2012 Community Health Needs Assessment of St. Vincent North Primary Service Area

St. Vincent Health System
Catholic Health Initiatives

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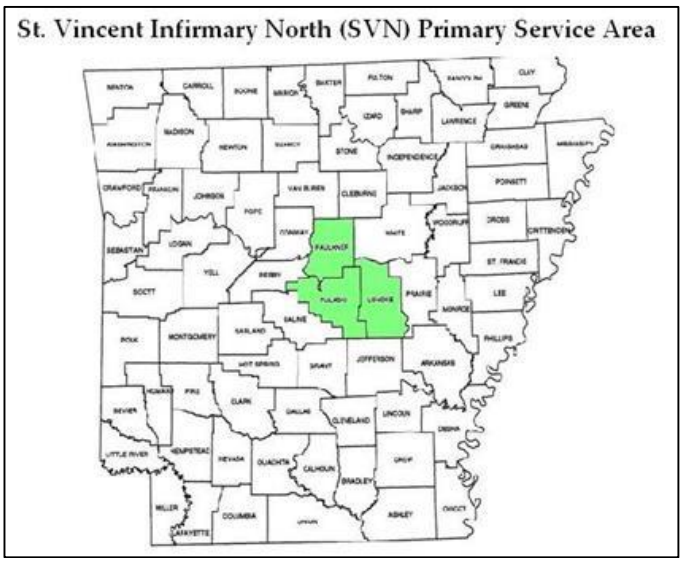
St. Vincent North Primary Service Area Community Health Needs Assessment

Introduction

The 2012 St. Vincent North (SVN) Primary Service Area Community Health Needs Assessment (CHNA) utilizes quantitative information based on review of secondary social, demographic, economic, health, and quality-of-life data. In addition, the Assessment incorporated qualitative primary data based on interviews with community leaders and representatives of local agencies.

SVN, part of St. Vincent Health System, a wholly-owned subsidiary of Catholic Health Initiatives, is located in Sherwood, AR. The 2012 SVN CHNA is a collaborative effort by graduate students of Cornell University's Sloan Program in Health Administration, St. Vincent North and St. Vincent Health System.

Data were reviewed on the three counties making up the SVN primary service area: **Faulkner, Lonoke, and Pulaski Counties** (see figure).



The results of the 2012 SVN CHNA will be used generate specific strategies to address a list of prioritized health needs in the SVN community. These prioritized health needs will be incorporated into an implementation plan, to be released at a later date, and used to inform strategic planning at both St. Vincent Health System and St. Vincent North.

Methodology

In order to ascertain the emergent health needs of the SVN community, a comprehensive analysis of primary and secondary data, both quantitative and qualitative in nature, was conducted. The following section details this data collection process, the nature of the data used, and the methods of analysis employed in the assessment.

Secondary Data Analysis. Primary in the SVN CHNA endeavor was the collection of secondary data related to the health status and health behaviors of the SVN community. A thorough collection and analysis of publicly available data was conducted based off of a list of generated health indicators.

Indicator Selection. The indicators that were selected to drive our data analysis were a combination of health outcomes, health behaviors and socioeconomic health determinants. The Healthy Communities Network (HCN) website provides over 120 health and quality-of-life indicators for the counties in the SVI primary service area. Rather than focus on one isolated area of needs, the SVN CHNA sought to create a comprehensive needs assessment for the six-county service area using multiple health and quality-of-life indicators. Taking as a starting point the Community Health Status Assessment Core Indicator List identified in the Catholic Health Association (CHA) website at www.chausa.org/cbresources (Planning for Community Benefit > Assessment-Indicators), the CHNA process involves assessment and understanding of the following areas: Demographics, Socioeconomic Characteristics, Health Resource Availability/Access to Care, Behavioral Risk Factors, Environmental Health Factors, Social and Mental Health, Maternal and Child Health, Death Illness and Injury, Communicable Disease, and Sentinel Events.

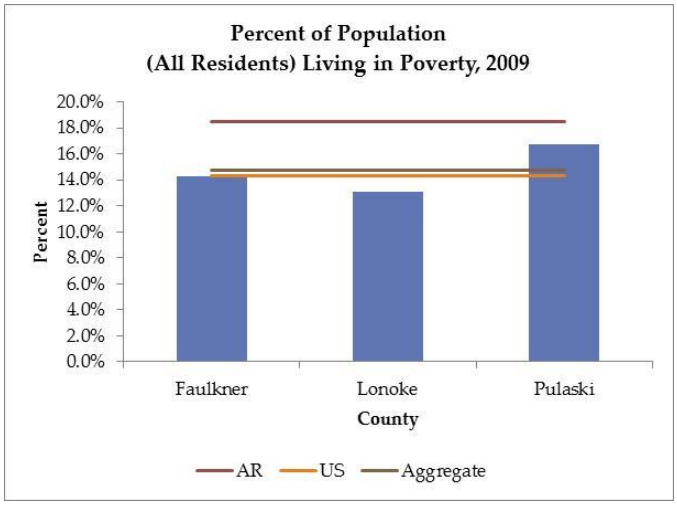
Data Collection: In order to obtain data on the chosen indicators for each county in SVN's primary service area, as well as for the State of Arkansas and United States, an extensive data collection process, primarily through publicly available data sources, was conducted. See Appendix A for a list of the indicators used in our Community Health Needs Assessment, as well as the secondary data sources that were used for each of these indicators (indicators for which data could not be found, either for certain counties or in whole, are identified as such).

While secondary data was readily found for many of the identified indicators, there were issues of limited and/or dated data for others. Relevant gaps in data for the 2012 SVN CHNA include:

- Homelessness
- Ratio of Medicaid eligible to participating physicians
- Visiting nursing services
- Residents with a primary care physician
- Local health department FTEs
- Total operating budget of local health departments
- Quality of Life Indicators

- Behavioral Risk Factor data for children.
- Domestic violence rate at the county level
- Adolescent pregnancy rate
- Proportion of 2-year old children who have received all age-appropriate vaccines
- Proportion of adults aged 65 and older who have ever been immunized for pneumococcal pneumonia
- Proportion of adults aged 65 and older who have been immunized in the past 12 months for influenza
- Vaccine preventable: Percent of appropriately immunized children
- Tuberculosis
- Hepatitis C
- Bacterial Meningitis Cases

Analysis and Interpretation of Secondary Data. In an effort to analyze generated data on these core indicators for the SVN community within an interpretable context, the following data was compared for each variable: the value for each individual county, the mean value for the aggregate SVN primary service area, the Arkansas State value, and the U.S. value. For certain indicators, or indicator subsets, data was not available for one or more of the above areas, in these instances data was still analyzed and reported for the areas data was available. The findings of the secondary data analysis are graphically presented and described in the "Key Findings" section of this report. For the majority of the graphs, county level values for the given indicator are represented in vertical bar columns, with aggregate service area, state and national data presented as horizontal lines. The below chart demonstrates the described graphing system.



Where applicable, additional comparisons are made to national benchmarks such as those set by Healthy People 2010, which include a set of key national health objectives.

Primary Data Analysis. Integral to the identification and understanding of the health needs of the St. Vincent North Community was the collection of qualitative insight from key leaders and members of the SVN community. In order to better understand the specific health conditions, behaviors, and barriers to health faced by SVN's population, SVH

leadership hosted three days of focus groups, during which key individuals, representing diverse backgrounds and perspectives, shared their perspectives and concerns regarding a broad range of health related issues in the community. These results of these focus groups represent the bulk of the primary data incorporated into this report. For detailed information regarding the attendees of these focus groups and their backgrounds, as well as for a list of the questions posed during these sessions, please see Appendix B.

Results of our primary data collection were used to gain insight into the results of the quantitative analysis of secondary data described in the previous section. In addition to their incorporation into the identification of the SVN community's priority health needs, the key findings from focus group sessions are presented independently in the Executive Summary: Qualitative Data section.

While there is infinite potential insight to be gained from primary data collection, specifically identified gaps in primary data collection include:

- Insight into how various subsets of the SVN community interact with the health care system

- Insight into the health care decision making processes of individuals in the SVN community

- Identification of key influences on individuals' health related behaviors

Quantitative Data Findings: Executive Summary

- Pulaski County is the most populous of the counties in the SVN primary service area (PSA) and the most race-ethnically diverse. Pulaski County makes up 68% of the SVN primary service area.

- Pulaski County is the oldest of the three counties in the PSA with a median age of 35.5 (Arkansas' median age is 37.4), and has the greatest percent of population age 65 or older (12.0%; Arkansas value is 14.4%).

- All three counties in SVN's PSA surpass the state average median income.

- Among the three counties, Pulaski County has the highest poverty (individual and childhood poverty) percentages (16.7% and 25.4% respectively).

- In terms of behavioral risk factors, no county in the SVN PSA fares consistently better or worse across a variety of indicators: Pulaski County has the highest percentage of adult binge drinkers and the lowest percentage of adult current smokers.

- Obesity is a key health concern: In 2010, every county in the SVN PSA had a greater percent of adults identified as obese than did the US as a whole (26.9%). Blacks are more likely to be obese than Whites.

- In terms of protective factors like annual pap smears, mammograms, colonoscopy/sigmoidoscopy, and prostate specific antigen screenings, the counties in the SVN PSA generally perform better than the state on these indicators, but worse than the US as a whole.

- Of the three SVN PSA counties, only Pulaski County had non-zero days of high ozone concentration and had the highest reported particulate matter days in the PSA.

- In terms of social and mental health, Faulkner and Pulaski Counties reported fewer mentally unhealthy days and a lower child maltreatment rate than the state and the US. While Faulkner and Lonoke Counties had a lower homicide rate than the state and nation, the homicide rate in Pulaski County was considerably higher than the state and national rates.

- Infant mortality is a key health concern: From 2005-2007, Faulkner and Pulaski Counties had a higher infant mortality rate than the US. Infant mortality is higher among Black women than White women (excluding Lonoke County).

- With the exception of Faulkner County, the SVN PSA counties had a higher teen birth rate than the nation (39.1 births per 1,000 females aged 15-19) in 2009. However, for the same year, all SVN PSA counties had a lower teen birth rate than the state (59.2 births per 1,000 females aged 15-19).

- Cancer mortality is a key health concern: In 2003-2007, all three counties in the SVN PSA had higher cancer mortality rates (all cancers) than the US (183.8 deaths due to lung cancer per 100,000 population). Lung

cancer mortality rates also exceed the US rate (52.5 lung cancer deaths per 100,000 population) in all three counties and, with the exception of Pulaski County, exceed the state rate of 67.1 lung cancer deaths per 100,000 population.

- Stroke mortality is a key health concern: In 2000-2006, rates of stroke mortality were higher in the three SVN PSA counties than in the state (132 stroke deaths per 100,000 population ages 35+) and US as a whole (98 stroke deaths per 100,000 population ages 35+). Stroke mortality rates are especially high among Blacks.

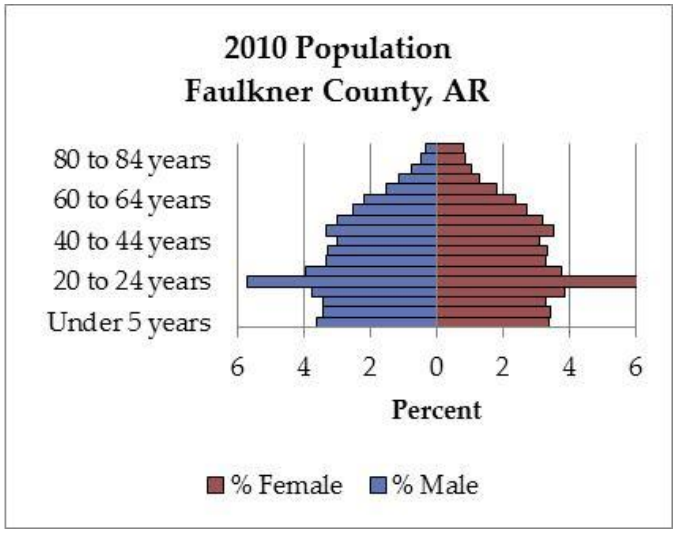
- Sexually transmitted infections are a concern in Pulaski County which reports greater cases and rates of syphilis, gonorrhea, chlamydia, and HIV/AIDS than all other counties.

- Several key health indicators are missing at the county-level. In 2004, Catholic Health Initiatives partnered with the Arkansas Department of Health and Hometown Health Improvement to conduct the Adult Health Survey using questions from the Behavioral Risk Factor Surveillance System (BRFSS) in several counties. St. Vincent Health System (SVHS) should undergo data collection in 2012 for the three-county service area. Additionally, SVHS should conduct a county-level child health survey.

County Profiles

Faulkner County. Faulkner County is located on the northern side of the Arkansas River. It is home to the popular fishing destination, Lake Conway, located in the southern portion of the county. Faulkner County is home to the University of Central Arkansas, among other colleges, and the city of Conway, which is the fastest growing city in Arkansas.

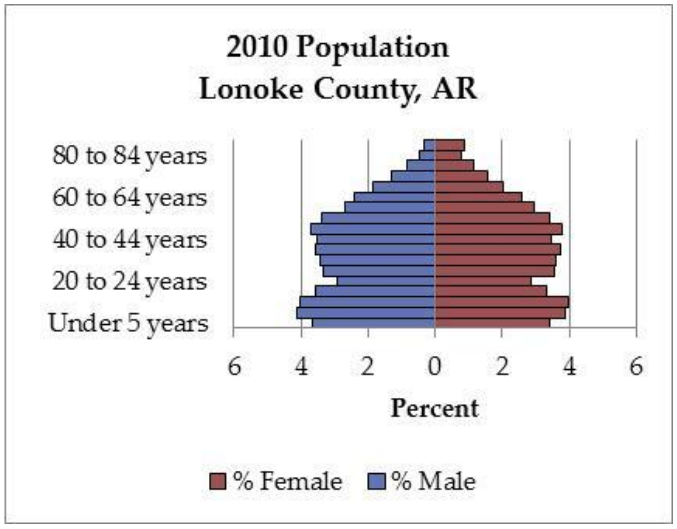
According to the 2010 Census, there were 113,237 people residing in Faulkner County. Population density was 174.8 persons per square mile. Among persons reporting only one race, race-ethnic makeup was 84.3% White, 10.2% Black, and 1.1% of less of the total population identified as American Indian/Alaskan Native, Asian, or Native Hawaiian/Other Pacific Islander. Two percent of the county reported two or more races. Only 3.9% of the population reported Hispanic ethnicity (regardless of race). Median age of the county was 30.8 and the age structure of the county is depicted below:



The 2005-2009 American Community Survey estimated Faulkner County's average household size at 2.58 people and median household income at $44,600. The average family size was 3.08 people and median family income was $60,475. Per capita income was estimated to be $22,080. About 10.3% of families and 15.9% of the population were below the poverty line.

Lonoke County. Lonoke County is the eastern most county in the St. Vincent PSA. Lonoke is primarily an agricultural county named after a "lone oak" tree that was used as a landmark by a railroad surveyor.

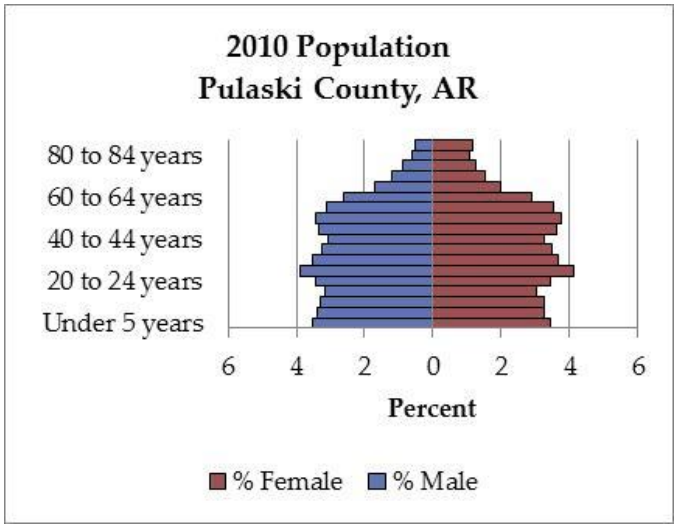
According to the 2010 Census, there were 68,356 people residing in the county, and population density was 88.7 persons per square mile. Among persons reporting only one race, race-ethnic makeup of Lonoke County was 89.8% White, 6.0% Black, and 0.8% or less of the population identified as American India/Alaskan Native, Asian, or Native Hawaiian/Other Pacific Islander. Nearly 2% (1.8%) reported being of two or more races. Approximately 3.3% of the population reported Hispanic ethnicity (regardless of race). Median age was 35.3 years and the age structure of the county is depicted below:



The 2005-2009 American Community Survey estimated Lonoke County's average household size at 2.72 people and median household income at $50,295. The average family size was 3.19 people while the median family income was $57,302. Per capita income was estimated to be $22,154. About 9.2% of families and 12.3% of the population were below the poverty line.

Pulaski County. Pulaski County is home of the state capital, Little Rock, and former President Bill Clinton. The urban center of the county houses many company headquarters including Stephens Inc. Museums and historical showcases attract tourists worldwide.

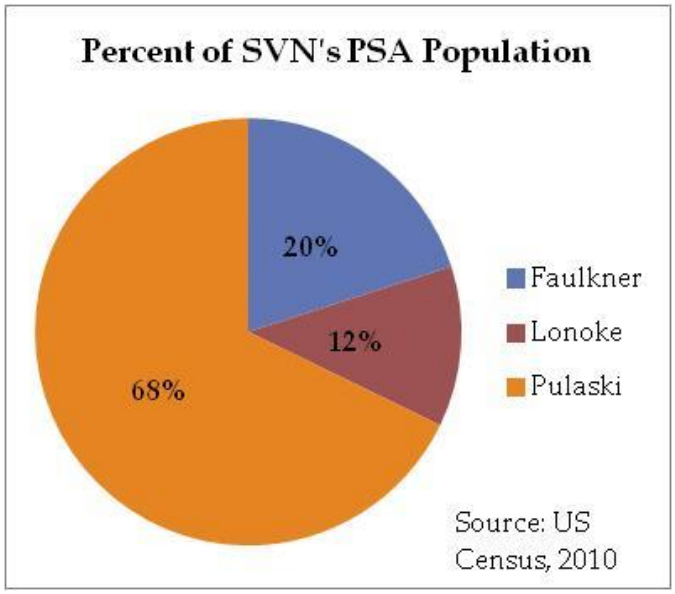
According to the 2010 Census, there were 382,748 people residing in Pulaski County. Population density was 503.8 persons per square mile. Among persons reporting only one race, race-ethnic makeup was 57.5% White, 35.0% Black, with American Indian/Alaskan Native, Asian, and Native Hawaiian/Other Pacific Islander each comprising 2.0% or less of the total population. 2.1% reported two or more races, and 5.8% reported Hispanic ethnicity (regardless of race). Median age was 35.5 and the age structure of the county is depicted below:

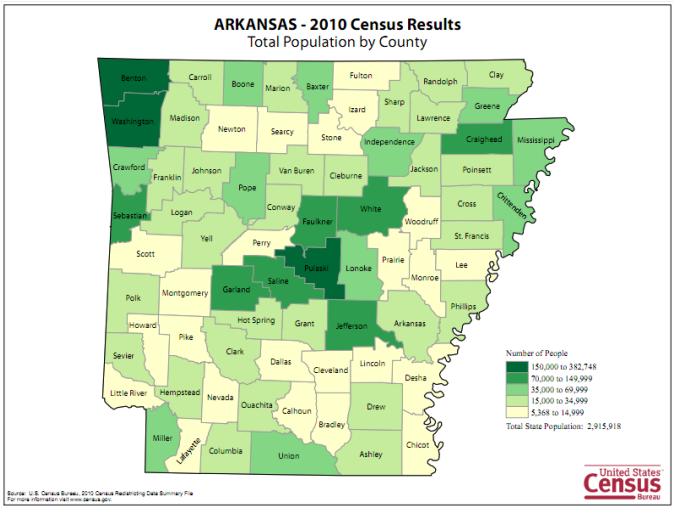


The 2005-2009 American Community Survey estimated Pulaski County's average household size at 2.37 people and median household income at $44,370. The average family size was 3.02 people while the median family income was $57,324. Per capita income was estimated to be $26,975. About 11.5% of families and 15.4% of the population were below the poverty line.

Key Community Socioeconomic Factors

Population Growth. According the US Census, Faulkner, Lonoke, and Pulaski County's annual population growth rate[1] between 2000 and 2010 is 3.2%, 2.9%, and 0.6% respectively. As depicted in the pie chart below, Pulaski County's population accounts for 68% of SVN's primary service area population.





Age. According to the US Census, in 2010, the median age of the US was 37.2 and the median age of Arkansas was roughly the same at 37.4 years. The median age of the six counties making up SVN's primary service area was 36.6. The oldest of the six counties was Perry (40.7 years) and the youngest was Faulkner (30.8). Because age is such an important predictor of health and healthcare service utilization, information about the percent of persons under age 5 and age 65 and over are shown for each county.

