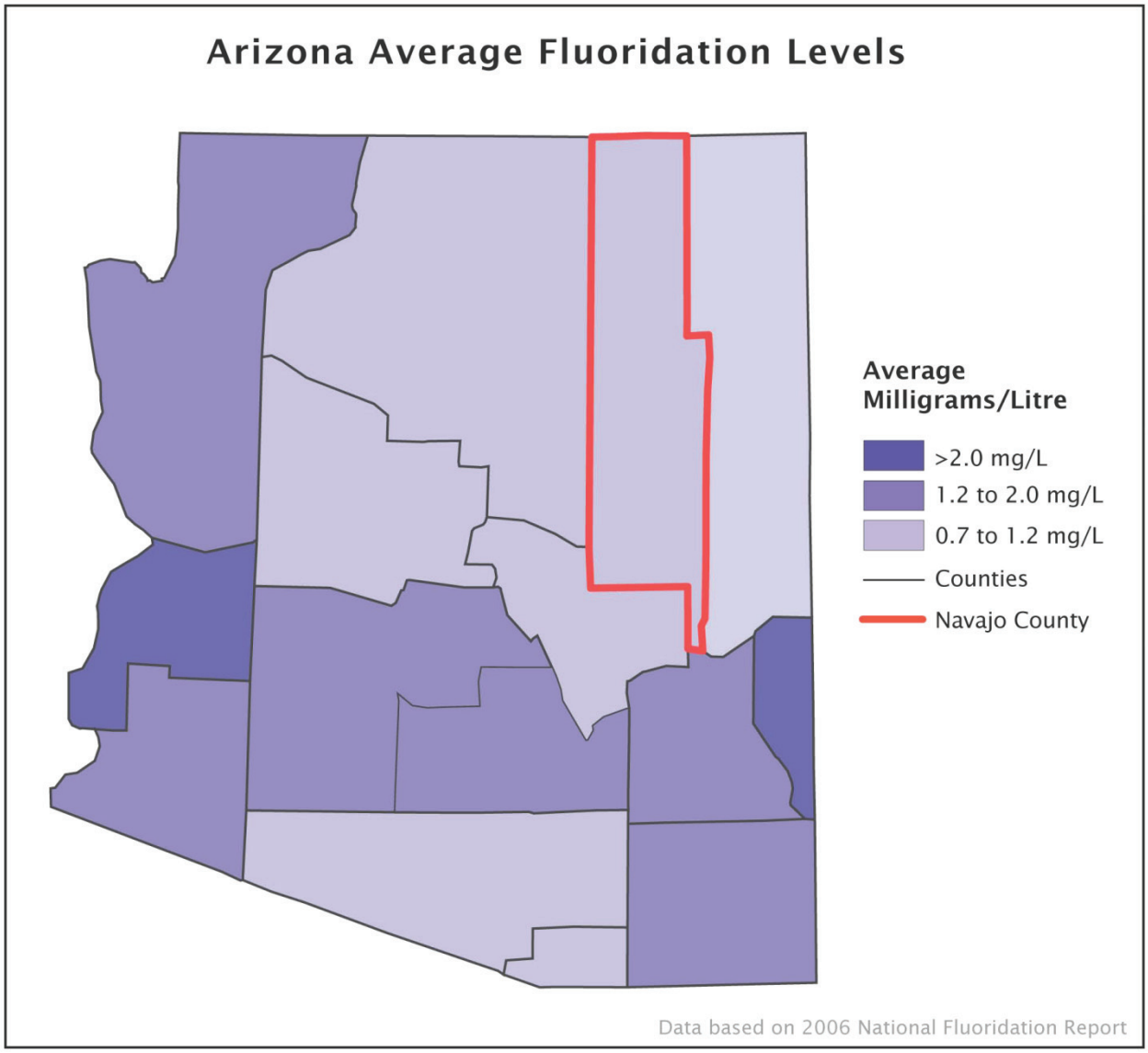

Arizona Average Fluoridation Levels
Average
Milligrams/Litre
>2.0 mg/L
1.2 to 2.0 mg/L
0.7 to 1.2 mg/L
Counties
Navajo County
Data based on 2006 National Fluoridation Report

Figure 6.3

Table 6.4

Numbers of Occupational Injuries and Illnesses in All Industries in Arizona (Including State and Local Government) (2004, 2005, 2006, 2007)			
Year	**Average Annual Employment** (in thousands)	**Total Recordable Cases** (in thousands)	**Cases with Days away from Work, Job, Transfer, or Restriction** (in thousands)
2004	2,295.1	87.1	41.8
2005	2,389.9	97.0	47.3
2006	2,521.1	99.4	49.6
2007	2,580.9	4.6	2.2

Includes all industries except farms with less than 11 employees

Bureau of Labor Statistics, Injuries, Illnesses and Fatalities, www.bls.gov, (2004-2007)

Table 6.5

Fatal Occupational Injuries and Demographic Characteristics, Arizona (2004-2008)					
Selected Characteristics	**Years**				
	2004	**2005**	**2006**	**2007**	**2008***
Total	84	99	112	97	86
Employee Status					
Wage and Salary	78	94	106	90	78
Self Employed	6	5	6	7	8
Sex					
Men	77	93	98	84	81
Women	7	6	14	13	5
Age					
Under 16	0	0	0	0	0
16-17	0	0	0	0	0
18-19	0	3	3	0	0
20-24	5	6	10	10	5
25-34	24	18	21	15	16
35-44	17	25	27	24	25
45-54	16	27	31	25	20
55-64	15	13	11	12	13
65 and older	5	4	9	9	7
Race or Ethnic Origin					
White, non-Hispanic	53	50	57	62	52
Black or African American, non-Hispanic	0	4	0	5	0
Hispanic or Latino	25	36	36	26	27
American Indian or Alaskan Native	0	7	6	0	0
Asian	0	0	0	0	0
Native Hawaiian	0	0	0	0	0
Multiple races	0	0	9	0	0

* 2008 data are preliminary numbers

Bureau of Labor Statistics, Fatal Occupational Injuries by Demographic Characteristic, Arizona, www.bls.gov, (2004-2008)

Rabies in Animals

Navajo county has low incidences with rabies in animals. Any rabies cases in Navajo County were found in bat populations. Bat populations across the state equal the highest number of cases state-wide.

Table 6.6

Lab Confirmed Rabies Positive Animals (2005-2009)					
Year	**County/State**	**Infected Animals**	**Total**	**Submitted**	**Tested**
2005	Navajo County	0	0	10	9
	Arizona	Bat (84), Skunk (67), Fox (12), Other (6)	169	2551	2481
2006	Navajo County	Bat (2)	2	23	22
	Arizona	Bat (96), Skunk (16), Fox (22), Other (6)	140	2594	2499
2007	Navajo County	Bat (1)	1	30	30
	Arizona	Bat (115), Skunk (13), Fox (24), Other (7)	159	2534	2476
2008	Navajo County	0	0	14	14
	Arizona	Bat (89), Skunk (51), Fox (21), Other (15) 7 bobcats	176	2758	2688
2009 01/01/2009 to 10/26/2009	Navajo County	Not Available	Not Available	Not Available	Not Available
	Arizona	Bat (61), Skunk (94), Fox (45), Other (12)	221	Not Available	Not Available

Arizona Department of Health: Rabies in Arizona. Vector Bourne and Zoonotic Disease, accessed 10/28/09 http://www.azdhs.gov/phs/oids/vector/rabies/stats.htm

Category Seven - Social and Mental Health

Definition of Category

This category represents social and mental factors and conditions which directly or indirectly influence overall health status and individual and community quality of life. Mental health conditions and overall psychological well-being and safety may be influenced by substance abuse and violence within the home and within the community.

Trends

Homicides and suicides rates for men in Navajo County are higher than for women, which is consistent with a nationwide trend. In 2008, domestic violence and child abuse and neglect were the most important health problem among Navajo County residents, between 2004 and 2008 there was an increase in the cases for both problems. The alcohol induced mortality rate for males in the county is nearly twice the rate for females, which is consistent with Arizona trends.

Homicide Rate

The homicide rate is considerably higher (triple the rate for women in most cases) for men then for women both in Navajo County and Arizona (see Table 7.2). There is a similar trend for suicide rates ranging from two to five times higher for males in both Navajo County and the state (see Table 7.3).

Table 7.0

Number of Days in the Past 30 Days that Mental Health was Not Good, Navajo County (2003-2007)

Number of Days	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	403	0.6%	4,107	6.4%	929	1.5%	1,224	1.7%	5,319	7.1%
2	5,211	7.9%	3,855	6.0%	2,291	3.7%	5,375	7.3%	5,897	7.8%
3	2,144	3.3%	1,436	2.2%	542	0.9%	2,699	3.7%	4,802	6.4%
4	613	0.9%	546	0.8%	1,850	3.0%	1,943	2.7%	1,260	1.7%
5	2,352	3.6%	3,238	5.0%	2,580	4.1%	1,649	2.3%	2,938	3.9%
10	1,068	1.6%	1,333	2.1%	851	1.4%	2,740	3.7%	2,762	3.7%
15	4,029	6.1%	751	1.2%	670	1.1%	1,332	1.8%	1,523	2.0%
20	2,112	3.2%	763	1.2%	1,041	1.7%	1,011	1.4%	129	0.2%
30	4,073	6.2%	3,423	5.3%	2,821	4.5%	5,130	7.0%	3,883	5.2%
DK/NS	1,853	2.8%	1,399	2.2%	1,365	2.2%	4,390	6.0%	1,414	1.9%
None	37,289	56.7%	41,274	64.1%	44,515	71.1%	44,146	60.3%	40,600	53.9%
Total	65,775	Not Available*	64,388	Not Available*	62,609	Not Available*	73,173	Not Available*	75,296	Not Available*

The Following question was asked in the 2007 BRFSS "Thinking of your mental health which includes: stress, depression, and problems with emotions, how many days during the last 30 days was your mental health not good" (BRFSS 2007).

DK/NS means that a respondent Did not know or was not sure

* Percents do not equal 100 in this table because not all responses were used. There were years where the responses (in number of days) given created different output. For the purpose of this assessment we included the responses (in number of days) that were uniform across all of the years (2003-2007) (*Health Status and Vital Statistics by County of Residence;* 2003-2007).

Between 2004 and 2008, the number of cases for both domestic violence and child abuse increase. It is also important to note that when the numbers for domestic violence decrease slightly, the numbers for child abuse and neglect increase slightly (see Table 7.1). According to the 2008 CTSA, domestic violence (18.8%) and child abuse and neglect (17.8%) were cited as the most important health problems among Navajo County residents (N= 1,084).

Table 7.1

Cases of Domestic Violence and Child Abuse, Navajo County (2004-2008)		
Year	**Domestic Violence**	**Child Abuse/Neglect***
2004	54	8
2005	84	18
2006	88	15
2007	77	21
2008	88	15

Homicide Rate

Table 7.2

Homicide Rate (2005-2008)				
Year	**Arizona**		**Navajo County**	
	Male	**Female**	**Male**	**Female**
2005	425	78	8	2
2006	430	95	11	2
2007	381	103	13	1
2008	364	84	6	2

Advanced Vital Statistics by County of Residence (2005-2008)
Actual number of homicides

Suicide Rate

Table 7.3

Suicide Rate (2005-2008)				
Year	**Arizona**		**Navajo County**	
	Male	**Female**	**Male**	**Female**
2005	723	192	18	6
2006	743	205	23	5
2007	773	213	16	2
2008	693	183	11	3

Advanced Vital Statistics by County of Residence (2005-2008)

Table 7.4

Persons Injured in Motor Vehicle Crashes in Arizona (2005-2008)												
Age of Victim	Year											
	2005			2006			2007			2008		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	797	765	1,564	743	687	1,432	686	726	1,412	604	589	1,193
05-09	1,014	960	1,947	891	947	1,840	874	918	1, 792	705	735	1,441
10-14	1,216	1,314	2,531	1,148	1,211	2,366	1,102	1,117	2,222	954	922	1,876
15-19	4,378	4,961	9,342	4,346	4,853	9,204	3,987	4,526	8,514	3,271	3,792	7,065
20-24	5,031	4,857	9,896	4,864	4,768	9,620	4,652	4,405	9,058	3,638	3,780	7,418
25-34	6,809	6,707	13,524	6,327	6,415	12,757	6,029	6,278	12,309	5,007	5,339	10,346
35-44	5,191	5,491	10,687	5,173	5,447	10,626	4,858	5,125	9,984	4,045	4,339	8,384
45-54	4,192	4,592	8,797	4,178	4,571	8,753	4,089	4,649	8,739	3,567	4,001	7,568
55-64	2,608	3,077	5,687	2,608	3,151	5,764	2,649	3,089	5,738	2,438	2,809	5,247
65-74	1,267	1,580	2,848	1,256	1,502	2,760	1,259	1,461	2,720	1,218	1,380	2,598
75 +	1,334	1,445	2,809	916	1,230	2,149	891	1,132	2,023	828	1,003	1,831
Other	267	343	634	685	534	1,303	616	528	1,194	492	488	1,042
Total	**23,104**	**36,092**	**70,293**	**33,117**	**35,316**	**68,574**	**31,692**	**33,954**	**65,705**	**26.767**	**29,177**	**56,009**

Actual number of Suicides Arizona Motor Vehicle Crash Facts (2005-2008)
* Male and female numbers do not equal the total number provided as there were causes listed in the original data set where the victim's sex was unknown.

