

















### A note from our Chief Executive Officer



In January 2019, Catholic Health Initiatives and Dignity Health joined forces with a common vision to build healthier communities, advocate for those who are poor and vulnerable, and create innovative solutions to the most complex healthcare problems in the United States. Together as CommonSpirit Health, we have a rich history and tradition of ministry service that is far-reaching, and we follow the example given to us by the sixteen congregations of women religious who founded the many hospitals that now comprise our health system. CHI St. Vincent – as a member of CommonSpirit Health - continues its 130 year legacy built on the provision of safe, high-quality healthcare services, health education and extensive community outreach. Our vision is and has always been to improve the overall health of the communities we serve.

The pages that follow outline the most pressing health issues facing Arkansans as identified through our 2019 Community Health Needs Assessment (CHNA) process. This work reflects hours of research, conversation with our community members and thoughtful reflection on our ever-evolving role as partners with those we serve. Our findings affirm the importance of our community outreach efforts and guide our actions as we strive to build healthier communities. Through a new look at population health and a renewed interest in the social determinants of health, this report guides CHI St. Vincent in addressing identified health needs.

We are grateful for every partner who joined with us in the CHNA process, and we look forward to building new partnerships in health as we take our next steps forward in this work. Our pathway is paved by compassion, a commitment to social justice and the common good, and our desire to recognize the dignity of every individual we encounter in our work.

We are proud of the work we are undertaking as a vital mission-driven partner in our local communities. Our plan is to create new and innovative ways to address the most challenging health needs across Arkansas. Moving forward, we will enhance existing partnerships and build new ones to ensure that every brick we lay in our journey will pave the way for a healthier tomorrow. We look forward to our next steps taken in partnership with all those who share our mission and vision for community health on behalf of all Arkansans. Thank you for your willingness to walk that path with us!

Sincerely,

Chad Aduddell, CEO CHI St. Vincent

### "Now to each one the manifestation of the Spirit is given for the common good."

(1 Corinthians 12:7 NIV)



### The participating congregations behind CommonSpirit Health:

**Benedictine Sisters of Annunciation Monastery** Benedictine Sisters of Mother of God Monastery The Congregation of the Sisters of Charity of the Incarnate Word **Dominican Sisters of Peace** Dominican Sisters of St. Catherine of Siena Franciscan Sisters of Little Falls, Minnesota Sisters of Charity of Cincinnati Sisters of Charity of Nazareth Sisters of Mercy of the Americas, West Midwest Community The Sisters of St. Dominic, Congregation of the Most Holy Rosary Sisters of St. Francis of Colorado Springs Sisters of St. Francis of Penance and Christian Charity, St. Francis Province Sisters of St. Francis of Philadelphia Sisters of St. Francis of the Immaculate Heart of Mary Sisters of the Presentation of the Blessed Virgin Mary Sylvania Franciscans Third Order of St. Dominic, Congregation of the Most Holy Name



### **Table of Contents**

Table of Contents	4
Acknowledgments	6
Executive Summary	7
Introduction	9
CHI St. Vincent Service Area	10
Methodology and Key Findings	12
Secondary Data Review	12
Primary Data Review	13
Key Informant Survey	13
Focus Groups	15
Approvals	15
Gaps and Limitations	15
CHI St. Vincent Infirmary	16
Hospital Service Area	16
Secondary Data Review	16
Key Informant Survey	
Focus Groups	20
Logic Model	21
Priorities	21
CHI St. Vincent Hot Springs and CHRISTUS Dubuis Hospital	22
Hospital Service Area	22
Secondary Data Review	22
Key Informant Survey	24
Focus Groups	26
Logic Model	27
Priorities	28
CHI St. Vincent Morrilton	29
Hospital Service Area	29
Secondary Data Review	29
Key Informant Survey	31
Focus Groups	33
Logic Model	34



Priorities
CHI St. Vincent North
Hospital Service Area
Secondary Data Review
Key Informant Survey
Focus Groups
Logic Model
Priorities
Impact Evaluation – 2016 CHI St. Vincent CHIP
CHI St. Vincent Infirmary
CHI St. Vincent Hot Springs
CHI St. Vincent Morrilton
CHI St. Vincent North
Appendices41
Appendix 1: Secondary Data Review Sources41



### Acknowledgments

CHI St. Vincent would like to thank the following individuals and organizations for their contributions to our 2019 Community Health Needs Assessment:

Name	Position	Organization	Contribution
Deb Roybal, RN, MS, PhD	SVP, Mission Integration	CHI St. Vincent	Project Lead/Champion
Rebecca Stone, MHA	Administrative Fellow	CHI St. Vincent	Project Manager
Celina Miranda	Unit Coordinator	CHI St. Vincent - North	Project Coordinator
Kathy McNespey	Executive Assistant	CHI St. Vincent - Infirmary	Administrative Support
Don Thompson	Program Manager, Community Benefit	Christus Health	Project Champion
Gareth Patterson	Brand Specialist	CHI St. Vincent	Graphics & Design
Chad Dillard, MBA	Mkt VP of Marketing	CHI St. Vincent	Graphics & Design
Sarah Lehr	Communications Strategist	CHI St. Vincent	Graphics & Design
Craig Wilson, JD, MPA	Health Policy Director	Arkansas Center for Health Improvement (ACHI)	CHNA Collaboration Efforts
Pader Moua	Policy Analyst	Arkansas Center for Health Improvement (ACHI)	Data Collection Support
Anna Strong	Executive Director of Child Advocacy & Public Health	Arkansas Children's Hospital	Data Collection & Analysis Support
Craig Wilson, JD MPA	Directory, Health Policy	Arkansas Center for Health Improvement (ACHI)	Data Collection & Analysis Support
Suma Ashok, MHA	Planning Analyst	CHI St. Vincent	Data Collection Support
			Focus Group Support
Barbara Halford, MBA, PT	Planning Analyst	CHI St. Vincent	Data Collection Support
Megan Roberts, MHA	Planning Analyst	CHI St. Vincent - Infirmary	Data Collection Support
Lenlie Freeman, RN, CPA	Clinical Quality Specialist	CHI St. Vincent	Data Collection Support
Sara Bradley, CPA	Mkt VP of Operational Finance	CHI St. Vincent	Data Collection Support
Cindy Hulen	Senior Financial Planning Analyst	CHI St. Vincent	Data Collection Support
Mary Margaret Rogers, MBA	Business Development Coordinator	CHI St. Vincent Heart Institute	Data Collection Support
Vicky Sanders, MSN	Mkt Director of Nursing	CHI St. Vincent – Hot Springs	Data Collection Support
Patricia Jones	Director	CHI St. Vincent Medical Group	Data Collection Support
Susie Reynolds Reece	Violence Prevention Specialist	CHI St. Vincent – Hot Springs	Data Collection Support
Lindsay Mulkey	Substance Abuse Prevention Specialist	CHI St. Vincent – Hot Springs	Data Collection & Analysis Support
Wendi Summerville	Executive Assistant	CHI St. Vincent	Data Collection Support
Bonnie Ward	Senior Communications Strategist	CHI St. Vincent	Focus Group Support
Eddie Davis, MHSA, MBA, CHC	Assistant Regional Corporate Responsibility Officer	Catholic Health Initiatives	Focus Group Support
Mandy Davis	Director	Jericho Way Resource Center	Focus Group Support
Kellie Chacon	Activities Coordinator	CHI St. Vincent - Hot Springs	Focus Group Support
Diane Harry	Senior Services Director	CHI St. Vincent - Hot Springs	Focus Group Support
Anthony Brunet	Assistant Principal	Lakewood High School – Hot Springs	Focus Group Support
Douglas Shackelford	Director of Public Affairs and Communications	Central AR Water	Focus Group Support
Matt Scully	Senior Pastor	Trinity Church of Hot Springs	Focus Group Support
Bob Thornton	Associate Pastor & Benevolence	Trinity Church of Hot Springs	Focus Group Support



### **Executive Summary**

### Living our Mission

Driven by its deep commitment to reduce suffering and promote human flourishing, CHI St. Vincent continues to focus its resources on the health needs of Arkansans. The triennial community health needs assessment (CHNA) is a mission-driven, values-based framework that guides the health system in ensuring it continues its charitable purpose in service to all those who need care.