As shown in the table below, Saline County has the greatest percent of elderly population (age 65 or greater) (24.4%), followed by Conway County (26.9%) and Perry County (16.7%). Each of these counties has a larger percent of their population that is elderly than does the SVN primary service area (15.2%) and the state of Arkansas (14.4%).

Age Characteristics, US Census, 2010			
	Median Age	**% under age 5**	**% age 65 or over**
Faulkner	30.8	7.0	10.0
Lonoke	35.3	7.0	11.2

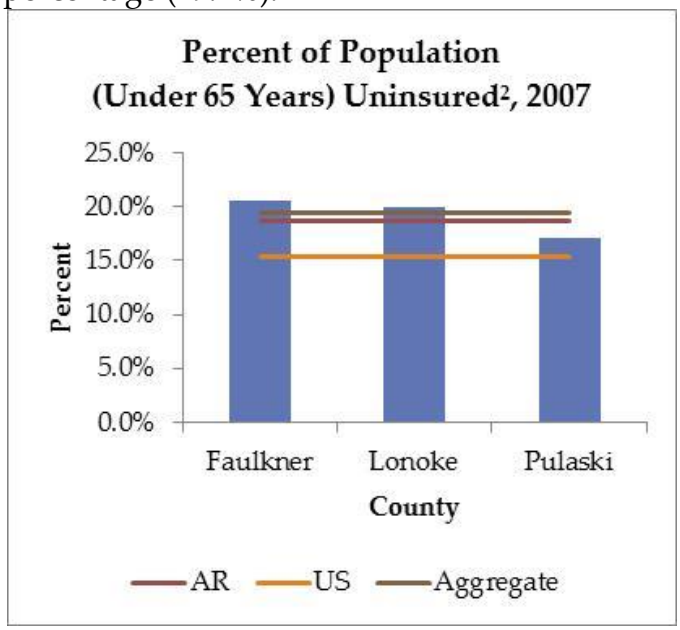
[1] Growth rate calculated by taking the percentage change in population between 2000-2010 (provided by the US Census) divided by 10.

Pulaski	35.5	7.0	12.0
AR	37.4	6.8	14.4
US	37.2	6.7	13.1
Aggregate	33.9	7.0	11.1

Race-ethnicity. According to the 2010 Census, the counties making up the SVN primary service area are fairly homogeneous with respect to race and ethnicity. Only Pulaski County has a non-White population above 37% (35% Black) which is greater than the percent non-White in the state of Arkansas (25.0% Black, Other, or Hispanic). Pulaski County also had the greatest percentage of persons identify as Hispanic (5.8%) which is slightly less than the state average of 6.4%. Within all three counties, less than 3% of the population identified as American Indian/Alaskan Native, Asian, or Native Hawaiian/Other Pacific Islander. Pulaski County also had the greatest percent of persons identify as two or more races at 2.1% (data not shown).[2]

Race-Ethnicity, US Census, 2010				
Among Persons Reporting One Race				
	White*	**Black***	**Other***	**Hispanic (any race)**
Faulkner	84.3%	10.2%	1.7%	3.9%
Lonoke	89.8%	6.0%	1.3%	3.3%
Pulaski	57.5%	35.0%	2.1%	5.8%
AR	77.0%	15.4%	3.2%	6.4%
US	74.5%	12.4%	6.3%	15.1%
Aggregate	77.2%	17.1%	1.7%	4.3%
*Regardless of Hispanic ethnicity				

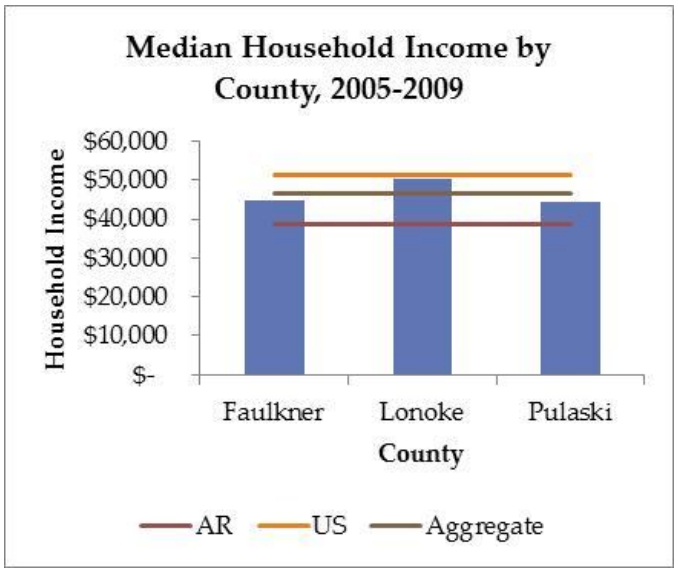
Uninsured. Lack of health insurance coverage is a significant barrier to accessing needed health care. As reported by the US Census (and depicted in the graph below), total uninsured prevalence[3] for SVN's primary service area residents under 65 years ranges from 17.1% in Pulaski County to 20.6% in Faulkner County. Pulaski County fairs better than the state uninsured average (18.7%). As further dipicted in the graph, Lonoke (20.0%) and Faulkner County fair worse than the state, national (15.4%), and SVN aggregate percentage (19.4%).

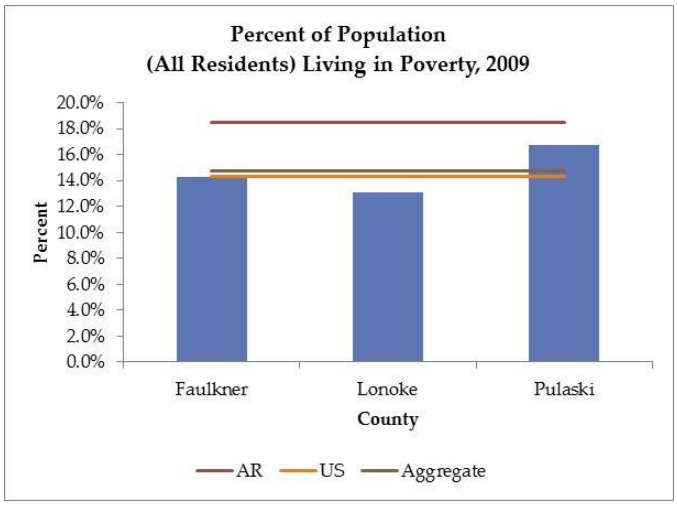


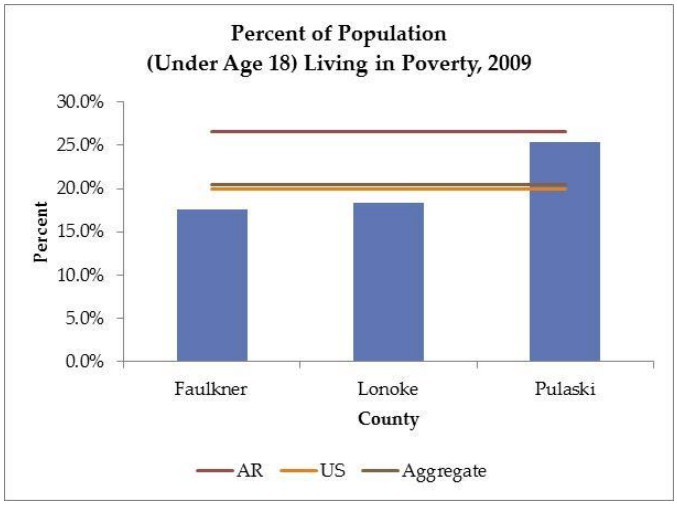
Income. All three counties in SVN's primary service area surpass the state average median income of $38,542, but below the national average of $51,425. Faulkner ($44,600) and Pulaski County ($44,370) fall just below SVN's aggregate median income ($46,422). While above the aggregate average, Lonoke County ($50,295) falls just short of the national average.

[2] Race and ethnicity data collected from the 2010 US Census

[3] 2007 Small Area Health Insurance Estimates sponsored by the US Census Bureau and the Centers for Disease Control and Prevention





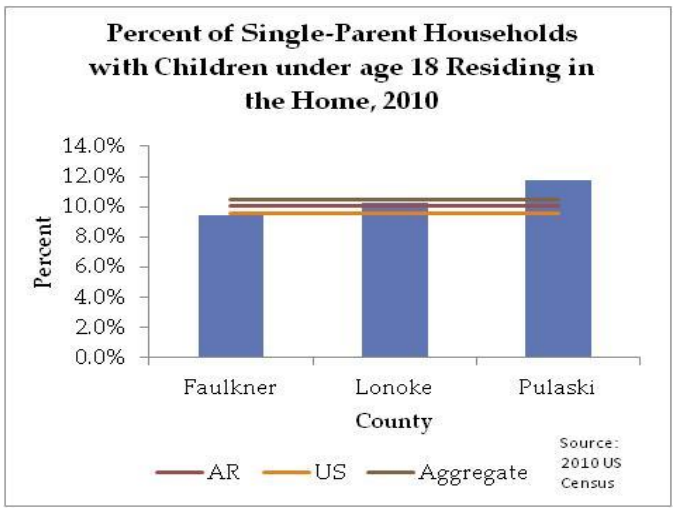


Poverty. In the state of Arkansas, prevalence of poverty among all persons is 18.5% and among children (under age 18) is 26.6%. As depicted in the graphs below, both of these values are higher than the national prevalence statistics of 14.3% (all persons) and 20.0% (children).[4] Improving upon state poverty prevalence, 16.7% of Pulaski County persons and 25.4% of Pulaski children live in poverty. Faulkner County matches the national poverty prevalence of 14.3% of persons living in poverty and has fewer children (17.6%) living in poverty. Ranking better than the state and national averages, 13.1% of Lonoke County residents and 18.3% of Lonoke County children live in poverty.

Single-Parent Families. Of the three counties in SVN's primary service area, only Faulkner County (9.4%) fairs better than the state (10.5%), national (9.6%), and SVN aggregate (10.5%) percentages of single-parent households with children under 18 residing in the home[5]. Surpassing the state and national averages, Lonoke County's percentage is 10.3% and Pulaski County's is 11.7%.

[4] Poverty data collected from 2009 Small Area Income and Poverty Estimated sponsored by the US Census

[5] 2010 US Census



Unemployment. Among the population age 16 and over, all three counties in SVN's primary service area have a lower unemployment rate[6] than the state and national averages of 8.5% and 9.0%, respectively. At 7.7% Faulkner County has the lowest unemployment rate. Slightly above Faulkner County, Pulaski County has 7.8% unemployment and Lonoke County has the highest rate at 8.4%.

Disability. Although data is unavailable for Lonoke County, the percentage of the population 5 years and over in Faulkner and Pulaski County with one type of disability (either sensory, physical, mental, or self-care)[7] is higher than the national percentage (6.8%). 7.3% of Faulkner County residents and 7.8% of Pulaski County residents 5 years and older report having one disability. Relative to the state average (9.3%), however, both counties have a lower percentage of the population reporting one type of disability. The statewide percentage of residents reporting two or more disabilities is 12.5%. While Faulkner County (9.4%) and Pulaski County (8.8%) are below the state percentage of residents reporting two or more disabilities, both counties are higher than the national number (8.3%).

Education. Comparing county total population percentages of residents reporting less than a 9th grade education, a high school graduation, or a bachelor's degree or higher[8], all three counties in SVN's primary service area fair better the state and national percentages of people with less than a 9th grade education. All three counties also have higher percentages of residents with a high school graduation than Arkansas and the US. Notably, Pulaski County has the highest rate of residents with a bachelor's degree or higher.

Education in 2010 among Population Age 25 and Over			
	Less than a 9th grade education	High school graduation	Bachelor's degree or higher
Faulkner	4.8%	87.2%	26.6%
Lonoke	5.8%	85.1%	16.5%
Pulaski	3.9%	88.3%	31.0%
AR	7.2%	81.3%	18.9%
US	6.4%	84.6%	27.5%
Aggregate	4.8%	86.9%	24.7%
Source: 2005-2009 American Community Survey 5-Year Estimates			

Language Spoken at Home. The 2005-2009 American Community Survey 5-Year Estimates, reports that in all three counties,

[6] 2008-2010 American Community Survey 3-Year Estimates

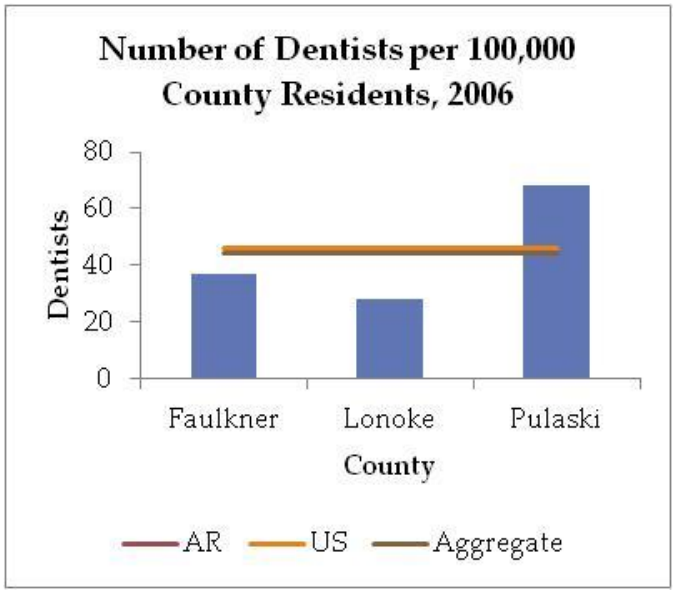
[7] Population 5 years and older. Source 2006 American Community Survey

[8] Population 25 years and older. Education data collected from the 2005-2009 American Community Survey 5-Year Estimates

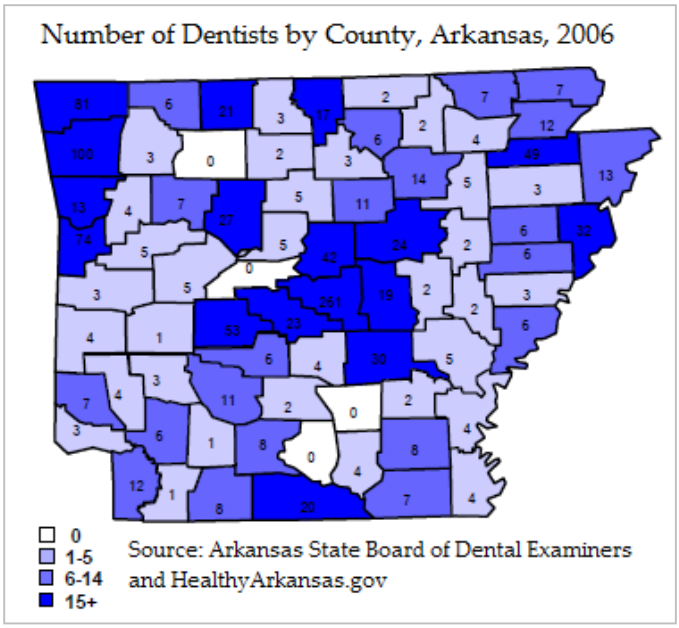
2.8% or less of the population speaks English less than “very well”.

Health Resource Availability

Licensed Dentists. The number of licensed, practicing dentists per 100,000 population varies significantly among the three counties in SVN's primary service area. Representative of its urban population, Pulaski County has the highest concentration of dentists at 68 licensed dentists per 100,000 population in 2006[9]. As noted in the accompanying graph below, the least populated county, Lonoke County, has 28 dentists per 100,000 population. Similar to Lonoke County, Faulkner County (37 dentists/100,000 population) has fewer dentists per 100,000 population than the nation (46 dentists/ 100,000 population). State data is not available.



County-level dentist concentration for Arkansas is available in the following map.

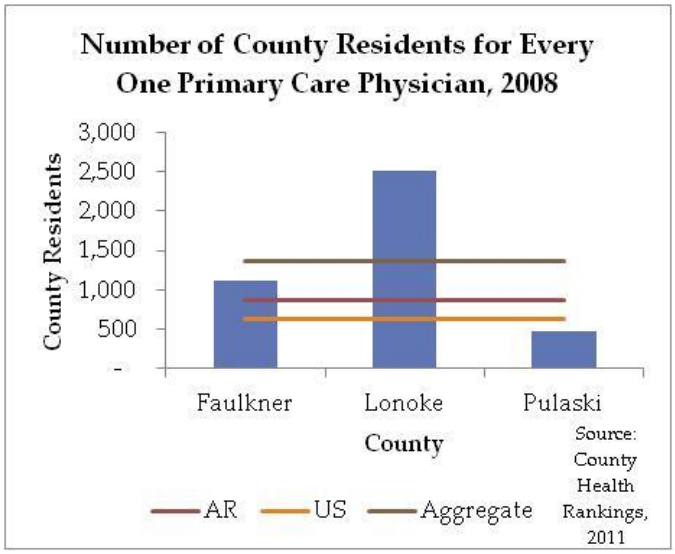


Licensed Primary Care Physicians. Having sufficient availability of primary care physicians is essential so that people can get preventive and primary care and, when needed, referrals to appropriate specialty care. The national benchmark for the number of county residents per one physician is 631:1.[10] As the graph below indicates, both the state of Arkansas and SVN's aggregate primary service area fail to meet this benchmark having greater than 631 county residents per primary physician. With a ratio of 467:1, Pulaski County is the only county that outperforms the national benchmark. Conversely, Lonoke, County falls above (worse than) the state (867:1), national, and SVN aggregate (1,365:1) averages with a ratio of 2,509 people to 1 primary care physician. Fairing slightly better

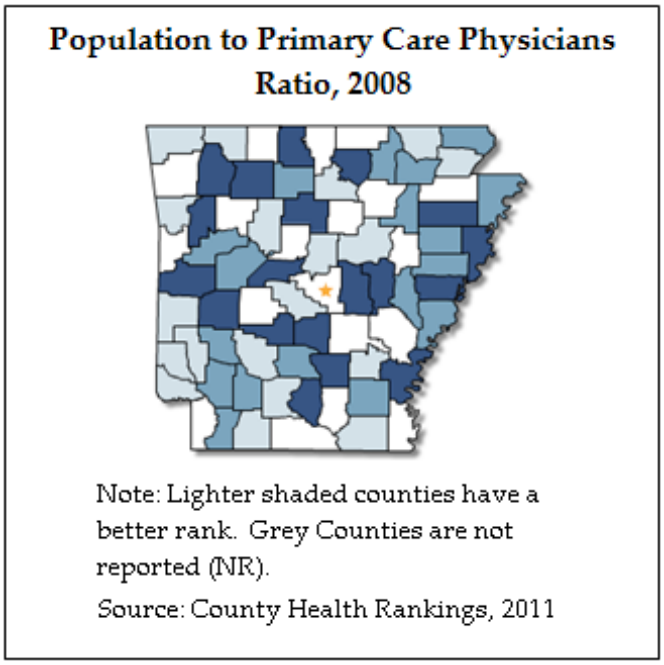
[9] 2006 data from HealthyArkansas.gov

[10] Ratios collected from 2011 County Health Rankings. Primary care physicians include practicing physicians specializing in general practice medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the population per one provider.

than the aggregate average, Faulkner County has 1,118 people per 1 primary care physician.

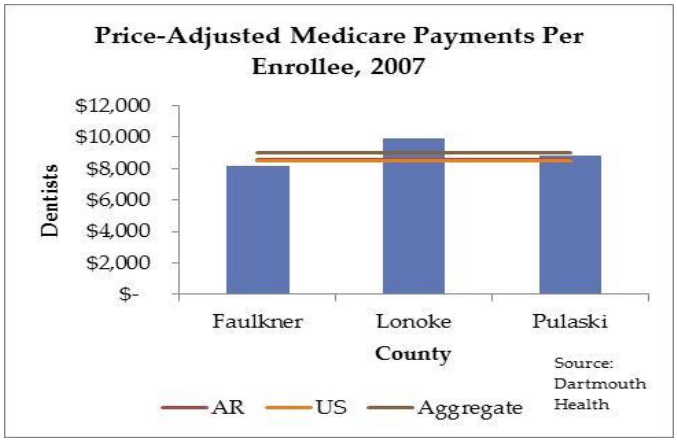


County-level population-per-physician ratios for the state, by rank, are depicted in the map below.



Licensed Hospital Beds. As an indicator of access to health care services, the number of licensed hospital beds[11] per 100,000 population varies significantly among SVN's primary service area. As of 2011 Lonoke County has 0 licensed hospital beds per 100,000 population. At 951 licensed beds per 100,000 population, Pulaski County is the hub for hospital based care. Falling below the state average[12] of 330 beds per 100,000 population and SVN primary service area average of 368 hospital beds per 100,000 population, Faulkner County has 152 beds per 100,000 population.