Table 7.5

Motor Vehicle Deaths (2005-2008)								
Motor Vehicle Accidents Resulting in Death	Year							
	2005		2006		2007		2008	
	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County
	1,137	54	1,220	50	1,035	60	874	43

Advanced Vital Statistics by County of Residence (2005-2008)

Drug Related Mortality Rate

Table 7.6

Drug and Alcohol Related Mortality Rate (2005-2008)																
Cause of Death	2005				2006				2007				2008			
	Navajo County		Arizona		Navajo County		Arizona		Navajo County		Arizona		Navajo County		Arizona	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Drug Induced Deaths	3	4	492	307	8	7	568	335	8	7	590	350	2	7	321	202
Alcohol Induced Deaths	18	12	481	174	26	13	462	175	19	11	523	189	20	8	514	203

Advanced Vital Statistics, Arizona (2005-2008)

Category Eight - Maternal and Child Health

Definition of Category

One of the most significant areas for monitoring and comparison relates to the health of a vulnerable population: infants and children. This category focuses on birth data and outcomes as well as mortality data for infants and children. Because maternal care is correlated with birth outcomes, measures of maternal access to, and/or utilization of, care is included. Number of births to teen mothers is a critical indicator of increased risk for both mother and child.

Trends

Infant mortality rate for Navajo County almost doubles the Arizona state rate in 2007 (10.9 vs. 6.8), for 2008, the Navajo County rate has decreased, but remains over the state levels (8.7 vs. 6.3). The rate of women receiving inadequate prenatal care also doubles the Arizona state rate, and probably relates to low weight birth rates and neonatal mortality, both slightly higher in Navajo County than in Arizona. Post-natal and child mortality rates are significantly higher in Navajo County when compared to the rates for Arizona or the US (for child mortality, compare the US rate of 19 per 100,000 with the Navajo County rate of 50.8 per 100,000). According to the 2008 Navajo County Community Themes and Strengths Assessment (CTSA), teen pregnancy rates were identified as one of the most important health problems in Navajo County.

Infant Mortality

Infant mortality rates in Navajo County started to increase at a rate almost double (10.9) the state rate (6.8) in 2007. In 2008 the infant mortality rate in Navajo County (8.7) remained slightly higher than the state rate (6.3) (see Table 8.0 below for details).

Inadequate Prenatal Care

Navajo County has high rates of women receiving inadequate prenatal care. Rates for Navajo County almost double the state numbers. Rates ranging from 10.9% to 12.4% present a crisis in prenatal care for women in the county (see Table 8.1). This is an issue worth examining in future research.

Table 8.0

Infant Mortality (2005-2008)								
Infant Deaths	Years							
	2005		2006		2007		2008	
	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County
Infant Deaths	653	17	642	9	701	22	625	17
Infant Mortality Rate Per 1,000 Births	8.9	6.8	6.3	4.8	6.8	10.9	6.3	8.7

Advanced Vital Statistics by County of Residence (2005-2008)

Table 8.1

Women Receiving Inadequate Prenatal Care (2004-2007)								
Inadequate Care (Percent)	Years							
	2004		2005		2006		2007	
	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County
	7.4%	12.0%	6.5%	10.9%	6.4%	11.2%	6.0%	12.4%

Kids Count, Data Center- Arizona

Inadequate care refers to women reporting 0-4 visits to a prenatal care provider during pregnancy

Births to Adolescents

Table 8.2

Births to Adolescents (2005-2008)					
		Pregnancies to Females 19 and Younger		Births to Females 19 and Younger	
Years	Number/Rate	Arizona	Navajo County	Arizona	Navajo County
2005	Number	13,898	356	11,933	343
	Rate	32.7%	33.1%	28.1%	31.9%
2006	Number	14,918	325	12,916	311
	Rate	34.1%	30.0%	29.6%	28.7%
2007	Number	15,038	355	12,972	341
	Rate	34.4%	33.7%	29.7%	32.3%
2008	Number	14,047	381	12,161	364
	Rate	31.6%	36.3%	27.4%	34.7%

Advanced Vital Statistics by County of Residence (2005-2008)
Pregnancies are determined by the sum of live births, fetal deaths, and abortions.
Rate is per 1,000 females 19 or younger

Adolescent Pregnancy Rate

Table 8.3

Adolescent Pregnancy Rate: Mother's Age Group, Race/Ethnicity (2005-2008)															
Years	Age Group	White non-Hispanic		Hispanic or Latino		Black or African American		American Indian or Alaskan Native		Asian or Pacific Islander		Other/ Unknown		Total	
		Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County
2005	<15	17	1	137	3	8	0	21	2	1	0	1	0	185	6
	15-17	711	18	2,721	11	199	1	478	91	28	0	42	0	4,179	121
	18-19	2,016	47	4,330	22	362	0	705	144	67	2	89	1	7,569	216
2006	<15	19	1	123	0	7	0	19	2	1	0	1	0	170	3
	15-17	852	22	2,923	15	187	0	403	82	28	0	30	1	4,450	120
	18-19	2,338	45	4,692	16	407	1	767	124	63	1	29	1	8,296	188
2007	<15	26	0	115	0	12	0	26	2	0	0	1	0	180	2
	15-17	779	19	2,892	8	195	2	445	88	31	0	19	0	4,361	117
	18-19	2,295	50	4,775	26	414	0	814	143	72	0	61	3	8,431	222
2008	<15	15	0	111	0	12	0	22	7	1	0	0	0	161	7
	15-17	769	18	2,724	9	203	1	408	90	26	0	21	1	4,151	119
	18-19	2,209	64	4,333	25	441	1	755	146	86	2	25	0	7,849	238

Advanced Vital Statistics by County of Residence (2005-2008)

Navajo County Teen Pregnancy

According to the 2008 CTSA, teenage pregnancy was cited as one of the most important health problems among Navajo County youth. The Navajo County Teen Pregnancy Program collaborates with schools, a residential treatment facility for troubled girls, the county juvenile detention center, tribal health care providers and other community organizations to present sexual health information to teenagers and their parents. The program also includes health science curriculum at Holbrook High School and the Navajo County Juvenile Restoration Center and at the Academy of Eastern Arizona. The Navajo County Teen Pregnancy Program worked with 1,426 youth (in classroom sessions), 96 parents of teens, and over 400 community outreach encounters with both teens and adults.

In 2008, the Navajo County Teen Pregnancy Prevention Program conducted a pre and post survey with teens they worked with. According to this survey, 56.6% of students reported knowing much more and 21.7% reported knowing more about sexuality. 47.6% reported having much more and 20.7% reported having more clarity about their own values regarding sexual behaviors. 54.9% of respondents reported feeling much more and 23.2% reported feeling more in control of their sexual behavior. According to the survey 51.9% of students reported feeling much more in control of their decisions regarding sex.

Prenatal Care

Table 8.4

Prenatal Care Navajo County (2005-2008)								
Year	Ethnicity/Race							
	Care	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Other or Unknown	Total
2005	No care	336	1,530	88	187	29	78	2,248
	1st Trimester	34,784	29,279	2,642	4,271	2,421	1,056	74,453
	2nd Trimester	3,782	9.111	595	1,403	299	211	15,401
	3rd Trimester	728	2,208	117	418	54	81	3,606
	Unknown	27	28	8	14	2	11	90
2006	No care	398	1,611	88	223	38	43	2,401
	1st Trimester	37,384	31,457	2,992	4,196	2,701	569	79,299
	2nd Trimester	4,357	9,481	673	1,489	323	144	16,467
	3rd Trimester	850	2,287	108	445	67	40	3,797
	Unknown	24	26	3	11	7	7	78
2007	No care	386	1,445	114	206	52	45	2,248
	1st Trimester	36,512	32,257	3,200	4,225	2,952	537	79,683
	2nd Trimester	4,429	9,751	693	1,534	337	120	16,864
	3rd Trimester	872	2,238	156	426	70	47	3,809
	Unknown	17	40	2	17	1	6	83
2008	No care	303	1,080	90	199	45	38	1,755
	1st Trimester	36,619	31,301	3,336	4,141	2,958	383	78,738
	2nd Trimester	4,142	8,316	705	1,520	317	94	15,084
	3rd Trimester	814	1,912	161	495	105	44	3,531
	Unknown	47	30	9	17	0	4	107

Advanced Vital Statistics by County of Residence, Arizona (2005-2008)

Low Birth Weight

Table 8.5

Low Birth Weight (LBW) Births in Navajo County and Arizona (2004-2008)			
Year	**Number/Rate**	**Navajo County**	**Arizona**
2004	Low Birth Weight Births (number)	150	6,704
	Low Birth Weight Births per 100 Births (rate)	8.4	7.2
2005	Low Birth Weight Births (number)	149	6,640
	Low Birth Weight Births per 100 Births (rate)	7.8	6.9
2006	Low Birth Weight Births (number)	152	7,266
	Low Birth Weight Births per 100 Births (rate)	8.1	7.1
2007	Low Birth Weight Births (number)	152	7,285
	Low Birth Weight Births per 100 Births (rate)	7.6	7.1
2008	Low Birth Weight Births (number)	160	7,062
	Low Birth Weight Births per 100 Births (rate)	8.2	7.1

Data Source: Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2008. 11/6/09

Payee for Births

Table 8.6

Payee for Births by Ethnicity/Race (Navajo County, 2005-2008)							
Payee	**White non-Hispanic**	**Hispanic or Latino**	**Black or African American**	**American Indian or Alaska Native**	**Asian or Pacific Islander**	**Other or Unknown**	**Total (Payee)**
2005							
AHCCCS	11,978	31,224	2,207	3,510	686	802	50,407
IHS	16	28	5	1,632	5	17	1,703
Private insurance	26,049	9,321	1,161	811	2,008	545	39.895
Self	1,062	1,310	61	82	90	51	2,656
Unknown	552	273	16	258	16	22	1,137
Total (Ethnicity/Race)	39,657	42,156	3,450	6,293	2,805	1,437	95,798
2006							
AHCCCS	13,292	32,808	2,379	3,528	705	408	53,121
IHS	20	32	8	1,717	3	8	1,788
Private insurance	27,993	10,208	1,382	905	2,313	327	43,128
Self	1,247	1,548	73	60	101	45	3,074
Unknown	461	266	22	154	14	14	931
Total (Ethnicity/Race)	43,013	44,862	3,864	6,364	3,136	803	102,042
2007							
AHCCCS	12,884	33,582	2,551	3,456	786	366	53,625
IHS	40	33	5	1,869	3	17	1,967
Private insurance	27,522	10,426	1,523	893	2,503	305	43,172
Self	1,207	1,419	67	51	103	42	2,889
Unknown	563	271	19	139	17	25	1,034
Total (Ethnicity/Race)	42,216	45,731	4,165	6,408	3,412	755	102,687
2008							
AHCCCS	14,435	31,327	2,654	3,553	795	317	52,081
IHS	58	30	9	1,768	7	12	1,884
Private insurance	26,722	9,920	1,524	839	2,487	196	41,688
Self	1,164	1,186	81	48	113	22	2,614
Unknown	546	176	33	154	23	16	948
Total (Ethnicity/Race)	41,925	42,639	4,301	6,362	3,425	3,425	99,215

Advanced Vital Statistics by County of Residence, Arizona (2005-2008)

Child Mortality

Table 8.7

Top Four Leading Causes of Death Among Infants in Navajo County (2004-2008)			
Year	**Cause of Death**	**Navajo County**	**Arizona**
2004	Certain conditions originating in the perinatal period	4	198
	Congenital Malformations	2	152
	SIDS	0	25
	Accidents (unintentional injury)	0	19
	Total, all causes*	**12**	**622**
2005	Certain conditions originating in the perinatal period	6	293
	Congenital Malformations	4	149
	SIDS	0	32
	Accident (unintentional injury)	3	24
	Total, all causes*	**17**	**653**
2006	Certain conditions originating in the perinatal period	3	314
	Congenital Malformations	3	142
	SIDS	0	37
	Accident (unintentional injury)	1	17
	Total, all causes*	**9**	**642**
2007	Certain conditions originating in the perinatal period	7	328
	Congenital Malformations	5	159
	SIDS	2	43
	Accident (unintentional injury)	0	30
	Total, all causes*	**22**	**701**
2008	Certain conditions originating in the perinatal period	5	303
	Congenital Malformations	6	145
	SIDS	1	21
	Accident (unintentional injury)	1	19
	Total, all causes*	**17**	**625**

*All causes of death include causes of death not listed in the table above. Data Source: Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2008. 11/10/09.

Neonatal Mortality

Table 8.8

Neonatal Mortality Rate (Per 1,000 live births) in Navajo County (2004-2008)

Year	Navajo County		Arizona	
	Number	Rate	Number	Rate
2004	7	3.9	421	4.5
2005	8	4.2	424	4.4
2006	4	2.1	440	4.3
2007	10	5.0	479	4.7
2008	7	3.6	419	4.2

Data Source: Advance Vital Statistics, AZDHS, 2004-2008 11/9/09 http://www.azdhs.gov/plan/report/ahs/ahs2008/5e.html

The Neonatal mortality rate is slightly higher in Arizona than in Navajo County. In 2007 a significant increase in Neonatal mortality rates in infants surpassed the rate in Arizona.

The Post-neonatal mortality rate is significantly lower in Arizona when compared to Navajo County. The post-neonatal mortality rate in Navajo County fluctuates anywhere from 2.7 to 6.0.