The process is formalized by section 501(r) of the Affordable Care Act, which requires a hospital organization to conduct a community health need assessment (CHNA) every three years and to adopt an implementation strategy to meet the community health needs identified through the CHNA. The needs assessment must take into account input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health, and be made widely available to the public.

CHI St. Vincent facilities are located across a wide geographical area within the state of Arkansas. This report outlines our CHNA process and outcomes for each facility and information is divided into chapters representing the unique assessment data and community health needs for each location. Also participating in this CHNA is Christus Dubuis Hospital of Hot Springs, a long-term acute care hospital housed within CHI St. Vincent Hot Springs and operated by LHC Group of Lafayette, Louisiana.

### 2019 CHNA Methodology

The CHI St. Vincent 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of the patients it serves. Pulaski County, Garland County and Conway County were identified as the health system's primary service areas. Saline County, Lonoke County, Faulkner County, Jefferson County, Perry Count, Grant County, Hot Spring County, Montgomery County, Yell County and Pope County were designated the secondary service area.

The CHNA research team collected quantitative and qualitative data using the Robert Wood Johnson Foundation framework that categorizes community health into four key focus areas: 1) Built Environment and Health, 2) Disease Prevention and Health Promotion, 3) Health Disparities and 4) Social Determinants of Health. Organized by these focus areas, CHNA research included the following:

<u>Secondary Data Review</u> – In November and December 2018, community health data was collected using publicly available sources at the county, state and national level.

<u>Key Informant Survey</u> – In February 2019, a survey on the greatest needs and most vulnerable populations was distributed to more than 600 members who serve the community. A total of 111 complete responses were received, for a response rate of 18.5%.

<u>Focus Groups</u> – In February and March 2019, seven focus groups were conducted with community members served in Pulaski, Garland and Conway counties. The focus groups emphasized discussions about community problems, resources and solutions. A total of 91 individuals between the ages of 18 and 84 with a diverse range of ethnicities and backgrounds participated in the focus groups.

### **2019 CHNA Priorities**

A logic model of key community health needs and underlying factors from the data review for each hospital facility was built and presented to the hospital leadership teams. The leadership teams selected the following as their key priorities over the next 3 years.



CHI St. Vincent Infirmary			
Prioritized Community Health Need	Focus Area(s)	Population(s)	
Access to Healthcare Services	<ul><li> Primary Care</li><li> Chronic Disease Management</li></ul>	<ul> <li>Medicaid recipients</li> <li>Individuals living in poverty</li> </ul>	
	Substance Use & Abuse (including opioid use)	Individuals living in poverty	
Mental Health	Domestic Violence & Violent Crime	<ul> <li>Adults and families</li> <li>Individuals living in poverty</li> </ul>	
	Suicide Prevention	<ul> <li>Adults and families (emphasis on children ages 13 to 19)</li> <li>Individuals living in poverty</li> </ul>	

CHI St. Vincent Hot Springs and Christus Dubuis Hospital			
Prioritized Community Health Need	Focus Area(s)	Population(s)	
Access to Healthcare Services	<ul><li>Primary Care</li><li>Chronic Disease Management</li></ul>	<ul> <li>Seniors (ages 65 and older)</li> <li>Medicaid recipients</li> <li>Individuals living in poverty</li> </ul>	
Mental Health*	Substance Use & Abuse (including opioid use)	<ul> <li>Seniors (ages 65 and older)</li> <li>Adults and families</li> <li>Individuals living in poverty</li> </ul>	
	Suicide Prevention	<ul><li>Seniors (ages 65 and older)</li><li>Adults</li><li>Individuals living in poverty</li></ul>	

CHI St. Vincent Morrilton			
Prioritized Community Health Need	Focus Area(s)	Population(s)	
Access to Healthcare Services	Primary Care	<ul> <li>Seniors (ages 65 and older)</li> </ul>	
Access to Healthcare Services	Chronic Disease Management	<ul> <li>Individuals living in poverty</li> </ul>	
Mental Health	Senior isolation	<ul> <li>Seniors (ages 65 and older)</li> </ul>	
	Suicide	<ul> <li>Individuals living in poverty</li> </ul>	

CHI St. Vincent North		
Prioritized Community Health Need	Focus Area(s)	Population(s)
Access to Healthcare Services	Primary Care	Medicaid recipients
	Chronic Disease Management	<ul> <li>Individuals living in poverty</li> </ul>
	<ul> <li>Substance Use &amp; Abuse (including opioid use)</li> </ul>	<ul> <li>Individuals living in poverty</li> </ul>
Mental Health	Suicide Prevention	<ul> <li>Adults and families (emphasis on children ages 13 to 19)</li> <li>Individuals living in poverty</li> </ul>

### **CHI St. Vincent's Response**

The health need priorities identified by the 2019 CHNA will be integrated into a 3-year implementation plan. Progress will be monitored through a multidisciplinary internal work group titled the Community Health Outreach and Improvement Council (CHOICe). Additionally, a workgroup of external stakeholders will be convened to provide ongoing input and participation in community health efforts.

### Introduction

CHI St. Vincent has a long history of serving the health needs of Arkansans. Armed with only fierce tenacity and mere pennies, two groups of women religious traveled by horse drawn carriage from the safety of their beloved Christian communities of sisters to Arkansas where they began their service to those who needed them the most – those who were sick, poor and vulnerable. With the Sisters of Charity of Nazareth, KY at the helm and at the bedside, the Little Rock Infirmary opened to its first patient in the spring of 1888. Four months later, the Sisters of Mercy of Little Rock traveled to Hot Springs to open a new hospital thereby expanding the services available to Arkansans.

Originally named the Charity Hospital, the Little Rock Infirmary name was changed in 1890 to St. Vincent in honor of St. Vincent DePaul, a 17<sup>th</sup> century Catholic priest whose life's mission was to serve those who are poor and vulnerable. In 1997, St. Vincent was acquired by Catholic Health Initiatives (CHI) and became CHI St. Vincent Infirmary. Today, the Infirmary is the state's oldest continuously operating hospital.

