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The White River Health System (WRHS) Community Health Needs Assessment (CHNA) has been prepared to identify the health needs of the communities served and identify initiatives to those needs, and to meet the Internal Revenue Service (IRS) regulations for nonprofit hospitals. The CHNA is intended to document WRHS' compliance with IRS Code Section 501(r).

The CHNA, implementation strategy, and action plan for WRHS, which includes White River Medical Center (WRMC) and Stone County Medical Center (SCMC), were approved by the WRHS Board of Directors September 27, 2016.

# **Organization Description**

WRHS is a 501(c) (3) nonprofit, integrated health system. The organization includes: WRMC, an acute care hospital in Batesville; SCMC, a critical access hospital in Mountain View; a satellite emergency department in Cherokee Village, Rural Health Clinics (RHC), primary care and specialty clinics, and outpatient diagnostic and treatment centers throughout North Central Arkansas. Appendix A includes information gathered specific to the population served by SCMC which was subsequently incorporated into the master WRHS CHNA.

WRHS employs 49 physicians, 25 midlevel providers, and 1,556 total employees. WRMC has



achieved accreditation from the Accreditation Council for Graduate Medical Education (ACGME) to establish an Internal Medicine Residency program beginning July 2017, and a Family Medicine Residency program beginning July 2018.

# Community Demographics

WRHS's service area includes eight (8) counties (Cleburne, Fulton, Independence,

White River Scenery

Izard, Jackson, Lawrence, Sharp and Stone) in North Central Arkansas. WRHS's extended service area includes ten (10) counties in North Central Arkansas.

Located in the Ozark Mountains, most of the 5,017.50 square miles of the eight counties of the service area are rural with small cities scattered among the mountains and valleys of this region. Small to medium industries are located in the city centers; however, agriculture and

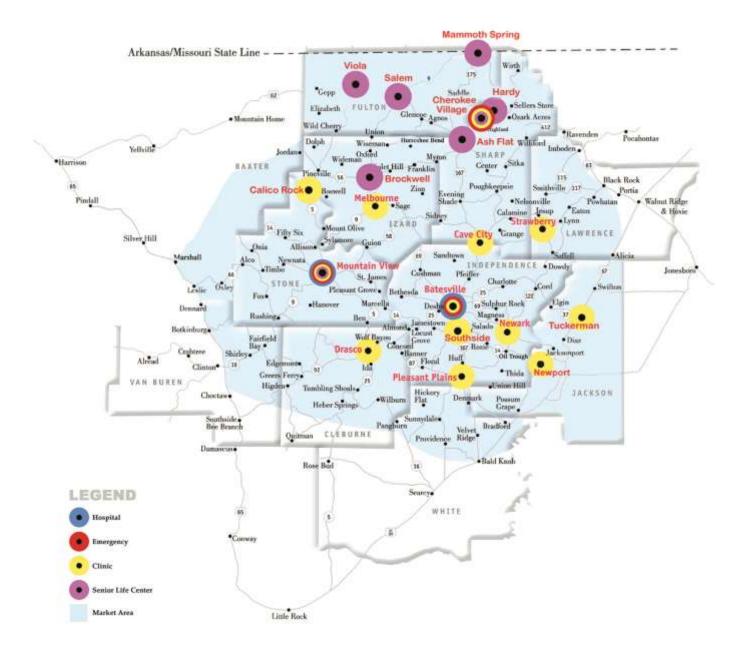
tourism are the primary economic engines in the region. On average, there are 28 people per square mile in the service area.

	Cleburne	Fulton	Independence	Izard	Jackson	Lawrence	Sharp	Stone
Total Population	25,793	12,218	36,861	13,522	17,746	17,163	17,117	12,531
Birth to 9	2,807	1,277	5,099	1,371	1,947	1,925	1,890	1,477
10-19	2,824	1,441	4,829	1,458	1,984	2,446	2,111	1,321
20-64	13,791	6,535	21,011	8,299	10,916	9,555	8,882	6,729
65 +	6,371	2,965	5,922	3,224	2,899	3,237	4,234	3,004
Race								
White	24,581	11,732	32,972	12,939	13,839	16,533	16,170	12,178
African American	112	22	926	151	2,959	137	57	19
Asian	58	148	117	81	69	0	216	42
Hispanic	590	132	2,183	227	477	190	324	192
All Other	542	184	663	124	402	303	350	100
Language/Education								
Language Other than English Spoken at Home	2.6%	1.7%	4.7%	2%	1.4%	1.5%	3.4%	1.3%
High School Graduate	84.6%	84.5%	82%	81.3%	76.9%	81.1%	81.5%	80.0%
Bachelor's Degree or Higher	17.2%	10.7%	14.8%	13.4%	7.9%	11.8%	10.6%	16.3%
Income								
Median Household Income	\$40,768	\$36,244	\$36,186	\$31,219	\$31,512	\$33,481	\$30,826	\$29,982
% Persons Living Below Poverty Level	15.9%	20.6%	23.2%	18.7 %	26.4%	23.6%	23.4%	26.8%

# Table 1 – Demographics

Source: United States Census Bureau; Community Fact Finder

As seen in the following Service Area map, White River Health System provides services in 19 communities across its service area.



# Figure 1 – Service Area Map

## Methods and Processes Used for the Community Health Needs Assessment

In accordance with the Patient Protection and Affordable Care Act of 2010, and IRS regulations for nonprofit hospitals, WRHS conducted a CHNA to identify the health needs of the residents we serve and recommend actions to address identified needs.

The WRHS CHNA utilized the following sources to develop the process for the CHNA and to gather the needed data: 1) External Focus Group, 2) WRHS Internal Team, 3)The University of Arkansas for Medical Sciences (UAMS) Public Health in Arkansas' Communities Search (PHACS) and 4) public data sources.

The CHNA External Team (Focus Group) members consisted of ten members from various organizations within the community. The team was given an overview of the last CHNA (2013), the Implementation Update Report (Titled Bridge Document, Appendix B), and given an update on our community demographics and initial data gathered. The team assisted in developing surveys, and participated in a Focus Group survey with recommendations for the current CHNA. The Focus Group further recommended including Community Stakeholders who represent medically underserved residents, minority groups, and low income residents in the survey process. The following individuals comprised the Focus Group:

- Chairman: Carla Langston, BSN, RN, CNOR, Director of Community Care Network, WRMC
- Julian Carpenter, MS, RD, LD, County Extension Agent, Family and Consumer Sciences of Independence County
- Deborah Frazier, Chancellor, University of Arkansas Community College at Batesville
- Crystal Johnson, President, Chief Executive Officer, Batesville Area Chamber of Commerce
- Dennis Moore, Pharm.D., Director, UAMS North Central
- Sonia Nix, RN, Administrator, Independence County Health Unit
- Jamie Beck Rayford, M.Ed., Chief Operating Officer, Batesville Area Chamber of Commerce
- Michele Wood, Director of Marketing, WRHS
- Robert Wright, Associate Administrator for Outpatient Services, WRHS
- Sharon Zang, Ph.D., RN, LPC, Population Health Manager, WRMC

Qualitative and quantitative health needs data were collected from: 1) Focus Group surveys; 2) Community Stakeholder surveys, 3) Patient surveys, and 4) UAMS PHACS data. The Focus Group, Community Stakeholder, and Patient Surveys are attached in Appendices C and D.

The county profile reports for Cleburne, Fulton, Independence, Izard, Jackson, Lawrence, Sharp, and Stone counties were retrieved from UAMS PHACS, which was last updated July 1, 2016. The

information can be retrieved online at <u>http://www.uams.edu/phacs/</u>. This data is a summary of key indicators that are used to assist in interpreting the health of Arkansans in the categories of social/economic factors, access to healthcare, risk behaviors, preventive behaviors, and health outcomes. The work of PHACS is supported by the Arkansas Center for Health Disparities and the Arkansas Prevention Research Center. This county specific data was utilized to assist the team in identifying indicators that can affect the health of residents in the service area. The indicators for each county with the least favorable ratings (e.g. based upon quintile rankings against all other counties in the state) were selected as potential areas of focus. These were tabulated to identify the indicators which occur most frequently across the service area, and were then compiled into general categories similar to those for the surveys administered. The data was collected and placed into charts. (See Figures 2 – 6).