Table 8.9

Fetal Deaths out of Total Pregnancies in Navajo County and Arizona: By Age Group (2004-2008)										
Year	**Region**	**Deaths vs. Total Pregnancies**	**Total**	**<15**	**15-19**	**20-29**	**30-39**	**40-44**	**45+**	**Not Known**
2004	**Navajo County**	Total Pregnancies	1,874	1	352	1,025	453	39	2	2
		Fetal Deaths	15	0	2	4	9	0	0	0
	Arizona	Total Pregnancies	106,252	233	13,930	58,451	30,854	2,299	133	352
		Fetal Deaths	555	1	79	253	199	19	1	3
2005	**Navajo County**	Total Pregnancies	1,969	6	350	1,058	490	60	1	4
		Fetal Deaths	15	0	2	7	6	0	0	0
	Arizona	Total Pregnancies	106,776	239	13,659	58,972	31,113	2,203	149	441
		Fetal Deaths	532	0	73	266	170	17	2	4
2006	**Navajo County**	Total Pregnancies	1,937	3	322	1,117	451	44	0	0
		Fetal Deaths	13	0	3	5	4	1	0	0
	Arizona	Total Pregnancies	113,091	242	14,676	62,852	32,603	2,370	226	3
		Fetal Deaths	543	3	80	255	171	26	5	3
2007	**Navajo County**	Total Pregnancies	2,078	3	352	1,182	489	45	7	0
		Fetal Deaths	15	0	1	7	6	0	1	0
	Arizona	Total Pregnancies	113,756	325	14,713	62,641	33,314	2,431	308	24
		Fetal Deaths	583	3	84	296	180	15	3	2
2008	**Navajo County**	Total Pregnancies	2,018	7	374	1,128	462	44	3	0
		Fetal Deaths	15	0	3	6	6	0	0	0
	Arizona	Total Pregnancies	110,115	230	13,817	60,377	32,946	2,301	151	333
		Fetal Deaths	544	2	71	273	176	18	2	2

Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2008. 11/10/09. [http://www.azdhs.gov/plan/report/ahs/ahs2004/pdf/5a4.pdf]

Table 8.10

Child Mortality (Number) in Navajo County (2004-2008)										
Age Group	**2004**		**2005**		**2006**		**2007**		**2008**	
	Navajo County	**Arizona**	**Navajo County**	**Arizona**	**Navajo County**	**Arizona**	**Navajo County**	**Arizona**	**Navajo County**	**Arizona**
1-4	5	108	2	126	8	144	2	111	4	128
5-9	3	57	4	84	2	55	5	61	0	66
10-14	4	83	5	75	4	79	2	84	2	68
Total	12	248	11	285	14	278	9	256	6	262

Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2008. 11/9/09 [http://www.azdhs.gov/plan/menu/for/deathscounty.htm]

Table 8.11

Child Mortality Rate (Per 100,000) in Navajo County (2004-2006)						
Year	Navajo County		Arizona		United States	
	Number	Rate	Number	Rate	Number	Rate
2004	12	40.7	248	20.4	11,619	20
2005	11	36.4	285	22.7	11,358	20
2006	14	50.8	278	21.5	10,780	19

Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2006. 11/9/09 [http://www.azdhs.gov/plan/menu/for/deathscounty.htm] Kids Count Data Center, 2004-2006. 11/9/09 [http://datacenter.kidscount.org/data/

Fetal Deaths and Child Mortality

Table 8.12

Top Four Causes of Death Among Children Ages 1-14 (2004-2008)			
Year	Cause of Death	Navajo County	Arizona
2004	Accidents (unintentional injury)	3	98
	Malignant Neoplasm	0	22
	Assault (homicide)	1	18
	Congenital Malformations	2	18
	Total, all causes*	**12**	**248**
2005	Accidents (unintentional injury)	5	112
	Malignant Neoplasm	0	24
	Assault (homicide)	0	18
	Congenital Malformations	1	23
	Total, all causes*	**11**	**285**
2006	Accidents (unintentional injury)	8	102
	Malignant Neoplasm	0	17
	Assault (homicide)	1	15
	Congenital Malformations	0	28
	Total, all causes*	**14**	**278**
2007	Accidents (unintentional injury)	5	96
	Malignant Neoplasm	0	42
	Assault (homicide)	1	18
	Congenital Malformations	0	13
	Total, all causes*	**9**	**256**
2008	Accidents (unintentional injury)	3	77
	Malignant Neoplasm	0	30
	Assault (homicide)	0	14
	Congenital Malformations	0	22
	Total, all causes*	**6**	**262**

Advance Vital Statistics by County of Residence, Arizona Department of Health Services, 2004-2008. 11/10/09. [http://www.azdhs.gov/plan/report/ahs/ahs2004/5e.htm] * Indicates all causes of death including the ones not listed in the table

Definition of Indicator

Health status in a community is measured in terms of mortality (rates of death within a population) and morbidity (rates of the incidence and prevalence of disease). Mortality may be represented by crude rates or age-adjusted rates (AAM); by degree of premature death (Years of Productive Life Lost or YPLL); and by cause (disease - cancer and non-cancer or injury - intentional, unintentional). Morbidity may be represented by age-adjusted (AA) incidence of cancer and chronic disease.

Trends

The self-rated health status for residents of Navajo County is slightly higher than the median for US counties. In 2008, diabetes and cancer were considered respectively the third and fourth more important health problems in the county. Data from 2005 shows the high incidence of oral cancer in Navajo County for males and females, a fact that could be related to smoking as a behavioral risk factor in Navajo County.

General Health Status

According to the Community Health Status Report (CHSR) (CDC, 2008 communityhealth.hhs.gov) the self-rated health status (percent of adults who report fair of poor health) reported by Navajo County Residents was 16.5%. Navajo County residents' self-reported health status is slightly better than the median for all Counties in the United States (17.1%) and falls within the range of peer counties (16.5%-29.4) (Data in the CHSR came from BRFSS 2000-2005).

Average Number of Sick Days within the Last Month

According to the CHSR the average number of unhealthy days experienced by Navajo County residents in the past month (as reported by the NCHS Vital Statistics Reporting System, 1999-2003) was six days. This number is the same as the national average for all counties in the United States (six days) and falls within the normal range among peer counties (5.5 days to 8.7 days).

Table 9.2

Average Number of Unhealthy Days in the Last Month (2008)			
Average Number of Unhealthy Days in the Last Month	**Peer Counties**	**U.S. Median**	**Navajo County**
	5.5-8.7	6.0	6.0

Community Health Status Report, Navajo County, AZ (2008)

Table 9.0

Community and Person Health (Navajo County, AZ)		
Health Status	**Overall Health of Community**	**Your Own Personal Health**
Very Unhealthy	4.50%	1.50%
Unhealthy	21.80%	5.00%
Somewhat Healthy	58.50%	40.50%
Healthy	13.40%	43.80%
Very Healthy	1.90%	9.30%
Total Respondents	1,078	1,081

Table 9.1

Self-Rated Health Status (2008)			
Percent of Adults who Report Fair or Poor Health	**Peer Counties**	**U.S. Median**	**Navajo County**
	16.5%- 29.4%	17.1%	16.5%

Community Health Status Report, Navajo County, AZ (2008)

Table 9.3

Mortality: Total Number of Deaths (2005-2008)								
Age Groups	Years							
	2005		2006		2007		2008	
	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona
Adolescents (15-19)	15	346	20	412	13	342	10	297
Young Adults (20-44)	103	3,121	126	3,258	116	3,120	101	2,829
Middle Aged (45-64)	193	8,524	180	8,618	189	8,629	203	8,899
Elderly (65+)	462	32,163	511	32,192	539	31,582	456	32,214
Total Deaths	773	44,154	837	44,480	857	43,673	770	44,239

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

Table 9.4

Number of Unintentional Injuries Resulting in Death (2005-2008)						
			Years			
Accidents	Region	Sex	2005	2006	2007	2008
Total Accidents	Navajo County	Male	69	68	80	65
		Female	28	32	33	30
		Combined	97	100	113	95
	Arizona	Male	1,921	2,026	1,890	1,608
		Female	1,085	1,130	1,124	940
		Combined	3,006	3,156	3,014	2,548
Transport Accidents	Navajo County	Male	39	34	46	29
		Female	16	21	17	16
		Combined	55	55	63	45
	Arizona	Male	859	913	770	704
		Female	349	412	344	267
		Combined	1,208	1,325	1,114	971
Motor Vehicle Accidents	Navajo County	Male	38	30	43	28
		Female	16	20	17	15
		Combined	54	50	60	43
	Arizona	Male	801	831	710	621
		Female	336	389	325	253
		Combined	1,137	1,220	1,035	874
Other Land Transport Accidents	Navajo County	Male	0	3	2	1
		Female	0	1	0	1
		Combined	0	4	2	2
	Arizona	Male	20	34	17	28
		Female	5	4	6	3
		Combined	25	38	23	31

Number of Unintentional Injuries Resulting in Death (2005-2008)						
Water, Air, Space	Navajo County	Male	1	1	1	0
		Female	0	0	0	0
		Combined	1	1	1	0
	Arizona	Male	38	48	43	55
		Female	8	19	13	11
		Combined	46	67	56	66
Non-Transport Accidents	Navajo County	Male	30	34	34	36
		Female	12	11	16	14
		Combined	42	45	50	50
	Arizona	Male	1,062	1,113	1,120	904
		Female	736	718	780	673
		Combined	1,798	1,831	1,900	1,577
Falls	Navajo County	Male	5	7	9	9
		Female	7	2	6	4
		Combined	12	9	15	13
	Arizona	Male	308	338	329	344
		Female	377	364	391	396
		Combined	685	702	720	740
Accidental Discharge of Firearms	Navajo County	Male	2	0	0	0
		Female	0	0	0	0
		Combined	2	0	0	0
	Arizona	Male	10	6	12	7
		Female	5	3	1	2
		Combined	15	9	13	9
Accidental Drowning and Submersion	Navajo County	Male	4	0	1	3
		Female	1	0	1	0
		Combined	5	0	2	3
	Arizona	Male	63	71	65	56
		Female	26	21	23	14
		Combined	89	92	88	70
Accidental Expose to Smoke, Fire and Flames	Navajo County	Male	1	5	1	4
		Female	0	1	0	0
		Combined	1	6	1	4
	Arizona	Male	36	27	18	29
		Female	20	16	13	17
		Combined	56	43	31	46

Number of Unintentional Injuries Resulting in Death (2005-2008)						
Accidental Poisoning	Navajo County	Male	2	10	11	6
		Female	2	4	6	6
		Combined	4	14	17	12
	Arizona	Male	376	441	489	293
		Female	187	205	232	138
		Combined	563	646	721	431

Mortality

Years of Productive Life Lost (YPLL)

Premature death is measured by the number of YPLL due to death before age 75(as defined by the Centers for Disease Control and Prevention's Years of potential Life Lost [YPLL-75]). For example the death of a 25 year old would account for 50 years of productive life lost. The U.S. national average in 2005 was 7,564 years lost per 100,000 of the population, which is 43 years more per 100,000 of the population than the 2004. Arizona ranked 30th in the nation for premature death with 7,930 years lost per 100,000 of the population (United Health Foundation, America's Health rankings, Premature Death, accessed 12/9/09 from http://wwwunitedhealthfoundation.net/shr2005/components/prematuredeath.html).

Table 9.5

Number of Cardiovascular Disease Cases Resulting in Death (2005-2008)						
			Years			
Cause of Death	Region	Sex	2005	2006	2007	2008
Major Cardiovascular Diseases	Navajo County	Male	106	113	108	108
		Female	84	92	98	88
		Combined	190	205	206	196
	Arizona	Male	7,238	6,866	6,733	6,909
		Female	6,908	6,624	6,462	6,222
		Combined	14,146	13,490	13,195	13,131
Diseases of Heart	Navajo County	Male	83	96	88	90
		Female	56	72	64	61
		Combined	139	168	152	151
	Arizona	Male	5,789	5,538	5,455	5,535
		Female	4,990	4,824	4,692	4,517
		Combined	10,779	10,362	10,147	10,052
Acute Rheumatic fever and Chronic Rheumatic Heart Disease	Navajo County	Male	0	0	0	1
		Female	1	1	0	0
		Combined	1	1	0	1
	Arizona	Male	16	15	15	24
		Female	39	42	23	33
		Combined	55	57	38	57

Number of Cardiovascular Disease Cases Resulting in Death (2005-2008)						
Hypertensive Heart Disease	Navajo County	Male	3	0	2	4
		Female	2	2	2	0
		Combined	5	2	4	4
	Arizona	Male	226	256	332	322
		Female	261	250	314	314
		Combined	487	506	646	636
Hypertensive Heart and Renal Disease	Navajo County	Male	0	0	0	1
		Female	1	0	0	1
		Combined	1	0	0	2
	Arizona	Male	18	13	15	22
		Female	21	11	14	26
		Combined	39	24	29	48
Ischemic Heart Disease	Navajo County	Male	65	74	61	67
		Female	39	53	42	38
		Combined	104	127	103	105
	Arizona	Male	4,509	4,202	4,005	4,225
		Female	3,551	3,426	3,158	3,101
		Combined	8,060	7,628	7,163	7,326
Acute Myocardial Infection	Navajo County	Male	22	30	26	24
		Female	12	16	23	10
		Combined	34	46	49	34
	Arizona	Male	1,117	988	891	966
		Female	916	835	782	689
		Combined	2,033	1,823	1,673	1,655
Other Acute Ischemic Heart Disease	Navajo County	Male	1	2	4	3
		Female	0	0	1	0
		Combined	1	2	5	3
	Arizona	Male	26	14	21	20
		Female	11	10	9	8
		Combined	37	24	30	28
Other Forms of Chronic Ischemic Heart Disease	Navajo County	Male	42	42	31	40
		Female	27	37	18	28
		Combined	69	79	49	68
	Arizona	Male	3,366	3,200	3,093	3,239
		Female	2,624	2,581	2,367	2,404
		Combined	5,990	5,781	5,460	5,643
Atherosclerotic Cardiovascular Disease	Navajo County	Male	19	13	6	12
		Female	8	13	3	6
		Combined	27	26	9	18
	Arizona	Male	1,102	1,119	1,041	1,066
		Female	875	824	687	718
		Combined	1,977	1,943	1,728	1,784