The Infirmary shares its history and heritage with CHI St. Vincent North located in Conway County in the city of Sherwood, Arkansas. In 1999, CHI St. Vincent opened its north facility to serve residents in Conway County and beyond. Today, the facility includes the Arkansas Neurosciences Institute and shares its campus with CHI St. Vincent Rehabilitation Hospital.

The second oldest hospital in Arkansas is CHI St. Vincent Hot Springs. Originally named as St. Joseph's, the hospital was operated by the Sisters of Mercy until 2012 when ownership was transferred to Mercy Health and it became Mercy Hot Springs Hospital. In 2014, the hospital was sold to Catholic Health Initiatives and became CHI St. Vincent in Hot Springs.

CHRISTUS Dubuis Hospital of Hot Springs is a long term acute care hospital located within CHI St. Vincent Hospital of Hot Springs and is co-owned and operated by LHC Group of Lafayette, LA. CHRISTUS Health entered into a joint partnership with LHC Group in September of 2017 maintaining 40% ownership of the facility. Currently the hospital is licensed for 27 LTACH beds.

Opening in March 15, 1999, the CHRISTUS Dubuis Hospital provides care to medically complex patients who require continued acute care services over an extended period of time. Some of the specialty areas of focus for the facility are ventilator weaning, IV antibiotic therapy and wound care. CHRISTUS Dubuis Hospital of Hot Springs primarily serves the adult population and provides employment for approximately 65 persons. The geographical area of focus is Garland County, AR, but the facility also serves the surrounding counties of Montgomery, Scott, Clark, and Hot Springs, AR.

Approximately 200 patients are served in the Dubuis hospital annually. The average age of patients admitted to CHRISTUS Dubuis is 66, and over 79% of all patients are admitted directly from CHI St. Vincent Hospital. The primary admitting diagnoses are respiratory, infectious disease, and wound related to co-morbities such as diabetes, obesity and cardiovascular issues that complicate the treatments for primary diagnoses, which result in extended hospitalizations.



Just as CHI St. Vincent Infirmary and CHI St. Vincent Hot Springs have a long history and tradition reflective of its foundresses' commitments to the health of those they serve, so too does CHI St. Vincent Morrilton. Originally called St. Anthony's, the Benedictine sisters at St. Scholastica Monastery established the hospital as a 14-bed facility on December 4, 1925, initially using a private home belonging to the Burrows family of Morrilton. During the following 12 years, they moved twice, first to a Harding College dormitory (when that school, now Harding University, was located in Morrilton), then to the Jones Hospital building on N. West Street. (Jones Hospital had opened in 1920.) The sisters finally acquired their own building in 1937 with 29 patient rooms, a laboratory, and two operating rooms. A third story was added in 1949. In 1965, Conway County voters approved bonds to build a new hospital in Morrilton. Conway County now St. Anthony's Medical Center, was dedicated on April 4, 1970, and the former building was left vacant for more than 30 years. The original hospital now serves as senior housing. In 1994, St. Anthony's became a part of CHI St. Vincent. The hospital's name was changed to CHI St. Vincent Morrilton in 2011.

Even as the CHI St. Vincent health system has evolved over time to meet the ever increasing challenges of the contemporary healthcare landscape, its mission in service to those who are sick – especially those who are poor and vulnerable – remains ever strong. Driven by its deep commitment to reduce suffering and promote human flourishing, CHI St. Vincent continues to focus its resources on the health needs of Arkansas. The triennial community health needs assessment (CHNA) is a mission-driven, values-based framework that guides the health system in ensuring it continues its charitable purpose in service to all those who need care – just as the Sisters of Charity of Nazareth, Kentucky, the Sisters of Mercy and the Benedictine Sisters have always done.

### **CHI St. Vincent Service Area**

As a wholly-owned subsidiary of Chicago-based CommonSpirit Health, the CHI St. Vincent health system is comprised of four (4) hospitals, more than seventy (70) clinics (Figure 1), and the largest clinically integrated health network in the state operating as the Arkansas Health Network (AHN). The health system serves patients in Arkansas and beyond. Christus Dubuis Hospital is located within the CHI St. Vincent Hot Springs facility.



### Figure 1: CHI St. Vincent Hospital Facilities and Clinic Locations



Although the health system serves the entire state, the 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of unique patient medical records. Primary and secondary service areas for each hospital facility are determined by the Strategy and Business Development Office (Figures 2-5). Primary service areas for each facility contain the majority of unique Arkansas resident medical records, ranging from 58 percent of to 70 percent (Table 2).

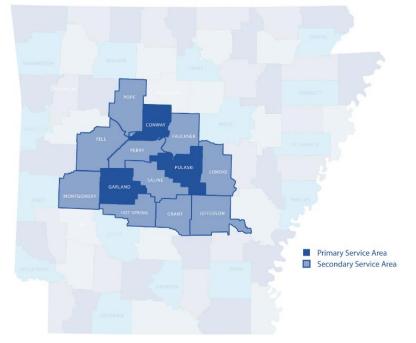
Hospital Facility	Primary Service Area	% Unique AR Medical Records
CHI St. Vincent Infirmary	Pulaski County	58.0%
CHI St. Vincent North	Pulaski County	70.3%
CHI St. Vincent Hot Springs	Garland County	68.4%
CHI St. Vincent Morrilton	Conway County	60.9%

The secondary service areas consist of counties that raise the medical records threshold to approximately 75 percent or that share a border with the primary service area (Table 3).

Table 3: CHI St. Vincent Health S	vstem Primary	/ Service Areas by	v Hospital Facility
	ystern i minar		, nospital i acinty

Hospital Facility	Secondary Service Area
CHI St. Vincent Infirmary	Saline County, Lonoke County, Faulkner County, Jefferson County, Perry Count and Grant County
CHI St. Vincent North	Lonoke County and Faulkner County
CHI St. Vincent Hot Springs	Perry County, Saline County, Hot Spring County, Montgomery County and Yell County
CHI St. Vincent Morrilton	Perry County, Pope County and Yell County

### Figure 2: CHI St. Vincent Health System Primary and Secondary Service Areas





### **Methodology and Key Findings**

### Secondary Data Review

A comprehensive review of secondary data from publicly available sources was conducted primarily in November and December of 2018. The study used the Robert Wood Johnson Foundation framework that categorizes healthy community focus areas into Built Environment and Health, Disease Prevention and Health Promotion, Health Disparities, and Social Determinants of Health.

Community health data was collected at the county, state and national level. Internal validity of secondary data was confirmed through comparison to state ranking statistics pulled primarily from America's Health Rankings website. County and state level health indicators were found to be consistent with state rankings.

During internal and external discussions related to the secondary data review, key findings were narrowed to the three primary service areas – Pulaski County, Garland County and Conway County. The health needs in these three counties were representative of their neighbors, and any community health strategies implemented would benefit both primary and secondary service area residents.

Candidate critical focus areas were identified using the following selection criteria: 50 percent higher than the national average, a state ranking in the bottom quartile, and no improvement in outcomes since 2015 (*Table 4-7*).