Per Capita Health Care Spending per Medicare Beneficiary. According to the Dartmouth Health Atlas, the 2007 price-adjusted Medicare payments per enrollee was $8,978 for SVN's primary service area. Faulkner County ($8,193) has lower Medicare payments per enrollee than the state ($8,566) and national ($8,507) payments. As depicted in the graph below, Pulaski County ($8,817) Medicare payments fall just below SVN's primary service area. Lonoke County ($9,925 Medicare payments per enrollee) has the highest rate among the three counties.



[11] Licensed beds include certified beds from general hospitals and specialty facilities including surgery, psychiatric, and rehabilitation. Source is HealthyArchansas.gov

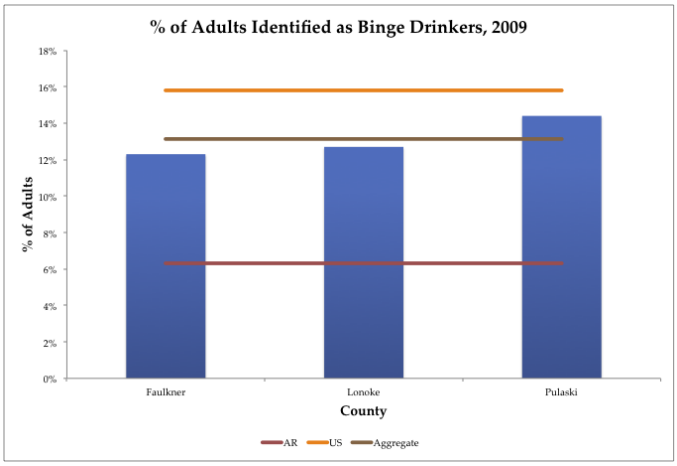
[12] 2009, Statehealthfacts.org. Kaiser Family Foundation

Behavioral Risk Factor Status

Substance Abuse Risk Factors

Excessive consumption of alcohol, tobacco and illicit drugs is associated with significant negative health outcomes. The Center for Diseases Control publishes adult behavioral risk factor data at the national, state and county level through the Behavioral Risk Factor Survey. The Arkansas Health Department developed county-level estimates from the survey data. The following section analyzes these survey results, as well as supplemental behavioral risk factor data.

Binge Drinking and Alcohol Consumption. The state of Arkansas as a whole, and the three counties in the SVN primary service area, have lower prevalence of binge drinking[13] than the U.S. median percentage of 15.8%. However, all counties in the SVN primary service area have binge drinking rates higher than the Arkansas state average, as illustrated in the graph below.[14] Pulaski County has the highest prevalence of binge drinking (14.4% and 14.1%, respectively) and Faulkner County has the lowest prevalence of binge drinking (9.7%). Notably, Pulaski County's adult binge drinking is greater than the aggregate percent of the SVN primary service area (12.7%).

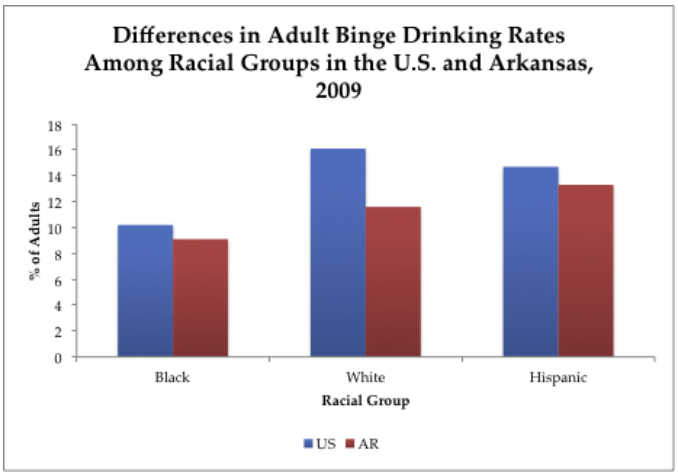


Binge drinking behavior in Arkansas is most prevalent among Hispanic populations[15], with 13.3% of the Hispanic adult population in Arkansas (in 2009) identified as binge drinkers. Whites in Arkansas had the second highest percentage of adults classified as binge drinkers during this period (11.6%) while Black adults in Arkansas had the lowest percentage (9.1%). While adult binge drinking in Arkansas is most prevalent among the Hispanic population, this is not true of binge drinking behavior in the U.S., where White adults have the highest percentage of identified binge drinkers. The graph below illustrates differences in adult binge drinking rates, in 2009, among racial groups for the United States and Arkansas.

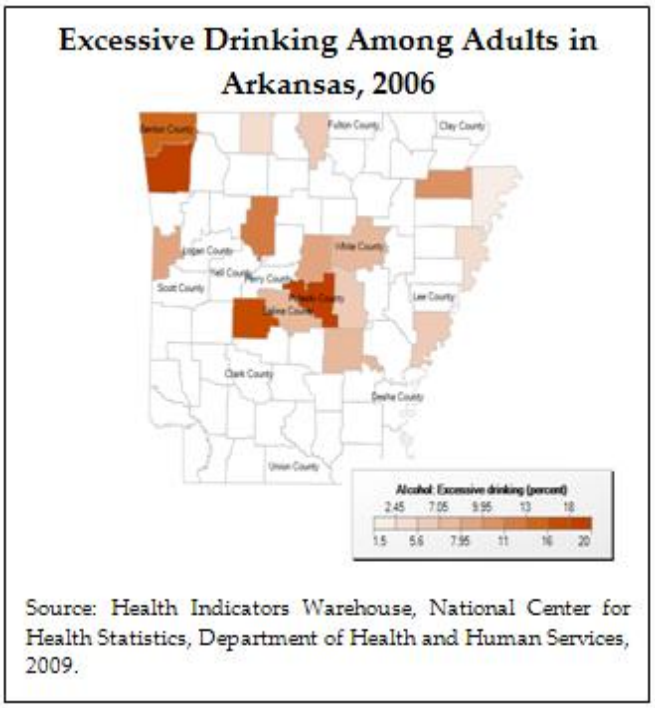
[13] Binge drinking is defined as the consumption of 5 or more drinks in one setting for males, or 4 or more drinks in one setting for females.

[14] Arkansas Department of Health. "County Data Estimates: Binge Drinkers." 2010 report.

[15] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

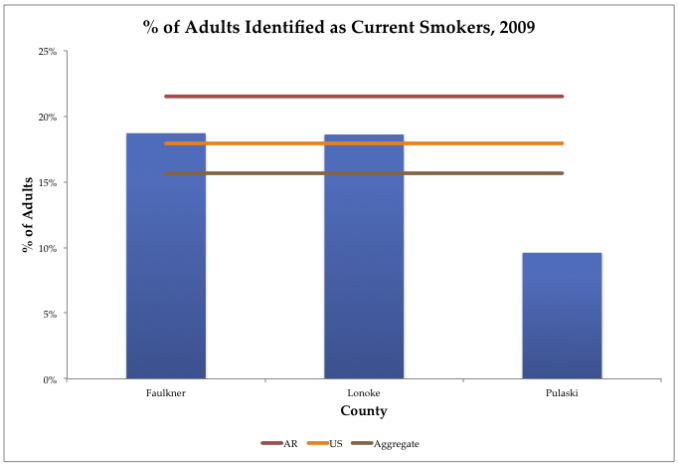


An alternate measure of unhealthy alcohol consumption, excessive drinking,[16] is reported by the National Center for Health Statistics, Department of Health and Human Services. Excessive drinking among adults (as with binge drinking) is most prevalent in Pulaski County, with between 18% and 20% of the adult population in Pulaski County identified as excessive drinkers.[17] The following map depicts the percentage of the adult population identified as excessive drinkers, by county, throughout Arkansas.



Source: Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

Tobacco Use. Overall adult tobacco use in Arkansas is more prevalent than in the U.S. All counties in SVN's primary service area, with the exception of Pulaski County (9.6%), have a higher percentage of adults who identified as current smokers (in 2009) than the national percent, of 17.9% of the adult population.[18]



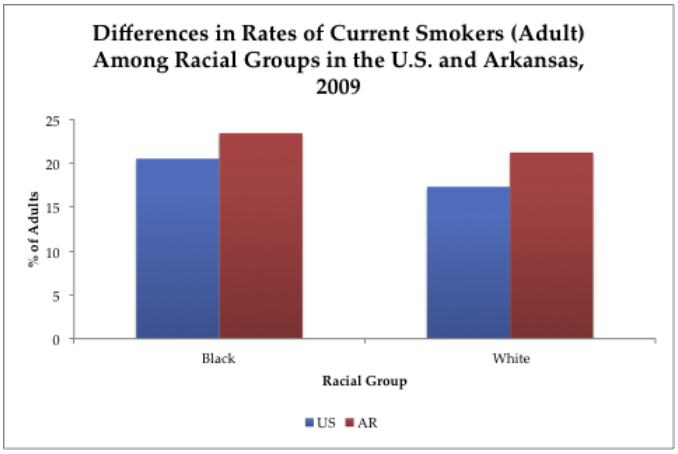
[16] Males age 18+ who consume more than 2 alcoholic drinks per day on average, women who consume more than 1 drink per day, males that consumed more than 5 drinks in one setting or females who consumed more than 4 drinks per setting.

[17] Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

[18] Arkansas Department of Health. *County Data Estimates: Tobacco Use.* 2010 report.

As illustrated in the above graph, 19% of adults in Lonoke and Faulkner identified as current smokers.

While adult smoking rates in Arkansas are higher among Blacks, this is also true of the Nation as a whole, and does not appear to be unique to the state[19].



Similarly, while lower income populations in Arkansas have higher adult smoking prevalence than higher income populations, this is also true of national adult smoking trends. The following tables present United States and Arkansas race and income specific adult smoking prevalence (county-level data is not available). As with nation-wide anti-smoking endeavors, efforts should be focused on lower income and, to a lesser extent, minority populations.

Adult Smoking % by Income Level (2009)[20]					
	Less than $15,000	$15,000 -24,999	$25,000 -34,999	$35,000 -49,999	$50,000 +
AR	37%	30.1%	27.8%	17.6%	12.6%
US*	31.4%	28.1	24%	19.5%	12.2%
*Includes DC					

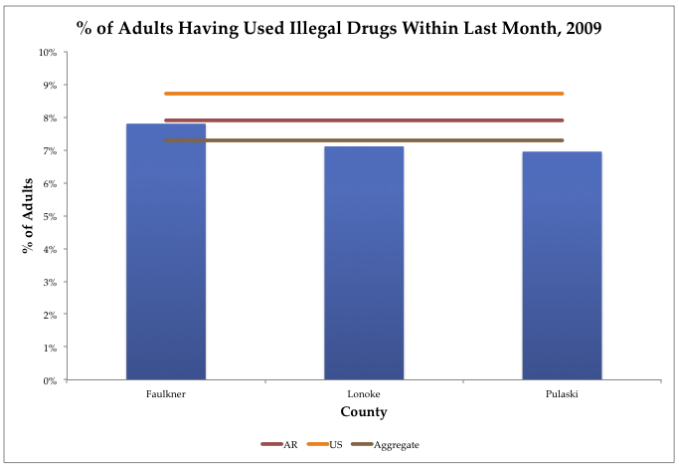
While county-level information on the prevalence of current smokers among high school students was not available, Arkansas had a statewide prevalence of 20.3% of high school students reporting current smoking (as of 2009). Arkansas ranked 29th (out of 50 states) for this measure in the 2011 Commonwealth Fund State Scorecard on Child Health System Performance.[21]

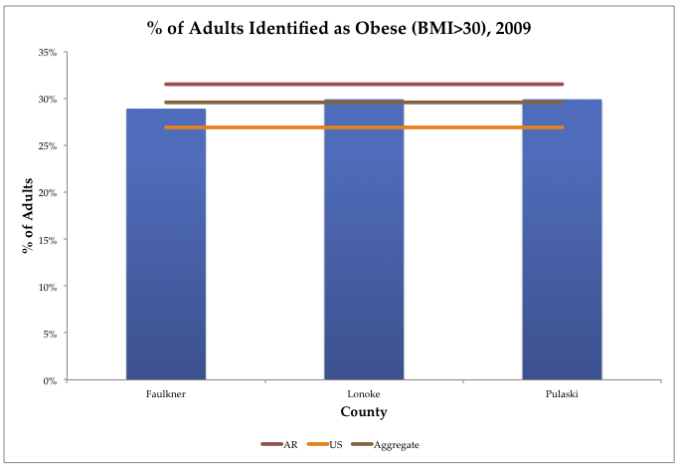
Illegal Drug Use. Illegal drug use prevalence among individuals over age 12 are equal to or lower in the SVN counties than in the State of Arkansas as a whole (8%). Additionally, the Arkansas state has lower illegal drug use prevalence than the U.S. (8.7%).[22] The following graph compares illegal drug use prevalence for Arkansas, the six counties in SVN's primary service area, and the nation. Faulkner County has the highest prevalence of illegal drug use (7.8%), however, this figure is equal to the Arkansas median drug use figure (7.9%) and lower than the national prevalence of illegal drug use. Pulaski County has the lowest prevalence of illegal drug use (6.9%).

[19] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

[20] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

[21] Commonwealth Fund. *State Scorecard Data Tables*. June 2007.





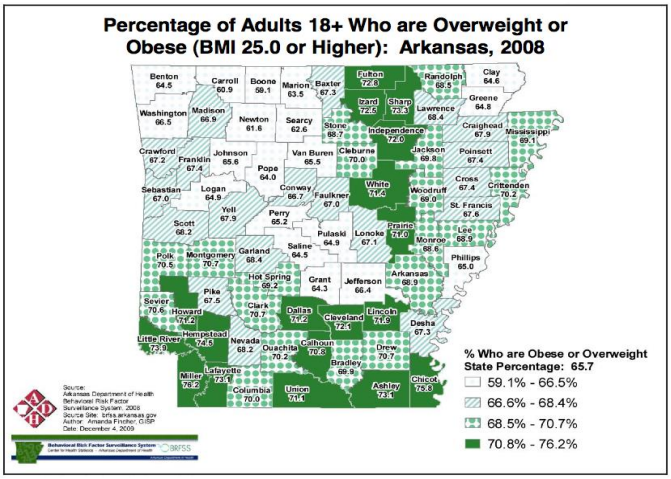
No information was found regarding differences in illegal drug use rates among different racial, income or age groups.

Lifestyle Factors

With increasing rates of morbidity and mortality associated with chronic disease and contributing negative lifestyle behaviors, analysis of lifestyle risk factors in the SVN primary service area is essential to understanding the health needs of the population.

Obesity (Adult). Obesity prevalence in the SVN primary service area, as in Arkansas as a whole, is high relative to the U.S. Obesity prevalence in Pulaski and Lonoke Counties, both at 30%, is slightly higher than in Faulkner, 29%. However, as depicted in the graph below, all three counties have obesity rates above the U.S. average (26.9%).[23]

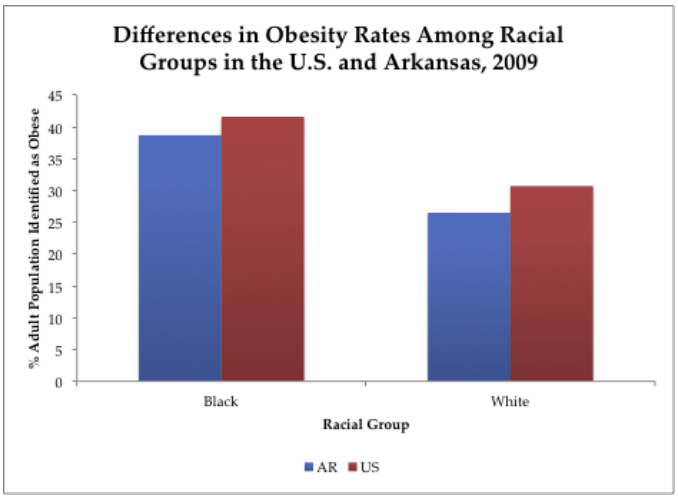
Considering the percentage of the Arkansas population that is either overweight *or* obese (BMI>25), it is evident that an overwhelming majority of Arkansas residents have a BMI above healthy levels. The distribution of overweight and obesity among adults age 18+ across the state of Arkansas in 2008 is depicted in the map below. As illustrated, counties in the SVN service area have lower prevalence of overweight and obesity among adults than other counties in Arkansas.



While obesity appears to be a concern across the entire SVN service area, analysis of obesity rates among different racial groups in

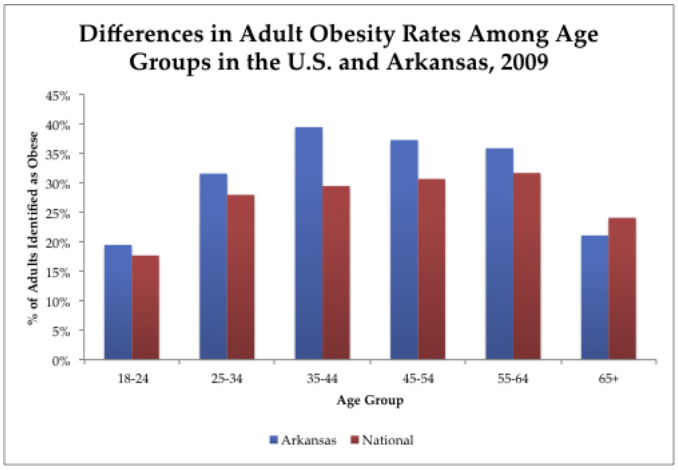
[23] Arkansas Department of Health. *County Data Estimates: Obesity*. 2010 report.

Arkansas reveals that obesity prevalence is higher among Black populations in Arkansas, a trend that is also true of the overall U.S. population.[24] The difference in obesity prevalence among Black and White adults is illustrated below.



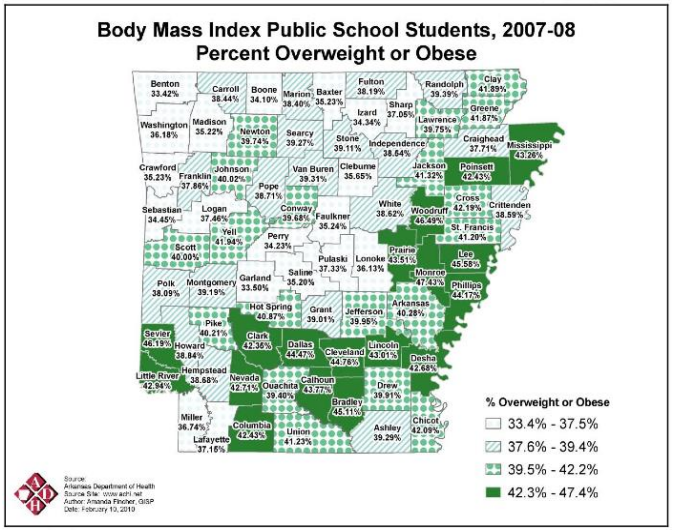
In both Arkansas and the US, Blacks have higher prevalence of obesity than Whites. Black-White differences in obesity prevalence in Arkansas seem similar to Black-White differences in the US as a whole.

Analysis of obesity prevalence among different age groups shows that among all age groups up until ate 65+, Arkansas has higher obesity prevalence than the US with the gap being the largest among 35-44 year olds. Among persons age 65 and older, prevalence of obesity is lower in Arkansas than in the US.[25]



Overweight and Obesity (Child and Adolescent). In 2008, the Arkansas Center for Health Improvement (ACHI) published "Assessment of Child and Adolescent Obesity in Arkansas," a review of trends in overweight status among Arkansas school children (grades K-12). The following map exhibits state level distribution of weight status among Arkansas school children in 2007-2008.

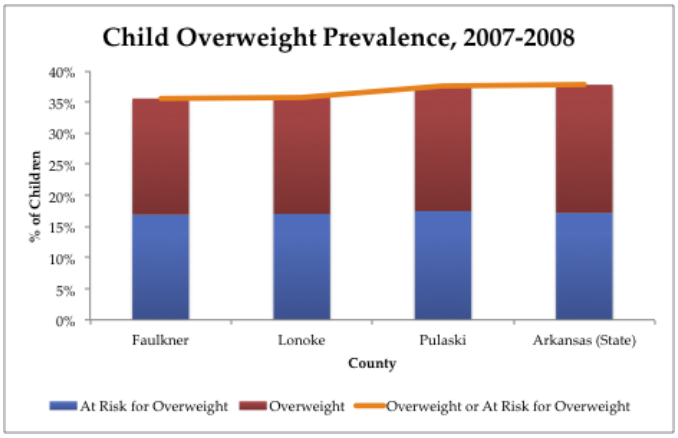
All counties in SVN's primary service area are among the Arkansas counties with the lowest prevalence of overweight or obesity among children (between 33.4% and 37.5%).