Number of Cardiovascular Disease Cases Resulting in Death (2005-2008)						
All Other Forms of Chronic Ischemic Heart Disease	Navajo County	Male	23	29	25	28
		Female	19	24	15	22
		Combined	42	53	40	50
	Arizona	Male	2,264	2,080	2,052	2,173
		Female	1,749	1,757	1,680	1,686
		Combined	4,013	3,837	3,732	3,859
Other Heart Diseases	Navajo County	Male	15	22	25	17
		Female	13	16	20	22
		Combined	28	38	45	39
	Arizona	Male	1,020	1,052	1,088	942
		Female	1,118	1,095	1,183	1,043
		Combined	2,138	2,147	2,271	1,985
Acute and Subacute Endocarditis	Navajo County	Male	0	0	1	0
		Female	0	0	0	1
		Combined	0	0	1	1
	Arizona	Male	17	14	19	14
		Female	6	10	14	16
		Combined	23	24	33	30
Diseases of Pericardium and Acute Myocarditis	Navajo County	Male	0	0	0	0
		Female	2	0	0	0
		Combined	2	0	0	0
	Arizona	Male	5	10	8	8
		Female	11	4	7	5
		Combined	16	14	15	13
Heart Failure	Navajo County	Male	2	6	6	4
		Female	3	4	4	7
		Combined	5	10	10	11
	Arizona	Male	295	325	302	255
		Female	431	410	357	336
		Combined	726	735	659	591
All Other Forms of Heart Failure	Navajo County	Male	13	16	18	13
		Female	8	12	16	14
		Combined	21	28	34	27
	Arizona	Male	703	703	759	665
		Female	670	671	805	686
		Combined	1,373	1,374	1,564	1,351

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

Table 9.6

Number of Chronic Obstructive Lung Disease Cases Resulting in Death (2005-2008)						
			Years			
Cause of Death	**Region**	**Sex**	**2005**	**2006**	**2007**	**2008**
Chronic Lower Respiratory Disease	**Navajo County**	**Male**	2	19	26	21
		Female	0	13	12	22
		Combined	2	32	38	43
	Arizona	**Male**	1,301	1,343	1,281	1,394
		Female	1,477	1,428	1,370	1,502
		Combined	2,778	2,771	2,651	2,896
Bronchitis, Chronic and Unspecified	**Navajo County**	**Male**	0	0	0	0
		Female	0	0	0	0
		Combined	0	0	0	0
	Arizona	**Male**	6	3	1	2
		Female	5	5	3	5
		Combined	11	8	4	7
Emphysema	**Navajo County**	**Male**	2	4	2	4
		Female	3	1	4	4
		Combined	5	5	6	8
	Arizona	**Male**	200	171	140	145
		Female	185	178	142	113
		Combined	385	349	282	258
Asthma	**Navajo County**	**Male**	0	0	3	0
		Female	1	0	0	1
		Combined	1	0	3	1
	Arizona	**Male**	28	32	21	14
		Female	45	41	38	33
		Combined	73	73	59	47
Other Chronic Lower Respiratory Diseases	**Navajo County**	**Male**	20	15	21	17
		Female	10	12	8	17
		Combined	30	27	29	34
	Arizona	**Male**	1,067	1,137	1,119	1,233
		Female	1,242	1,204	1,187	1,351
		Combined	2,309	2,341	2,306	2,584

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

Table 9.7

Cancer Death Rates (2005-2008)							
Years	**Region**	**Sex**	**Breast Cancer**	**Lung Cancer**	**Cervical Cancer**	**Colorectal Cancer**	**Prostate Cancer**
2005	**Navajo County**	**Male**	0	11	0	7	10
		Female	10	9	1	5	0
		Combined	10	20	1	12	10
	Arizona	**Male**	7	1,461	0	490	564
		Female	670	1,146	65	425	0
		Combined	677	2,607	65	915	564
2006	**Navajo County**	**Male**	0	20	0	4	12
		Female	11	11	3	9	0
		Combined	11	31	3	13	12
	Arizona	**Male**	6	1,528	0	495	522
		Female	739	1,190	54	422	0
		Combined	745	2,718	54	914	522
2007	**Navajo County**	**Male**	0	20	0	11	16
		Female	13	17	1	4	0
		Combined	13	37	1	15	16
	Arizona	**Male**	6	1,443	0	535	548
		Female	718	1,130	62	431	0
		Combined	724	2,573	62	966	548
2008	**Navajo County**	**Male**	0	20	0	8	11
		Female	11	16	1	8	0
		Combined	11	36	1	16	11
	Arizona	**Male**	9	1,477	0	466	568
		Female	725	1,155	60	430	0
		Combined	734	2,632	60	896	568

Table 9.8

Oral Cancer Rates (2005)		
Oral Cancer (Lip, Oral Cavity and Pharynx)	**Navajo County**	**Arizona**
Male Rate	17.23%	11.04%
Female Rate	7.25%	4.08%
Male Death Rate	Not Available	3.44%
Female Death Rate	Not Available	1.25%
Proportion of cases detected at earliest stage	Not Available	30.8%

* Rates per 100,000 population, Arizona Department of Health Services, Office of Oral Health (2005)

Table 9.9

Total Number of Cases of Pneumonia/Influenza Resulting in Death (2005-2008)						
			Years			
Cause of Death	**Region**	**Sex**	**2005**	**2006**	**2007**	**2008**
Pneumonia and Influenza	**Navajo County**	**Male**	21	16	17	11
		Female	22	13	8	11
		Combined	43	29	25	22
	Arizona	**Male**	633	579	433	515
		Female	647	568	442	545
		Combined	1,280	1,147	875	1,060
Pneumonia	**Navajo County**	**Male**	20	16	17	11
		Female	21	13	8	11
		Combined	41	29	25	22
	Arizona	**Male**	623	569	428	507
		Female	624	560	439	534
		Combined	1,247	1,129	867	1,041
Influenza	**Navajo County**	**Male**	1	0	0	0
		Female	1	0	0	0
		Combined	2	0	0	0
	Arizona	**Male**	10	10	5	8
		Female	23	8	3	11
		Combined	33	18	8	19

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

Table 9.10

Chronic Liver Disease and Cirrhosis Resulting in Death (2005-2008)						
			Years			
Cause of Death	**Region**	**Sex**	**2005**	**2006**	**2007**	**2008**
Chronic Liver Disease and cirrhosis	**Navajo County**	**Male**	12	12	11	13
		Female	11	12	14	8
		Combined	23	24	25	21
	Arizona	**Male**	498	426	481	479
		Female	251	280	253	281
		Combined	749	706	734	760
Alcoholic Liver Disease	**Navajo County**	**Male**	10	9	10	10
		Female	8	10	7	5
		Combined	18	19	17	15
	Arizona	**Male**	305	282	309	349
		Female	119	128	133	161
		Combined	424	410	442	510
Other Chronic Liver Disease and Cirrhosis	**Navajo County**	**Male**	2	3	1	3
		Female	3	2	7	3
		Combined	5	5	8	6
	Arizona	**Male**	193	144	172	130
		Female	132	152	120	120
		Combined	325	296	292	250

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

Table 9.11

Number of Cases of Diabetes Mellitus Resulting in Death (2005-2008)						
			Years			
Cause of Death	**Region**	**Sex**	**2005**	**2006**	**2007**	**2008**
Diabetes	**Navajo County**	**Male**	19	16	23	12
		Female	11	12	9	15
		Combined	30	28	32	27
	Arizona	**Male**	641	632	629	625
		Female	555	556	516	522
		Combined	1,196	1,188	1,145	1,147

Advance Vital Statistics by County of Residence, Arizona (2005-2008)

According to the 2008 CTSA, diabetes (35.7%) and cancer were cited as the third and fourth (respectively) most important health problems among Navajo County residents (N=1,084).

Table 9.12

Stroke Rate Resulting in Death (2008)			
Year	**Navajo County Rate**	**U.S. Rate (2003)**	**Healthy People 2010 Target**
2008	58.8%	53.0%	50.0%

Community Health Status Report, CDC, Navajo County (2008)

Definition of Indicator

Measures within this category include diseases which are usually transmitted through person-to-person contact or shared use of contaminated instruments / materials. Many of these diseases can be prevented through a high level of vaccine coverage of vulnerable populations, or through the use of protective measures, such as condoms for the prevention of sexually-transmitted diseases.

Trends

Navajo County has low incidences of Hantavirus Pulmonary Syndrome (HPS), Rocky Mountain Spotted Fever (RMSF), Hepatitis A, and Syphilis.

The estimated percentage of Arizona children (aged 24-35 months) who received timely vaccinations ranges from 19.8% (Meningitis Vaccine) to 72.5% (Measles, Mumps, and Rubella) dependent on the vaccination type. Chlamydia rates in Navajo County are highest among 15 to 29 year -olds, with rates higher among females. Chlamydia rates are slightly higher among females in Navajo County when compared to the state. Reported cases of Genital Herpes are nearly two times higher among males aged 20-24 in Navajo County when compared to state rates among males. Reported cases of Genital Herpes among females age 30-34 in Navajo County are considerably higher (124.8 cases per 1000,000) than the state rates (71.1 cases per 100,000).

Hantavirus & RMSF (Rocky Mountain Spotted Fever)

Hantavirus Pulmonary Syndrome (HPS)

According to the Centers for Disease Control and Prevention (CDC), HPS is a deadly disease from rodents. Humans can contract the disease when they come into contact with infected rodents or their urine and droppings. HPS was first recognized in 1993 and has since been identified throughout the United States. Although rare, HPS is potentially deadly. Rodent control in and around the home remains the primary strategy for preventing hantavirus infection.

Table 10.0

Estimated Percentages of Children Aged 24-35 Months who Received Timely Vaccinations in Arizona (2000-2002)					
All Doses As Recommended[a]					
Un-weighted Same Size	4 DPT (Tetanus, Diphtheria, Pertussis)[b]	3 Polio (Polio)[c]	MMR (Measles, Mumps, Rubella)[d]	3 Hep B (Hepatitis B)[e]	3-4 Hib (Meningitis Vaccine)[f]
1238	20.4%	44.5%	72.5%	64.5%	19.8%

National Immunization Survey (2000-2002)

Luman et al. (2005). Timeless of Childhood Immunizations: A State-Specific Analysis. Research and Practice. *American Journal of Public Health (2008) 95(8):1367-1374.*

[a] Recommended age for routine administration approved by the Advisory Committee on Immunization Practices, the American Academy of Pediatrics. And the American Academy of Family Physicians.

[b] 4 doses of diphtheria and tetanus toxoids and acellular or whole-cell pertussis vaccine.

[c] 3 doses of poliovirus vaccine.

[d] 1 dose of measles –mumps-rubella vaccine.

[e] 3 doses of hepatitis B vaccine

[f] 3-4 doses *of Haemophilus influenzae* type b vaccine, as appropriate.

Most Hantaviruses that cause human infections is the Sin Nombre Virus that is transmitted primarily through deer mice. Individuals are often exposed to the virus while working with dust in mouse contaminated environments. People living in rural areas are at the highest risk due to infected wild mice.

Between 1998 and 2007, there have been 20 cases of HPS in Arizona. Cases were reported in the following counties: Apache (18), Navajo (8), Maricopa (7), Coconino (5), La Paz (1), and Pinal (1). The most vulnerable individuals are between the ages of 13-71. Sixty-three percent of infected were males and 33% were fatal. In 2008, there has been one adult female that was reported to have been infected with HPS in Arizona. The 2008 case occurred in a rural area (Arizona Department of Health Services. Bureau of Epidemiology and Disease Service, Office of Infectious Disease Services, *Vector-Borne & Zoonotic Disease*).

Table 10.1

Have you ever had a pneumonia shot? (2003-2007)

Response	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	15,032	22.9%	15,925	27.4%	13,562	21.7%	15,492	21.6%	21,645	28.7%
No	47,975	72.9%	43,985	68.3%	44,023	70.3%	48,256	67.2%	46,959	62.4%
Don't Know/ Not Sure	2,768	4.2%	4,478	7.0%	5,023	8.0%	8,096	11.3%	6.692	8.9%
Total	65,775	100.0%	64,388	100.0%	62,609	100.0%	71,843	100.0%	75,296	100.0%

BRFSS (2003-2007)

Table 10.2

During the past 12 months, have you had a flu shot? (2003-2007)

Response	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	19,654	29.9%	21,171	32.9%	16,970	27.1%	18,434	25.7%	36,040	47.9%
No	46,010	70.0%	43,217	67.1%	45,394	72.5%	53,409	74.3%	39,255	52.1%
Don't Know/ Not Sure	111	0.2%	Not Available	Not Available	244	0.4%	Not Available	Not Available	Not Available	Not Available
Total	65,775	100.0%	64,388	100.0%	62,608		71,843	100.0%	75,295	100.0%

BRFSS (2003-2007)

Rocky Mountain Spotted Fever (RMSF)

RMSF is a potentially life threatening tick-borne disease that is caused by the bacteria Rickettsia Rickettsii. During 2003 and 2004, an outbreak of RMSF occurred in the White Mountains region of eastern Arizona. The CDC collected and tested ticks, dogs, blood and human blood. Case follow-ups resulted in the identification of a new tick vector for RMSF, called the Brown Dog Tick (Rhipicephalus Sanguineus).

Seventy cases of RMSF have been reported in eastern Arizona from 2002-2008. There were cases reported in Gila, Graham, and Navajo counties. There were 17 reported cases in 2008, nine were children and ten cases were male. Reported cases ranged from the ages of 1-75 years old. Two of the reported cases were fatal (Arizona Department of Health Services. Bureau of Epidemiology and Disease Service, Office of Infectious Disease Services, *Vector-Borne & Zoonotic Disease*).