Health Indicator	Pulaski County	National	% Difference	State Rank '18
No First Trimester Care	27%	6%	352%	47
Violent Crime	996	380	162%	45
STIs - Chlamydia	864	479	81%	42
Opioid Prescriptions	98	59	68%	49
Teen Births	42	27	56%	50 (2015)
Food Insecurity	20%	13%	54%	48

### Table 4: Critical Focus Areas for Pulaski County

### Table 5: Critical Focus Areas for Garland County

Health Indicator	County	National	% Difference	State Rank '18
No First Trimester Care	28%	6%	365%	47
Opioid Prescriptions	158	59	169%	49
Depression	27%	17%	63%	35
Suicide	29	14	112%	37
Motor Vehicle Death	26	12	111%	-
Drug Overdose Deaths	26	17	54%	14

### Table 6: Critical Focus Areas for Conway County

Health Indicator	County	National	% Difference	State Rank '18
No First Trimester Care	33%	6%	448%	47
Opioid Prescriptions	122	59	108%	49
Infant Mortality	11	6	94%	46
Teen Births	52	27	93%	50 <i>(2015)</i>
Suicide	22	14	65%	37
Depression	25%	17%	50%	35



### **Primary Data Review**

### Key Informant Survey

The Key Informant Survey was developed using Survey Monkey and consisted of 11 questions in the format of multiple choice, ranking, select all that apply and open response. Survey questions were designed to identify community stakeholders' view of the greatest community needs, most at risk populations and possible solutions. The survey was sent out by email on Monday, February 25, 2019, and closed on Monday, March 11<sup>th</sup>. A reminder email went out on Monday, March 4<sup>th</sup>.

The survey link was distributed by email to 600 community stakeholders including physicians, hospital officials, churches, schools, community agencies, public safety and public health representatives. The survey had a response rate of 18.5% with 111 completed surveys.

Survey results indicated that community stakeholders believe the top 5 most prevalent health issues in their areas were the following: Opioid Use / Abuse, Adult Obesity, Access to Care / Uninsured, Heart Disease and Diabetes (Chart 1). Of the top five prevalent health issues identified, community stakeholders selected <u>Adult Obesity</u> followed closely by <u>Access to Care / Uninsured</u>, as the most significant contributor to poor community health.

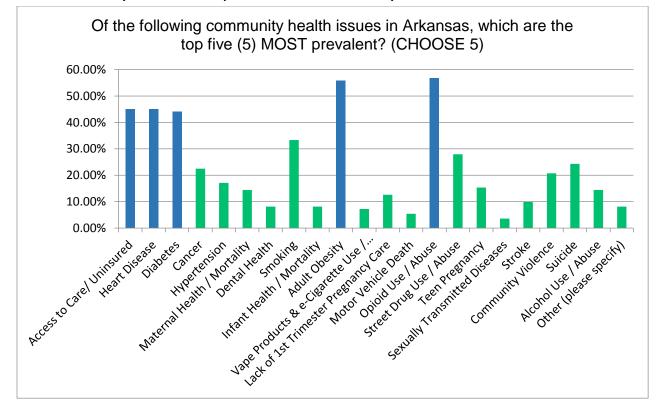
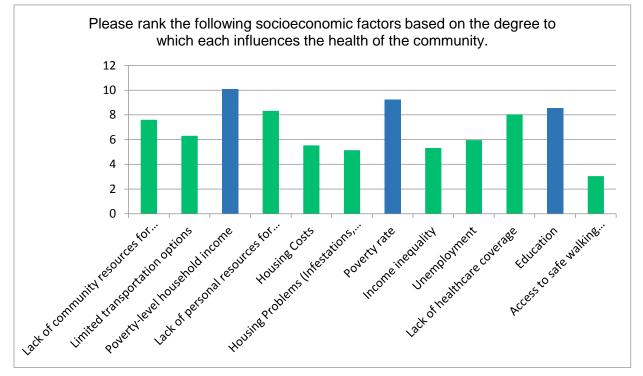


Chart 1: Community Stakeholder's Top 5 Most Prevalent Community Health Issues

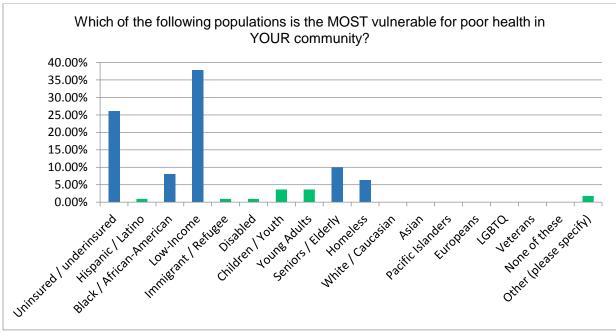
Additionally, respondents selected the following socio-economic factors as having the greatest impact on community health issues: Household Income, Poverty Rate and Education (*Chart 2*).



#### Chart 2: Community Stakeholder's Top Most Impactful Socio-Economic Factors



Furthermore, survey results indicated that community stakeholders believed the following populations were the most vulnerable to poor health and outcomes: Low Income, Uninsured/Underinsured, Seniors/Elderly, Black/African American and Homeless (*Chart 3*).



**Chart 3: Community Stakeholder's Most Vulnerable Populations** 



### Focus Groups

The CHNA Focus Groups took place February 26<sup>th</sup> through March 21<sup>st</sup>, 2019. Focus Group curriculum was designed to facilitate one hour of group discussion by approximately 20 community members in an informal setting. Participants were incentivized to attend with food and drinks. Focus group materials include flip charts, markers, infographic placemats, pens and evaluations. The infographic placemats included explanations of the critical focus areas identified during the secondary data review. Focus group facilitators were intentional to only refer to secondary findings listed on the infographic when there were lapses in group discussion. The focus group agenda consisted of a 5 minute introduction of objectives, 20 minute discussion of community problems and concerns, 10 minute discussion of community resources and barriers to utilizing resources, 10 minutes of brainstorming solutions and a conclusion that included thanking participants and sharing the date the CHNA would be publicly available.

Focus groups were designed to gain insights directly from community members and were held at senior centers, churches, schools, local businesses and non-profit organizations. A total of 7 focus groups were conducted capturing the perspective of approximately 91 community members of various ages and races in settings throughout Pulaski, Garland and Conway County.

### **Approvals**

During the month of February 2019, an overview of key findings from the secondary data review was presented to system and facility level leadership teams with both administrative and provider representation. Leaders were then invited to ask questions, offer insights and suggest gaps in data. The key findings overview was presented to the following leadership team: Executive Council (system), President's Council (system), Administrative Council (Hot Springs), Leadership Connect (Morrilton), and Community Health Outreach & Improvement Council CHOICE (Hot Springs/Infirmary).).

During the month of April 2019, a logic model of key findings from the secondary data, community stakeholder survey and focus groups was presented to system and facility level leadership teams. Leaders were invited to engage in dialogue and approved conclusions. The secondary and primary data key findings logic model was presented and approved by the following leadership teams: Executive Council (system), President's Council (system), Administrative Council (Hot Springs), Leadership Connect (Morrilton), Leadership Circle (North) and Community Health Outreach & Improvement Council CHOICE (Hot Springs/Infirmary). On May 2, 2019 the CHNA and identified priorities were approved by the CHI St. Vincent Board of Directors.

### **Gaps and Limitations**

Gaps and limitations throughout the CHI St. Vincent health system's 2019 CHNA process are summarized below.