The information from the Focus Group, Community Stakeholder surveys, and Patient Surveys were aggregated into charts for comparison (Figures 7 – 9). The tabulated results of all of the surveys, along with the compiled results from the UAMS PHACS were evaluated together to determine which constituted the greatest, highest priority needs in the communities served by WRHS. An Internal Team was developed to further assess and analyze the entire data summary and assist in determining significant health needs. This team also assisted with planning and timelines, served as local experts, and made recommendations regarding the plans for development, implementation, and communication of the CHNA. The preliminary data and CHNA report, with suggested findings of community health needs and action steps were presented to WRHS Administration for feedback prior to presentation to the WRHS Board of Directors for approval. The Internal Team included the following individuals:

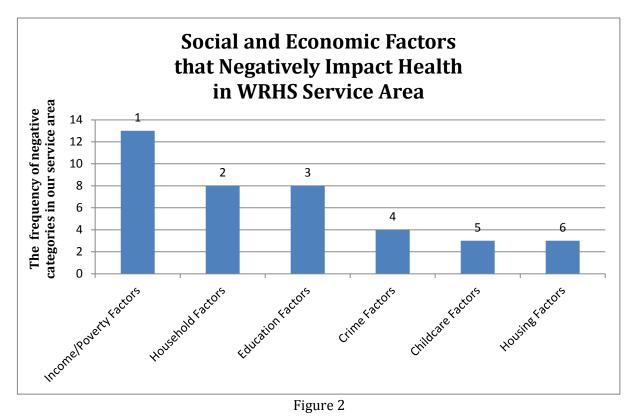
Lindsey Castleberry, JD, In-House Counsel Phil Hacker, Chief Financial Officer Shawna Jeffery, CPA, Senior. Accountant Carla Langston, BSN, RN, CNOR, Director of Community Care Network Sheila Mace, Public Relations Coordinator Chris Poole, Quality Engineer Kathy Thomas, RN, MSN, CMSRN, Director Risk Management Sharon Zang, Ph.D., RN, LPC, Population Health Manager

# **Data Results**

Figures 2-6 represent the top risk factors from UAMS PHACS that impact the health status of the residents within the service area. The data was collected from several data sources and then the data was grouped into categories. The counties within Arkansas were then ranked according to high levels of risk categories. The higher the number in Figures 2 through 6, the more problematic these categories are, which results in negative impacts on the health of our area residents.

# **Social and Economic Factors**

This category includes interactions with family, friends, co-workers, and others in the community. It also encompasses social institutions, such as law enforcement, the workplace, places of worship, and schools. Housing, public transportation, and the presence or absence of violence in the community are among other components of the social environment. The social environment has a profound effect on individual health, as well as on the health of the larger community, and is unique because of cultural customs, language, and personal religious, or spiritual beliefs. At the same time, individuals and their behaviors contribute to the quality of the social environment. Source: UAMS PHACS.



As seen in figure 2, within the eight county service area, social and economic factors impact the health of service area residents. From left to right; 1) high poverty, 2) household factors such as single head of household and/or grandparents as primary caregivers, 3) low educational

attainment, 4) crime rate, 5) children living in poverty and/or in foster care, 6) residents with unstable or unsafe housing.

# Access to Healthcare

The health of individuals and communities also depends on access to quality healthcare. Expanding access to quality healthcare is important to eliminate health disparities and to increase the quality and years of healthy life for all people. Access to healthcare includes services received from healthcare providers and from other community based organizations. As seen in Figure 3 lack of health insurance is a barrier to healthcare in most counties of the WRHS Service Area. Within the WRHS eight county service area, access to primary care providers is inconsistent. For example, Izard County is a healthcare professional shortage area, while Independence County is not (Source UAMS PHACS). Arkansas ranks 48<sup>th</sup> in the number of active patient care physicians per 100,000 residents in the United States according to the Association of American Medical Colleges. Equally important, the average age of active patient care physicians is 60 years of age. Therefore, lack of insurance and access to primary care providers are barriers that negatively impact the health of communities served by WRHS.

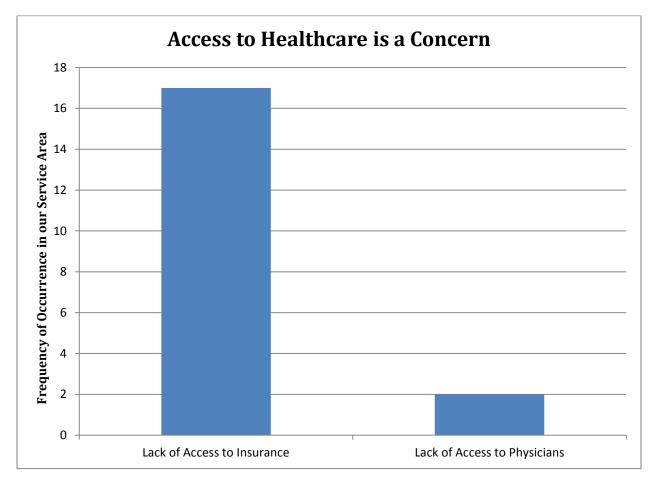


Figure 3

# **Risk Behaviors**

Individuals engage in behaviors that may put their health at risk (i.e. health risk behaviors). The more frequent area residents engage these behaviors, the more likely their health is negatively impacted. Figure 4 shows the categories of health risk behaviors in our service area. The higher the number, the more frequent harmful behaviors are present in the WRHS Service Area.

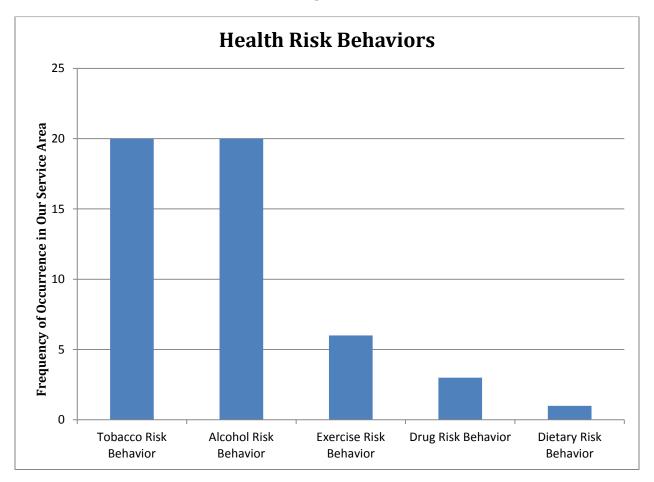
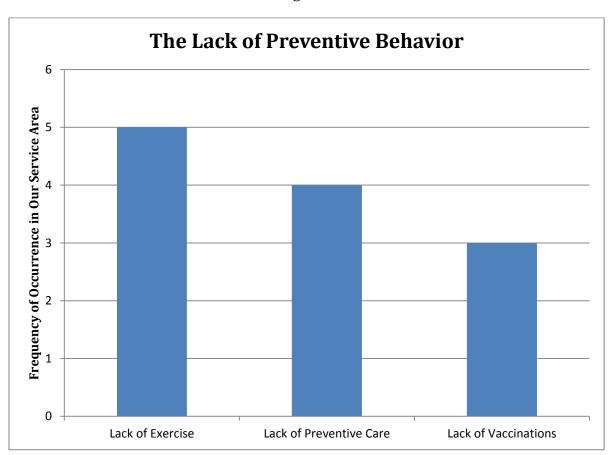


Figure 4

# **Preventive Behaviors**

Preventive behaviors include individual behaviors such as physical activity and preventive healthcare services such as flu shots, colorectal exams, etc. that help a person stay healthy and detect and/or treat diseases early. Figure 5 illustrates the lack of preventive behaviors by residents in the WRHS Service Area.





# **Poor Health Factors**

Health status is a combination of factors present in the population. In Figure 6, adverse health outcomes from the UAMS PHACS for each county in the WRHS Service Area were compiled. The higher number indicates a higher incidence of an adverse outcome; therefore, a lower health status for the WRHS Service Area. For example, the percentage of adults who report being overweight or obese is high. Studies show that high obesity rates are linked to higher incidence of diabetes and cardiovascular disease, which in turn are linked to higher incidence of premature death.