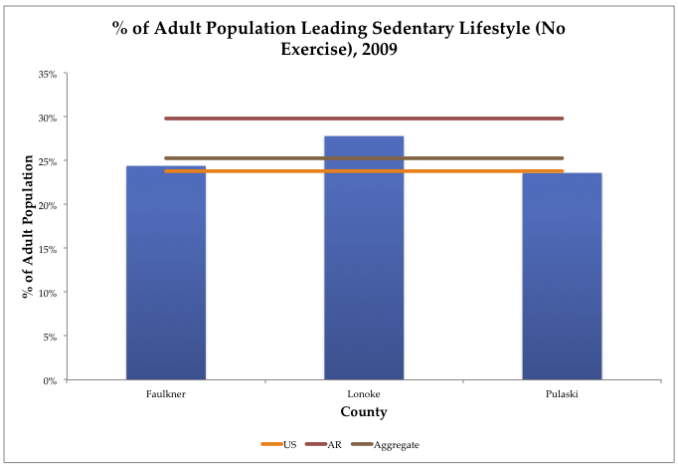
[24] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

[25] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009

The ACHI report also indicated children who were at risk for overweight. The graph below depicts, by county, the number of children who are at risk for overweight (25 ≤ BMI < 30) or obesity (BMI ≥ 30)[26] within the SVN service area. Pulaski County has the greatest prevalence of youth who are at risk of overweight or obesity (37.58%), though all three counties were relatively similar, with prevalence greater than 35% and (though slightly) less than the prevalence statistic for Arkansas, 37.8%.



Physical Activity (Adult). One input to obesity, and thus obesity associated disease, is lack of physical activity. While a sedentary lifestyle, or physical inactivity, is not always associated with obesity, it is associated with higher rates of chronic illness, such as cardiovascular disease. In SVN's three county service area, a greater percent of adults are living a sedentary lifestyle than the nation as a whole, but a lower percent than the state of Arkansas. These differences are depicted in the graph below.[27]



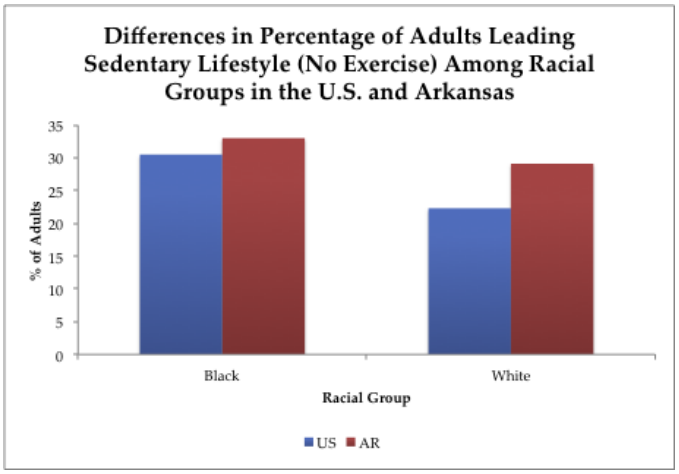
Prevalence of sedentary lifestyle among adults in Faulkner and Pulaski County are comparable to the National average, around 24% of adults. Lonoke County has a higher prevalence of sedentary lifestyle, with over 28% of the adult engaging in nor regular physical activity. All counties in SVN's service area have a prevalence of adult sedentary lifestyle less than that of Arkansas, 30% of adults.[28]

The graph below depicts racial differences (Black adults v. White adults) in the prevalence of adults leading a sedentary lifestyle.

[26] Among adults, overweight is 25 ≤ BMI < 30 and obese is BMI ≥ 30. Among children, at risk of overweight is 25 ≤ BMI < 30 and overweight is BMI ≥ 30

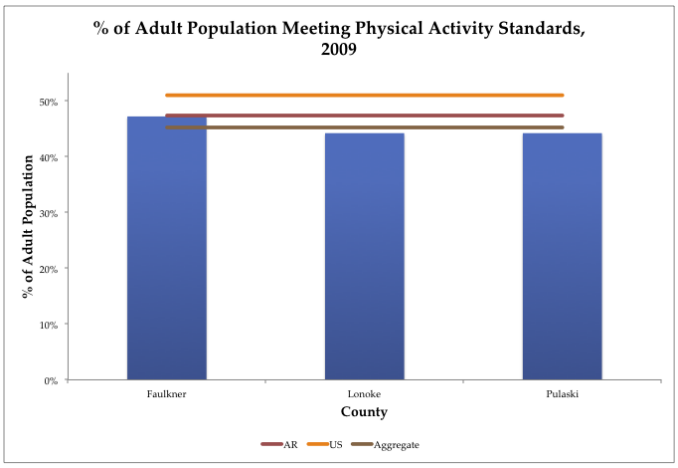
[27] Arkansas Department of Health. *County Data Estimates: Sedentary Lifestyle*. 2010 report

[28] Arkansas Department of Health. *County Data Estimates: Sedentary Lifestyle*. 2010 report.



Black and White adults in Arkansas have greater prevalence of sedentary lifestyle than Black and White adults in the US though there is less of a disparity in race for this measure in Arkansas than there is in the Nation as a whole. This suggests that in Arkansas there may be more diffusion of physical inactivity across racial groups than is exhibited in the greater U.S. population.[29]

Examining instead the percentage of adults who *do* meet physical activity standards,[30] it appears that SVN's primary service area has a smaller percentage of adults who are getting recommended levels of physical activity in comparison to both National and Arkansas state prevalence. Looking at the graph below, the line representing the percentage of adults in SVN's aggregate service area meeting physical activity standards shows that the percent associated with this line (about 45% of adults) is lower than the national rate (about 51%) and the state rate (about 47%).[31]



Lonoke and Pulaski County have a lower percentage of adults meeting physical activity standards, about 44%, than Faulkner County (around 47%). While Faulkner County as an equivalent percentage of adults meeting physical activity standards to Arkansas state, all three counties have a lower percentage of adults meeting physical activity requirements than in the Nation (51% of adults).

Nutrition (Adult). Fewer adults in SVN's primary service area are consuming the recommended number of fruits and vegetables each day (5) than in the U.S. However, fruit and vegetable consumption in the aggregate service area is better than in the state of Arkansas as a whole, (78% of individuals in the SVN service area do not eat at least 5 fruits/vegetables daily, versus 79.6% of adults in the SVN service area)[32]. Among the three SVN counties, Lonoke County has the highest

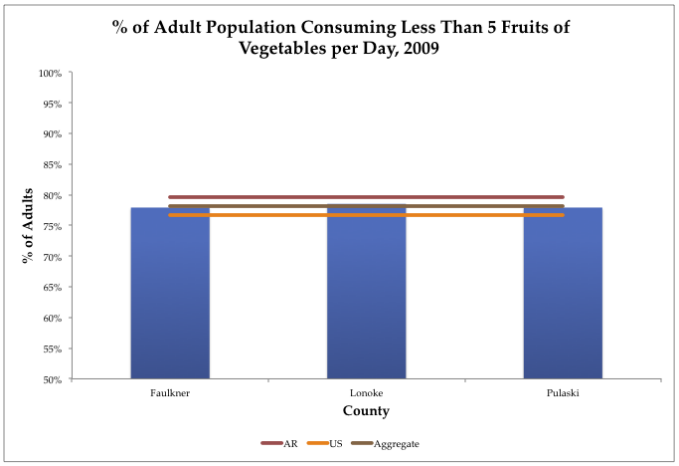
[29] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

[30] Defined as 30 or more minutes of moderate physical activity 5 or more days per week, or vigorous physical activity for 20 or more minutes 3 or more days per week.

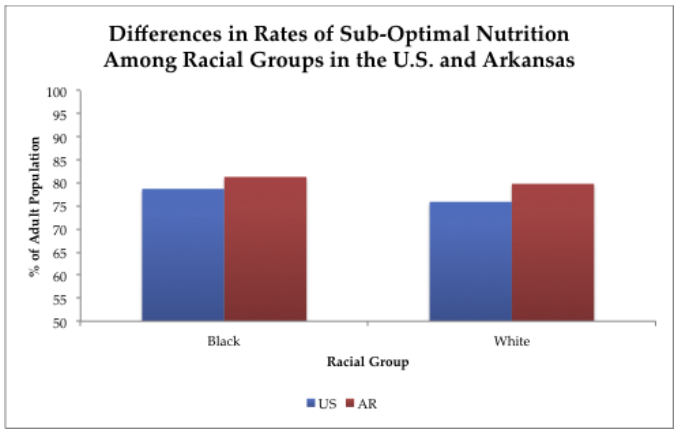
[31] Arkansas Department of Health. *County Data Estimates: Physical Activity*. 2010 report.

[32] Arkansas Department of Health. *County Data Estimates: Fruits and Vegetables* . 2010 report.

percentage (78.5%) of the adult population that is not consuming recommended levels of fruit and vegetables per day, however the difference from the difference between the counties is not large – in Pulaski and Faulkner Counties 77.5% percent of adults do not meet the fruit/vegetable consumption guideline. All three counties, however, have a higher percent of adults not meeting fruit and vegetable consumption guidelines than the National percent (76.6%).[33]



Analysis of nutritional intake among Black and White adults in the U.S. and in Arkansas reveals that, slightly fewer Black adults consumed five fruits and vegetables a day in 2009 than White adults, with the Black-White gap in consumption being smaller in Arkansas than in the US.[34]



Protective Factors

The following section analyzes the extent to which adults in the SVN service area are receiving recommended preventive diagnostic screening.

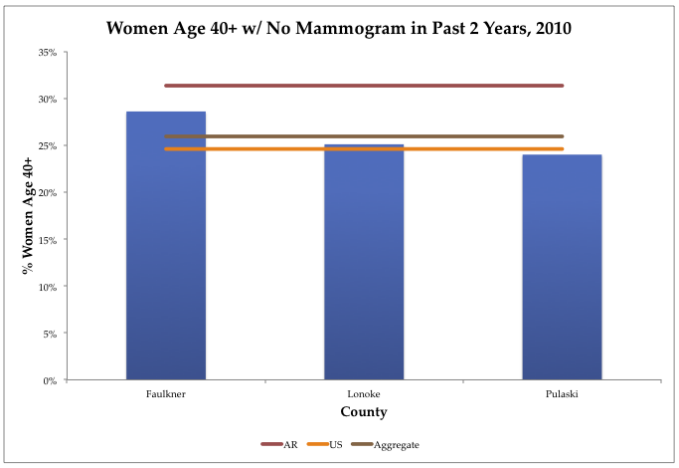
Mammography. In aggregate, a greater percentage of women do not get regular mammograms in the SVN primary service area than in the U.S. However, overall, a greater percentage of women over 40 in the SVN service area are getting regular mammograms than in the state of Arkansas. In both Pulaski and Lonoke 24% and 25.1%, respectively, of women over 40 had not had a mammogram in the past two years (as of 2010), these rates are comparable to the U.S. rate, 24.6% of women age over age 40.[35] In Faulkner County, however, the percentage is relevantly higher, with 28.6% of women over age 40 indicating they had no received a mammogram in the past two years. However, while the percentage of women in Faulkner not receiving regular mammograms is higher than the other two counties in the SVN service area and the National percentage, it is lower than the

[33] Arkansas Department of Health. *County Data Estimates: Fruits and Vegetables* . 2010 report.

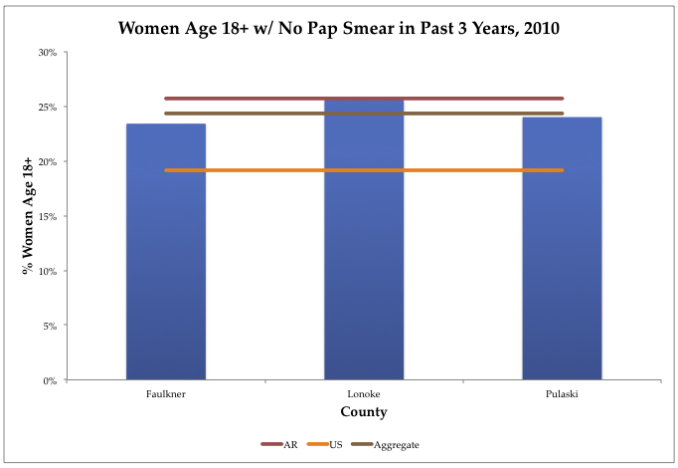
[34] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2009.

[35] Arkansas Department of Health. *County Data Estimates: Mammography*. 2010 report

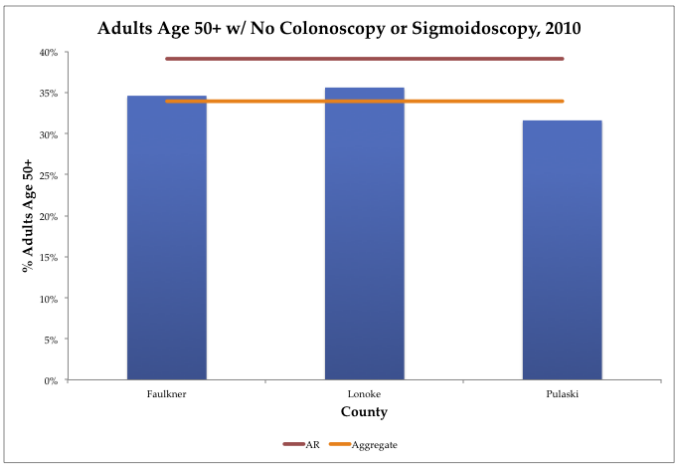
Arkansas state percentage, 31.3% of women over age 40.



Pap Smear. As with mammogram testing, a higher percentage of women in the SVN primary service area fail to get a regular pap smear than in the U.S. Around 19% of women over age 18 in the U.S. had not received a pap smear in the past three years (2010). The SVN service area aggregate percentage is 24.3% and the Arkansas state percentage is 25.7%, both quite a bit higher than in the Nation. Lonoke County has the highest percentage, 25.6%%, of women over age 18 not having received a pap smear in the past three years[36]- however this is still lower than in Arkansas state. Of the three counties, Faulkner County has the lowest percentage, 23.4%, of women over age 18 who had not received the recommended screening.



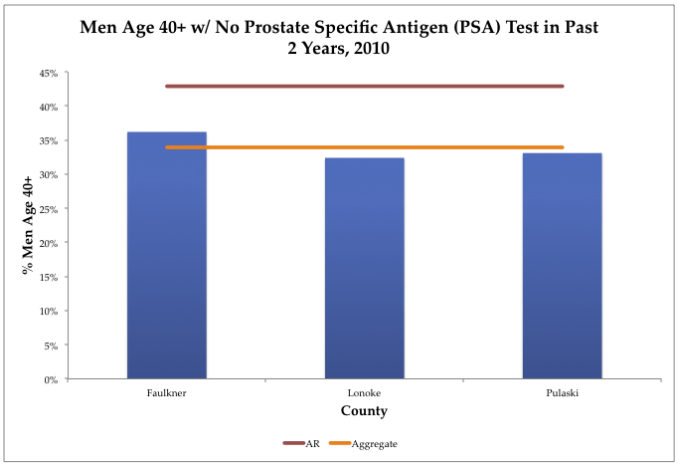
Colonoscopy/ Sigmoidoscopy. A greater percentage of adults over age 50 in the SVN primary service area are getting a recommended colonoscopy or sigmoidoscopy, than are in Arkansas state,. The SVN aggregate average percentage of adults over age 50 not having received a colonoscopy is around 34%,[37] however in Arkansas state, 39.1% of adults age 50+ had not received this recommended screening. As evidenced in the graph below, Colonoscopy screening behavior in the SVN service area is best in Pulaski County. National colonoscopy screening rates could not be found for comparison.



[36] Arkansas Department of Health. *County Data Estimates: Pap Smear*. 2010 report

[37] Arkansas Department of Health. *County Data Estimates*. 2010 report

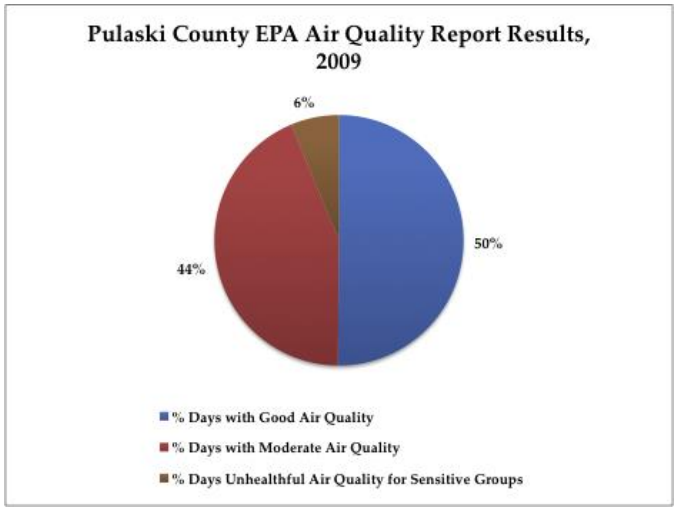
Prostate Specific Antigen (PSA) Testing. A higher percentage of men over age 40 in the SVN primary service area appear to be getting regular PSA tests than in the state of Arkansas. Approximately 34% of men in the SVN service had not received a PSA test in the past two years, while approximately 43% of men over age 40 in Arkansas hadn't received a PSA test. Of the three counties in the SVN service area, Faulkner County had the highest percentage of men over age 40 that had not received regular prostate testing – approximately 47%.[38]



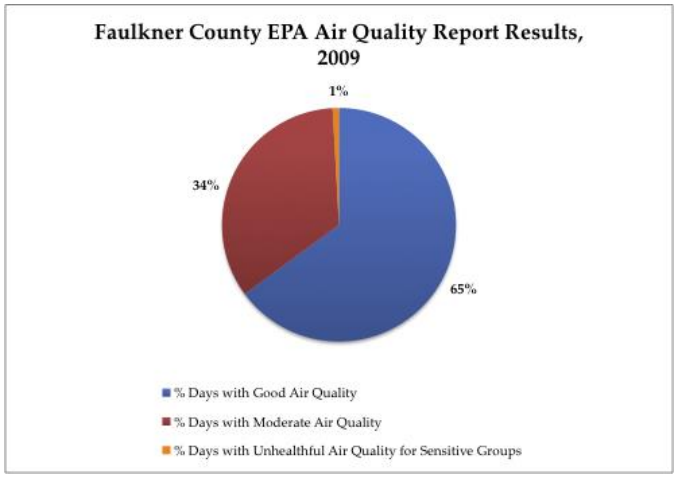
[38] Arkansas Department of Health. *County Data Estimates*. 2010 report

Environmental Health Factors

Air Quality. Air quality measures are only available for two of the three counties in SVN's service area: Pulaski and Faulkner. According to the EPA, air quality is not monitored in Lonoke. Neither Pulaski nor Faulkner County had any measured days in 2005 where air quality was determined to be unhealthful[39]. In Pulaski County, 50% of days in 2005 were classified as having good air quality, [40] and 44% of days were determined to be of moderate air quality.[41] As illustrated in the graph below, while none of the measured days in 2005 were deemed to be of overall unhealthful air quality, 6% of the days were deemed unhealthful *for sensitive populations.*



A separate report provided the maximum and minimum Air Quality Index (AQI) for Pulaski and Faulkner Counties in 2003. In Pulaski County, the maximum AQI was 104 (classified in the range of "Unhealthful Air Quality") and the minimum measured AQI was 45 (classified in the range of "Good Air Quality"). In Faulkner County, 65% of days in 2005 were classified as having good air quality, and 34% of days were classified as having moderate air quality. As illustrated in the graph below, while none of the measured days in 2005 were classified as having unhealthful air quality, 1% of days in 2005 were deemed *unhealthful for sensitive populations.*



[39] Air quality was measured for 365 days in Pulaski County and for 114 days in Faulkner County.

[40] United States Department of Environmental Protection. *Air Quality Index Report,* 2005 Data. Report Generated 11/20/2011.

[41] **The EPA Defines AQI levels as such:**

"Good" AQI is 0 - 50. Air quality is considered satisfactory, and air pollution poses little or no risk.

"Moderate" AQI is 51 - 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are unusually sensitive to ozone may experience respiratory symptoms.

"Unhealthy for Sensitive Groups" AQI is 101 - 150. Although general public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air. .

"Unhealthy" AQI is 151 - 200. Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects. .

"Very Unhealthy" AQI is 201 - 300. This would trigger a health alert signifying that everyone may experience more serious health effects.

"Hazardous" AQI greater than 300. This would trigger a health warnings of emergency conditions. The entire population is more likely to be affected.

While specific air quality data were not available Lonoke, information was available for certain metrics of air quality through the Health Indicators Warehouse.[42] The maps that follow illustrate atmospheric and environmental health measured by ozone days, particulate matter days, and toxic chemicals, for all counties in Arkansas.