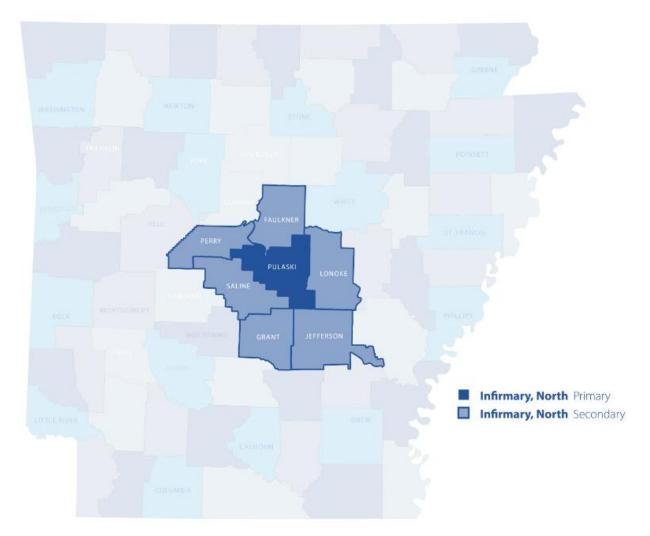
- At times county, state and national data had to be pulled from separate sources. A comprehensive list of sources is contained in Appendix 1.
- Secondary data review includes a gap in quantitative data related to the homeless population.
- Time and resource constraints limited the number of focus groups facilitated in each hospital service area.
- Focus group participants and key informant survey respondents did not include representation from the adolescent population.



### **CHI St. Vincent Infirmary**

### **Hospital Service Area**

The CHI St. Vincent Infirmary 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of the patients it serves. Pulaski County was identified as the hospital's primary service area because 58 percent of its patients live there. Saline County, Lonoke County, Faulkner County, Jefferson County, Perry Count and Grant County were designated the secondary service area.



### Secondary Data Review

The CHI St. Vincent Infirmary demographic profiles were reviewed in their primary and secondary service areas, which consisted of Pulaski County, Saline County, Lonoke County, Faulkner County, Jefferson County, Perry County and Grant County. The profile for Pulaski County can be viewed below (Table 7).



#### Table 7: CHI St. Vincent Infirmary & North PSA Demographic Profile

	Pulaski County		Bench	marks		
	Health	% Differ from				
Measurement	Indicator	U.S. Avg	Arkansas	<b>United States</b>		
Population Growth Rate	2.9%	-47.3%	2.9%	5.5%		
Median Household Income	\$47,101	-14.9%	\$42,336	\$55,322		
Total Population Below Poverty Line	15.0%	22.0%	16.4%	12.3%		
Persons Without Health Coverage	7.9%	-22.5%	9.3%	10.2%		
High School Degree	90.1%	3.6%	85.2%	87.0%		
Bachelor's Degree or Higher	32.9%	8.6%	21.5%	30.3%		
Race & Ethnicity	Race & Ethnicity					
White	52.4%	-13.7%	72.5%	60.7%		
Black or African American	37.2%	177.6%	15.7%	13.4%		
American Indian/Alaskan Native	0.5%	-61.5%	1.0%	1.3%		
Asian	2.3%	-60.3%	1.6%	5.8%		
Native Hawaiian/Other Pacific Islander	0.1%	-50.0%	0.3%	0.2%		
Two or More Races	2.1%	-22.2%	2.1%	2.7%		
Hispanic or Latino	6.2%	-65.7%	7.6%	18.1%		
Age						
Children/Youth (Under 18 Years)	23.6%	3.1%	23.7%	22.9%		
Adults (19-64 Years)	62.4%	0.3%	60.3%	62.2%		
Seniors (65+ Years)	14.0%	-6.0%	16.0%	14.9%		

A review of community health indicators related to Built Environment and Health, Disease Prevention and Health Promotion, Health Disparities, and Social Determinants of Health was conducted primarily in November and December 2018. Candidate critical focus areas were identified using the following selection criteria: 50 percent higher than the national average, a state ranking in the bottom quartile, and no improvement in outcomes since 2015 (Table 8).

Table 8: CHI St. Vincent Infirmary & North Critical Community Health Needs

Health Indicator	Pulaski County	National	% Difference	State Rank '18
No First Trimester Care	27%	6%	352%	47
Violent Crime	996	380	162%	45
STIs - Chlamydia	864	479	81%	42
Opioid Prescriptions	98	59	68%	49
Teen Births	42	27	56%	50 <i>(2015)</i>
Food Insecurity	20%	13%	54%	48

Talking points for the Infirmary and North's community health needs critical focus areas were developed to assist with internal and external communications.

- 1 in 4 mothers in Pulaski County go without prenatal care beginning in the first trimester. This is 4.5 times higher than the national average.
- 1 in 10 babies in Pulaski County are born at a low birth weight (less than 5.5lbs). This is 1.3 times higher than the national average.
- 1 in 120 babies born in Pulaski County die within the first year. This is 1.4 times higher than the national average.



- 1 in 24 teenagers, ages 15 to 19, will give birth each year in Pulaski County. This is 1.5 times higher than the national average.
- 1 in 5 Pulaski County residents lack reliable access to sufficient quantity of affordable nutritious food.
- 1 in 10 Pulaski residents have limited access to fruits and vegetables.
- 1 in 100 Pulaski County residents will experience a violent crime (homicide, rape, robbery or aggravated assault) each year.
- There are more opioid prescriptions in Arkansas than there are residents at 1.1 prescriptions per person.

Needs in the community related to chronic disease management also surfaced. They did not meet the selection criteria set to be on the list of critical community health needs but were considered important metrics by internal stakeholders (Table 9).

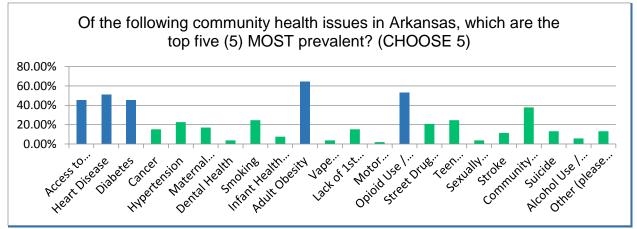
Health Indicator	Pulaski County	National	% Difference	State Rank '18
Stroke	46	38	21%	50
Hypertension	47%	33%	40%	48
Coronary Heart Disease	8%	5.7%	40%	48
Heart Disease Mortality	262	219	20%	47
Cancer	165	156	7%	47
Adult Obesity	32%	28%	11%	44
Diabetes	15%	10.5%	40%	42
Mental Health – Suicide	16	14	17%	37

#### Table 9: CHI St. Vincent Infirmary & North Chronic Disease Management Focus Areas

### **Key Informant Survey**

The key informant survey had 78 respondents affiliated with Pulaski County. Survey results indicated that community stakeholders believe the top 5 most prevalent health issues in their areas were the following: Opioid Use/Abuse, Adult Obesity, Access to Care / Uninsured, Heart Disease and Diabetes (Chart 4). Of the top five prevalent health issues identified, community stakeholders selected <u>Adult Obesity</u> followed by <u>Access to Care / Uninsured</u>, as the most significant contributor to poor community health.







Additionally, respondents selected the following socio-economic factors as having the greatest impact on community health issues: Household Income, Poverty Rate and Education (*Chart 5*).