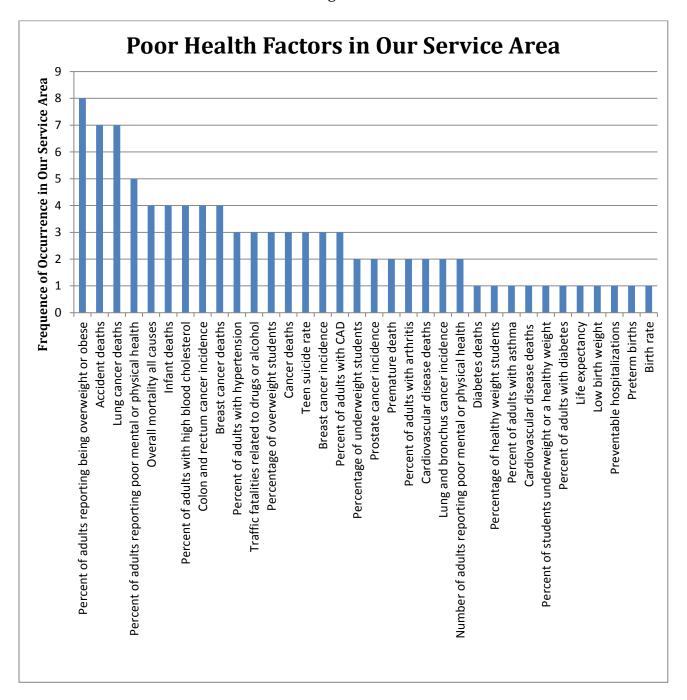


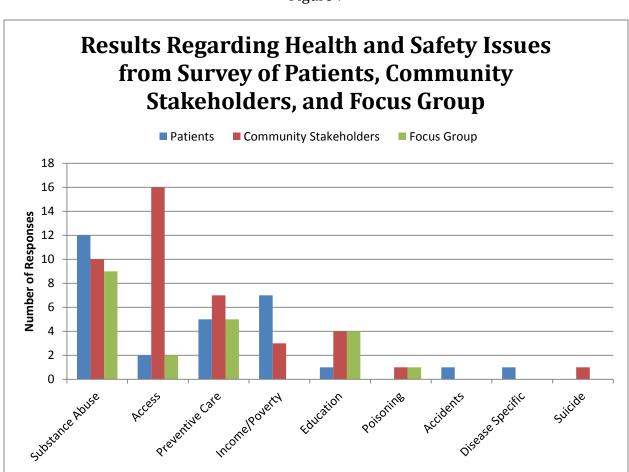
Figure 6

# Focus Group, Community Stakeholders, and Patient Surveys

As part of the CHNA process, WRHS collected qualitative and quantitate data from Focus Group members, Community Stakeholders and Patients. The survey questions represented three large categories: 1) Healthcare needs within our service area; 2) Barriers to healthcare (Social and Economic factors); and 3) Healthcare resources needed in our service area. Figures 7 – 9 are the combined results of the Focus Group, Community Stakeholders, and Patient Surveys.

# **Healthcare Needs**

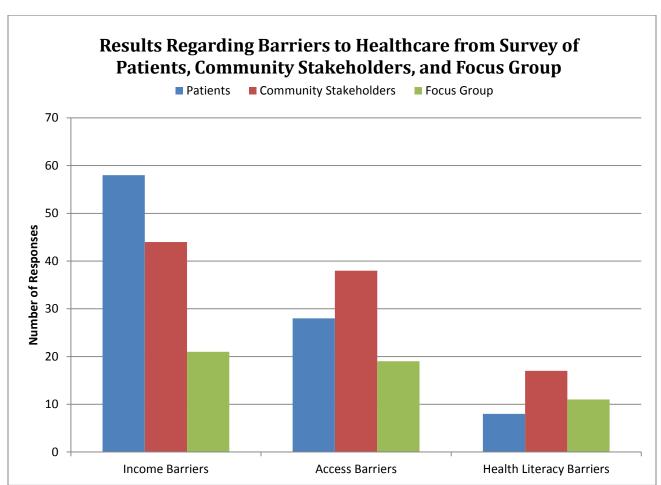
Figure 7 illustrates the Focus Group, Community Stakeholder, and Patient perception of healthcare needs within our Service Area.





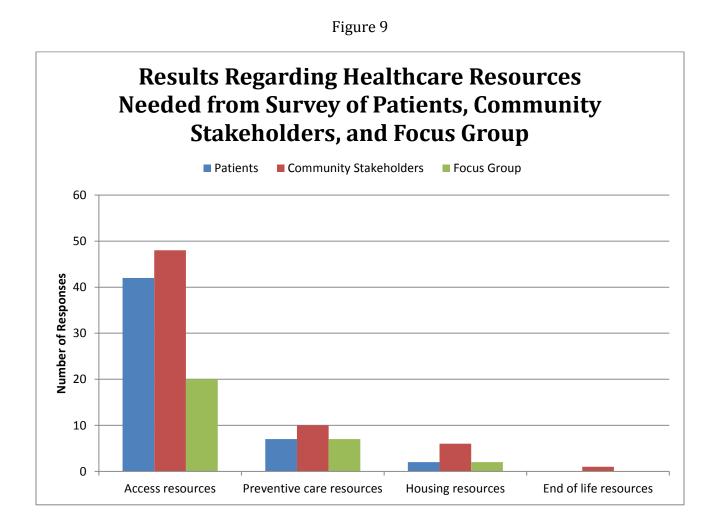
# **Barriers to Healthcare**

The input and surveys from the Focus Group, Community Stakeholders, and Patient Surveys indicated that poverty or income was a barrier to being healthy. Results also indicated that service area residents have difficulty accessing healthcare and that due to lower educational attainment, health literacy is problematic.





The Survey further asked these sources, what is needed to help the residents of our service area become healthier. Figure 9 illustrates the results of the input from the Focus Group, Community Stakeholders, and Patient Surveys.



## **Interpretation and Findings**

The overall health status and needs of the community residents were summarized from the data collected. There are several socio-economic factors that influence the health of our residents, which underpin the poor health status of Arkansans. High levels of poverty, low educational attainment which leads to low health literacy, low insured rates, the rural landscape, and healthcare provider shortages are a few of the leading factors propelling poor health status in the service area. The demographic and health data is noteworthy and assisted the team in the summary of the most urgent community health needs.

After collecting and analyzing the demographic, qualitative and quantitative health related data from UAMS PHACS as well as data from the surveys that were administered to Focus Group, Community Stakeholders and Patients (illustrated in Figures 2-9); the following categories of health needs were identified:

- Improve Access to Healthcare Services (social and economic factors)
  - High number of adults that are uninsured
  - High number of adults who report no personal physician
- Improve Preventive Healthcare Management & Wellness (preventive behaviors)
  - High percent of men with no recent prostate cancer screening
  - Low percent of children with age appropriate vaccinations
  - Low percent of women with early prenatal care
  - High percent of women with no recent pap test
  - High number of adults reporting no exercise
- **Improve Chronic Disease Management & Education** (risk behaviors and health outcomes)
  - High incidence of adults reporting poor mental or physical health
  - High percentage of adults who report being overweight or obese
  - High percentage of adults with diabetes
  - High percentage of adults with hypertension
  - *High percentage of adults with high blood cholesterol*
  - High incidence of Coronary Artery Disease (CAD)
  - High number of infant deaths
  - High incidence of premature deaths
  - High incidence of breast cancer deaths
  - High incidence of lung cancer deaths
  - High incidence of colon and rectum cancer
  - High percentage of adults with arthritis
  - High incidence of accidental deaths
  - High incidence of traffic fatalities related to drugs or alcohol
  - High incidence of chewing tobacco use
  - High incidence of smoking
  - *High incidence of excessive alcohol*
  - High incidence of drug use