Table 10.3

Have You Ever Had A Pneumonia Shot? (2003-2007)										
	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	15,032	22.9%	15,925	27.4%	13,562	21.7%	15,492	21.6%	21,645	28.7%
No	47,975	72.9%	43,985	68.3%	44,023	70.3%	48,256	67.2%	46,959	62.4%
Don't Know/ Not Sure	2,768	4.2%	4,478	7.0%	5,023	8.0%	8,096	11.3%	6.692	8.9%
Total	65,775	100.0%	64,388	100.0%	62,609	100.0%	71,843	100.0%	75,296	100.0%

BRFSS (2003-2007)

Table 10.4

During the past 12 months, have you had a nasal spray vaccine (FluMist™)? (2003-2007)										
Response	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	N/A	N/A	N/A	N/A	N/A	N/A	195	0.3%	N/A	N/A
No	N/A	N/A	64,155	99.6%	62,438	99.7%	71,649	99.7%	74,940	99.5%
Don't Know/ Not Sure	N/A	N/A	233	0.4%	171	0.3%	N/A	N/A	356	0.5%
Total	N/A	N/A	64,388	100.0%	62,609	100.0%	71,844	100.0%	75,296	100.0%

BRFSS (2003-2007) N/A indicates that the data was not available.

Table 10.5

Have you ever been tested for HIV? (2003-2007)										
Response	Years									
	2003		2004		2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	20,722	39.2%	13,822	26.6%	13,908	27.9%	16,020	27.2%	13,612	22.4%
No	30,621	58.0%	37,582	72.2%	35,235	70.8%	41,973	71.2%	46,862	77.2%
Don't Know Not Sure	541	1.0%	645	1.2%	636	1.3%	967	1.6%	258	0.4%
Refused	932	1.8%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	52,816	100.0%	52,049	100.0%	49,779	100.0%	58,960	100.0%	60,732	100,0%

BRFSS (2003-2007) NA indicates that the data was not available.

Table 10.6

Reported Chlamydia Case Rate per 100,000 Population, Navajo County 2006-2008*												
Age Group	Arizona						Navajo County					
	Male			Female			Male			Female		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
<10	11	12	3.6	27	25	7.2	0	0	10.7	0	1	11.0
10-14	24	34	19.8	221	278	110.3	2	2	0.0	8	13	212.5
15-19	1266	1476	679.2	6180	6596	3,065.3	37	26	573.9	157	155	3,174.9
20-24	1958	2132	937.6	6732	6418	3,014.3	27	22	906.1	156	131	3,646.2
25-29	1198	1222	494.9	3035	3072	1,220.1	18	12	551.2	74	62	1,560.5
30-34	511	533	249.4	1253	1338	538.1	5	8	196.5	34	47	998.4
35-39	279	295	141.8	540	562	268.6	6	6	98.5	20	18	504.6
40-44	179	144	81.3	270	262	108.3	9	5	339.2	14	11	320.6
45-49	82	116	40.5	99	126	44.6	1	3	0.0	6	3	154.6
50-54	30	50	24.6	49	63	32.0	0	3	31.1	1	2	139.5
55-59	20	20	9.6	21	32	14.9	1	0	0.0	1	1	95.1
60-64	16	7	7.2	15	7	3.9	2	0	0.0	2	0	0.0
≥65	10	13	3.2	16	11	4.1	0	11	0.0	0	0	0.0

Navajo County Case Rate= 522.7 per 100,000 population, AZ Department of Health Services, STD Control Program (2006-2008)

* 2006 and 2007 list actual counts of cases.

Table 10.7

Reported Gonorrhea Case Rate per 100,000 Population, Navajo County 2006-2008*												
Age Group	Arizona						Navajo County					
	Male			Female			Male			Female		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
<10	4	8	0.4	7	9	1.3	0	0	0.0	0	0	11.0
10-14	7	14	3.0	38	32	8.4	0	0	0.0	1	0	58.0
15-19	473	437	123.4	802	709	216.9	22	6	129.6	26	14	281.8
20-24	843	713	218.2	889	738	263.1	14	13	144.2	23	14	180.1
25-29	638	603	155.2	578	402	110.5	6	8	95.9	9	11	100.7
30-34	389	286	86.7	229	213	52.0	4	3	32.7	4	7	62.4
35-39	284	229	77.8	149	110	37.3	6	2	32.8	1	5	94.6
40-44	203	179	43.7	82	62	18.4	1	0	28.3	2	0	0.0
45-49	121	135	30.2	47	37	11.2	1	1	0.0	1	0	51.5
50-54	76	68	24.1	12	18	5.9	0	0	0.0	0	2	0.0
55-59	36	28	11.3	3	4	0.0	0	0	0.0	0	0	0.0
60-64	15	9	6.4	3	4	2.0	0	0	0.0	0	0	0.0
≥65	10	9	2.9	0	1	0.9	0	0	0.0	0	0	0.0

Arizona Case Rate= 52.9 per 100,000 Population. Does not include cases where gender was unknown. Arizona Department of Health Services- STD Control Program (2006-2008)
* 2006 and 2007 list actual counts of cases.

Table 10.8

Reported Syphilis Case Rates per 100,000 Population, Navajo County 2006-2008*												
Age Group	Arizona						Navajo County					
	Male			Female			Male			Female		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
<10	0	0	2.2	1	0	3.0	---	0	0.0	---	0	0.0
10-14	0	1	0.0	0	2	0.4	---	0	0.0	---	0	0.0
15-19	17	20	10.3	26	36	13.3	---	0	0.0	---	1	0.0
20-24	65	108	36.9	47	66	38.9	---	3	0.0	---	0	45.0
25-29	104	128	58.9	50	71	33.1	---	1	24.0	---	0	0.0
30-34	110	135	65.8	26	70	28.3	---	4	0.0	---	1	0.0
35-39	102	116	62.2	42	47	21.2	---	1	0.0	---	0	0.0
40-44	95	137	68.2	21	30	20.2	---	1	28.3	---	0	53.4
45-49	70	85	48.2	15	18	8.9	---	0	0.0	---	0	0.0
50-54	28	27	40.5	10	11	8.4	---	0	0.0	---	0	0.0
55-59	19	47	16.3	9	11	8.0	---	0	33.8	---	0	0.0
60-64	6	15	14.3	1	4	5.2	---	0	0.0	---	0	0.0
≥65	12		2.6	5	4	0.9	---	0	0.0	---	0	0.0

Arizona Case Rate= 21.4 per 100,000 Population. Does not include transgendered persons. 51 cases from unknown counties were distributed based on Provider County. Arizona Department of Health Services- STD Control Program (2006-2008) * 2006 and 2007 list actual counts of cases.

Table 10.9

Reported Genital Herpes Case Rates per 100,000 Population, Navajo County 2007-2008*								
Age Group	Arizona				Navajo County			
	Male		Female		Male		Female	
	2007	2008	2007	2008	2007	2008	2007	2008
<10	6	2.6	9	3.6	0	21.3	1	0.0
10-14	1	0.0	10	5.3	0	0.0	0	0.0
15-19	54	13.3	136	66.8	1	0.0	3	37.6
20-24	135	47.0	258	114.2	2	82.4	5	45.0
25-29	169	50.5	228	95.6	0	24.0	2	0.0
30-34	123	28.5	153	71.1	0	0.0	2	124.8
35-39	90	30.4	145	65.0	2	32.8	4	63.1
40-44	69	25.4	81	46.3	2	56.5	2	26.7
45-49	43	17.6	72	32.1	2	0.0	1	51.5
50-54	21	13.3	56	23.7	0	31.1	3	27.9
55-59	27	10.7	31	19.6	1	33.8	2	0.0
60-64	25	19.3	20	11.7	0	0.0	1	0.0
≥65	16	4.5	24	6.2	0	0.0	2	0.0

Arizona case rate= 28.4 per 100,000 Population. Newly reported cases do not include unknown gender. 103 cases from unknown counties were distributed based on Provider County. Arizona Department of Health Service- STD Control Program (2007-2008)

*2007 lists counts of cases

Table 10.10

Ever Received the Hepatitis B Vaccine* (Navajo County, 2006-2007)				
Responses	2006		2007	
	Frequency	Percent	Frequency	Percent
Yes	27,295	38.2	28,946	38.4
No	34,236	47.9	34,880	46.3
Don't Know/ Not Sure	10,013	14.0	11,470	15.2
Refused	0	0	0	0
Total	71,544	100.0	75,296	100.0

*The Hepatitis B vaccine is completed after the third shot is given. (2006-2007) BRFSS, Arizona

Table 10.11

Reported Infectious Disease Case Rates per 100,000 Population, Navajo County, 2004-2008										
Case Types	Case Rate									
	2004		2005		2006		2007		2008	
	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona
Syphilis-Total	13.0	17.1	7.3	13.1	6.2	14.9	10.4	19.3	7.0	21.4
Total Tuberculosis (TB)	3.8	4.7	0.0	4.6	2.7	5.0	4.3	4.7	2.6	3.5
Hepatitis A	0.9	4.6	1.8	3.2	1.8	2.9	0.9	2.4	1.7	1.8
Hepatitis B (acute)	7.4	5.0	7.3	6.2	6.2	6.0	0.9	2.8	3.5	2.5

Source: ADHS Health Status and Vital Statistics by County of Residence (2003-2008)

Hepatitis A (United States)

The Hepatitis A vaccine has been available in the U.S. since 1995. In 2006 the Advisory Committee on Immunization Practices (ACIP) recommended that the Hepatitis A vaccine become part of the routine vaccination of children in all 50 states. Risk factors for Hepatitis A include international travel (18% of all reported cases), sexual and household contact with a person infected with Hepatitis A (8% of reported cases), Males who have sex with males (MSM) (6% of reported cases), Injection-drug use (IDU) accounted for 1% of infections. Historically, Hepatitis A rates have varied cyclically with a nationwide increase every 15 years. In 2007, the lowest U.S. incidence rate ever was recorded (1.0 case per 100,000) (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

In 2007 the incidence among males in the U.S. was 1.1 cases per 100,000 of the population compared with 0.9 cases per 100,000 of the female population. The difference in rates by sex was highest among persons aged 35-49. Rates of Hepatitis A vary historically in terms of race/ethnicity with the highest rates among American Indian

Table 10.12

Are Any of These Statements True* (Regarding behaviors related to Hepatitis B) Navajo County, 2007		
Responses	2007	
	Frequency	Percent
Yes, at least one statement is true	3,219	4.3
No, none of these statements is true	72,076	95.7
Don't Know/ Not Sure	0	0
Refused	0	0
Total	75,296	100.0

(2007) Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire, Arizona.

*Statements about behaviors relating to hepatitis B: 1).You have hemophilia and have received clotting factor concentrate 2). You have had sex with a man who has had sex with other men, even just one time 3). You have taken street drugs by needle, even just one time 4). You traded sex for money or drugs, even just one time 5). You have tested positive for HIV 6). You have had sex (even just one time) with someone who would answer "yes" to any of these statements 7). You had more than two sex partners in the past year.

Table 10.13

Cases of Hepatitis C in the United States (2002-2007)						
Types of Cases	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Number of acute clinical cases reported[1]	1,223	891	758	694	802	849
Estimated number of acute clinical cases[2]	4,800	4,500	4,200	3,400	3,200	2,800
Estimated number of new infections [3]	29,000	28,000	26,000	21,000	19,000	17,000
Percent ever infected	1.3%-1.9%					
Number of persons living with chronic infections[4]	2.7-3.9 million persons					
Annual Number of Chronic Liver Disease Deaths associated with Viral Hepatitis[5]	12,000					

CDC, MMWR, 2008.

1 Number of Acute Clinical Cases Reported For Hepatitis A, Hepatitis B, and hepatitis C/non-A, non-B hepatitis, the number of cases reported to the National Notifiable **Disease Surveillance System (NNDSS).**

2 Estimated Number of Acute Clinical Cases of New Infections Incidence estimates for Hepatitis A and Hepatitis A are derived from catalytic modeling of seroprevalence data form the Third National Health and Nutrition Examination Survey (NHANES III) applied to case studies reported to the Nationally Notifiable Disease Surveillance System (NNDSS). Incidence estimates for Hepatitis C are derived by adjusting rates from the Sentinel Counties Study of Viral Hepatitis (1982-2006) and Emerging Infection program **(2007) for underreporting and asymptomatic infection.**

3 Percent Ever Infected seroprevalence estimates for HAV, HBV, and HCV come from National Health and Nutrition **Examination Survey HAV: Bell BP, Kruszon-Moran D, Shapiro CN et al. Hepatitis A virus infection in the United States: serologic results from the Third National Health and Nutrition Examination Survey. Vaccine 23(2005):5798-580**6. HBV McQuillan GM, et al. Prevalence of Hepatitis B virus infection in the United States: The National Health and Nutrition and Examination Surveys, 1976 through 1994. AJPH 1999; 89(1)14-18. HCV Armstrong GL et al. The Prevalence of Hepatitis C virus infection in the United States, 1999 through 2002. Ann Int Med 2006;144:705-14.

4 Numb**er of Persons Living with Chronic Infection HBV CDC Recommendations for Identification and public health management of persons with chronic Hepatitis B virus infection. MMWR;57(No.RR-8**). HCV Armstrong GL et al. The prevalence of Hepatitis C virus in the United States, 1999 through 2002. Ann Int Med 2006;144:705-14

5 Ann**ual Number of Chronic Liver Disease Deaths Associated with Viral Hepatitis HBV Vogt et al. Hepatitis B mortality in the United States, 1990-2004. Paper presented at** 45th Annual Matting of the Infectious Disease Society of America; October 4-7, 2007; San Diego, CA. and Manos MM et al. Limitations of conventionally derived chronic liver Disease mortality rates: results of a comprehensive assessment. Hepatology 2008; 47:1150-7. HCV Wise et al. Changing trends in Hepatitis C-related mortality in the United States, 1995-2004. Hepatology 2008;1-8.

and Alaska Native (AI/AN) populations andthe lowest rates among Asian and Pacific Islanders (API) populations. Rates among AI/AN have drastically decreased since 1996 (pre-1996 rates among AI/AN populations were >60 cases per 100,000).