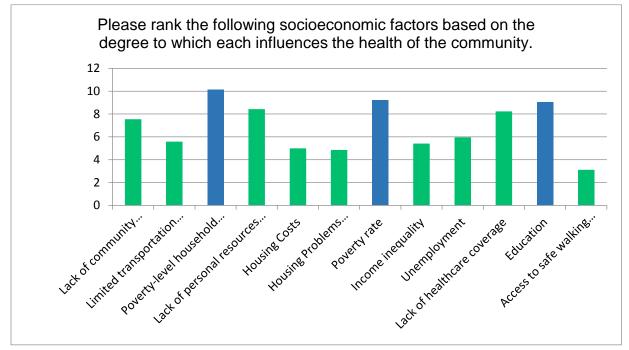


Chart 5: Community Stakeholder's Top Most Impactful Socio-Economic Factors in Pulaski County

Furthermore, survey results indicated that community stakeholders believed the following populations were the most vulnerable to poor health and outcomes: Low Income, Uninsured/Underinsured, Black/African American, Seniors/Elderly and Homeless (*Chart 6*).

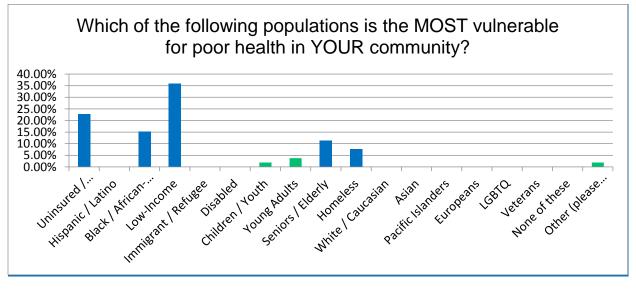


Chart 6: Community Stakeholder's Most Vulnerable Populations in Pulaski County



Respondents were given the opportunity to share additional thoughts in an open response format. A sample of their quotes are listed below.

- "Invest in spiritual health simultaneously with physical health to achieve better health outcomes for the vulnerable."
- "A caring family or church family can make tons of difference for the person hurting."
- "The hospital has the right mission and the right people but need to inform the community of its vast resources."
- "We need more free clinics and medication access."

### **Focus Groups**

A total of 2 focus groups were conducted in Pulaski County capturing the perspective of 35 community members.

Date	Meeting Space	Facilitator(s)	Scribe	# Attended
March 8, 2019	Jericho Way Resource Center	Rebecca Stone	Celina Miranda Suma Ashok	20
March 14, 2019	Central Arkansas Water	Celina Miranda	Rebecca Stone	15

The first focus group was conducted at Jericho Way, a homeless resource center funded by the city of Little Rock and North Little Rock. Evaluation demographic responses, completed by 8 of the 20 participants, indicated that the focus group had representation from 7 adults ranging in age from 18 to 65 as well as from 1 senior adult, 65 and up. There were also 5 individuals who identified as Caucasian and 3 who identified as Black/African American present.

Key community problems or concerns discussed during the focus group were identified as follows:

- Chronic Homelessness (social stigma and personal mindset)
- Lack of Housing and Work for Criminal Offenders
- Lack of Sufficient Transportation
- Nutrition for Homeless Diabetics
- Food Insecurity / Hunger (access to fruits and vegetables)
- Lack of Resources
- No Focus on Spiritual Health

The second focus group was conducted with employees of Central Arkansas Water. Evaluation demographic responses, completed by all participants, indicated that the focus group had representation from 15 adults age 18 to 65, 6 individuals who identified as Caucasian and 9 who identified as Black/African American present.

Key community problems or concerns discussed during the focus group were identified as follows:

- Violence (tied to mental health)
- Limited Access to Mental Health Care (sessions limited)
- Mental Health Insurance Coverage / Cost of Care
- Cost of Prescriptions / Medication / Medical Care
- High Poverty Rates
- Access to Healthy Foods (location and affordability)
- Lack of Walkability
- Elderly at Risk (income, transportation)
- Hispanic at Risk (language barrier)
- Homeless at Risk (lack of resources / medical care)



### Logic Model

A logic model of key community health needs and underlying factors review was performed using the results of CHI St. Vincent Infirmary's secondary data review, key informant survey and focus groups.

Access to Care					
Health Indicator	County	U.S.	% Differ	State Rank	
STIs - Chlamydia	864	479	81%	42	
No First Trimester Care	27%	6%	352%	47	
Teen Births	42	27	56%	50	

Chronic Disease Management					
Health Indicator	County	U.S.	% Differ	State Rank	
Adult Obesity	32%	28%	11%	44	
Diabetes	15%	10.5%	40%	42	
Coronary Heart Disease	8%	5.7%	40%	48	
Heart Disease Mortality	262	219	20%	47	

WHY?

Mental Health					
Health Indicator	County	U.S.	% Differ	State Rank	
Opioid Prescriptions (per 100 people)	98	59	68%	49	
Violent Crime	996	380	162%	45	
Assault - Homicide	16.5	5.9	179%	-	

WHY?

WHY?

~					
Underlying Hea	Underlying Health Factors				
Unhealthy Lifestyle					
Access to Care	#4 (tied) for Top 5 Most Prevalent Health Issues #2 for MOST Significant				
Access to Healthy Food	#4 Rank for Socioeconomic Factor				
Household Income	#1 Rank for Socioeconomic Factor #1 Most Vulnerable Pop				
Poverty Rates	#2 Rank for Socioeconomic Factor				
Knowledge Gaps	#3 Rank for Socioeconomic Fact				
Stress / Busy Lifestyle					

Underlying Hea	Ith Factors			
Home Life / Adverse				
Childhood Events				
Exposure to Violence	#5 for Top 5 Most Prevalent Health Issues			
Opioid Abuse	#2 for Top 5 Most Prevalent Health Issues			
Street Drug Use /				
Substance Abuse				
Spiritual Depletion				
Access to Mental Health				
Care / Limited Sessions				
Poor Understanding /	#3 Rank for			
Knowledge Gaps	Socioeconomic Fact			
Household Income	#1 Rank for Socioeconomic Factor #1 Most Vulnerable Pop			
Poverty Rates	#2 Rank for Socioeconomic Factor			
Aging Seniors	#3 Most Vulnerable Pop			

### WHII

Underlying Health Factors				
Household Income	#1 Rank for Socioeconomic Factor #1 Most Vulnerable Pop			
Poverty Rates	#2 Rank for Socioeconomic Factor			
No Healthcare Coverage	#5 Rank for Socioeconomic Factor #2 Most Vulnerable Pop			
Cost of Care / Prescriptions (e.g. Diabetes)				
Limited Transportation				
Education / Knowledge Gaps	#3 Rank for Socioeconomic Factor			
Support System (Family Ties)				
Hopelessness / Spiritual Deprivation				

_					
Ρ	rı	0	r	Iti	es

The CHI St. Vincent Infirmary community needs logic model was presented to its hospital leadership team on April 23, 2019. The leadership team selected the following as their key priorities over the next 3 years.