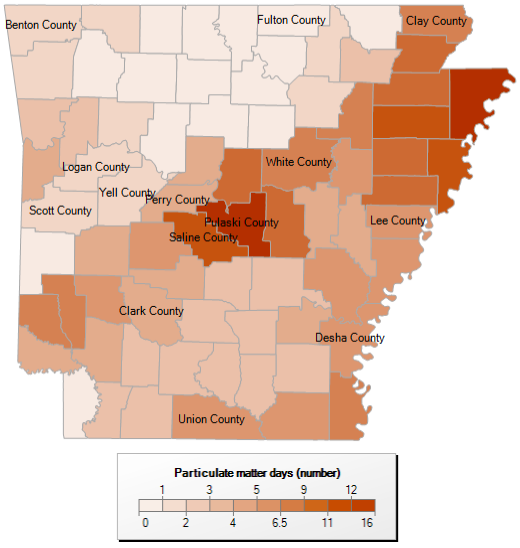
Ozone Days. The map below illustrates the number of measured ozone days[43], by county, in Arkansas in 2005. Ozone is identified as one of the two pollutants that are most harmful to health (the other being particulate matter days, addressed in the following section). Faulkner and Lonoke had zero defined ozone days in 2005. Pulaski County, however, had between 15 and 17 defined ozone days in this period.

Ozone Days in the State of Arkansas, 2005

Source: Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

Particulate Matter Days. The following map illustrates particulate matter days[44], by county, for Arkansas in 2005. Particulate matter is the other pollutant most commonly associated with a negative impact on health.[45] Particulate matter appears to be more of an issue in Arkansas, and in the SVN service area, than ozone. Pulaski County, again, has the highest number of identified particulate matter days (between 12 and 16 measured days) in the SVN service area. Faulkner and Lonoke, slightly lower than Pulaski, are designated as having had between 9 and 11 particulate matter days in 2005.

Particulate Matter Days in the State of Arkansas, 2005



Source: Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

Toxic Chemicals (Pounds). Toxic chemical releases and waste management activities are tracked and reported (at the county level) by

[42] Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

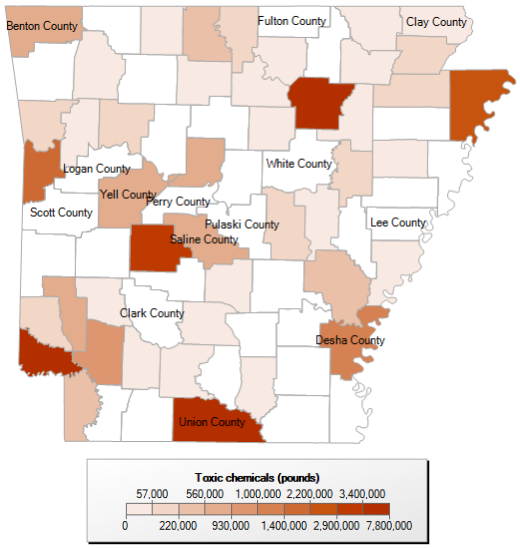
[43] Annual number of days with daily 8-hour maximum ozone concentration over the National Ambient Air Quality Standard.

[44] Annual number of days with maximum 24-hour average PM 2.5 concentration over the National Ambient Air Quality Standard.

[45] http://www.healthindicators.gov/Resources/DataSources/PHASE_130/Profile

the EPA through the Toxic Release Inventory.[46] None of the counties in SVN's three-county service area appear to have particularly high levels of toxic chemical releases.

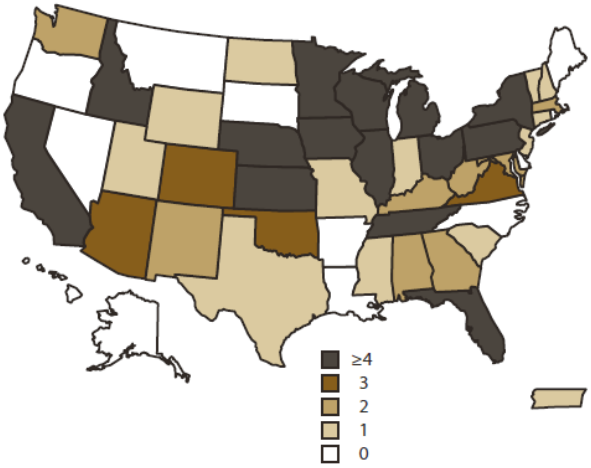
Toxic Chemicals Released Annually in the State of Arkansas, 2008



Source: Health Indicators Warehouse, National Center for Health Statistics, Department of Health and Human Services, 2009.

Waterborne illness. Waterborne illness throughout the U.S. is tracked by the Centers for Disease Control. Incidence of waterborne illness is measured separately for water bodies used as a drinking source and for water bodies used for recreational purposes. While, no county-level information could be acquired regarding waterborne illness incidence in Arkansas, the need for this information was obviated by the fact that Arkansas had zero incidences of identified waterborne illness, in either recreational water bodies or water bodies that served as a drinking source, between 2007 and 2008.[47] The following two maps illustrate incidences of waterborne illness throughout the U.S. between 2007 and 2008. As is evident, Arkansas is one of a minority of states in which no incident cases of waterborne disease were identified in either recreational water bodies or drinking water sources.

Incidence of Waterborne Disease Outbreaks in Recreational H_2O in the U.S., 2007-2008

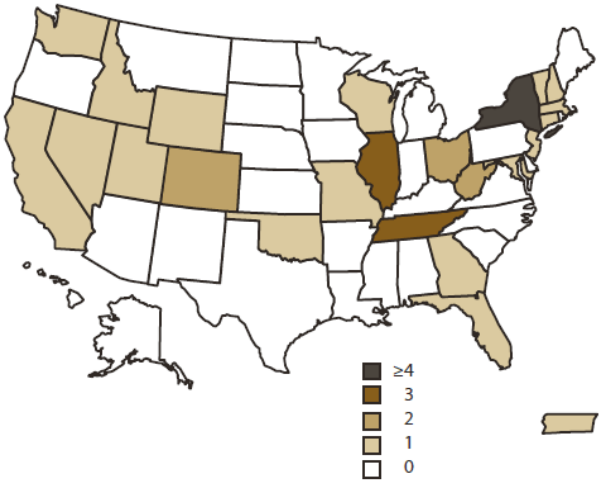


Source: Centers for Disease Control. *Morbidity and Mortality Weekly Report: Surveillance for Waterborne Disease Outbreaks and Other Health Events Associated with Recreational Water – United States- 2007-2008*. September 23, 2011.

[46] http://www.healthindicators.gov/Resources/DataSources/PHASE_130/Profile

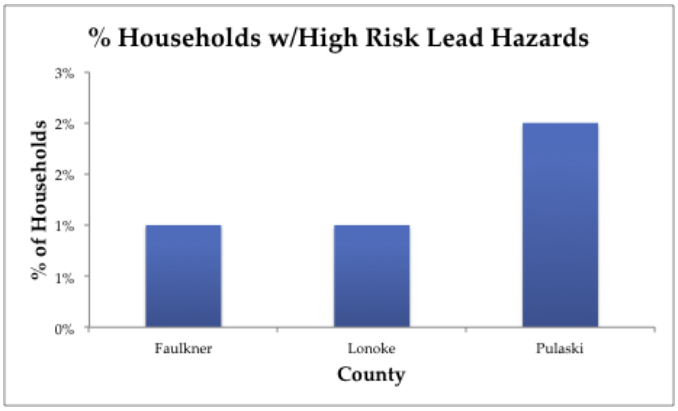
[47] Centers for Disease Control. *Morbidity and Mortality Weekly Report: Surveillance for Waterborne Disease Outbreaks and Other Health Events Associated with Recreational Water – United States- 2007-2008*. September 23, 2011.

Incidence of Waterborne Disease Outbreaks in Drinking H_2O in the U.S., 2007-2008

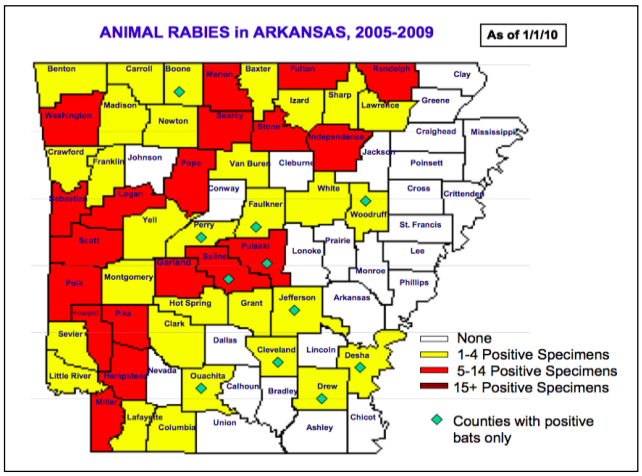


Source: Centers for Disease Control. *Morbidity and Mortality Weekly Report: Surveillance for Waterborne Disease Outbreaks and Other Health Events Associated with Recreational Water – United States- 2007-2008*. September 23, 2011.

Lead Exposure. The most recent information available on lead exposure among households in the SVN primary service area is from 2000. The graph below illustrates the county-level percent of households in the SVN primary service area that were identified as having high-risk[48] health hazards in 2000. As illustrated, Pulaski County has the highest percentage (2% of households). Only 1% of households in Lonoke and Faulkner were identified as having high-risk lead hazards in 2000.



Rabies. In SVN's three county service area, all positive animal rabies incident cases between 2005 and 2009 were bat cases. The map below indicates the number of rabies positive bat specimens, by county, throughout Arkansas during these years.[49] Pulaski had the highest number of bat specimens test positive for rabies between 2005 and 2009 (designated in the category of between 5 and 14 positive specimens). Faulkner County reported 1 to 4 rabies-positive bat specimens, while Lonoke County had no reported rabies-positive bat specimens during this period.



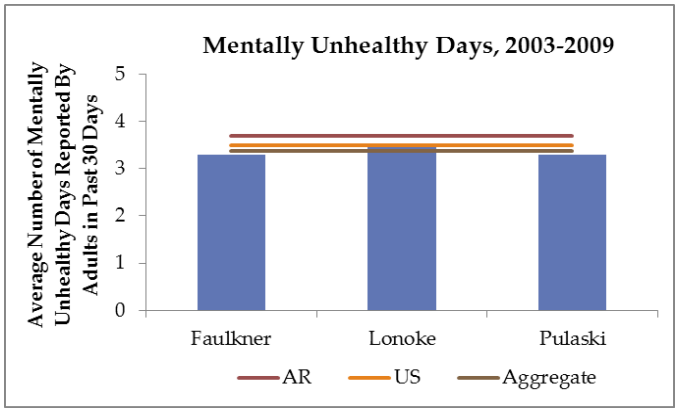
Source: Arkansas Department of Health. *Positive Rabies Results Maps*, 2005-2009

[48] The percent of housing units in an area with a high risk of lead hazards is calculated by dividing the number of housing units with high risk of lead hazards by the total number of occupied housing units.

[49] Arkansas Department of Health. *Positive Rabies Results Maps*, 2005-2009

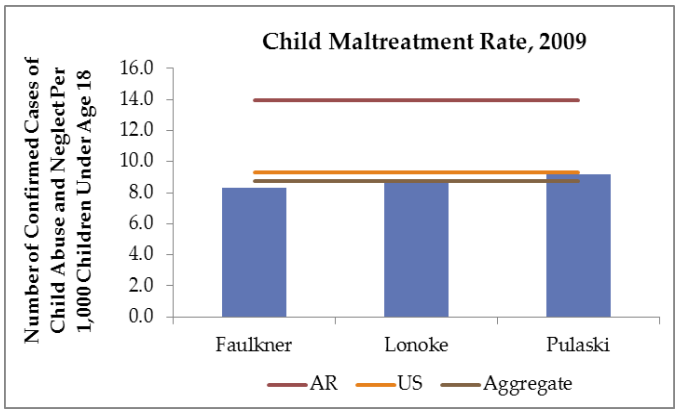
Social and Mental Health

Mentally Unhealthy Days. The average number of mentally unhealthy days reported by adults during the past 30 days is a primary indicator of mental health status.[50] In the state of Arkansas, adults reported an average of 3.7 mentally unhealthy days between 2003 and 2009.[51] This average was higher than the nationwide average in 2009, with adults across all states reporting an average of 3.5 mentally unhealthy days. While the average number of mentally unhealthy days in Lonoke County (3.5 days) was on par with the 2009 national average, Faulkner and Pulaski Counties had fewer mentally unhealthy days (3.3 days) than both Arkansas and the US. It should be noted that SVN's three-county aggregate average for mentally unhealthy days (about 3.4 days) was less than the state and national average from 2003 to 2009.



Note: The graph displays the 2009 US rate.

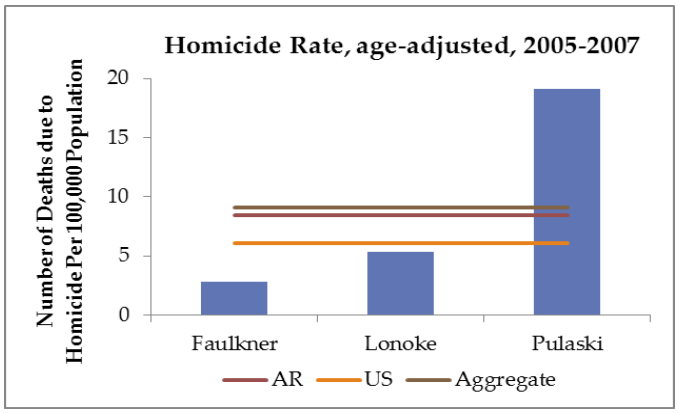
Child Maltreatment. The child maltreatment rate[52] was higher in the state of Arkansas (13.94 cases per 1,000 children) than in the US (9.27 cases per 1,000 children) in 2009.[53] However, just as with mentally unhealthy days, the aggregate child maltreatment rate in the SVN service area (8.76 cases per 1,000 children) was less than the state and national rate.[54] Among the three counties comprising SVN, Faulkner County had the lowest child maltreatment rate (8.31 cases per 1,000 children) and Pulaski had the highest child maltreatment rate (9.16 cases per 1,000 children).



Homicide. The age-adjusted homicide rate accounts for the number of crude deaths due to murder or non-negligent manslaughter per 100,000 population.[55] As shown in the graph below, this rate was higher in the state of Arkansas (8.4 homicides per 100,000 population)[56] than the US (about 6.1 homicides per 100,000 population)[57] from 2005 to 2007. Faulkner and Lonoke Counties had a homicide rate below that of the state and nation during

[50] Adults are defined as persons ≥ 18 years of age.
[2] Behavioral Risk Factor Surveillance System, 2003-2009
[52] The child maltreatment rate is defined as the number of confirmed cases of child abuse and neglect per 1,000 children under the age of 18. According to the KIDS COUNT Data Center, child maltreatment cases are confirmed by child protective services, including the Arkansas Division of Children and Family Services (DCFS) and the Crimes Against Children Division (CACD).
[53] KIDS COUNT Data Center
[54] Ibid
[55] County Health Rankings, www.countyhealthrankings.org/arkansas
[56] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov
[57] Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)

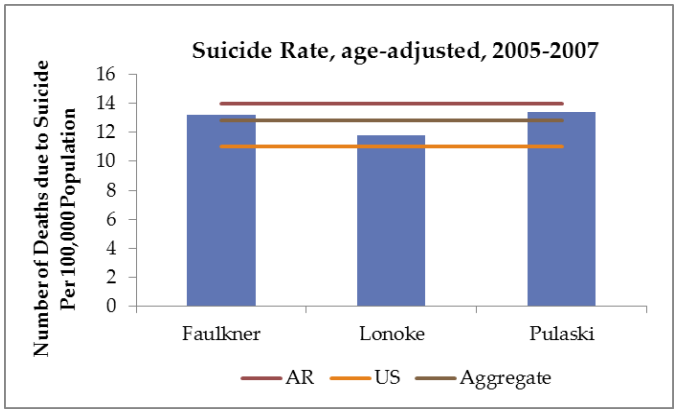
the same time period. However, the homicide rate in Pulaski County was considerably higher than the state and national homicide rate from 2005 to 2007.[58] The Arkansas Department of Health reported 19.1 homicide deaths per 100,000 population in Pulaski County during this time; a rate about 2.27 times the state homicide rate and about 3.13 times the national homicide rate.



Homicide rates differ widely by race in the SVN service area, the state of Arkansas, and the US. Overall, Blacks were killed at much higher rates than Whites.

Homicide Rate by Race, 2005-2007[59]		
	White	Black
Faulkner	1.8	9.5
Lonoke	3.0	41.1
Pulaski	6.7	39.2
AR	4.4	28.4
US[60]	3.7	22.2

Suicide. Data from the CDC and Arkansas Department of Health reveal that the suicide rate has been consistently higher in the state of Arkansas than in the US. From 2005 to 2007, the state suicide rate was 14.0 per 100,000 population while the US suicide rate was about 11.0 per 100,000 population.[61] Suicide rates in Faulkner, Lonoke, and Pulaski Counties were below that of the state but above that of the nation from 2005 to 2007. [62]



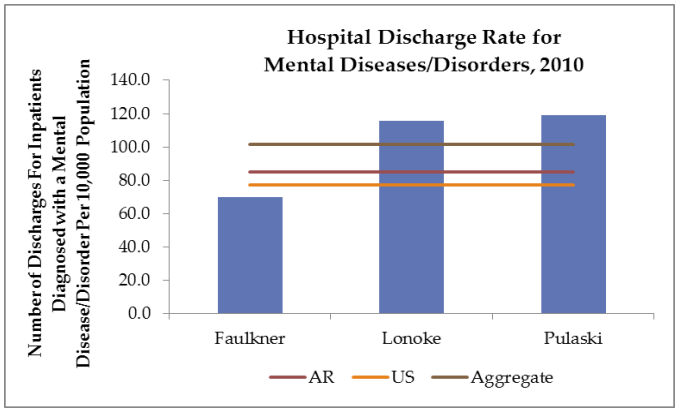
Suicide rates vary by race (see table below). In both the state of Arkansas and the US, suicide rates were higher among Whites than among Blacks from 2005 to 2007. With the exception of Lonoke County (where Blacks have about twice the rate of suicide than do Whites), this pattern is also observed in the SVN service area.

Suicide Rate by Race, 2005-2007[63]		
	White	Black
Faulkner	14.8	0.0
Lonoke	11.6	19.1
Pulaski	17.9	5.1
AR	15.5	5.6
US[64]	12.9	4.9

[58] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov
[59] Ibid
[60] This is the 2007 US homicide rate by race, as reported by the CDC.
[61] Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS)
[62] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov
[63] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov

Domestic Violence. According to the Violence Policy Center, the homicide rate among females murdered by males in Arkansas was 2.29 per 100,000 population in 2007. This rate was the fourth highest in the nation. However, among the homicides in which the victim to offender relationship could be identified, 89% of female victims (24 out of 27) were murdered by someone they knew.[65] While domestic violence data by county is not reported, the Violence Policy Center classified 54% of the victims who knew their offenders as wives, ex-wives, or girlfriends.[66]

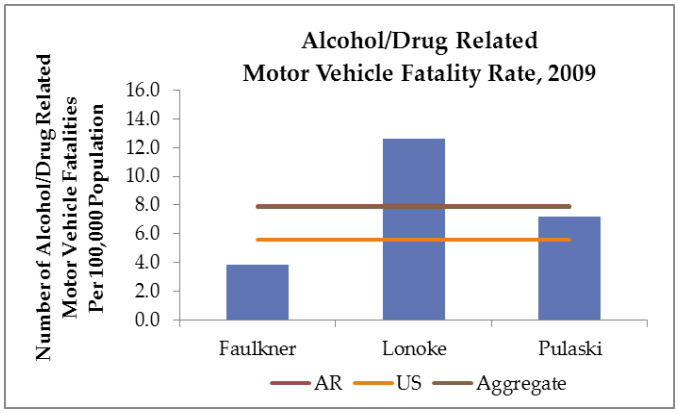
Inpatient Psychiatric Discharges. In 2010, the hospital discharge rate for inpatients primarily diagnosed with a mental disease or disorder[67] was higher in the state of Arkansas (84.9 discharges per 10,000 population)[68] than in the US (77.3 discharges per 10,000 population)[69]. This rate was even higher for the SVN service area, with an aggregate rate of 101.6 discharges per 10,000 population. Pulaski County had the highest rate (119.2 discharges per 10,000 population), while the rate in Lonoke County was not much lower (115.7 discharges per 10,000 population).[70] However, the psychiatric discharge rate in Faulkner County was considerably lower (70.0 discharges per 10,000 population) than the other two counties and was even lower than the state and national rate.



Note: The graph displays the 2007 US rate.

Alcohol/Drug Related Motor Vehicle Fatality. Compared to the nation, the SVN service area had a higher number of alcohol/drug related motor vehicle fatalities per 100,000 population (on average) in 2009. The aggregate rate of the three SVN counties (7.88)[71] was primarily driven by Lonoke County (12.6 fatalities per 100,000), which had a rate about 1.6 times that of the state (7.9 fatalities per 100,000) and about 2.25 times that of the US (5.6 fatalities per 100,000)[72]. With an alcohol/drug related motor vehicle fatality rate of 3.8 fatalities per 100,000, only Faulkner County had a lower rate than the state and nation.