# Implementation Strategy/Plan

Access to Healthcare Services	Action Steps
Adults reporting no personal physician	<ul> <li>Establish an accredited Graduate Medical Education Program with Internal Medicine Residency beginning July 2017 and Family Medicine Residency beginning July 2018</li> <li>Add WRHS owned Clinic in Heber Springs (Cleburne County) and Southside (Independence County)</li> <li>Extend hours at Melbourne Medical Clinic (Izard County) to provide services seven days a week</li> <li>Addition of Urgent Care Clinic in Newport (Jackson County)</li> <li>Increase specialty physician services at WRHS facilities outside Batesville</li> <li>Ongoing recruitment of primary care providers</li> <li>Use of state and federal student loan repayment programs to recruit and retain qualified providers</li> </ul>
Lack of Health Insurance	<ul> <li>Work with Arkansas Health Insurance Exchange to host enrollment events</li> <li>Train employees to appropriately screen patients at admission for financial assistance programs and charity care</li> </ul>
Preventive Healthcare Management & Wellness	Action Steps
Low percentage of women receiving prenatal care	<ul> <li>Ongoing recruitment of Obstetrician/Gynecologists</li> <li>Outreach clinics in Cherokee Village (Sharp County), Heber Springs (Cleburne County) and Mountain View by Obstetrician/Gynecologists</li> <li>Childbirth Education and Breastfeeding classes offered to expectant mothers free of charge</li> </ul>
High percentage of men who report no recent Prostate Cancer Screening	<ul> <li>Annual free prostate cancer screening with PSA and rectal exam</li> <li>Free Community Education events to educate population on the importance of screening and lifestyle choices to decrease incidence of disease</li> <li>Anticipated active participation of primary care providers and their patients in Centers for Medicare and Medicaid Services (CMS) Comprehensive Primary Care (CPC)+ program beginning in 2017</li> </ul>

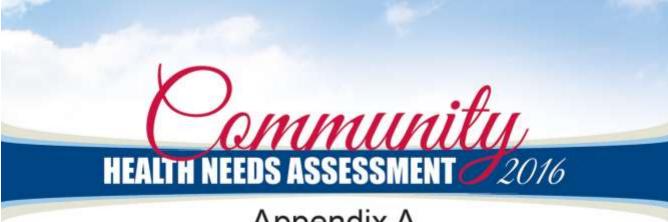
Low percent of children with age appropriate vaccines	<ul> <li>Improve access to Pediatrician and Pediatric APRN through successful provider recruitment</li> <li>Continued participation in AR Medicaid Patient Centered Medical Home</li> </ul>
High number of adults reporting no exercise	<ul> <li>Pursue collaboration with City of Batesville to negotiate discounts for recently discharged patients at Batesville's Community Recreation Center</li> <li>WRMC campus includes walking track and park with level, well-lit walking track for public use</li> <li>Pursue partnerships to provide exercise programs at Senior Life Centers under WRHS management</li> </ul>
Chronic Disease Management and Education	Action Steps
High incidence of CAD, high blood cholesterol, diabetes, and hypertension	<ul> <li>Recruitment of Vascular Surgeon and additional providers in Cardiology and Electrophysiology</li> <li>Expansion of Cardiac Rehabilitation Services in Jackson County</li> <li>Investment of new technology to improve services of CommHealth, the WRHS wellness program for worksite and community health screenings specifically to address incidence of CAD, high blood cholesterol, diabetes, and hypertension</li> <li>Anticipated active participation of primary care providers and their patients in CMS CPC+ program beginning in 2017</li> <li>Community education by providers highlighting lifestyle choices to reduce risk</li> <li>Diabetic Education Program at WRMC Medical Complex Cherokee Village (Sharp County)</li> <li>Collaborate with UAMS North Central Diabetic Education Program in Batesville</li> <li>Active participation in AR SAVES Telemedicine Program for the prompt diagnosis and treatment of strokes and ongoing patient and community education</li> </ul>
High percentage of adults     with arthritis	<ul> <li>Recruitment of a Rheumatologist to the WRMC Medical Staff</li> <li>WRMC Perioperative Surgical Home program to optimize outcome for patients undergoing total joint replacement</li> <li>Pursue collaboration with City of Batesville for discounted rates for post-op total joint patients at Batesville's Community Recreation Center</li> <li>Pursue collaboration with City of Batesville to develop water therapy program at Batesville's</li> </ul>

	Community Recreation Center
High number of infant deaths	<ul> <li>Obtain national certification as a Safe Sleep Hospital through the Cribs for Kids and Taylor McKeen Shelton Foundation</li> <li>Expand availability of prenatal care through ongoing recruitment of Obstetrician/Gynecologists</li> <li>Expand access to pediatric care through ongoing recruitment of Pediatric providers</li> <li>Participation in AR Medicaid Patient Centered Medical Home focusing on preventive care and education</li> <li>Secured grant for birthing simulation equipment clinical education to improve outcomes in high risk obstetrical cases</li> <li>WRMC Sponsorship of Safe Sitter Education Program beginning in 2017</li> </ul>
High incidence of cancer deaths; specifically breast, lung, and colon/rectal cancer	<ul> <li>Determine the feasibility of creating an accredited Breast Center of Excellence</li> <li>Implementation of clinical protocol for lung CT screening of patients who meet CMS criteria</li> <li>Anticipated active participation of primary care providers and their patients in CMS CPC+ program beginning in 2017</li> </ul>
High number of adults who report being overweight or obese	<ul> <li>Anticipated active participation of primary care providers and their patients in CMS CPC+ program beginning in 2017</li> <li>WRMC Campus includes walking track and park with level, well-lit walking track for public use</li> <li>WRMC Cardiac Rehabilitation Program provides a low cost maintenance exercise program</li> <li>WRHS Administrative and Board of Directors support of Community Recreation Center in Batesville</li> </ul>
High incidence of smoking and smokeless tobacco use	<ul> <li>Implement clinical pathways recommended by WRMC Critical Care Pulmonologist</li> <li>Continue Pulmonary Rehabilitation Program at WRMC</li> <li>Support patient safety policy to prescribe nicotine replacement therapy during hospitalization</li> <li>Continue to assess patient tobacco use, their willingness to change/quit, and support for cessation referral</li> </ul>

High incidence of accidental death and traffic fatalities involving drugs and alcohol	<ul> <li>Support of Survival Flight 4 Helicopter base at WRMC</li> <li>Sponsorship and support of <i>Every 15 Minutes</i> and Distracted Driving Demonstrations in cooperation with local schools</li> <li>Continued support for Satellite Emergency Department in Cherokee Village (Sharp County)</li> <li>Expansion of WRMC Emergency Department, specifically trauma capacity</li> </ul>
High incidence of excessive alcohol use and drug abuse	<ul> <li>Continued support of satellite Interventional Pain Management Clinics in Cherokee Village (Sharp County), Mountain View, Newport, and Searcy to decrease patients' dependence on prescription opioids</li> <li>Support drug and alcohol free events in local schools</li> </ul>
High Incidence of Premature Death	• Addressing chronic health needs, improving access to care, and providing community education with the goal of reducing premature death from all causes.

# **Communications** Plan

The approved WRHS CHNA will be published on the WRHS website, <u>www.whiteriverhealthsystem.com</u>. It will be distributed electronically to WRHS Administrative Team, Physicians, and Board Members, as well as Community Stakeholders. Printed copies will be available upon request by contacting WRHS Marketing at (870) 262-6070.



# Appendix A





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## **INTRODUCTION**

This Community Health Needs Assessment (CHNA) has been prepared to identify needed healthcare initiatives within the service area of Stone County Medical Center (SCMC), Mountain View, Arkansas. SCMC is owned and operated by White River Health System, Inc. In addition, this CHNA will help SCMC to understand the population's health needs, to implement healthcare services to improve the health of the community, and to meet the Internal Revenue Service's (IRS) regulations for nonprofit hospitals. The CHNA is intended to document SCMC's compliance with Internal Revenue Code Section 501(r).

# **Organization Description**

White River Health System (dba) Stone County Medical Center (SCMC) is a 501 (c) (3) nonprofit Critical Access Hospital. SCMC is located in Mountain View, Arkansas.