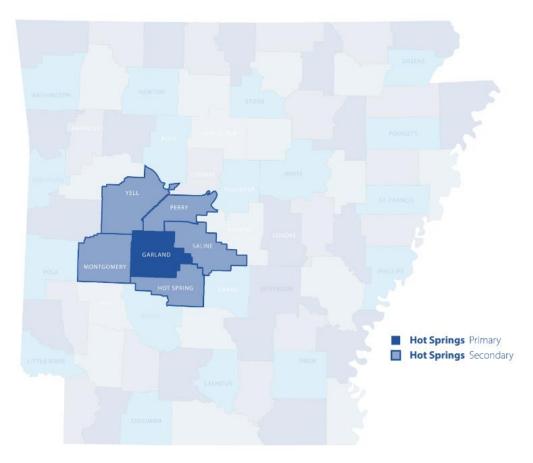
CHI St. Vincent Infirmary					
Prioritized Community Health Need	Focus Area(s)	Population(s)			
Access to Healthcare	Primary Care	Medicaid recipients			
Services	<ul> <li>Chronic Disease Management</li> </ul>	<ul> <li>Individuals living in poverty</li> </ul>			
	<ul> <li>Substance Use &amp; Abuse (including opioid use)</li> </ul>	<ul> <li>Individuals living in poverty</li> </ul>			
	Domestic Violence & Violent Crime	<ul> <li>Adults and families</li> </ul>			
Mental Health		<ul> <li>Individuals living in poverty</li> </ul>			
	Suicide Prevention	<ul> <li>Adults and families (emphasis on</li> </ul>			
		children ages 13 to 19)			
		<ul> <li>Individuals living in poverty</li> </ul>			



### **CHI St. Vincent Hot Springs and CHRISTUS Dubuis Hospital**

### **Hospital Service Area**

CHI St. Vincent Hot Springs 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of the patients it serves. Garland County was identified as the hospital's primary service area because 68.4 percent of its patients live there. Perry County, Saline County, Hot Spring County, Montgomery County and Yell County were designated the secondary service area. CHRISTUS Dubuis Hospital, located within CHI St. Vincent Hot Springs, serves the same primary geographical region.



### Secondary Data Review

The CHI St. Vincent Hot Springs demographic profile was reviewed in its primary and secondary service areas. The profile for Garland County can be viewed below (Table 10).



#### Table 10: CHI St. Vincent Hot Springs PSA Demographic Profile

	Pulaski County		Bench	marks	
	Health	% Differ from			
Measurement	Indicator	U.S. Avg	Arkansas	<b>United States</b>	
Population Growth Rate	2.8%	-49.1%	2.9%	5.5%	
Median Household Income	\$40,011	-27.7%	\$42,336	\$55,322	
Total Population Below Poverty Line	15.9%	29.3%	16.4%	12.3%	
Persons Without Health Coverage	10.2%	0.0%	9.3%	10.2%	
High School Degree	88.4%	1.6%	85.2%	87.0%	
Bachelor's Degree or Higher	20.6%	-32.0%	21.5%	30.3%	
Race & Ethnicity					
White	82.1%	35.3%	72.5%	60.7%	
Black or African American	8.7%	-35.1%	15.7%	13.4%	
American Indian/Alaskan Native	0.8%	-38.5%	1.0%	1.3%	
Asian	0.8%	-86.2%	1.6%	5.8%	
Native Hawaiian/Other Pacific Islander	0.1%	-50.0%	0.3%	0.2%	
Two or More Races	2.5%	-7.4%	2.1%	2.7%	
Hispanic or Latino	5.7%	-68.5%	7.6%	18.1%	
Age					
Children/Youth (Under 18 Years)	20.50%	-10.5%	23.7%	22.9%	
Adults (19-64 Years)	56.9%	-8.5%	60.3%	62.2%	
Seniors (65+ Years)	22.60%	51.7%	16.0%	14.9%	

A review of community health indicators related to Built Environment and Health, Disease Prevention and Health Promotion, Health Disparities, and Social Determinants of Health was conducted primarily in November and December 2018. Candidate critical focus areas were identified using the following selection criteria: 50 percent higher than the national average, a state ranking in the bottom quartile, or no improvement in outcomes since 2015 (Table 11).

### Table 11: CHI St. Vincent Hot Springs Critical Community Health Needs

Health Indicator	County	National	% Difference	State Rank '18
No First Trimester Care	28%	6%	365%	47
Opioid Prescriptions	158	59	169%	49
Depression	27%	17%	63%	35
Suicide	29	14	112%	37
Motor Vehicle Death	26	12	111%	-
Drug Overdose Deaths	26	17	54%	14

Talking points for Hot Spring's community health needs critical focus areas were developed to assist with internal and external communications.

- 1 in 4 mothers in Garland County go without prenatal care beginning in the first trimester. This is 4.6 times higher than the national average.
- 1 in 10 babies in Garland County are born at a low birth weight (less than 5.5lbs). This is 1.1 times higher than the national average.



- 1 in 140 babies born in Garland County die within the first year. This is 1.4 times higher than the national average.
- 1 in 3 Garland County residents have been told they have Depressive Disorder by a health provider. This is 1.6 times higher than the national average.
- The Suicide rate in Garland County is twice as high as the national average. Garland County's rate is 29 in 100,000.
- Garland County opioid prescription rates are 2.7 times higher than the national average.
  - There are more opioid prescriptions in Garland County than there are residents at 1.6 prescriptions per person.
- Motor-vehicle fatalities in Garland County are 2.1 times higher than the national average at nearly 26 in 100,000.

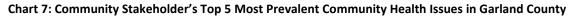
Needs in the community related to chronic disease management also surfaced. They did not meet the selection criteria set to be on the list of critical community health needs but were considered important metrics by internal stakeholders (Table 12).

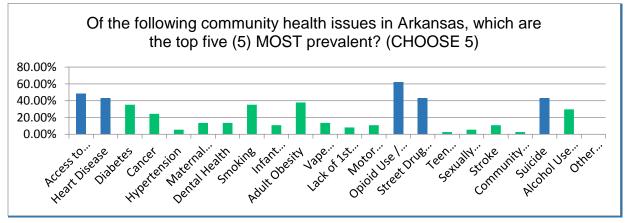
Health Indicator	Garland County	National	% Difference	State Rank '18
Stroke	47	38	25%	50
Hypertension	44%	33%	33%	48
Coronary Heart Disease	8%	5.7%	40%	48
Heart Disease Mortality	289	219	32%	47
Cancer	169	156	9%	47
Adult Obesity	31%	28%	14%	44
Diabetes	14%	10.5%	37%	42

#### Table 12: CHI St. Vincent Hot Springs Chronic Disease Management Focus Areas

### **Key Informant Survey**

The key informant survey had 56 respondents affiliated with Garland County. Survey results indicated that community stakeholders believe the top 5 most prevalent health issues in their areas were the following: Opioid Use / Abuse, Access to Care / Uninsured, Suicide, Street Drug Use / Abuse and Heart Disease (Chart 7). Of the top five prevalent health issues identified, community stakeholders selected <u>Opioid Use / Abuse</u> followed by <u>Access to Care / Uninsured</u>, as the most significant contributor to poor community health.







Additionally, respondents selected the following socio-economic factors as having the greatest impact on community health issues: Household Income, Poverty Rate and Lack of Personal Resources (*Chart 8*).