[64] This is the 2007 US suicide rate by race, as reported by the CDC.
[65] Violence Policy Center Report, *When Men Murder Women: An Analysis of 2007 Homicide Data*
[66] Ibid
[67] "Mental diseases or disorders" represent a major diagnostic category which accounts for a range of psychoses including major depressive disorders and schizophrenic disorders.
[68] Arkansas Department of Health, Health Statistics Branch Query System, http://www.healthy.arkansas.gov
[69] This is the 2007 US rate, which is calculated from the most recent discharge data provided by the National Hospital Discharge Survey. Thus, while the 2007 US rate is likely an underestimate of the 2010 US rate, the relationship between the state and national rate still likely holds from 2007 to 2010.
[70] Arkansas Department of Health, Health Statistics Branch Query System, http://www.healthy.arkansas.gov
[71] Arkansas State Police, 2009 Traffic Crash Statistics
[72] Centers for Disease Control and Prevention (CDC), 2011; 2005-2009 American Community Survey, http://factfinder.census.gov



The number of alcohol/drug related motor vehicle fatalities and injuries in 2009 are reported below. Pulaski County, the most populous of the three counties in the SVN service area, had the highest number of fatalities and injuries.

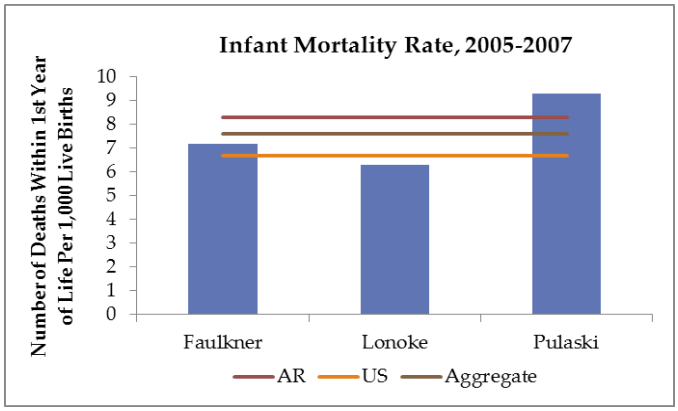
Number of Alcohol/Drug Related Motor Vehicle Fatalities and Injuries, 2009[73]		
	Fatalities	**Injuries**
Faulkner	4	73
Lonoke	8	43
Pulaski	27	401
AR	262	2,672
US[74]	16,904	—

[73] Arkansas State Police, 2009 Traffic Crash Statistics

[74] According to the CDC, in 2009, about 32% of traffic fatalities involved alcohol while about 18% of traffic fatalities involved other drugs. The total number of alcohol/drug related motor vehicle fatalities was derived using these percentages.

Maternal and Child Health

Infant Mortality Rate. The infant mortality rate, defined as the number of deaths within the first year of life per 1,000 live births, was higher in the state of Arkansas than the US from 2005 to 2007. In particular, the state rate (8.3 deaths per 1,000 live births) during this time period was about 1.23 times higher than the US rate (about 6.7 deaths per live births). Pulaski County had the highest rate in the SVN service area, with 9.3 deaths per 1,000 live births.[75] Lonoke County was the only county in the SVN service area that had an infant mortality rate below that of the state and nation.



Infant mortality varies by race. As with the US as a whole, Black infant mortality is higher than White infant mortality in the state and majority of SVN's service area. Lonoke County is the only exception, as seen in the following table. From 2005 to 2007, Lonoke County reported no infant deaths per 1,000 live births for Black women as opposed to 6.4 infant deaths per 1,000 live births for White women.[76]

Infant Mortality Rate by Race, 2005-2007[77]		
	White	Black
Faulkner	6.3	16.2
Lonoke	6.4	0.0
Pulaski	5.5	15.2
AR	6.6	15.3
US[78]	5.64	13.24

Prenatal Care. Among all live births, the state of Arkansas had a higher percentage of mothers who entered prenatal care during their first trimester compared to all mothers in the US. In 2010, 77.9% of live births in Arkansas were to mothers who entered prenatal care during their first trimester while this percentage was about 70.8% for all mothers in the US in 2007.[79] However, in the three counties comprising SVN's service area, early entrance into prenatal care was even higher than the state (and presumably the nation) in 2010. The percentage of mothers receiving prenatal care during their first trimester ranged from 88.1% in Faulkner County to 88.5% in Lonoke County, with the three-county aggregate being 88.3%.[80]

[75] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov

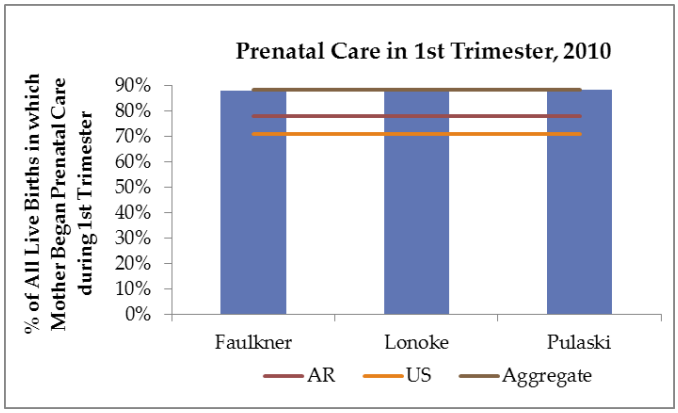
[76] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov

[77] Ibid

[78] This is the 2007 US infant mortality rate by race, as reported by the CDC.

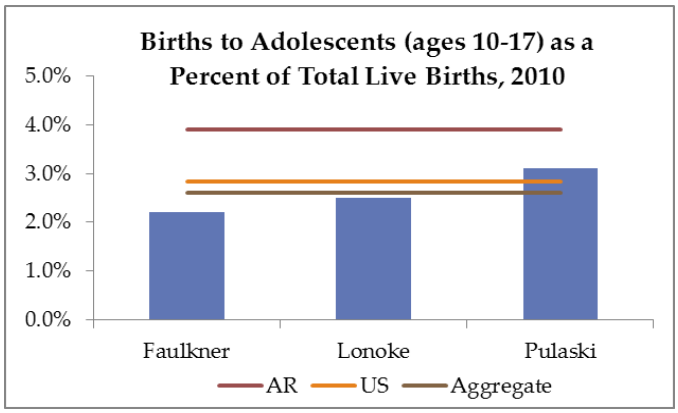
[79] The CDC's August 2010 edition of its National Vital Statistics Report gives national data on prenatal care up to 2007. This data is based on a 22-state reporting area which accounts for revisions to the U.S. Standard Certificate of Live Birth in 2003. The remaining states are not included, because they do not account for the 2003 revisions.

[80] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov

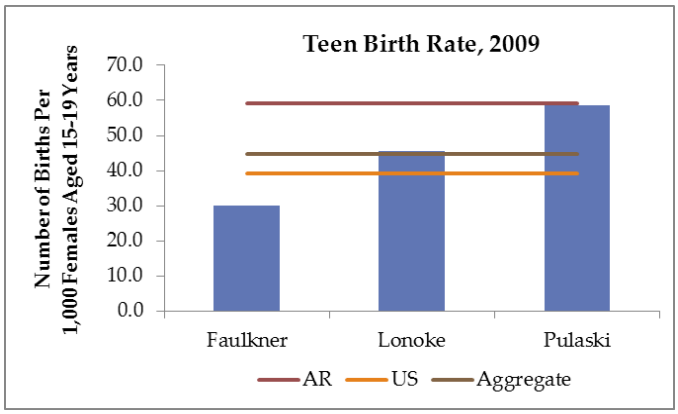


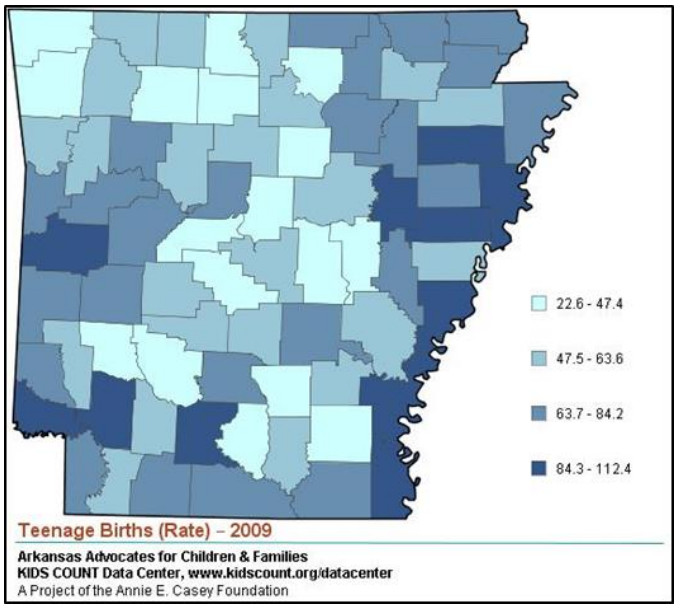
Note: The graph displays the 2007 US percent.

Adolescent Births. The state of Arkansas had a higher percent of total live births to adolescents[81] than the US in 2010 (3.9% versus 2.84%, respectively).[82] However, the aggregate percent for SVN's service area (2.6%) was lower than the state and nation. This was due to Faulkner and Lonoke Counties, which also had a lower percent of live births to adolescents than the state and nation (2.2% and 2.5%, respectively).[83]



Teen Birth Rate. In 2009, the teen birth rate in the state of Arkansas (59.2 births per 1,000 females aged 15-19) was about 1.5 times that of the US (39.1 births per 1,000 females aged 15-19).[84] All counties in SVN's service area, however, had a lower teen birth rate than the state. The aggregate teen birth rate for SVN (44.8 births per 1,000 females aged 15-19) was thus lower than the state as well.[85] Nevertheless, only Faulkner County had a teen birth rate below that of the state and nation, reporting 30.2 births per 1,000 females aged 15-19 in 2009.

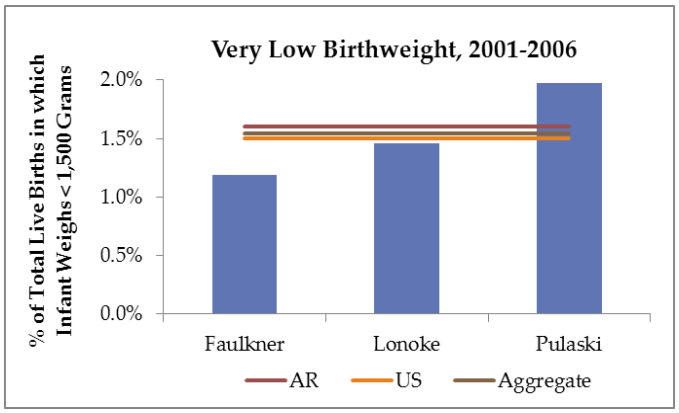




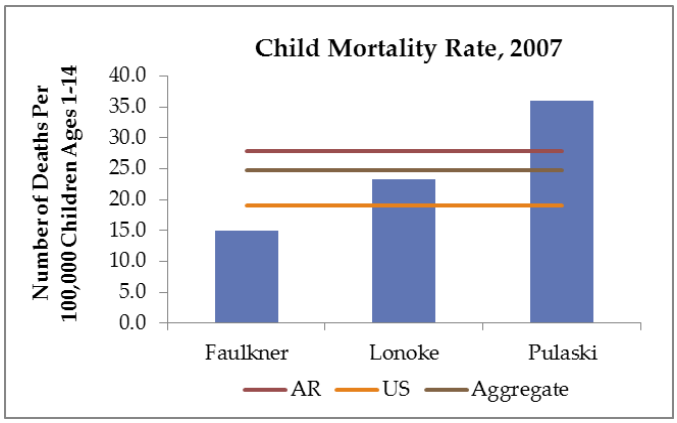
[81] Adolescents, in this measure, are defined as females aged 10-17.
[82] Centers for Disease Control and Prevention (CDC), National Vital Statistics Reports, Volume 60 (2), 2011
[83] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov

[84] KIDS COUNT Data Center, 2009
[85] Ibid

Very Low Birthweight. From 2001 to 2006, newborns weighing less than 1,500 grams comprised 1.6% of all live births in the state of Arkansas.[86] This percentage was lower in the US during the same time period, with 1.5% of all live births categorized as very low birthweight.[87] Despite the higher state percentage, Faulkner and Lonoke Counties had a smaller percentage of very low birthweight newborns than both the state and the nation (1.19% and 1.46%, respectively).[88] Still, due to Pulaski County (1.97%), the SVN service area had a higher percentage of very low birthweight newborns than the nation.

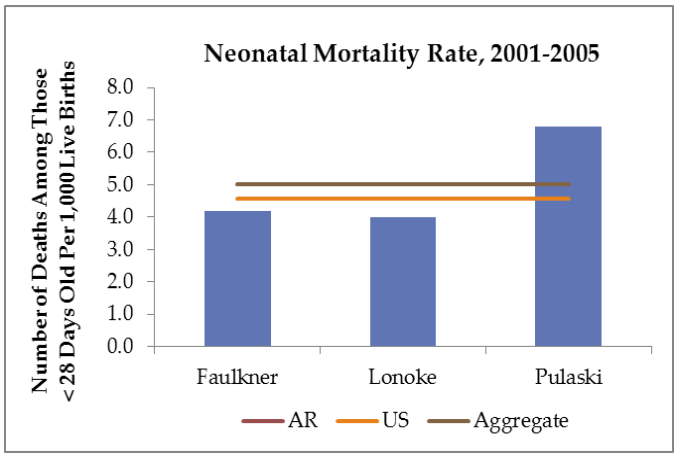


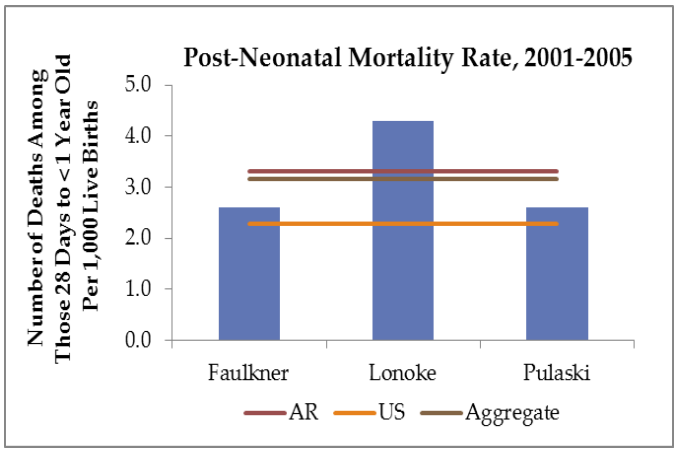
Child Mortality Rate. The KIDS COUNT Data Center, which utilizes the CDC's National Center for Health Statistics as well as data from Arkansas' Department of Health, reported that the state of Arkansas had a higher child mortality rate than the US in 2007 (27.8 deaths versus 19.0 deaths per 100,000 children ages 1-14).[89] Faulkner County was the only county in the SVN service area which had a child mortality rate below that of the state and nation.[90] While the child mortality rate in Lonoke County (23.3 deaths per 100,000 children ages 1-14) was between that of the state and nation, Pulaski County (36.0 deaths per 100,000 children ages 1-14) had a rate above that of the state and nation.



Neonatal Mortality. Just as the infant mortality rate was higher in the state of Arkansas relative to the US from 2005 to 2007, the neonatal mortality rate[91] was also higher in the state of Arkansas (5.0 deaths per 1,000 live births)[92] than the US (about 4.58 deaths per 1,000 live births) from 2001 to 2005.[93] Pulaski County, however, exceeded both of these neonatal mortality rates with 6.8 deaths per 1,000 live births.[94] This was not the case in Faulkner and Lonoke Counties, which both had a neonatal mortality rate below the state and national rate from 2001 to 2005 (4.2 and 4.0 deaths per 1,000 live births, respectively).

[86] Arkansas Department of Health, Health Statistics Branch Query System, http://www.healthy.arkansas.gov
[87] Child Trends Data Bank, http://www.childtrendsdatabank.org
[88] Arkansas Department of Health, Health Statistics Branch Query System, http://www.healthy.arkansas.gov
[89] KIDS COUNT Data Center, 2007; Centers for Disease Control and Prevention, National Center for Health Statistics
[90] Ibid
[91] The neonatal mortality rate is defined as the number of deaths among those less than 28 days old per 1,000 live births.
[92] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov
[93] Centers for Disease Control and Prevention (CDC), National Vital Statistics Reports, Volume 58 (19), 2010
[94] Ibid





Post-Neonatal Mortality. Both the state of Arkansas and the US had a lower post-neonatal mortality rate[95] than neonatal mortality rate from 2001 to 2005. Nevertheless, Arkansas still had a higher post-neonatal mortality rate than the US for this time period.[96] In particular, the state's post-neonatal mortality rate was 3.3 deaths per 1,000 live births while the nation's rate was about 2.29 deaths per 1,000 live births. Although Lonoke County had the highest post-neonatal mortality rate (4.3 deaths per 1,000 live births) among the three counties in the SVN service area, Pulaski County had the largest decrease from its neonatal mortality rate to its post-neonatal mortality rate (a decrease of 4.2 deaths per 1,000 live births).[97] None of the counties in SVN's service area had a lower post-neonatal mortality rate than the nation.

[95] The post-neonatal mortality rate is defined as the number of deaths among those 28 days to less than 1 year old per 1,000 live births.
[96] Arkansas Department of Health, Health Statistics Branch, http://www.healthy.arkansas.gov
[97] Ibid

Death, Illness, and Injury

General Health Status. As a self-rated measure reported by respondents in their respective counties, this measure is the percentage of adults, age 18 and older, reporting fair or poor health. According to the Community Health Status Indicators from the Department of Health and Human Service, most of the counties examined are near the national average of 17.1% reporting fair or poor health.[98] All of the counties in the SVN primary service area fall below the national average. The highest percentage came from Lonoke County (16.8%) followed by Pulaski (16.7%) and Faulkner (16%). The aggregate for this measure is 16.5% reporting fair or poor health.

Average Number of Sick Days within Past Month. According to the Community Health Service Indicators from the Department of Health and Human Services from 2006, all of the counties under consideration are around the national average of 6. Of the SVN primary service area counties, the highest average number of reported sick days came from Faulkner (6.4) followed by Pulaski (6.2) and Lonoke (5.7). The aggregate for this measure is 6.1 days.

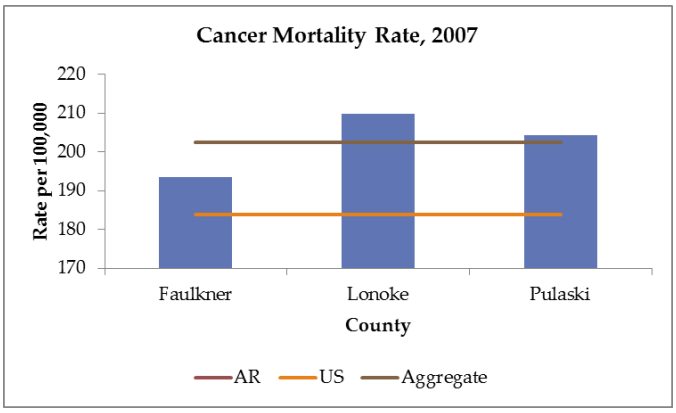
Health Indicators: Mortality

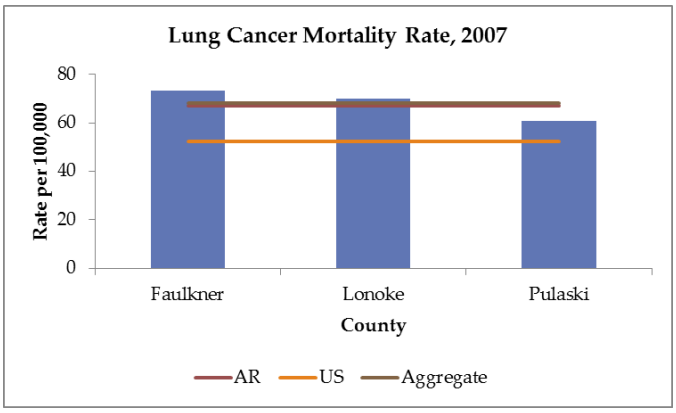
All Causes. According to the 2009 Community Health Status Indicators as provided by the US Department of Health and Human Services, these rates were slightly below the national average of 1136.9 deaths per 100,000 population. The highest mortality rate from all causes was in Lonoke (948.2) followed by Pulaski (940.7) and Faulkner (913.3). The aggregate for this measure is 934.1 deaths per 100,000 population.