One of the purposes of the CHNA is to meet the IRS regulations, which require nonprofit hospitals to conduct at least one CHNA every three (3) years. The Affordable Care Act (ACA) also contained sections which required nonprofit hospitals to:<sup>1</sup>

- Conduct a CHNA every three years,
- Adopt implementation strategies to meet the community needs, and
- Report how they will address the community health needs and give reasons (if necessary) why some needs are not being addressed.

Part of the mission of Stone County Medical Center is that it is committed to improving the health of the population served.

# **Community Demographics**

SCMC is located in North Central Arkansas. Stone County is 606.41 square miles with an estimated population as of July 01, 2014 of 12,531. The main industry in Stone County is tourism which comprises approximately 65% of the economy. Other core industries are timber, livestock, poultry, light manufacturing and service industries. Surrounding counties in the service area include Izard, Independence, Cleburne, Van Buren, Searcy and Baxter.

It is important to become familiar with the demographic information for Stone County to be able to see the impact that social and environmental factors have on the health of the residents.

	Populat	ion
Year	Arkansas	Stone
2010	2,915,918	12,394
2014	2,947,036	12,531

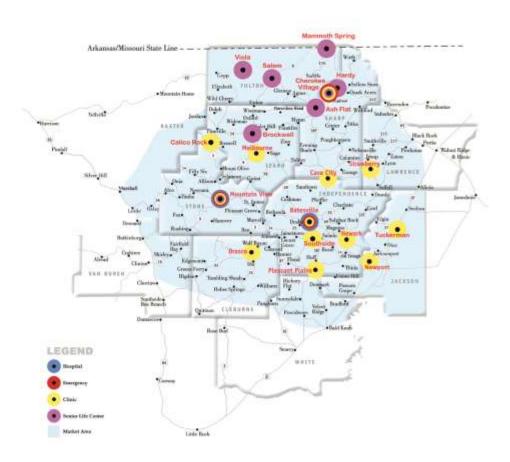
<sup>&</sup>lt;sup>1</sup> United States Internal Revenue Services. New Requirement for 501(C)(3) Hospitals under the Affordable Care Act. March 2010. <u>http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/New-Requirements-for-501(c)(3)-</u> <u>Hospitals-Under-the-Affordable-Care-Act</u>

In 2014, the US Census Bureau estimated that 12,531 residents were residing in Stone County. As indicated, the above chart shows little change in the number of residents from the 2010 census to the 2014 census.

#### Age, gender and ethnicity of the Stone County Area

The residents of Stone County are primarily Caucasian (96.6%) and the number of residents >65 years of age is 22.8% which is older than the national average (13.0%) and also older than the Arkansas average (14.4%). Since there are a higher number of residents within the area over the age of 65, there is an increased rate of chronic disease (i.e. Congestive Heart Failure (CHF), Chronic Obstructive Pulmonary Disease (COPD), Pneumonia, Diabetes, Stroke, etc.).

# **WRHS Market Service Area**



## Methods and Processes Used for Stone County Medical Center's Community Health Needs Assessment

The processes utilized for the SCMC CHNA 2016 were:

- 1. Collection of descriptive data for the service area
- 2. Qualitative data collection-Interviews with community organizations providing health services in Stone County

Data sources used in this report were the newest descriptive data published from reliable sources such as the Center for Disease Control (CDC), the Arkansas Department of Health, the United States Census Bureau, etc. Some health data is collected and published frequently, such as obesity rates and projected population estimates, while other data such as income levels or county level data are not annually published. Whenever possible, the most recent data was used.

#### Interviews with Community Organizations

Detailed and in-depth interviews were held with all interested healthcare providers in Stone County. All feedback provided by these providers/organizations was used in developing the CHNA.

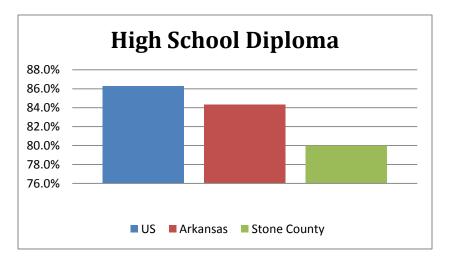
Noted below are the providers/organizations that were consulted:

- SCMC Medical Staff
- Nursing Home
- Residential Care Facility
- Home Health Agency
- Hospice
- Food Room
- Department of Human Services
- Stone County Health Department

# **Data Results**

#### **Education Economics and Employment**

Educational attainment relates to employment, household/individual income, health insurance obtainment and health literacy. Stone County has a high school completion rate of 80% compared to the Arkansas rate of 84.3% and the US rate of 86.3%. In addition, the rate of Stone County residents that have a Bachelor's degree or higher is 16.3% compared to the Arkansas rate of 20.6% and the US rate of 29.3%. As further data is presented in this report, it will become evident that places that have a lower educational attainment will also have poor health status.



#### **Health Literacy**

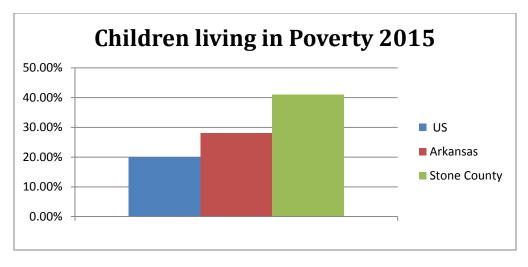
It is estimated that 37% of the adult populations living in Arkansas have a low health literacy level which leads to poor adherence to medical advice. Additionally, the lack of preventive health and a poor understanding of how an unhealthy lifestyle impacts health conditions contributes to poor health.

#### **Children Living in Poverty**

Arkansas has a high rate of children living in poverty. In 2015, Arkansas was ranked 45<sup>th</sup> out of 50 states. As noted by the chart below; the U.S. rate is 20%; the Arkansas rate is 27%, while the rate for Stone County is 41%.

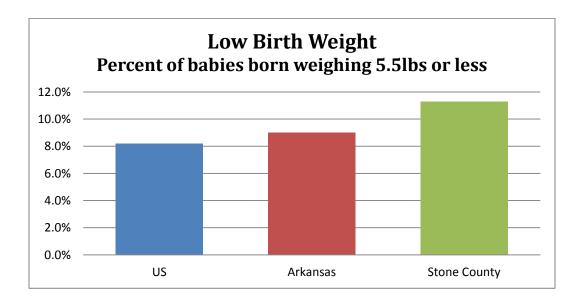
The health impact of childhood poverty includes; higher incident rates of infant mortality, increase in mental, emotional and behavioral health problems, lower academic achievement, reduced physical functioning, and reduced ability to buy healthy food<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> http://www.countyheatlhrankings.org/app/arkansas/2015/compare/snapshot?counties=023%2B075%2B005



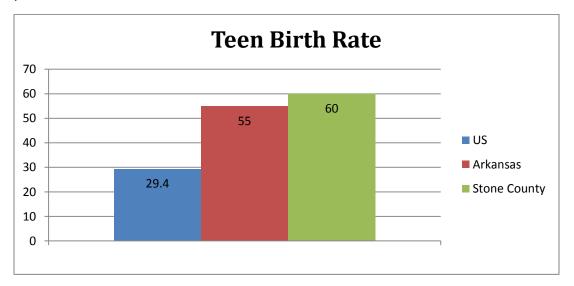
#### **Child Health**

One indicator of the population's health status is the birth weight of infants. When a baby's birth weight is lower, this could imply that the infant did not have the nutrition needed during pregnancy to develop normally. Below is a chart reflecting low birth weight (i.e. percent of babies born weighing 5.5 lbs. or less) data.



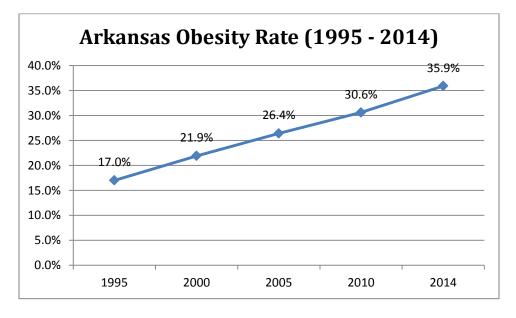
#### **Teen Birth Rate**

Teen birth rates are measured by births per 1,000 women in that age group. The U.S. rate is 29.4 per 1,000 women aged, 15 to 19 years old, the Arkansas rate is 55/1,000 and the Stone County rate is  $60/1,000^3$ .