Between 2001-2007 rates among AI/AN populations (rates became lower than or similar to those for other races (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

Hepatitis B (United States)

An estimated 43,000 new Hepatitis B infections in the United States occurred in 2007 (taking into account asymptomatic infection and underreporting from previous years). Approximately, 4,519 of these cases were acute and asymptomatic. The reported risk factors for infection include having multiple sex partners (38% of reported cases), MSM (reported rate 11%), sexual contact with a person known to have Hepatitis B (6% of reported cases), IDU was reported by 15%, having surgery was reported for 12% of persons with Hepatitis B (the percentage was higher among adults over the age of 45, 17%) (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

In 2007, the Hepatitis B rates among males (1.9 cases per 100,000 of the population) was higher than the rate among females (1.2 cases per 100,000). Since 2004 the Hepatitis B rates began to plateau among all racial and ethnic populations. In 2007, the Hepatitis B rate among non-Hispanic Blacks was highest (2.3 cases per 100,000 of the population). (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

Hepatitis C

Currently no vaccine exists for Hepatitis C. In 2007, as in previous years, a majority of those at risk for Hepatitis C infection (among adults) was related to IDU. Hepatitis C is the most common blood borne illness in the United States with an

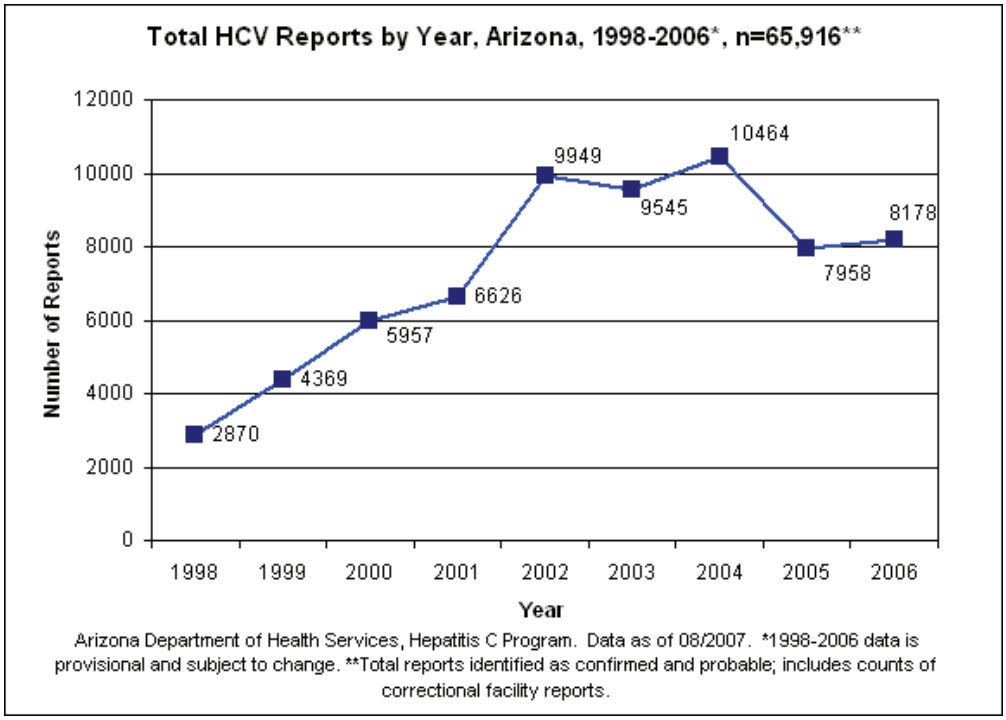


Figure 10.14 . ADHS Hepatitis C Program, Data and Statistics, www.azdhs.gov/phs/iods/hepc/stats.htm, accessed 12/11/09

estimated 3.2 million chronically infected persons nationwide. In 2007, the most common risk-factor identified was IDU (48%), while 42% reported having multiple sex partners during the incubation period, 10% reported having sexual contact with another known Hepatitis C Virus (HCV) infected person and 10% were MSM. Another 20% reported having surgery (the rate was higher among persons aged >40 years, 32%). Another 2% of respondents reported occupational exposure to blood. Primary intervention strategies include screening and testing blood donors, risk-reduction counseling and screening among those at-risk for infection, and routine practice of infection control in health-care settings (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

In 2007, 849 confirmed cases of acute Hepatitis C were reported in the U.S. (a rate of 0.3 cases per 100,000 of the population). In 2007, among persons aged 15-34 years, the male to female ratio was <1 (0.5 for persons aged 15-19 years, 0.8 for persons aged 20-24 years, and 1.0 for persons aged 25-29 years and for persons aged 30-34 years). Since 2004 the rate of Hepatitis C has plateaued among all racial/ethnic populations except for American Indians/Alaska Natives (AI/AN), for whom rates fluctuated. In 2007, rates for AI/AN populations was 0.5 cases per 100,000 of the population. Rates for non-AI/AN populations ranged from 0.02 cases per 100,000 of the population of Asians and Pacific Islanders (API) to 0.3 cases per 100,000 of the non-Hispanic white population (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

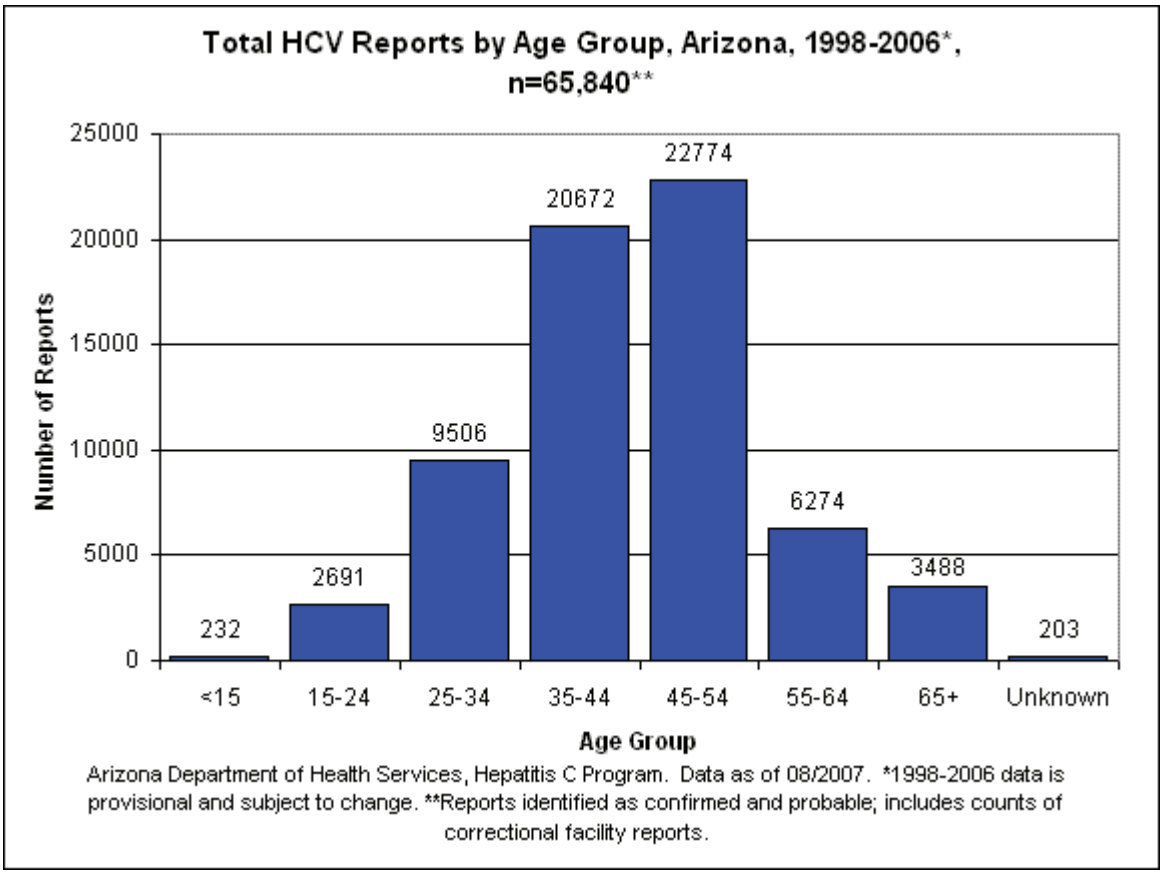


Figure 10.15 ADHS Hepatitis C Program, Data and Statistics, www.azdhs.gov/phs/iods/hepc/stats.htm, accessed 12/11/09

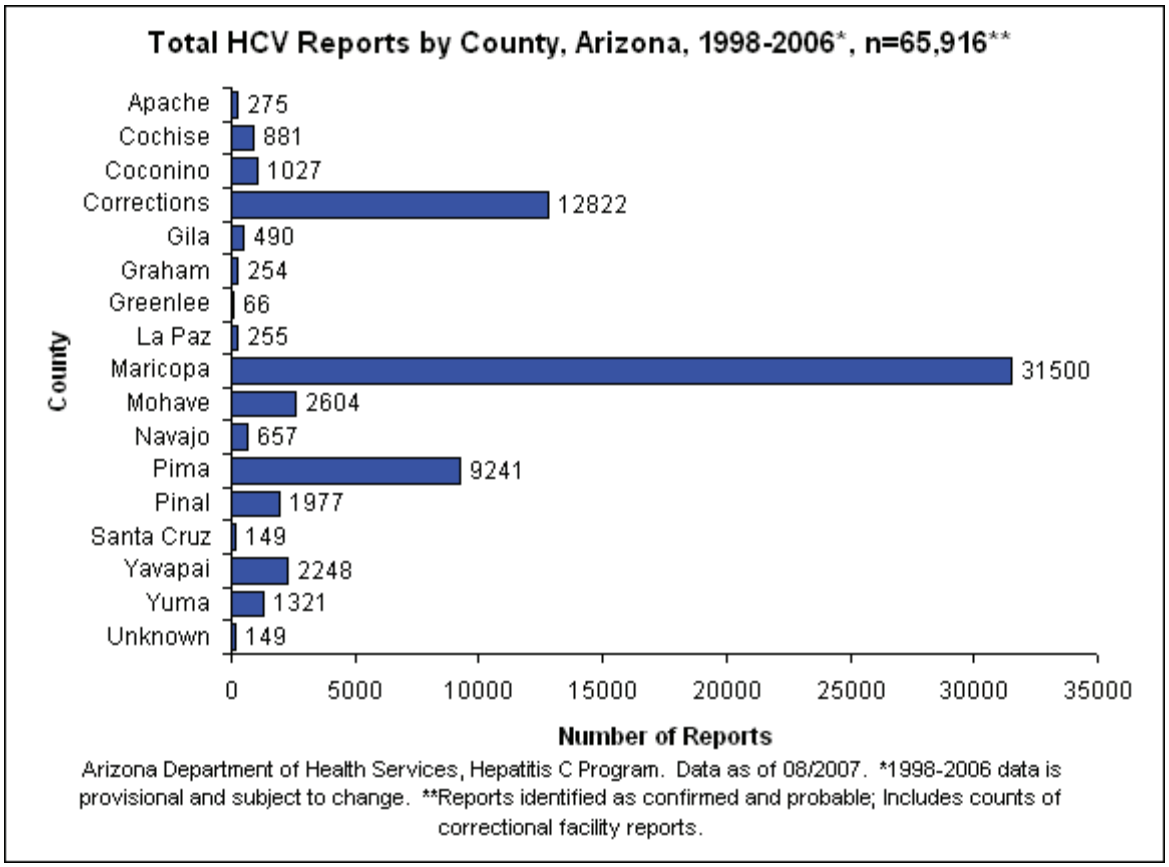


Figure 10.16 ADHS Hepatitis C Program, Data and Statistics, www.azdhs.gov/phs/iods/hepc/stats.htm, accessed 12/11/09

The reporting Hepatitis C cases by physicians to the state did not begin until April 1997. It is estimated that approximately 100,000 people in Arizona are infected with Hepatitis C, with 85,000 infected for life. A majority of Arizonans infected with Hepatitis C are between 35-54 years of age (see Figure 10.15) (ADHS Hepatitis C Program, Data and Statistics, www.azdhs.gov/phs/iods/hepc/stats.htm, accessed 12/11/09).

Hepatitis rates by age group reached a plateau in the U.S. since 2003. In 2007, rates increase slightly among persons aged 25-35 years (.05 per 100,000 population) and those aged >40 years (.03 per 100,000 population). Rates declined in the U.S. 90% (from 5.3 cases per 100,000 in 1990 to .5 cases per 100,000 per population in 2007) among persons aged 25-39 years, the group with the highest rates, historically speaking (Department of Health and Human Services and Centers for Disease Control, MMWR, Surveillance Summaries for Viral Hepatitis, United States, 2007, May 22, 2009 Vol. 58 No.SS-3).

Tetanus, Diphtheria, and Pertussis (Tdap) Vaccination

Data for Tdap was acquired through the Surveillance data management maintained by Arizona Department of Health Services (ADHS) Infectious Disease Epidemiology Section (NETSS) and reported by the local health departments who investigate and report to the state health department. From January 2005 through December 2005 the incidence rate of Pertussis for all ages was 4.65 per 100,000 of the population. During the same time span the Tdap vaccination rate for 10-18 year-olds was 2.38% (Erhart et al. Infectious Disease Epidemiology, Arizona Immunization Program, 2005).

Category Eleven: Sentinel Events

Definition of Indicator

Sentinel events are those cases of unnecessary disease, disability, or untimely death that could be avoided if appropriate and timely medical care or preventive services were provided. These include vaccine-preventable illness, late stage cancer diagnosis, and unexpected syndromes or infections. Sentinel events may alert the community to health system problems such as inadequate vaccine coverage, lack of primary care and/or screening, a bioterrorist event, or the introduction of globally transmitted infections.