All Cancers. According to data from 2007 as provided by the National Cancer Institute, part of the CDC, the Arkansas state average is 202.6 deaths due to cancer per 100,000 population, compared to the United States average of 183.8 deaths due to cancer per 100,000.[99] The aggregate for the counties in the SVN primary service area is 202.6 deaths per 100,000 with a Black aggregate of 251.9 and a White aggregate of 199.2 deaths per 100,000. As a state, Blacks have significantly higher cancer-specific mortality rates than Whites on average (247.5 compared to 200.4 deaths per 100,000). None of the counties specified deviate largely from their respective state averages. For Whites, the highest cancer death rate was Lonoke (211.5) followed by Pulaski (194.3) and Faulkner (191.9). For Blacks, the highest cancer death rate was Pulaski (258.6) followed by Lonoke (251.1) and Faulkner (246.1). With state average and aggregate numbers so close we see that the lines are overlapping in the graphic below.

[98] http://www.communityhealth.hhs.gov/SummaryMeasuresOfHealth.aspx?GeogCD=05115&PeerStrat=23&state=Arkansas&county=Perry

[99] http://statecancerprofiles.cancer.gov/cgi-bin/deathrates/deathrates.pl?05&001&00&0&001&2&0&1





Breast Cancer. Looking more specifically at breast cancer rates provided by the National Cancer Institute in 2007, the Arkansas state average of 24.4 deaths due to breast cancer per 100,000 female population is only slightly above the national average of 24 breast cancer deaths per 100,000 women. None of the counties measured have rates deviating significantly from the average. The highest breast cancer death rate was in Pulaski County (25.6) followed by Faulkner (22.5) and Lonoke (18.1). The aggregate for this measure is 22.1 breast cancer deaths per 100,000 women.

Lung Cancer. The lung cancer mortality rate, as provided by the National Cancer Institute in 2007 shows that the state average of 67.1 deaths due to lung cancer per 100,000 population is nearly 28% higher than the national average of 52.5 lung cancer deaths per 100,000 population. For the SVN primary service area, all of the counties are around the state average. The highest number of lung cancer deaths per 100,000 population was in Faulkner County (73.5) followed by Lonoke (70.1) and Pulaski (60.7). The SVI primary service area aggregate for this measure is 73.7 cancer deaths per 100,000 population. This can be seen in the graphic below.

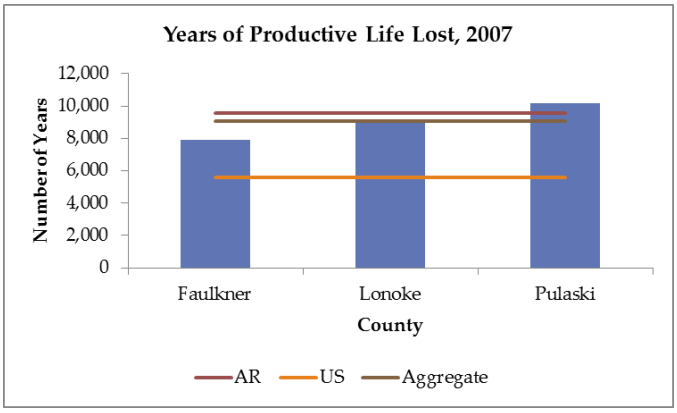
Cervical Cancer. The rate of deaths due to cervical cancer per 100,000 females is 3.3 in Arkansas compared to 2.4 as a national average, a 37.5% difference as provided in 2007 by the National Cancer Institute, part of the CDC. Pulaski is the only county with enough data to provide a reliable rate (3.2 deaths due to cervical cancer per 100,000 women).

Colorectal Cancer. This colorectal cancer mortality rate, as provided in 2007 by the National Cancer Institute, shows a state rate of 19.1 deaths due to colorectal cancer per 100,000 population, slightly higher than the national average of 17.6 colorectal cancer deaths per 100,000. None of the counties examined deviate much from the state average. The highest colorectal cancer death rate per 100,000 population was in Lonoke County (21.8) followed by Pulaski (18.4) and Faulkner (17.8). The SVN primary service area aggregate for this measure is 19.3 colorectal cancer deaths per 100,000 population.

Unintentional Injuries. As provided by the CDC in 2006, all of the counties examined were below the state average of 75 unintentional injury deaths per 100,000 population. The national average is quite a bit lower at 41

unintentional injury deaths per 100,000. The highest number of unintentional injury deaths was in Pulaski County (73) followed by Lonoke (68) and Faulkner (67).[100] The SVN primary service area aggregate for this measure is 69.3 deaths due to unintentional injury per 100,000 population.

Years of Productive Life Lost. Years of productive life lost is measured as the number of years of productive life lost under age 75 as reported by County Health Rankings for the year 2007. The state of Arkansas has a dramatically higher number of years lost (9,545) than the national average of 5,564; a more than 71% difference.[101] Within the SVN primary service area the highest number of years lost was in Pulaski County (10,188) followed by Lonoke (9,048) and Faulkner (7,913). The Pulaski County figure is a striking 83% higher than the national average. The SVN aggregate for this measure is 9,050 years lost. This can be observed in the graph below.



Motor Vehicle Crashes. Data provided by the CDC in 2007 show all but one of the counties examined were slightly above or below the state average of 25 motor vehicle crash deaths per 100,000 population. The highest rate of motor vehicle crashes resulting in death in the SVN primary service area was Lonoke County (30) followed by Faulkner (20) and Pulaski (17). The aggregate for this measure is 22.3 fatal crashes per 100,000.

Cardiovascular Disease. Data provided by the Arkansas Department of Health from 2007 include deaths due to coronary heart disease, hypertensive heart disease, congestive heart failure, congenital defects, and rheumatic heart disease. The rate for the state was 183 cardiovascular disease deaths per 100,000 population. Of the SVN primary service area counties the highest cardiovascular death rate was in Lonoke County (153) followed by Pulaski (143) and Faulkner (110). The aggregate for the entire population for the SVN primary service area is 135.3 cardiovascular deaths per 100,000 population .
The rates are quite similar when looking at Whites only, with a state average of 178 cardiovascular deaths per 100,000 population. The highest cardiovascular death rate per 100,000 population in the SVN primary service area was in Lonoke County (149) followed by Pulaski (134) and Faulkner (115). The aggregate for Whites only for the SVN primary service area is 132.7 cardiovascular deaths per 100,000 population.

The state average for Blacks only is 230 cardiovascular deaths per 100,000 population, this is 29% higher than the state average taking Whites only into account. The highest cardiovascular death rate among Blacks per 100,000 population was in Lonoke County

[100] http://www.healthy.arkansas.gov/programsServices/healthStatistics/Documents/Publications/CountyHealthData/pope.pdf

[101] http://www.countyhealthrankings.org/arkansas/

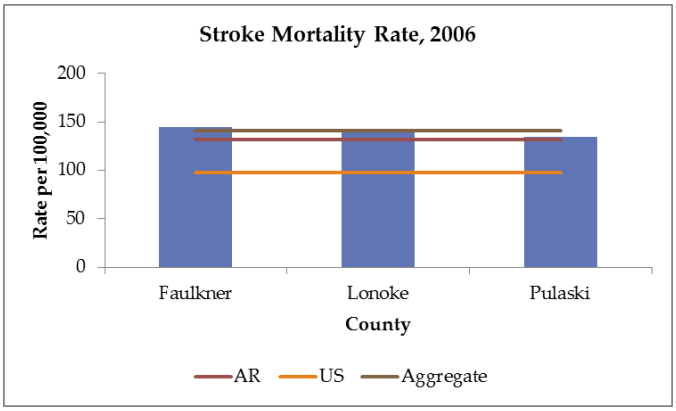
(221) followed by Pulaski (184) and much lower in Faulkner (39). The aggregate for Blacks only for the SVN primary service area is measure is 148 cardiovascular deaths per 100,000.

Chronic Obstructive Lung Disease. According to the Arkansas Department of Health from the year 2007, the state average is 49 COLD deaths per 100,000 population. Of the SVN primary service area counties, Faulkner had the highest COLD death rate (60), followed by Lonoke (57) and Pulaski (43). The aggregate for the SVN primary service area is 53.3 COLD deaths per 100,000 population.

Diabetes Mellitus. The Arkansas Department of Health in 2007 found the state and national averages to be 28 and 22.5 diabetes deaths per 100,000 population, respectively. Of the SVN primary service area counties Lonoke has the highest rate (37), followed by Pulaski (25) and Faulkner (23). The aggregate for the SVN primary service area is 28.3 diabetes deaths per 100,000 population.

Pneumonia/Influenza. As defined by the Arkansas Department of Health in the year 2007, with a state average of 27 and national average of 16.2 pneumonia/influenza deaths per 100,000 population, Arkansas in general has dramatically higher rates than the rest of the country. Among the SVN primary service area counties Faulkner had the highest pneumonia/influenza death rate (36), followed by Lonoke (35) and Pulaski (20). The aggregate for the SVN primary service area is 30.3 pneumonia/influenza deaths per 100,000 population.

Stroke. This rate is measured as all deaths attributable to stroke per 100,000 population aged 35 and older as defined by the CDC for the year 2006. The state average of 132 per 100,000 is 35% higher than the national average of 98 for the population as a whole.[102] Of the SVN primary service area counties the highest stroke death rate per 100,000 population age 35+ was Faulkner (145), followed by Lonoke (142) and Pulaski (135). This puts Faulkner County at 48% above the national average when considering the population as a whole. The aggregate for the SVN primary service area for the entire population is 140.7 stroke deaths per 100,000 population age 35+. This can be seen in the graphic below.

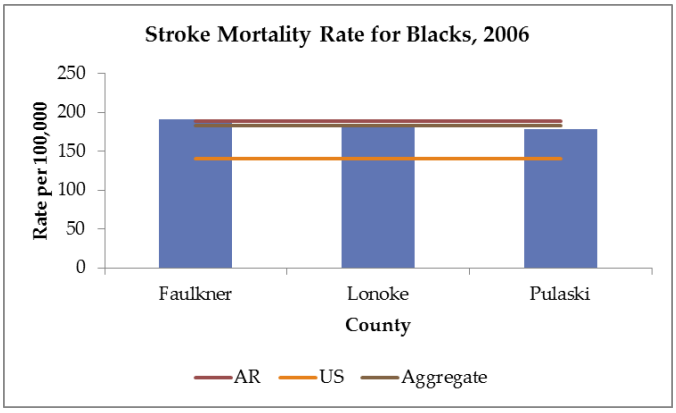


When looking at Whites only the state average of 125 stroke deaths per 100,000 population age 35+ is much higher than the national average of 94 stroke deaths per 100,000 population age 35+. Of the SVN primary service area counties, the highest stroke death rate per 100,000 population age 35+ when considering Whites only was Faulkner (138), followed by Lonoke (133) and Pulaski (127). The aggregate for the SVN primary service area is 132.7 stroke

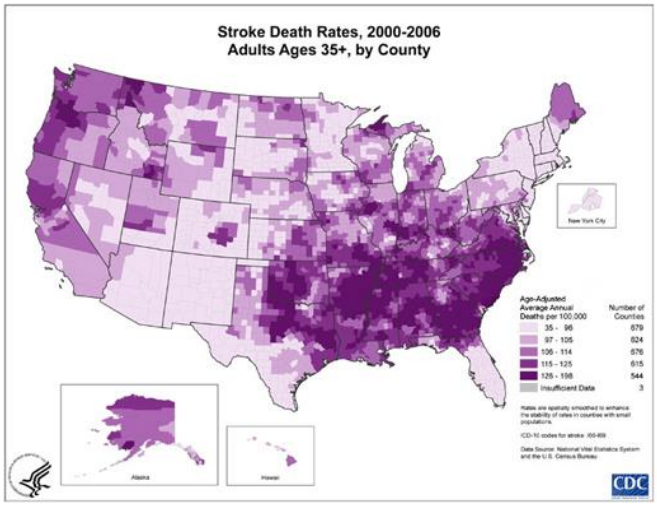
[102] http://apps.nccd.cdc.gov/giscvh2/Results.aspx

deaths per 100,000 population age 35+ when considering whites only.

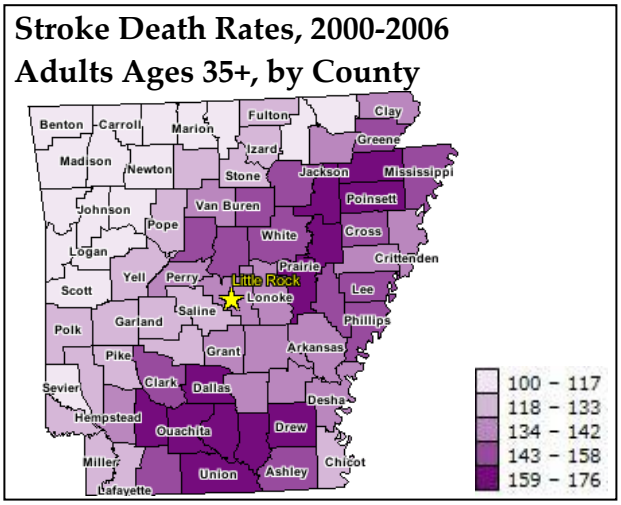
When considering Blacks only, the state and national averages rise to 189 and 140 stroke deaths per 100,000 population age 35+, respectively. Of the SVN primary service area counties, the highest stroke death rate per 100,000 age 35+ when considering Blacks only was Faulkner (191), followed by Lonoke (182) and Pulaski (178). The aggregate for the SVN primary service area was 183.7 stroke deaths per 100,000 population age 35+ when considering Blacks only. This is represented in the associated graphic. With state average and aggregate numbers so close we see that the lines are overlapping.



Arkansas is in an area of the United States known as the "Stroke Belt." This refers to the area of the southeastern US where the stroke mortality rate is relatively high. This can be seen quite clearly in the graphic below.



Looking more specifically at the state of Arkansas we see that some areas have higher stroke death rates than others. While some of the counties under review have quite high stroke rates as explained above there are areas of Arkansas with even higher rates. This is demonstrated in the graphic provided below.



Source: http://apps.nccd.cdc.gov/giscvh2/Results.aspx

Communicable Disease

Syphilis. This was reported through December 31, 2010 by the Arkansas Department of Health. The number of cases was then converted into rates per 100,000 population for comparison. The state and national average number of reported cases of syphilis were 18.5 and 14.9 per 100,000 population, respectively. Of the SVN primary service area counties, the highest rate of syphilis was in Pulaski County (97 cases yielding a rate of 25.3), followed by Lonoke (7 cases yielding a rate of 10.2) and Faulkner (11 cases yielding a rate of 9.7). The aggregate for the SVN primary service area is 15.1 reported syphilis cases per 100,000 population.

Gonorrhea. This was reported through December 31, 2010 by the Arkansas Department of Health. The number of cases was then converted into rates per 100,000 population for comparison. This follows roughly the same pattern as syphilis. The state and national average number of reported cases of gonorrhea were 165 and 100.8 reported cases, respectively. Of the SVN primary service area counties, the highest rate was in Pulaski County (1,368 cases yielding a rate of 357.4), followed by Faulkner (141 cases yielding a rate of 124.5) and Lonoke (41 cases yielding a rate of 60). The aggregate for the SVN service area is 180.6 reported cases of gonorrhea reported per 100,000 population.

Chlamydia. This was reported through December 31, 2010 by the Arkansas Department of Health. The number of cases was then converted into rates per 100,000 population for comparison. This measure again follows the same pattern as syphilis and gonorrhea. The state and national average number of reported cases of chlamydia were 533.8 and 426 cases, respectively. Of the SVN primary service area counties, the highest rate was in Pulaski (3,027 cases yielding a rate of 790.9), followed by Faulkner (477 cases yielding a rate of 421.2) and Lonoke (221 cases yielding a rate of 323.3). The aggregate for the SVN service area is 511.8 cases of chlamydia reported per 100,000 population.

AIDS. The number of cases of AIDS reported through June 1, 2006 by the Arkansas Department of Health was converted into rates per 100,000 population for comparison. The state and national average rate of AIDS cases reported per 100,000 population are 6.8 and 11.2, respectively. Of the SVN primary service area counties, the highest rate was in Pulaski (20 per 100,000 population[103]), followed by Lonoke (5.1) and Faulkner (1.1). The aggregate for the SVN primary service area is 8.7 reported cases of AIDS per 100,000 population.

Hepatitis A. The number of cases of Hepatitis A reported through 2007 by the Community Health Status Indicators was converted into rates per 100,000 population for comparison. The state and national averages are 1.7 and 1.2 Hepatitis A cases reported per 100,000 population, respectively. Of the SVN primary service area counties, the highest rate was in Faulkner County (7 cases yielding a rate of 6.2), followed by Lonoke (3 cases yielding a rate of 4.4) and Pulaski (7cases yielding a rate of 1.8). The aggregate for the SVN primary service

[103] http://www.healthy.arkansas.gov/stats/hiv_aids/063006_report.pdf

area is 4.1 reported cases of Hepatitis A per 100,000 population.

Hepatitis B. The number of cases of Hepatitis B reported through 2007 by the Community Health Status Indicators was converted into rates per 100,000 population for comparison. The state and national averages are 3.1 and 1.6 Hepatitis B cases reported per 100,000 population, respectively. Of the SVN primary service area counties, the highest rate was in Pulaski County (36 cases yielding a rate of 9.4), followed by Lonoke (5 cases yielding a rate of 7.3) and Faulkner (5 cases yielding a rate of 4.4). The aggregate for the SVN primary service area is 7.0 reported Hepatitis B cases per 100,000 population.

Sexual Education. We see that Pulaski County has higher rates across all sexually transmitted diseases examined. This issue is even more severe when considering that the population of Pulaski is more than three times the size of the next largest county under review.

Looking to sexual education requirements, as of November 1, 2011 twenty-one states and Washington DC mandate sex education, Arkansas is not one of them.[104] Thirty-three states and Washington DC mandate HIV education, Arkansas is not one. Thirty-seven states and Washington DC require school districts to involve parents in sex education, HIV education or both, Arkansas is not one.

[104] http://www.guttmacher.org/statecenter/spibs/spib_SE.pdf

Qualitative Data Findings: Executive Summary

As part of St. Vincent Health North's Community Health Needs Assessment, a team of St. Vincent employees and Cornell University students met with community leaders from the St. Vincent North (SVN) primary service area to gather information on what health issues they believe are the most pressing in the community and how SVN can better serve those needs. From a high-level perspective, access to affordable care, prevention of disease, and patient awareness were the most commonly recognized issues. Addressing these issues could further alleviate other identified health problems like obesity, diabetes, and heart disease. Interviewees suggested that SVN partner with other community organizations (schools, free clinics, etc.) to improve health education and health resource availability. In addition, it was recommended that SVN use its powerful faith-based brand to reach out and connect with community members. The themes and corresponding summary of the relevant interview are provided below.

Qualitative Data Findings: Overall Interview Themes

- Need for primary care, consistency, follow-up, focus, full support. "Pick one thing and become experts."
- Access (to healthcare, to food/grocery stores, etc.), health education, effective communication, Metro Plan, potential funding opportunity with increase in taxes
- Impact of influx of newly insured individuals in 2014, understanding the newly insured population, be proactive/first mover
- Prevention and maintenance ("treat the pre-diabetic like the diabetic"), lack of life skills (education), health awareness, barriers (transportation/gas money, accessing resources, etc.), fragmented and uncoordinated healthcare system
- Innovation, thinking outside the box, engagement of all community members, partnerships (with schools, free clinics, libraries, etc.)
- Access, partnerships, incentives (for both patients and providers), education (from prevention perspective, expectations), transportation, reaching out to religious community/connection to SV brand

Qualitative Data Findings: Interview Summaries

Date: Monday, January 16, 2012

Venue: St. Vincent Infirmary

Primary care was largely the focus of this meeting. The issues regarding incorrect usage of the ED were discussed at length. Some possible solutions include an urgent care center and a vehicle that goes to the communities most commonly using the ED for primary care services. Employers are willing to get involved with their employees' health much more now than they were in the past. One issue is that employers do not re-engage in order to assure employees are adhering to guidelines set forth. Ultimatums (e.g. quit smoking or lose your job) can work and have worked with unions in the past. Emphasized over and over again was the point that St. Vincent needs to pick one or a few things and master them. Some examples include; partner with one school, focus on treating one disease (diabetes). Absolutely imperative for success in any situation is having support from top administration.

Date: Tuesday, January 17, 2012

Venue: St. Vincent Infirmary

The attendees at the meeting took a strong population health perspective to addressing the needs of the SVI's primary service area. This included insuring healthy food options in grocery stores, transportation and/or safe sidewalks to access community services like the community walk, and ensuring access to primary care. It was mentioned that the "if we build it, they will come" mentality is not applicable, especially among individuals living in low socioeconomic neighborhoods. As such, we need to raise awareness about available services and try our best to eliminate the stigma associated with certain health conditions, specifically mental health. One way to do this is through religious affiliations. We were left on a final note to make sure that we reach out to the grassroots community for their perspective/ideas.