#### **Adult Obesity**

Arkansas obesity rate has steadily increased from the 1995 rate of 17.0% of the residents that are obese to the 2014 rate at 35.9% of residents that are obese<sup>4</sup>.

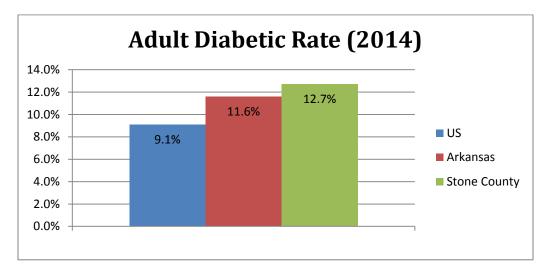


<sup>&</sup>lt;sup>3</sup> <u>http://www.countyhealthrankings.org/app/Arkansas/2015/compare/snapshot</u>

<sup>&</sup>lt;sup>4</sup> State of Obesity in Arkansas – 2015. http//stateofobesity.org/states/AR

#### Adult Diabetes

The Adult Diabetes rate is measured by the percentage of prevalence of diagnosed diabetes among adults aged > = 18 years. The U.S. has a rate of 9.1% compared to the Arkansas rate of 11.6% and the Stone County rate of 12.7%.<sup>5</sup>

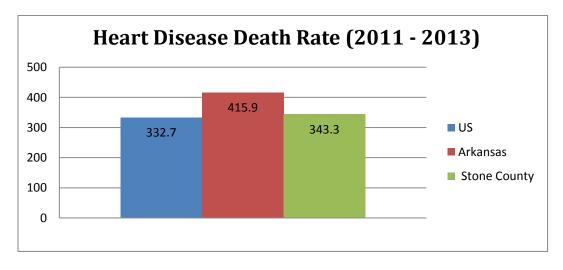


#### Heart Disease

There is 11.3% of the U.S. population diagnosed with some form of heart disease. Individuals most at risk for dying from heart disease are individuals with:

- High blood pressure
- High cholesterol levels
- History of smoking

Below is a chart for heart disease death for adults, 35 years and older per 100,000 population<sup>6</sup>.



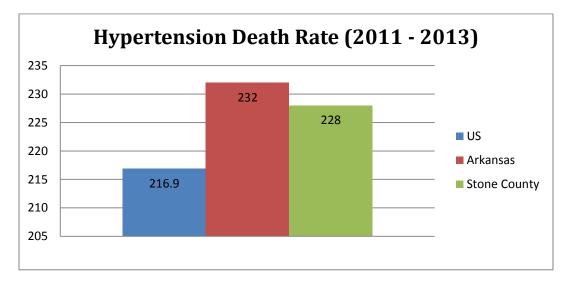
<sup>&</sup>lt;sup>5</sup> <u>www.cdc.gov/diabetes/data/statistics/2014StatisticsReport.html</u>

<sup>&</sup>lt;sup>6</sup> Centers for Disease Control and Prevention Heart Disease Facts http://www.cdc.gov/heartdisease/statistics.htm

#### Hypertension

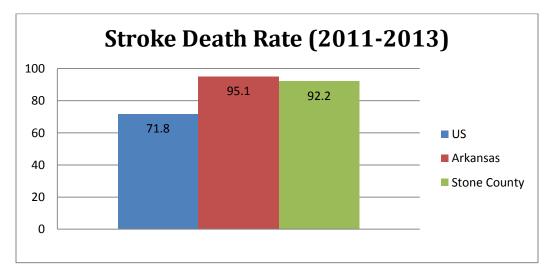
The occurrence of hypertension in the general population of Arkansas is 50%, which places the state at the 7<sup>th</sup> highest rate in the nation<sup>7</sup>.

Below is a chart for hypertension death rate for adults, 65 years and older per 100,000 population.



#### Stroke

The Arkansas rate of death per 100,000 population due to stroke is 95.1, which far exceeds the national average rate of 71.8. Stone County has a Stroke Death Rate of 92.2<sup>8</sup>.

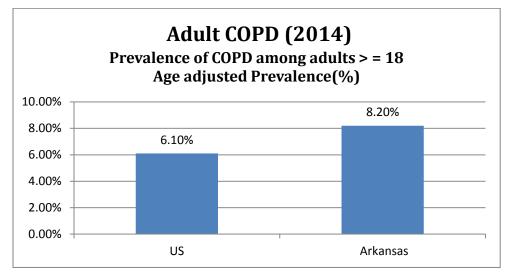


<sup>&</sup>lt;sup>7</sup> Robert Wood Foundation http://stateofobesity.org/states/ar

<sup>&</sup>lt;sup>8</sup> Arkansas Department of Health - The Burden of Heart Disease & Stroke Arkansas 2012 <u>http://www.healthy.arkansas.gov/programsServices/epidemiology/ChronicDisease/Documents/publications/HDS</u> BurdenReport.pdf

#### **Chronic Obstructive Pulmonary Disease (COPD)**

The prevalence of COPD at 8.20% among Arkansas adults 18 years or older exceeds the U.S. rate of 6.10%.

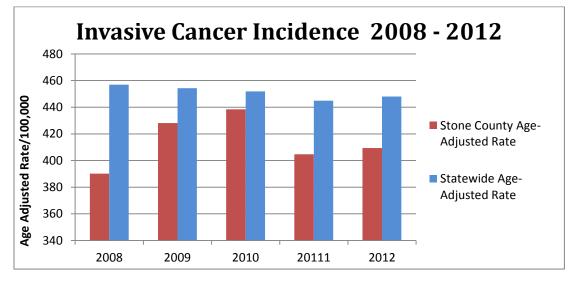


#### Flu and Pneumonia

Flu and Pneumonia are among the top ten causes of death for the state of Arkansas. The most at risk for complications and/or death are children and elderly adults. Flu vaccination rates for 65 years and older (2013) are 66.6% in Arkansas and pneumococcal vaccination rates for 65 years and older are 67.8%<sup>9</sup>.

#### Cancer

Cancer is the second leading cause of death in Arkansas. Lung cancer remains the leading cause of death due to cancers among men and women in Arkansas. Lifestyle factors such as cigarette smoking, eating foods high in fat and physical inactivity remain major risk factors for several types of cancer.



<sup>9</sup> Arkansas State Health Department,

http://www.healthy.arkansas.gov/aboutADH/Documents/Accred/ARHealthReportHealthProblems.pdf

#### **Mental Health**

Mental health and suicidal thoughts are influenced by both biological and environmental factors. Health related diseases have high incidence of depression with the primary diagnosis. Environmental factors such as stress, poverty, housing, and lack of access to appropriate resources can increase rates of behavioral problems. Arkansans with any mental illness in the past year were at a rate of 19.81% compared to the U.S. rate of 18.19%; therefore; ranking Arkansas 49<sup>th</sup> out of 50 states for this condition.

#### **Substance Abuse**

Arkansas is ranked 8<sup>th</sup> in the nation for adult dependence or abuse of illicit drugs or alcohol in the nation. Arkansans have the 25<sup>th</sup> highest drug overdose mortality rate (2013) in the U.S. with the majority of these deaths from prescription drugs.

## **Interpretation and Findings**

Following the demographic search and data collection, SCMC has identified five broad areas of health needs.