Trends

Numbers of cases for late-stage cancer diagnosis in Navajo County between 2001 and 2006 are range from 97 cases of colorectal cancer, 142 cases of lung cancer, 97 cases of female breast cancer, 6 cases of cervical cancer, and 32 cases of prostate cancer. There were no reported occurrences of unexpected syndromes due to unusual toxins or infectious agents during the five year period this CHSA assessment covers. The only available data available on occupational injuries was in relation to the nation and the state, thus no data is available for Navajo County in that category.

Late Stage Cancer Diagnosis

Stages of cancer are based on the National Cancers Institute's Surveillance, Epidemiology, and End Results (SEER) Summary Staging Manual - 2000. Table 11.1 summarizes the definitions for Early and Late Stage cancer diagnoses. Tables 11.2 and 11.3 summarize the number of cases and percent of cases of colorectal, lung, female breast, cervical, and prostate cancers for Arizona and Navajo County, respectively.

Vaccine Preventable Disease

Table 11.0

Vaccine Preventable Disease Rates (1997-2001)										
Disease	1997		1998		1999		2000		2001	
	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County	Arizona	Navajo County
Measles	0.1%	0.0%	0.2%	0.0%	<0.1%	0.0%	0.0%	0.0%	<0.1%	0.0%
Mumps	0.7%	0.0%	0.1%	0.0%	<0.1%	0.0%	0.1%	0.0%	<0.1%	0.0%
Rubella	0.1%	0.0%	<0.1%	0.0%	0.3%	0.0%	<0.1%	0.0%	0.0%	0.0%
Pertussis	1.0%	3.5%	5.1%	0.0%	1.5%	0.0%	2.1%	0.0%	7.2%	1.0%

University of Arizona, Rural Health Office
Arizona Department of Health Services, Arizona Health and Vital Statistics (5F-2), 1997-2001 (Vaccine Preventable Diseases)

Table 11.1

Definitions of Cancer Stages		
Stage	**SEER Summary Stage**	**Definition**
Early	In Situ	Presence of malignant cells within the cell group from which they arose
	Local	Malignancy that is limited to the organ in which it started
Late	Regional	Tumors that have extended beyond the boundaries of the organ of origin
	Distant	Metastasized tumor cells that have broken away from the primary tumor and spread to other areas of the body and have begun to grown in the new location

Source: SEER Summary Staging Manual 2000.

Table 11.2

Early- Late SEER Summary Stage for All Arizona Cancer Cases 2001-2006							
Primary Site	Race	Early Stage		Late Stage		Total*	
		Case Count	% of Race	Case Count	% of Race	Case Count	% of Race
Colorectal	White Non-Hispanic	4981	86.0	6083	84.3	12810	85.0
	African American	129	2.2	189	2.6	363	2.4
	American Indian	68	1.2	117	1.6	224	1.5
	Asian & Pacific Island	57	1.0	75	1.0	155	1.0
	White Hispanic	484	8.4	717	9.9	1398	9.3
	Unknown	71	1.2	31	0.4	121	0.8
	All Races	5790	100.0	7212	100.0	15071	100.0
Lung	White Non-Hispanic	2887	92.7	10845	89.7	18432	90.4
	African American	55	1.8	298	2.5	444	2.2
	American Indian	12	0.4	77	0.6	119	0.6
	Asian & Pacific Island	20	0.6	103	0.9	147	0.7
	White Hispanic	124	4.0	744	6.2	1175	5.8
	Unknown	15	0.5	29	0.2	71	0.3
	All Races	3113	100.0	12096	100.0	20388	100.0
Female Breast	White Non-Hispanic	13389	86.9	5570	82.4	20495	85.4
	African American	268	1.7	188	2.8	496	2.1
	American Indian	166	1.1	127	1.9	317	1.3
	Asian & Pacific Island	204	1.3	84	1.2	306	1.3
	White Hispanic	1193	7.7	738	10.9	2099	8.7
	Unknown	180	1.2	50	0.7	293	1.2
	All Races	15400	100.0	6757	100.0	24006	100.0
Cervix	White Non-Hispanic	348	64.8	312	62.0	774	63.1
	African American	8	1.5	16	3.2	28	2.3
	American Indian	20	3.7	25	5.0	52	4.2
	Asian & Pacific Island	10	1.9	12	2.4	27	2.2
	White Hispanic	138	25.7	133	26.4	322	26.3
	Unknown	13	2.4	5	1.0	23	1.9
	All Races	537	100.0	503	100.0	1226	100.0
Prostate	White Non-Hispanic	11636	84.2	2347	82.8	16678	82.2
	African American	405	2.9	95	3.4	572	2.8
	American Indian	128	0.9	46	1.6	223	1.1
	Asian & Pacific Island	88	0.6	20	0.7	130	0.6
	White Hispanic	1004	7.3	281	9.9	1590	7.8
	Unknown	556	4.0	44	1.6	1095	5.4
	All Races	13817	100.0	2833	100.0	20288	100.0

* Total includes Early Stage, Late Stage, and Unknown Stage cancers.

Table 11.3

Early- Late SEER Summary Stage for All Navajo County Cancer Cases 2001-2006							
Primary Site	Race	Early Stage		Late Stage		Total*	
		Case Count	% of Race	Case Count	% of Race	Case Count	% of Race
Colorectal	White Non-Hispanic	46	82.1	71	73.2	46	82.1
	African American	1	1.8	0	0.0	1	1.8
	American Indian	7	12.5	18	18.6	7	12.5
	White Hispanic	2	3.6	8	8.2	2	3.6
	All Races	56	100	97	100	56	100
Lung	White Non-Hispanic	17	73.9	124	87.3	17	73.9
	African American	1	4.3	2	1.4	1	4.3
	American Indian	3	13.0	11	7.7	3	13.0
	White Hispanic	2	8.7	5	3.5	2	8.7
	All Races	23	100.0	142	100.0	23	100.0
Female Breast	White Non-Hispanic	134	74.4	65	67.0	134	74.4
	African American	1	0.6	1	1.0	1	0.6
	American Indian	33	18.3	21	21.6	33	18.3
	Asian & Pacific Islander	0	0.0	1	1.0	0	0.0
	White Hispanic	11	6.1	9	9.3	11	6.1
	Unknown	1	0.6	0	0.0	1	0.6
	All Races	180	100.0	97	100.0	180	100.0
Cervix	White Non-Hispanic	6	60.0	1	16.7	6	60.0
	African American	0	0.0	0	0.0	0	0.0
	American Indian	2	20.0	4	66.7	2	20.0
	Asian & Pacific Islander	1	10.0	0	0.0	1	10.0
	White Hispanic	1	10.0	1	16.7	1	10.0
	All Races	10	100.0	6	100.0	10	100.0
Prostate	White Non-Hispanic	159	78.7	21	65.6	159	78.7
	African American	2	1.0	1	3.1	2	1.0
	American Indian	28	13.9	10	31.3	28	13.9
	Asian & Pacific Islander	1	0.5	0	0.0	1	0.5
	White Hispanic	3	1.5	0	0.0	3	1.5
	Unknown	9	4.5	0	0.0	9	4.5
	All Races	202	100.0	32	100.0	202	100.0

***** Total includes Early Stage, Late Stage, and Unknown Stage cancers.

Number of Deaths or age for work related injury

Years of Productive Life Lost (YPLL)

Premature death measures the loss of years of productive life due to death before age 75 (as defined by the Center for Disease Control and Prevention's YPLL-75. For example, the death of a 25 year old would account for 50 years of life lost.

In 2005, the national average is 7,564 years lost per 100,000 of the population. This is 43 years per 100,000 of the population more than it was a year before (in 2004). In 2005 Arizona ranked 30th in

Table 11.4

Total Fatal Occupational Injuries (2004-2008)											
Years											
2004		2005		2006		2007		2008		Totals (2004-2008)	
Arizona	United States	Arizona	United States	Arizona	United States	Arizona	United States	Arizona**	United States	Arizona	United States
84	5,764	99	5,734	112	5,840	88	5,657	86	5,071	469	28,066

Bureau of Labor Statistics (2004-2008)

**The 2008 figures are preliminary. Final figures will be released in April 2010.

Unexpected syndromes due to unusual toxins or infectious agents

There have been no reported occurrences of unexpected syndromes in Navajo County (Don Walker, personal communication, 2009). According to Don Walker, Program Director for the Navajo County Bioterrorism Program, there have been no incidents of diseases or fatalities as a result of exposure to pollutants from trains and buses traveling through Navajo County (Don Walker, personal communication, 2009).

Appendix A

Number of Parents in Parent Teacher Organizations in Navajo County (October 2009)				
School Name	**School Location**	**Number of Students**	**Number of Parents in PTA/PTO**	**Percent of Parents in PTA/PTO**
Winslow USD				
Tolani Lake Elementary School	Winslow	27	Not Available	0
N. AZ Academy for Career Development- Winslow School	Winslow	77	46 Parent and Teacher Involvement Program (PTIP)	60%
Bonnie Brennan School	Winslow	170	No active Parent/Teacher Association this year (PTA)	0
Jefferson Elementary School	Winslow	370	Not Available	0
Washington School	Winslow	456	No active PTA this year	0
Winslow High School	Winslow	787	Not Available	0
Winslow Junior High School	Winslow	439	Not Available	0
Holbrook USD				
Holbrook High School	Holbrook	721	10 Cite Council (General advisory board, including students)	1.38%
Holbrook High School (Satellite Campus)	Holbrook	583 (Students attend other schools)	Not Available	0
Holbrook Junior High School	Holbrook	366	10 Cite Council	2.73%
Hulet School	Holbrook	370	7 Cite Council	1.89%
Park Elementary School	Holbrook	286	11	3.84%
Rainbow Accommodation School	Holbrook	14 (satellite campus, not official enrollment)	Not Available	0
Holbrook SDA Indian School	Holbrook	86	No active PTA this year	0
Living Word Christian School	Holbrook	7	Not Available	0
Indian Wells Elementary School	Holbrook	411	No active PTA this year	0
Tiisyaatin Residential Hall	Holbrook	128	No active PTA this year	0
Snowflake USD				
Highland Primary School	Snowflake	516	17 Parent Teacher Student Organization (PTSO)	2.13%
Navit Courses School	Snowflake	399 (Students attend other schools)	Not Available	0
Snowflake High School	Snowflake	760	No active PTA this year	0
Snowflake Intermediate School	Snowflake	350	15 Parent Teacher Student Organization (PTSO) 124 Volunteers	35.63%
Snowflake Junior High School	Snowflake	400	No active PTA this year	0
Taylor USD				
Taylor Elementary School	Taylor	365	25 Volunteers helping at different times throughout the year	6.85%
Taylor Intermediate School	Taylor	258	20 (PTSO)	7.75%

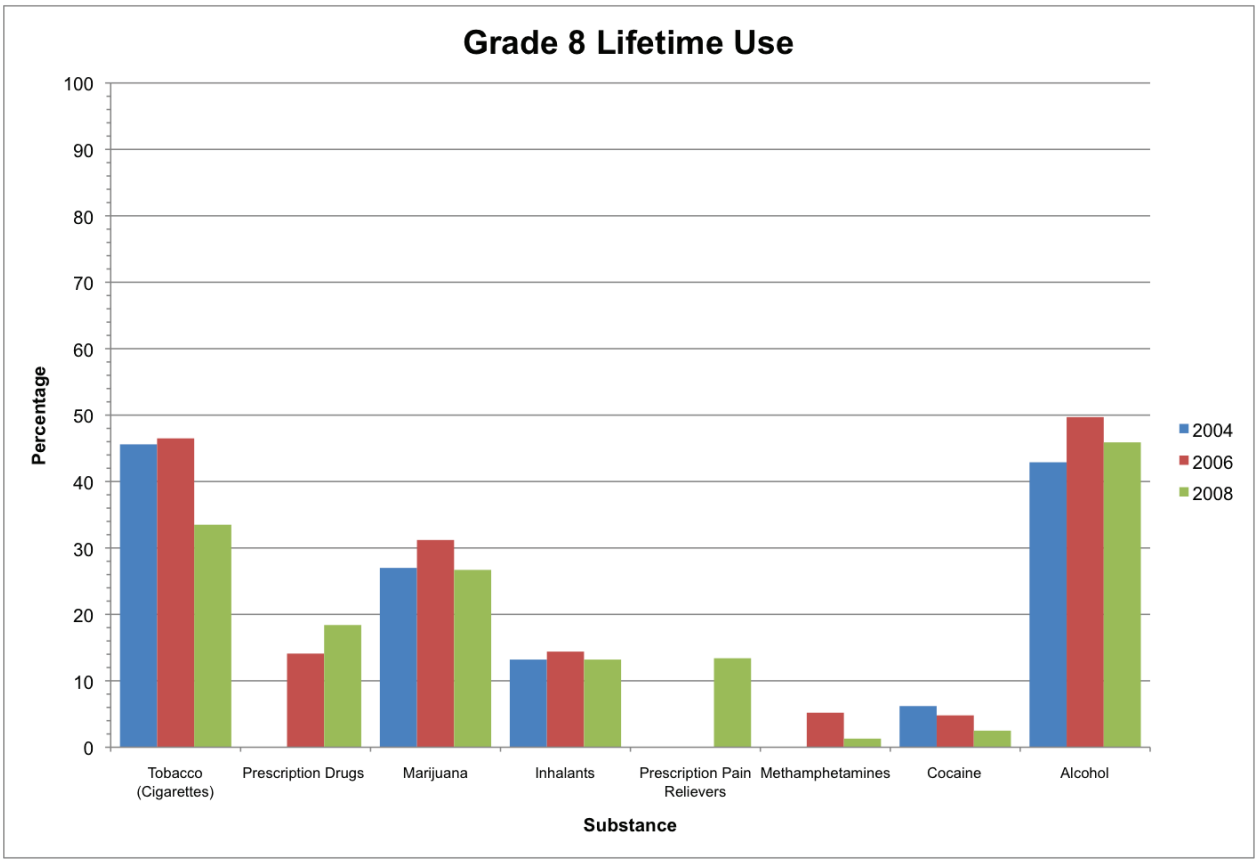
Number of Parents in Parent Teacher Organizations in Navajo County (October 2009)				
School Name	**School Location**	**Number of Students**	**Number of Parents in PTA/PTO**	**Percent of Parents in PTA/PTO**
Northern Arizona Academy for Career Development- Taylor	Taylor	53	6 (PTA)	11.32%
Show Low USD				
Linden Elementary School	Show Low	245	No active PTA this year	0
Show Low High School	Show Low	822	5-6 Volunteers helping at different times throughout the year	.60%-.72%
Show Low High School-Satellite Campus	Show Low	56 (students attend other schools)	Not Available	0
Nikolaus Homestead Elementary School	Show Low	370	10-15 (PTA)	2.70-4.05%
Show Low Junior High School	Show Low	550	No active PTA this year	0
Show Low Preschool	Show Low	31	Not Available	0
Show Low Primary School	Show Low	458	7 (PTSO)	1.52%
Snowflake High School- Satellite Campus	Show Low	512 (Students attend other schools)	Not Available	0
White Mountain Institute School	Show Low	822	9 Cite Council (3 parents, 1 community member, 4 students, 1 teacher)	1.09%
Jefferson Academy of Advancing Learning School	Show Low	180	32 Parent Board & Fundraising	17.7%
Renaissance Academy- John Reeder Campus School	Show Low	38	Not Available	0
Sequoia Village School	Show Low	200	Open Enrollment Parent/Teacher Organization (PTO)	Not available
American Indian Christian School	Show Low	50	No active PTA this year	0
Whipple Ranch Elementary	Show Low	456	9 (PTSO)	1.97%
Mountain Christian School	Show Low	53	30 (PTA families)	56.6%
Pinetop				
White Mountain Montessori School	Pinetop	48	Policy: All parents are members 16 (Registered on a message board)	33.3%
St. Anthony's	Pinetop	79	No active PTA this year	0
Blue Ridge USD				
Blue Ridge High School (Navit)	Lakeside	497	65 (This is a district wide PTSO, including all Blue Ridge Schools)	Not Available
Blue Ridge Elementary School	Lakeside	540		Not Available
Blue Ridge High School (Unified)	Lakeside	922		Not Available
Blue Ridge Junior High School	Lakeside	409		Not Available
Blue Ridge Middle School	Lakeside	414	24 parents involved at Blue Ridge Middle School	5.79%
Heber/Overgaard USD				