Date: Tuesday, January 17, 2012

Venue: St. Vincent Infirmary

This discussion primarily focused on how SVH would position itself in the era of health reform – i.e. how would they fulfill their mission and provide community benefit if the level of uncompensated care decreased and SVH did not intend to participate in payment reforms (i.e. ACOs). Additionally, it was questioned how SVH would be able to meet the new demand and unique needs generated by the newly insured (in terms of physician recruitment and in the particular characteristics of the expected newly insured). It was proposed that maybe SVH could be a "first mover" and work in collaboration with the government. Additionally, it was suggested that another area that would be beneficial (though difficult) for SVH to focus is on the poverty front.

Date: Tuesday, January 17, 2012

Venue: St. Vincent North

The main theme throughout the meeting was patient access to health care and ensuring that the continuum of care is met. Personal accounts were shared explaining how chronic care patients or elderly patients end up in the

emergency room for conditions that could have been treated or better managed in a primary care setting. The elderly were identified as the most vulnerable population, in part, because doctors prefer not to see Medicare patients. Partnerships with the community and schools to establish technical medical programs (i.e. Emergency Medical Technicians) could help lower costs and increase the availability of providers. The group agreed that St. Vincent should use its powerful brand to spread its values (i.e. encourage prevention).

Date: Wed, January 18, 2012

Venue: St. Vincent Infirmary

The interviewee reflected on some of his experiences in the Little Rock community, and emphasized a "boots on the ground" approach to identify and address problems. To have a positive impact, he claimed that St. Vincent's must be creative and innovative as well as fearless in order to act on ideas that aren't necessarily developed. He particularly suggested that St. Vincent's partner with local libraries to improve literacy and make communities more aware of important health information and services. He also encouraged the building of a creative environment by having different organizations commit to think tanks, thereby acting as innovation centers for change.

Date: Wed, January 18, 2012

Venue: St. Vincent Infirmary

In the final meeting of the interview series, the three attendees really focused on the issues surrounding barriers to care access and to healthy lifestyle adoption, as well as on the need for a collaborative multi-prong approach to intervention. Specifically stressed were the need for understanding of the "silent tradeoffs" and decision making that is going on behind the scenes and driving undesirable outcomes, patient non-compliance, etc. Additionally, the issues of mental health, dental health and the trio of overweight, heart disease and diabetes were addressed. Almost all solution ideas involved a community based setting (working with churches, schools, etc.) and incorporated involvement with multiple parties (with other providers and with other entities such as the government, schools, etc.).

Appendix A: SVH CHNA Indicators and Data Sources

Indicator Category	Indicator	County Data Source	Arkansas Data Source	U.S. Data Source
Demographics	Population Size	2010 Census	2010 Census	2010 Census
Demographics	Race/Ethnicity	2010 Census	2010 Census	2010 Census
Demographics	Median Age	2010 Census	2010 Census	2010 Census
Demographics	Population Density	2010 Census	2010 Census	2010 Census
Demographics	Average Household Size	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	Median Household Income	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	Average Family Size	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	Median Family Income	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	Per Capita Income	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	% of Families below FPL	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Demographics	% of Total Population below FPL	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Socioeconomic	Annual Population Growth Rate	2010 Census	2010 Census	2010 Census
Socioeconomic	% of Population under age 5	2010 Census	2010 Census	2010 Census
Socioeconomic	% of Population age 65 or over	2010 Census	2010 Census	2010 Census
Socioeconomic	Uninsured	2007 Small Area Health	2007 Small Area Health	2007 Small Area Health

		Insurance Estimates	Insurance Estimates	Insurance Estimates
Socioeconomic	Poverty among all persons	2009 Small Area Income and Poverty	2009 Small Area Income and Poverty	2009 Small Area Income and Poverty
Socioeconomic	Poverty among children (<18)	2009 Small Area Income and Poverty	2009 Small Area Income and Poverty	2009 Small Area Income and Poverty
Socioeconomic	% of Single Parent Families with children <18	2010 Census	2010 Census	2010 Census
Socioeconomic	Unemployment	2008-2010 American Community Survey 3-Year Estimates	2008-2010 American Community Survey 3-Year Estimates	2008-2010 American Community Survey 3-Year Estimates
Socioeconomic	% of Population with One Type of Diability	2006 American Community Survey	2006 American Community Survey	2006 American Community Survey
Socioeconomic	% of Population with 2 + Diabilities	2006 American Community Survey	2006 American Community Survey	2006 American Community Survey
Socioeconomic	% of Population with Less than a 9th Grade Education	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Socioeconomic	High School Graduate %	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Socioeconomic	% of Population with Bachelor's Degree or Higher	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Socioeconomic	% of Population that speaks English less than "very well"	2005-2009 American Community Survey	2005-2009 American Community Survey	2005-2009 American Community Survey
Health Resource Access	# of Licenced, Practicing Dentists	2006 data from HealthyArkansas.gov	2006 data from HealthyArkansas.gov	2006 data from HealthyArkansas.gov

Health Resource Access	# of Licenced, Practicing Primary Care Physicians	2011 County Health Rankings	2011 County Health Rankings	2011 County Health Rankings
Health Resource Access	# of Licenced Hospital Beds	HealthyArkansas.gov	HealthyArkansas.gov	HealthyArkansas.gov
Health Resource Access	Per Capita Health Care Spending per Medicare Beneficiary	2009, Statehealthfacts.org. Kaiser Family Foundation	2009, Statehealthfacts.org. Kaiser Family Foundation	2009, Statehealthfacts.org. Kaiser Family Foundation
Behavioral Risk Factors	Binge Drinking	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Excessive Drinking	2009- National Center for Health Statistics	2009- National Center for Health Statistics	2009- National Center for Health Statistics
Behavioral Risk Factors	Tobacco Use	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Illegal Drug Use	2011 -Arkansas Department of Human Services	2011 -Arkansas Department of Human Services	2011 -Arkansas Department of Human Services
Behavioral Risk Factors	Nutrition (Less than 5 fruits & veg per day)	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Obesity	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Obesity (Child)	2007-2008- Arkansas Center for Health Improvement	2007-2008- Arkansas Center for Health Improvement	N/A
Behavioral Risk Factors	Exercise (Meet exercise standards)	2009 - Behavioral Risk Factor Surveillance	2009 - Behavioral Risk Factor Surveillance	2009 - Behavioral Risk Factor Surveillance

		System	System	System
Behavioral Risk Factors	Sedentary Lifestyle (No exercise)	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System	2009 - Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Women age 18+ w/No pap smear in last 3 years	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Women Age 40+ w/No Mammography in Past 2 Years	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System
Behavioral Risk Factors	Men age 40+ w/ No PSA Test in Past 2 Years	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System	N/A
Behavioral Risk Factors	Adults age 50+ w/ No Colonoscopy & No Sigmoidoscopy	2010- Behavioral Risk Factor Surveillance System	2010- Behavioral Risk Factor Surveillance System	N/A
Env. Health	% Days with Good Air Quality I	2002- Environmental Protection Agency	2002- Environmental Protection Agency	N/A
Env. Health	% Days w/ Unhealthful Air Quality I	2002- Environmental Protection Agency	2002- Environmental Protection Agency	N/A
Env. Health	Ozone Days	2009- National Center for Health Statistics	2009- National Center for Health Statistics	N/A
Env. Health	Particulate Matter Days	2009- National Center for Health Statistics	2009- National Center for Health Statistics	N/A
Env. Health	Toxic Chemicals Releases	2009- National Center for Health Statistics	2009- National Center for Health Statistics	N/A
Env. Health	Waterborne Illness	2009- National Center for Health Statistics	2009- National Center for Health Statistics	N/A
Env. Health	Lead Exposure	Centers for Disease	Centers for Disease	N/A

		Control - based on 2010 Census data	Control - based on 2010 Census data	
Env. Health	Rabies	2005-2009 Arkansas Health Department	2005-2009 Arkansas Health Department	N/A
Social and Mental Health	Average # of mentally unhealthy days reported by adults in past 30 days	2003-2009 data from Behavioral Risk Factor Surveillance System	2003-2009 data from Behavioral Risk Factor Surveillance System	2003-2009 data from Behavioral Risk Factor Surveillance System
Social and Mental Health	Child Maltreatment Rate	2009 data from KIDS COUNT Data Center	2009 data from KIDS COUNT Data Center	2009 data from KIDS COUNT Data Center
Social and Mental Health	Homicide Rate	2005-2007 data from Arkansas Dept of Health	2005-2007 data from Arkansas Dept of Health	2005-2007 data from CDC's National Center for Health Statistics
Social and Mental Health	Suicide Rate	2005-2007 data from Arkansas Dept of Health	2005-2007 data from Arkansas Dept of Health	2005-2007 data from CDC's National Center for Health Statistics
Social and Mental Health	Domestic Violence Rate	N/A	2007 Violence Policy Center Report	2007 Violence Policy Center Report
Social and Mental Health	Hospital Discharge Rate for Mental Diseases/Disorders	2010 data from Arkansas Dept of Health	2010 data from Arkansas Dept of Health	2007 data from the National Hospital Discharge Survey
Social and Mental Health	Alcohol/Drug Related Motor Vehicle Fatality	2009 Traffic Crash Statistics, Arkansas State Police	2009 Traffic Crash Statistics, Arkansas State Police	2009 data from CDC, & 2005-2009 data from American Community Survey
Maternal and Child Health	Infant Mortality Rate	2005-2007 data from Arkansas Dept of Health	2005-2007 data from Arkansas Dept of Health	2007 data from CDC
Maternal and Child Health	Prenatal Care in 1st Trimester	2010 data from Arkansas Dept of Health	2010 data from Arkansas Dept of Health	CDC's National Vital Statistics Report, August 2010

Maternal and Child Health	Births to Adolescents as a % of Total Live Births	2010 data from Arkansas Dept of Health	2010 data from Arkansas Dept of Health	CDC's National Vital Statistics Report, Volume 60(2), 2011
Maternal and Child Health	Teen Birth Rate	2009 data from KIDS COUNT Data Center	2009 data from KIDS COUNT Data Center	2009 data from KIDS COUNT Data Center
Maternal and Child Health	Very Low Birthweight	2001-2006 data from Arkansas Dept of Health	2001-2006 data from Arkansas Dept of Health	2001-2006 data from Child Trends Data Bank
Maternal and Child Health	Child Mortality Rate	2007 data from KIDS COUNT Data Center	2007 data from KIDS COUNT Data Center	2007 data from CDC's National Center for Health Statistics
Maternal and Child Health	Neonatal Mortality Rate	2001-2005 data from Arkansas Dept of Health	2001-2005 data from Arkansas Dept of Health	CDC's National Vital Statistics Report, Volume 58(19), 2010
Maternal and Child Health	Post-Neonatal Mortality Rate	2001-2005 data from Arkansas Dept of Health	2001-2005 data from Arkansas Dept of Health	CDC's National Vital Statistics Report, Volume 58(19), 2010
Mobid./Mort.	General Health Status	2009 Dept of HHS Community Health Status Indicators	Data from CountyHealthRankings.com	2009 Dept of HHS Community Health Status Indicators
Mobid./Mort.	Acerage number of sick days within past month	2009 Dept of HHS Community Health Status Indicators	None Available	2009 Dept of HHS Community Health Status Indicators
Mobid./Mort.	Mortality- All Causes	2009 Dept of HHS Community Health Status Indicators	2008 Data from CDC-State Health Facts	2008 StateHealthFacts.org using CDC Data
Mobid./Mort.	Mortality- All Cancers	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC
Mobid./Mort.	Mortality- Unintentional Injuries	2001-2006 Data from Arkansas Dept of Health	2001-2006 data from Arkansas Dept of Health	2007 Data from CDC
Mobid./Mort.	Mortality- Years of	2007 Data from	2007 Data from	2007 Data from

	Productive Life Lost	CountyHealthRankings.com	CountyHealthRankings.com	CountyHealthRankings.com
Mobid./Mort.	Mortality- Breast Cancer	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC
Mobid./Mort.	Mortality- Lung Cancer	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC
Mobid./Mort.	Mortality- Cardiovascular Disease	2007 Data from Arkansas Dept of Health	2007 Data from Arkansas Dept of Health	2007 Data from CDC- State Health Facts
Mobid./Mort.	Mortality- Cervical Cancer	2007 National Cancer Institute- CDC, Data for Pulaski County Only	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC
Mobid./Mort.	Mortality- Colorectal Cancer	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC	2007 National Cancer Institute- CDC
Mobid./Mort.	Mortality- Chronic Obstructive Lung Disease	2007 Data from Arkansas Dept of Health	2007 Data from Arkansas Dept of Health	2007 Data from CDC
Mobid./Mort.	Mortality- Diabetes Mellitus	2007 Data from Arkansas Dept of Health	2007 Data from Arkansas Dept of Health	2005 data from CDC- State Health Facts
Mobid./Mort.	Mortality- Pneumonia/Influenza	2007 Data from Arkansas Dept of Health	2007 Data from Arkansas Dept of Health	2005 data from CDC- State Health Facts
Mobid./Mort.	Mortality- Stroke	2006 Data from CDC	2006 Data from CDC	2006 Data from CDC
Mobid./Mort.	Mortality- Motor Vehicle Crashes	2007 Data from Arkansas Dept of Health	2007 Data from Arkansas Dept of Health	None Available
Communicable Disease	Syphilis	2010 Data from Arkansas Dept of Health	2010 Data from CDC- State Health Facts	2010 Data from CDC- State Health Facts
Communicable Disease	Gonorrhea	2010 Data from Arkansas Dept of Health	2010 Data from CDC- State Health Facts	2010 Data from CDC- State Health Facts
Communicable Disease	Chlamydia	2010 Data from Arkansas Dept of Health	2010 Data from CDC- State Health Facts	2010 Data from CDC- State Health Facts

Communicable Disease	AIDS	2010 Data from Arkansas Dept of Health	2010 Data from CDC-State Health Facts	2010 Data from CDC-State Health Facts
Communicable Disease	Hepatitis A	2007 Dept of HHS Community Health Status Indicators	2007 Dept of HHS Community Health Status Indicators	2007 Dept of HHS Community Health Status Indicators
Communicable Disease	Hepatitis B	2007 Dept of HHS Community Health Status Indicators	2007 Dept of HHS Community Health Status Indicators	2007 Dept of HHS Community Health Status Indicators

Appendix B: Interviewees

Andy Allison

With over a decade of experience researching and running Medicaid program, Dr. Andy Allison serves as the Division of Medical Services (DMS) Director for the Department of Human Services. He has extensive operational and managerial experience with the Medicaid program, Children's Health Insurance Program, and Kansas state's employee health plans. He is a founding board member and current President of the National Association of Medicaid Directors.

Jay Bradford

Jay Bradford has previous experience working for the Division of Behavioral Health Services within the Arkansas Department of Human Services. He has served the Arkansas Legislature for over 24 years and currently serves as the Arkansas Insurance Commissioner.

Mike Castleberry

As a former employee of HealthScope Benefits and WellPoint, Mr. Castleberry has extensive health care leadership experience. Currently, he is on the board of Arkansas Comprehensive Health Insurance Pool where he serves as Secretary/Treasurer and is the President of the Central Arkansas Association of Health Underwriters. He also serves as adjunct professor at the University of Arkansas at Little Rock.

Virginia Cicirello

Teacher at Pulaski Technical College. Detailed biography unavailable.

Joyce Elliott

Senator Joyce Elliott is a Democratic member of the Arkansas State Senate, representing District 33 since 2009. She currently serves as the State Senate Majority Whip. Elliott served in the Arkansas State House of Representatives from 2000 to 2006. She earned her BA in English/Speech from Southern Arkansas University in 1973 and went on to receive her MA in English from Ouachita Baptist University in 1981. She has worked as a high school teacher in several states and is currently the Director of Legislative Outreach for the Southwestern Region for The College Board.

Tom Fitz

Named interim administrator at St. Vincent Morrilton but found this partial article. Mr. Fitz brings more than 30 years of experience as a senior executive in the healthcare industry. In addition, he has more than 10 years of consulting experience with CEOs and other senior executives at several of the largest health-care systems in the country.

Paul Halverson

Dr. Paul Halverson is a member of Arkansas Governor Mike Beebe's cabinet and serves as the

Director of the Arkansas Department of Health and as the Arkansas State Health Officer. Dr. Halverson is a Professor of Public Health Policy and Management in the UAMS Fay W. Boozman College of Public Health. Dr. Halverson currently serves as President of the Association of State and Territorial Health Officials. He also has an extensive background in the area of public health systems development and research, and has previous experience working with the Centers for Disease Control and Prevention (CDC).

Jimmy Hart

Jimmy Hart is lifelong resident of Conway County. He resides in Springfield, Arkansas with his wife of 31 years, the former Nancy Davidson. Mr. Hart was elected Conway County Judge in November of 2000. He was elected president of the County Judges Association of Arkansas in 2009 and is now a member of the Arkansas Technology Transfer Advisory Committee.

Harold Hedges, MD

After serving in the Navy as a naval flight surgeon, Dr. Hedges returned to Little Rock and co-founded Little Rock Family Practice Clinic with Dr. Jim Flack. He is a member of the American Academy of Family Physicians and the Pulaski County Medical Society, and has served as President of the Arkansas Academy of Family Physicians. Dr. Hedges teaches not only locally but also nationally.

Col. Ray Jeter, USAF

Col. Ray Jeter is the 19th Medical Group Commander. The Group offers family practice, pediatrics and flight medicine clinics that serve approximately 37,000 beneficiaries and care for more than 6,500 patients per month.

Dean Kumpuris, MD

Dr. Kumpuris is a local gastroenterologist. In the community, he serves as the chairperson at the University of Arkansas at Little Rock Board of Visitors Trustees. He also serves as a liaison for River Market District Design Review Committee, Downtown Little Rock Partnership, and Museum of Discovery Board of Trustees.

Baker Kurrus

Lawyer and former Little Rock school board member for 12 years. Mr. Kurrus is heavily involved in mentoring and other community activities.

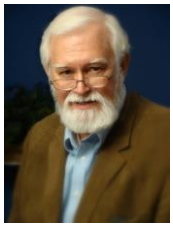
Cheryl J. LeDoux

Cheryl LeDoux is a Senior Epidemiologist at the Arkansas Department of Health. She also works as an Adjunct Professor in the Epidemiology Department at the University of Arkansas for Medical Sciences. She has an MPH from Tulane University's School of Public Health and Tropical Medicine. Her research interests include infectious diseases and bioterrorism.

Fredrick J. Love

Rep. Freddie Love of Little Rock is serving his first term in the Arkansas House of Representatives. He represents District 35, which includes part of Pulaski County. For the 88th General Assembly, Rep. Love serves on the House Revenue and Taxation Committee, where he chairs the Personal and Corporate Income Taxes Subcommittee. He also serves on the House Agriculture, Forestry and Economic Development Committee and the Public School Desegregation Lawsuit Resolution Task Force.

Stewart Nelson



Mayor of Morrilton and very supportive of the community and keeping St. Vincent Morrilton operational. Detailed biography unavailable.

Tim Osterholm

Tim Osterholm is the CEO of St. Vincent Medical Center North. He received his Masters in Public Administration from the University of Nebraska at Omaha.

Charles Penick

St. Vincent Morrilton Chairman of the Board. Detailed biography unavailable.

Bo Ryall – Arkansas Hospital Association

Bo Ryall has been the Arkansas Hospital Association since 2005 and was named president in 2010. He holds a bachelor's degree from the University of Arkansas at Fayetteville and a master's degree in public administration from the University of Arkansas at Little Rock. Bo also served as the chief lobbyist on the state level for Arkansas hospitals and was previously executive director of the HomeCare Association of Arkansas. He currently serves as the chairman of the Health Care Providers Forum and president of the Arkansas Society of Association Executives.

Jeff Spry

Jeff Spry is the President of City Connections, Inc., which aims to connect the church to the city of Little Rock, whether through civic and community groups or federal, state and local governmental agencies. He has experience as a Minister of Involvement and Administration and has management experience from being a Director of Business Development at Staffing Solutions (19995-2000) and as the Owner of The Spry Group (2000-2002). He has a bachelor's degree in Business Administration, a Master of Arts degree, and a diploma from the Institute of Practical Ministry in Dallas.

LaValerie Smith
Employee at St. Vincent's East Clinic. Detailed biography unavailable.

Jon Swanson
Jon Swanson is the Executive Director of the Metropolitan Emergency Medical Service, MEMS. He served for 25 years in the Air Force as a pilot and a Colonel.

Joe Thompson, MD

Dr. Joe Thompson has served as the first Surgeon General for Arkansas since 2007. In addition to serving the state, Dr. Thompson is the Director of the Arkansas Center for Health Improvement and the Director of the Robert Wood Johnson Foundation Center to Prevent Childhood Obesity. He continues to work as an Associate Professor in the Colleges of Medicine and Public Health at the University of Arkansas for Medical Sciences and to practice as a general pediatrician at Arkansas Children's Hospital.