- 1. Improve/Manage Chronic Diseases
  - COPD
  - Diabetes
  - Congestive Heart Failure (CHF)
  - Obesity
  - Pneumonia
- 2. Decrease Infant Mortality
- 3. Assessment, Referral and Treatment of Mental Health/Substance Abuse Disorders
- 4. Early Detection and Treatment of Cancer
- 5. Reduce Healthcare Staff Shortages

# Implementation Strategy/Plan

Improve/Manage Chronic Diseases	Action Steps
• COPD	<ul> <li>Improve patient understanding of the health condition through education and literacy materials provided through programs at Senior Centers and SCMC</li> <li>Evaluation of respiratory conditions and provide appropriate treatment and medication access</li> </ul>
• Diabetes	<ul> <li>Preventive: Early identification, treatment and education for patients at risk for diabetes</li> <li>Monitoring/Management: Implement a standard of care for diabetes; routine monitoring glucose levels for SCMC diabetic patients</li> <li>Coordinate care to increase compliance with treatment plan</li> <li>Coordinate care to ensure patients have access glucose testing supplies</li> <li>Assess overall health of patient (i.e., blood pressure and mental health)</li> </ul>
• CHF	<ul> <li>Coordinate health screenings during the year to measure blood pressure, cholesterol, and other contributing factors of heart disease</li> <li>Increase availability of appropriate educational materials to improve understanding of disease management</li> <li>Coordinate care to ensure patients get the earliest diagnosis and appropriate treatment for their heart condition</li> <li>Ensure eligible patients are enrolled in Federal Nutritional Assistance programs and are able to obtain food that is compliant with what is recommended for their health</li> <li>Provide cardiology clinics to evaluate and treat patients</li> </ul>
• Obesity	<ul> <li>Increase availability of appropriate educational materials to improve understanding of disease management</li> <li>Implement nutrition and exercise programs at local facilities (i.e. Senior Centers)</li> </ul>
Pneumonia	• Ensure patients have an understanding of the importance of receiving the pneumococcal vaccine

	• Evaluate respiratory conditions and provide appropriate treatment, patient education, and medication access
Decrease Infant Mortality	Action Steps
	<ul> <li>Increase availability of appropriate educational materials to improve understanding of factors contributing to infant mortality, such as:         <ul> <li>Decrease exposure to smoking</li> <li>Decrease prenatal drug and alcohol abuse by the mother</li> <li>Encourage Safe Sleep Environment (reduce the risk of sleep-related infant deaths)</li> </ul> </li> <li>Successful WRHS recruitment of Obstetrician Gynecologist (OB/GYN) and Pediatrician</li> <li>Outreach Clinic at SCMC by WRHS OB/GYN</li> </ul>
Mental Health /Substance Abuse Disorders	Action Steps
	<ul> <li>A psychiatrist has been recruited to oversee programs at WRHS. SCMC can now send all patients needing mental health services to WRHS</li> <li>At WRHS, the following services are available: <ul> <li>Outpatient psychiatric services</li> <li>Inpatient services including an inpatient adult and a geriatric psychiatric unit</li> </ul> </li> </ul>
Early Detection and Treatment of Cancer	Action Steps
	<ul> <li>A satellite Oncology Clinic is available monthly at SCMC</li> <li>\$3.2M upgrade linear accelerator used in radiation treatment at WRMC's Cancer Care Center.</li> <li>Digital mammography is available at SCMC for early detection of breast cancer</li> <li>Provide educational materials to educate population on the incidence of cancer and treatment options available at WRHS facilities</li> <li>Provide educational materials on the socio- economic and behavioral risk factors for cancer</li> </ul>
Reduce Healthcare Staff Shortage	Action Steps
	<ul> <li>Physicians – WRHS has achieved accreditation from the Accreditation Council for Graduate Medical Education (ACGME) to establish an Internal Medicine Residency program beginning July 2017,</li> </ul>

	<ul> <li>and a Family Medicine Residency program beginning July 2018 at White River Medical Center (WRMC). When the programs reach maturity, 48 residents will be in training at WRMC</li> <li>Nurses - SCMC has an affiliation agreement with the local Community College Nursing program to provide clinical rotations at SCMC as part of their training. In addition, SCMC offers scholarships, sign on bonuses, etc. to attract and retain quality nurses</li> <li>Other - SCMC has an aggressive hiring program for all medical personnel by offering competitive salaries, benefits and favorable working conditions</li> </ul>
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# **Communications** Plan

The approved WRHS CHNA will be published on the WRHS website,

www.whiteriverhealthsystem.com. It will be distributed electronically to WRHS Administrative Team, Physicians, and Board Members, as well as Community Stakeholders. Printed copies will be available upon request by contacting WRHS Marketing at (870) 262-6070.

# Appendix B Bridge Document

The White River Health System Board of Directors approved the three-year Community Health Needs Assessment (CHNA) in September 2013. This bridge document identifies actions taken by White River Medical Center and Stone County Medical Center to meet the health of residents served by these institutions and outlined in the 2013 CHNA.

Identified Health Need	Action Steps
Healthcare Management	<ul> <li>Health Coach Program – Lyon College Pre-Professional Students are assigned to assist patients identified as high risk for readmission</li> <li>Health Navigator – UACCB Registered Nursing Students are assigned to assist cardiac patients identified as high risk for readmission</li> <li>Annual Prostate Cancer Screening at WRMC</li> <li>WRHS partners with local running club to sponsor annual 5K run/walk at WRMC in Batesville</li> <li>Peripheral Vascular Disease Screening at Sharp County Senior Center Cherokee Village (Sharp County)</li> <li>WRHS CommHealth worksite wellness event and community health screenings</li> <li>WRMC Adult Psychiatric Unit is conducting follow-up with ED patients treated for mental health conditions to ensure access to outpatient follow up care</li> <li>WRMC participation in UAMS Angels Program to provide neonatal consultation via telemedicine to high risk patients</li> <li>WRHS collaborates with Cedar Ridge School District to staff a school based medical clinic at Charlotte Elementary School (Independence County)</li> </ul>
	and planning to double capacity in 2016

	<ul> <li>Recruited additional Psychiatric Providers to treat patients in inpatient and outpatient settings</li> <li>Participation in the Bundled Payment for Care Improvement Initiative for patients undergoing total joint replacement</li> <li>WRMC hosts Post-Acute Care Providers networking meetings to improve collaboration and communication</li> <li>Partner with faith-based organizations to provide for the socio-economic needs of patients after hospital discharge</li> <li>WRMC hosts monthly prepared childbirth and breastfeeding education led by certified lactation consultants to expectant mothers</li> <li>WRMC provides a Transitional Care Clinic for patients post discharge who report no primary care provider until a primary care provider can be established</li> <li>WRHS Employee Benefit program enhanced for smoking cessation, gastric bypass, specialty pharmaceuticals and hearing aids</li> <li>Information on WRHS Employee Assistance Program open to employees and their families is presented to employees at orientation and annually during benefit fair</li> <li>Participate in Arkansas Blue Cross Blue Shield case management program for employees and their covered family members with chronic health conditions</li> <li>Add WRHS owned clinic in Tuckerman (Jackson County)</li> <li>\$3.2M upgrade of linear accelerator at WRMC Cancer Care Center</li> </ul>
Drug Abuse	<ul> <li>Expansion of WRMC Pain Management Clinic to seven physicians and one Advance Practice Nurse (APRN)</li> <li>Established Satellite Pain Management Clinics in Cherokee Village (Sharp County), Mountain View, Newport, and Searcy</li> <li>Primary Care providers collaborate with Interventional Pain Management Clinic to</li> </ul>

	<ul> <li>effectively manage patients suffering from chronic pain conditions</li> <li>Patient/Provider Pain Medication Contract to prevent poly-pharmacy practices</li> <li>Patients in the care of WRMC Pain Management Clinic agree to random and scheduled urine drug screening to ensure compliance with medication contract</li> <li>WRHS providers received education on the Arkansas Prescription Monitoring program to prevent narcotic abuse</li> <li>Participation in the Arkansas Blue Cross Blue Shield Shared Saving Program (AR/BCBS SSP) to identify opioid prescription patterns to increase provider awareness of patients with high opioid use</li> </ul>
Chronic Disease Education	<ul> <li>WRMC coordinates monthly community health education luncheons featuring presentations by WRHS Medical Staff Physicians</li> <li>Annual HealthFirst Women's Health Expo in Partnership with First Community Bank to provide health screenings and health education to area women</li> <li>WRMC Medical Complex Cherokee Village Diabetic Education Program provides regular health education for patients with diabetes and their families</li> <li>WRMC partners with UAMS North Central to provide diabetic education in the Batesville area</li> <li>WRMC Medical Complex Cherokee Village sponsors an Annual Health Education Event with health screenings and health education. The Clinic partners with other local providers and agencies to increase awareness of available services</li> <li>WRMC provides meeting room space for local support groups such as Alzheimer's disease and Breast Cancer Patients/Survivors</li> <li>Free education classes taught by Cardiac Rehabilitation professionals for recently discharged CHF patients identified as high</li> </ul>