Number of Parents in Parent Teacher Organizations in Navajo County (October 2009)				
School Name	**School Location**	**Number of Students**	**Number of Parents in PTA/PTO**	**Percent of Parents in PTA/PTO**
Capps Elementary School	Heber	119	No active PTA this year	0
Mogollon High School	Heber	159	No active PTA this year	0
Mogollon Junior High School	Heber	73	No active PTA this year	0
Mountain Meadows Primary	Overgaard	172	>10 Parent Teacher Committee (PTC)	0.58-5.23%
Whiteriver USD				
Cibecue Community School	Cibecue	468	Not Available	0
Alchesay High School (Whiteriver)	Whiteriver	710	Not Available	0
Alchesay High School (Navit)	Whiteriver	438	Not Available	0
Canyon Day Junior High School	Whiteriver	226	6 Parent Advisory Committee (PAC)	2.65%
Cradleboard Elementary School	Whiteriver	350	4 (PAC Officers, Voluntary)	1.14%
Seven Mile School	Whiteriver	466	Everyone is a member (PAC)	Not available
Whiteriver Elementary School	Whiteriver	516	50 (PAC)	9.6%
East Fork Mission School Lutheran	Whiteriver	81	No active PTA this year	0
Hon-Dah McNary Elementary School	Hon-Dah McNary	114	No active PTA this year	0
Alternative School	Whiteriver		Not Available	0
Kayenta USD				
Kayenta Primary School	Kayenta	408	Not Available	0
Kayenta Intermediate School	Kayenta	420	5 Cite Council	1.19%
Kayenta Middle School	Kayenta	447	5-10 Cite Council	1.11%-2.23%
Monument Valley High School	Kayenta	838	6 Cite Council	0.71%
Cedar USD				
Jeddito School	Keams Canyon	265	20 Parent Involvement Committee (PIC)	7.54%
White Cone High School	Keams Canyon	93	4 (PAC)	4.30%
Joseph City USD				
Joseph City Elementary School	Joseph City	272	No active PTA this year	0
Joseph City Junior & High School	Joseph City	235	5 Cite Council	2.12%
Pinon USD				
Pinon Elementary School	Pinon	553	5 Parent Involvement Cadre (PIC)	.90%
Pinon Middle School	Pinon	363	No active PTA this year	0
Pinon High School	Pinon		Not Available	0
Navajo Reservation				
Greasewood Springs Community School		187	Not Available	0

Number of Parents in Parent Teacher Organizations in Navajo County (October 2009)				
School Name	**School Location**	**Number of Students**	**Number of Parents in PTA/PTO**	**Percent of Parents in PTA/PTO**
Seba Dalkai Boarding School	Winslow	130	20 Parent Committee	15.3%
Black Mesa Community School	Pinon	52	3 Parent Committee	5.76%
Fort Apachehinbeto Community School	Kayenta	99	20 (PAC)	20.2%
Kayenta Community School	Kayenta	397	No active PTA this year	0
Hopi Reservation				
Hopi Day School	Kykotsmovi	52	75 (PTO)	144.2%
Hotevilla Bacavi Community School	Hotevilla	115	4 (PTA)	3.47%
Keams Canyon Elementary	Keams Canyon	77	Not Available	0
Rocky Ridge Boarding School	Kykotsmovi	134	20 (PTA)	14.9%
White Mountain Apache Reservation				
John F. Kennedy Day School	Whiteriver	210	No active PTA this year	0
Theodore Roosevelt School	Fort Apache	100	3 (PAC)	3.0%

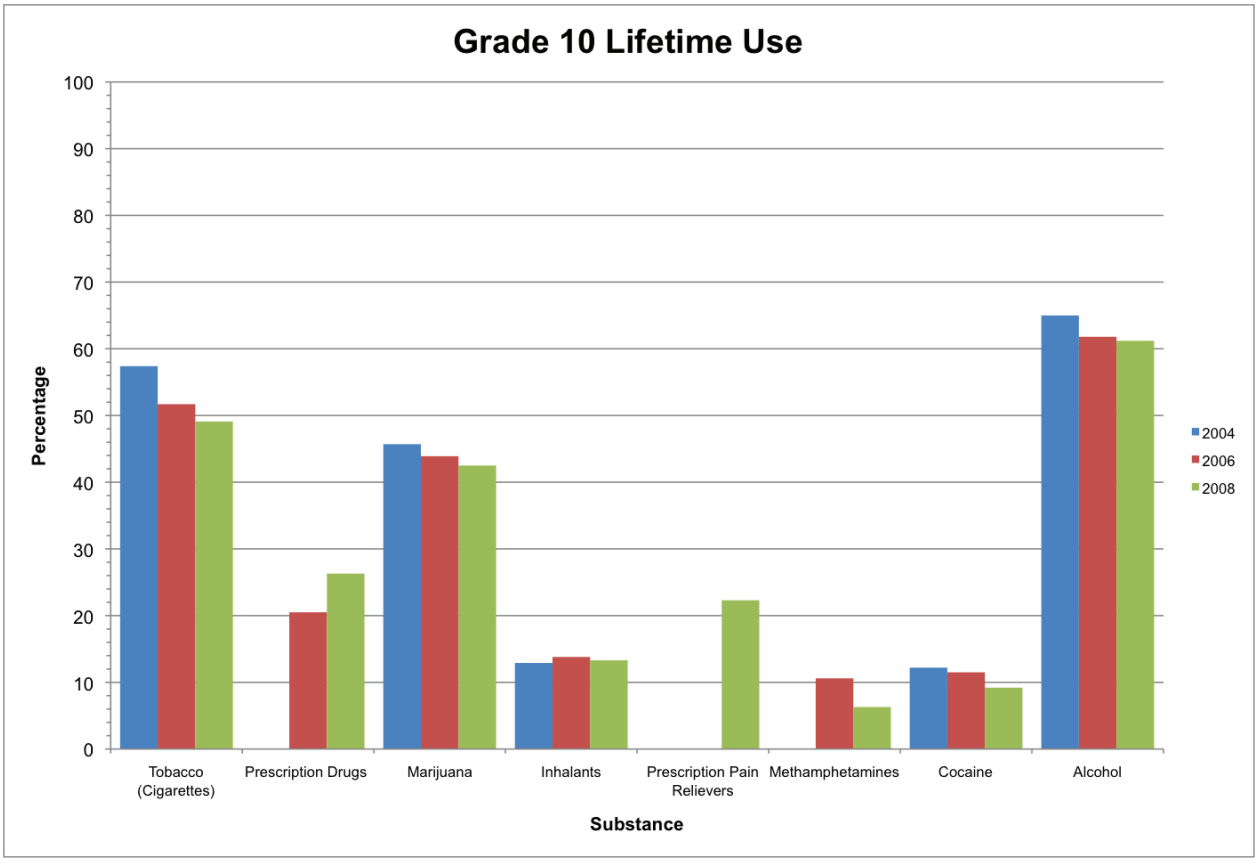
List of schools adjusted from Navajo County Asset Report, NAU, College of Business, 2008. Phone calls and e-mails were used to collect PTA/PTO data and updated enrollment numbers (October 2009). School listings were found at The Navajo County website, Public School Districts http://www.navajocountyaz.gov/schools/distbr.aspx (accessed October 19, 2009). Additional school listings were found at The Department of the Interior, Bureau of Indian Education http://www.bie.edu/home.aspx.

Section 2



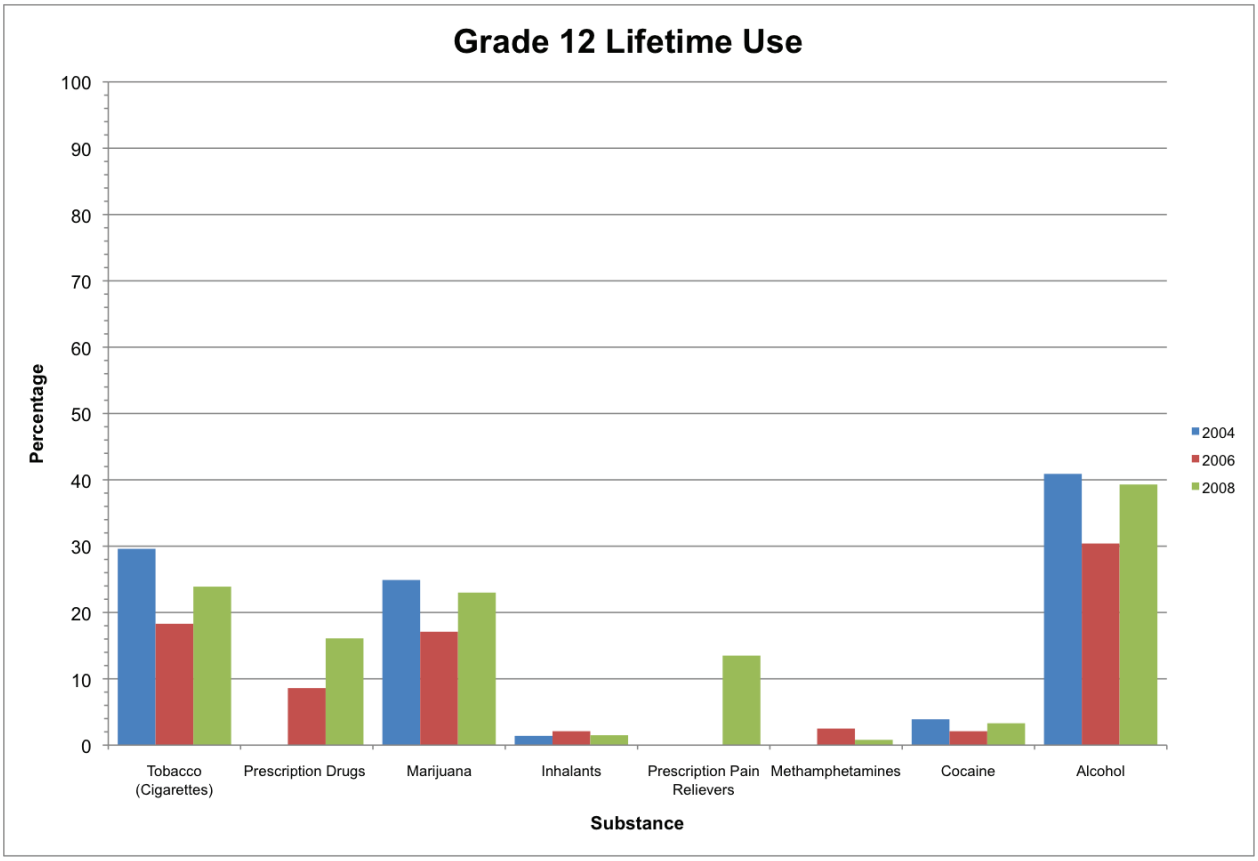
Bar Graph Grade 8: Navajo County Lifetime AOTD Use (2004, 2006, 2008)

Section 3



Bar Graph Grade 10: Navajo County Lifetime ATOD Use (2004, 2006, 2008)

Section 4



Bar Graph Grade 12: Navajo County Lifetime ATOD Use (2004, 2006, 2008)

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