	<ul> <li>risk for readmission</li> <li>AR Saves Stroke education for public school children and at community events</li> <li>Provided education to employees and spouses on healthy eating, smoking cessation, blood pressure management, cholesterol management and maintaining a healthy weight</li> </ul>
Injury Prevention	<ul> <li>WRMC Collaborates with Batesville High School (BHS) to provide Certified Athletic Trainers for student athletes</li> <li>WRMC employees volunteer 30 hours to provide medical coverage to local Fellowship of Christian Athletes Camp</li> <li>WRHS Rehabilitation Therapy department, physicians, and clinics provide pre-participation physicals to athletes in local schools</li> <li>WRHS Physicians attend sporting events at BHS and Lyon College (as available) to provide sideline assistance when needed</li> <li>WRHS Trauma Department manages \$20K Injury and Violence Prevention grant to sponsor distracted driving programs and suicide prevention programs in local schools</li> <li>WRHS Trauma Department participates in the <i>Every 15 Minutes</i> program to educate students on the dangers of impaired driving</li> <li>WRMC Sponsors <i>SAAD</i> (Students Against Destructive Decisions )</li> <li>WRMC involvement in the Walk Out of Darkness Suicide Prevention Walk</li> <li>The Children's Clinic sponsors an annual Glow Ride Bicycle Safety Event promoting healthy exercise and helmet use</li> <li>WRHS sponsors Active Shooter training for WRHS leadership and encourages leaders to share knowledge with other community organizations</li> <li>Worked with Survival Flight, Inc. to establish medical helicopter base on the WRMC campus</li> <li>Participation in Regional Emergency Preparedness organization</li> </ul>

	<ul> <li>Applied for and received Emergency Preparedness grant to upgrade disaster supplies</li> <li>Enter into mutual aid agreements as needed for disaster preparedness</li> <li>WRHS employee orientation includes back safety and injury prevention education</li> <li>WRHS employees are required to complete annual education which includes workplace safety and injury prevention</li> </ul>
Primary Care and Specialty Provider Access	<ul> <li>Recruited Primary Care Providers to SCMC</li> <li>Recruited General Surgeon to practice at SCMC</li> <li>Established Specialty Clinic at SCMC for Cardiology, Obstetrics/Gynecology, Oncology, and Pain Management</li> <li>Provide pre-participation physicals to Stone County student athletes</li> </ul>
Community Health Education	<ul> <li>Refer patients as appropriate to Arkansas SOS (Stamp Out Smoking) for tobacco cessation</li> <li>WRHS successfully secured contract to manage Senior Life Centers in Fulton, Izard, Sharp, and Stones Counties. Programs will include health screenings, health education, and others directed to improving health and quality of life for clients</li> <li>Participation in Annual Stone County Hometown Health Fair providing health screening and health education to attendees</li> <li>Provide leadership to Stone County Hometown Wellness Coalition</li> </ul>
Internet Connectivity	Redundant solution to insure reliability pending adequate funding

#### Appendix C

# White River Medical Center

## **Community Health Needs Assessment**

**Opinion Survey** 

#### Type of Organization:

Business	Hospital
Church	Non-Profit
Community building	Public Safety
Education Co-op	School
Emergency response	Local Health Unit
Other (specify)	Hometown Health Imp. Coalition

#### Which of the following counties are served by your organization? (Check all that apply)

Cleburne	Lawrence
Izard	Stone
Independence	Sharp
Jackson	Other (specify)

#### What best describes the groups your organization serves? (Check all that apply)

Younger than 6 years	Adults (ages 19-64)
Ages 6-12	Older Adults (ages 65 and older)
Teens (ages 13-18)	

#### Which best describes the groups your organization serves? (Check all that apply)

Teen parents	Unemployed
Single parents	Employed at minimal or low wage jobs
Grandparent raising grandchildren	Self-employed tradesmen
Foster parent/foster children	Professional or highly skilled
Women only groups	Teen groups only

#### Which describes the persons served by your organization? (Check all that apply)

High School dropouts not getting a GED	Children with special needs
High School dropouts trying to earn a GED	Prisoners
High School Graduate	Educators
Enrolled in higher education	Health Professionals
Enrolled in vocational or trade school	Business Employees
Church Groups	English as a second language
Minority groups based on age	Minority groups based on religion
Adults with special needs	

#### Which insurance applies to the group(s) served by your organization (Check all that apply)

Private Insurance	No insurance
Medicare	Poor insurance coverage
Medicaid	AR Kids
Other (specify)	

Based on your experiences, what are the two biggest areas of safety related needs in our community?

1.	

2. \_\_\_\_\_

Do you know of any programs that have been implemented elsewhere in the state to address these needs that could be implemented in our community? If so, please list the name of the program and the community where implemented.

1.	
2.	

Based on your experiences, what are the major barriers to healthcare your community faces? (Check all that apply)

Income Transportation Available appointment times Conflict with provider (don't like the doctor) When they have question, can't talk to the nurse or Doctor	Can't afford medicines/treatments Can't afford healthy foods Don't understand medications/treatments No insurance
<ul> <li>Don't understand what they are suppose to do to a Doctor's instruction)</li> <li>Other (Specify)</li> <li>Other the people your or th</li></ul>	
<ul> <li>More available transportation</li> <li>Housing</li> <li>What doctor takes their insurance?</li> <li>Prescription assistance (help with drug programs)</li> <li>What hours are most convenient for the people?</li> <li>Other (specify)</li> </ul>	Food programs Help with insurance enrollment

# **THANK YOU!**

# Appendix D

# White River Medical Center

## Community Health Needs Assessment

**Opinion Survey** 

#### Where do you live? (Check all that apply)

Cleburne	Lawrence
Izard	Stone
Independence	Sharp
Jackson	Other (specify)
Which best describes you?	
White	Native American or American Indian
Hispanic or Latino	Asian/Pacific Islander
Black or African American	Other (please specify)
What best describes your age group? (Check all th	at apply)
Younger than 6 years	Adults (ages 19-64)
Ages 6-12	Older Adults (ages 65 and older)
Teens (ages 13-18)	
What is your gender?	
Male	
Female	
Which best describes the age groups for your famil	y the organization serves? (Check all that apply)
Teen parents	Unemployed
Single parents	Employed at minimal or low wage jobs
Grandparent raising grandchildren	Self-employed tradesmen
Foster parent/foster children	Professional or highly skilled
Women only groups	Teen groups only
Which describes your education level? (Check all the	nat apply)
High School dropouts not getting a GED	College Graduate
High School dropouts trying to earn a GED	Post graduate school degree
High School Graduate	
Enrolled in higher education	
Enrolled in vocational or trade school	
How would you rate your health?	
Excellent	
Good	
Fair	
Poor	
Very Poor	

Which insurance do you have? (Check all that apply)	
Private Insurance	No insurance
 Medicare	Poor insurance coverage
Medicaid	AR Kids
Other (specify)	
If you do not have insurance, specify why.	
Based on your experiences, what are the two biggest	areas of safety related needs in our community?
1	
2	
where implemented.	please list the name of the program and the community
2Based on your experiences, what are the major barrie	
Income	Can't afford medicines/treatments
Transportation	Can't afford healthy foods
Available appointment times	 Don't understand medications/treatments
Conflict with provider (don't like the doctor)	No insurance
When they have question, can't talk to the nurse	
or Doctor	
Don't understand what they are suppose to do to	make themselves better (comprehension of
Doctor's instruction)	
Other (Specify)	
What kinds of resources would help you most?	
More available transportation	Food programs
Housing	Help with insurance enrollment
What doctor takes my insurance?	
Prescription assistance (help with drug programs)	
Clinics open when I need them to be open? Later I	
Other (specify)	

# THANK YOU!