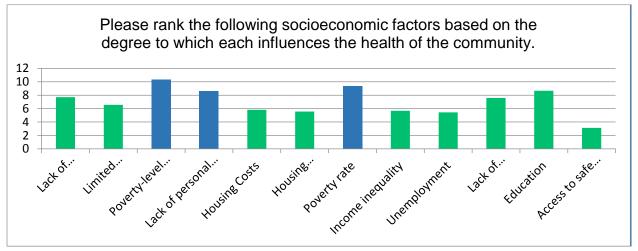
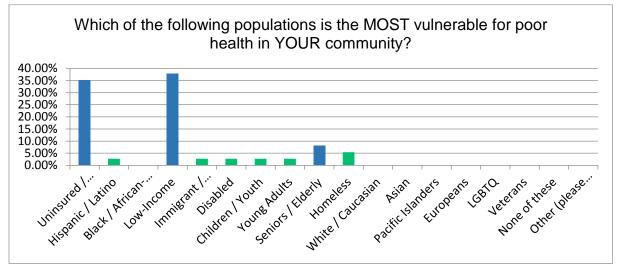


Chart 8: Community Stakeholder's Top Most Impactful Socio-Economic Factors in Garland County

Furthermore, survey results indicated that community stakeholders believed the following populations were the most vulnerable to poor health and outcomes: Low Income, Uninsured/Underinsured and Seniors/Elderly (*Chart 9*).





Respondents were given the opportunity to share additional thoughts in an open response format. Below is a sampling of their quotes:

- "I consider my family as middle class. I have insurance through my job but the co-pay and cost of meds are ridiculous."
- "It is very difficult to see a physician in this community even with health insurance."
- "People in poverty do not use routine preventative health care."



### **Focus Groups**

A total of 3 focus groups were conducted in Garland County capturing the perspective of 39 community members.

Date	Meeting Space	Facilitator(s)	Scribe	# Attended
March 11, 2019	CHI SV McAuley Senior Center	Rebecca Stone	Celina Miranda	13
March 14, 2019	Lakeside High School	Rebecca Stone	Deb Roybal	6
March 21	Trinity Church of Hot Springs	Rebecca Stone		20

The first focus group was conducted at CHI St. Vincent McAuley Senior Center, a resource center that provides nutritious meals and fun events to seniors age 60 and older. Evaluation demographic responses, completed by 8 of the 13 participants, indicated that the focus group had representation from 4 adults ranging in age from 18 to 65 and 4 senior adults ages 65 and up. All 8 individuals identified as Caucasian.

Key community problems or concerns discussed during the focus group are listed below.

- No Caregiver Support (Particularly for Dementia)
- Long Wait Times for Non-Emergency, Preventive Care Services (e.g. Cardiology)
- Overprescribing of Medications
- Pain Control Sudden Loss of Opioid Prescription with no Dual Treatment
- Cost of Care for Seniors / Elderly
- Lack of Employment Opportunities

The second focus group was conducted with employees of Lakeside High School. Evaluation demographic responses, completed by 4 of 6 participants, indicated that the focus group had representation from 4 adults who identified as age 18 to 65 and Caucasian.

Key community problems or concerns discussed during the focus group are listed below.

- Children's Mental Health
- Poor Understanding of Mental Health / Professionals Cannot Agree on Treatment
- Lack of Services / Inadequate Frequency of Services
- Turnover of Mental Health Staff
- Adverse Childhood Events
- Home Environment (Instability of Parents) / Changes in Family Structure (Grandparents as Guardians)
- Poor Social Networks
- Poor Nutrition / Lack of Access to Healthy Food
- Factors Leading to Poor School Attendance
- Stress for School Staff
- Busy Professionals Face Challenges of having Nutritious Diets and Exercise
- Motor Vehicle Accidents due to Motorcycles, Alcohol for Race Track and Narrow Roads

The third focus group was conducted at Trinity Church of Hot Springs. Evaluation demographic responses, completed by 16 of the 20 participants, indicated that the focus group had representation from 11 adults ranging in age from 18 to 65 and 5 senior adults ages 65 and up. Of the 16 respondents, 13 identified as Caucasian and 3 as Black / African American.

Key community problems or concerns discussed during the focus group are listed below.

- Lack of Mental Health Services (Psychiatric Unite Closed)
- ED wait times/discharge time
- Long Wait Times for Appointments PCP / Lack of Specialists (e.g. Rheumatology)
- Cost of medication/lack education of generic (ex. Diabetes meds)
- EMRs in Hot Springs and Little Rock don't communicate / If you go to LR, referred in LR



- Limited Insurance Enrollment
- Mental health/depression not identified during health visits
- Process of interpretation for the deaf, etc.
- Poor nutrition/lack of education
- Communication between VA and CI for opioids- cut off suddenly
- School Education does not include practical matters
- Large Homeless Population
- Some providers do no take Medicaid
- Lack of Resources for Lupus, sickle cell anemia
- Some insurance doesn't cover occupational therapy and speech
- Difficult for children to receive services like counseling, occupational therapy, etc.
- Poor bus system, costly

### Logic Model

A logic model of key community health needs and underlying factors review was performed using the results of CHI St. Vincent Hot Spring's secondary data review, key informant survey and focus groups.

Access to Care					
Health Indicator	County	U.S.	% Differ	State Rank	
No First Trimester Care	28%	6%	365%	47	
Infant Mortality	7.2	6	23%	46	
Teen Births	46	27	70%	50	

Chronic Disease Management						
Health Indicator	County	U.S.	% Differ	State Rank		
Adult Obesity	31%	28%	14%	44		
Diabetes	14%	10.5%	37%	42		
Coronary Heart Disease	8%	5.7%	40%	48		
Heart Disease Mortality	289	219	32%	47		

WHY?

Mental Health					
Health Indicator	County	U.S.	% Differ	State Rank	
Opioid Prescriptions	158	59	169%	49	
Depression	27%	17%	63%	35	
Suicide	29	14	112%	37	
Drug Overdose Deaths	26	17	54%	14	

WHY?

WHY?

Underlying Health Factors					
Household Income	#1 Rank for Socioeconomic Factor #1 Most Vulnerable Pop				
Poverty Rates	#2 Rank for Socioeconomic Factor				
Lack of Specialists & PCPs					
No Healthcare Coverage	#5 Rank for Socioeconomic Factor #2 Most Vulnerable Pop				
Cost of Care / Prescriptions (e.g. Diabetes)					
Limited Transportation					
Education / Knowledge Gaps	#3 Rank for Socioeconomic Factor				
Support System (Family Ties)					
No Care Giver Support (e.g. Dementia)					
Hopelessness / Spiritual Dep					

Underlying Health Factors				
Unhealthy Lifestyle				
Access to Care	#2 for Top 5 Most Prevalent Health Issues #1 for MOST Significant			
Access to Healthy Food	#4 Rank for Socioeconomic Factor			
Household Income	#1 Rank for Socioeconomic Factor #1 Most Vulnerable Pop			
Poverty Rates	#2 Rank for Socioeconomic Factor			
Knowledge Gaps	#3 Rank for Socioeconomic Fact			
Stress / Busy Lifestyle				
Smoking	#5 (tied) for Top 5 Most Prevalent Health Issues			

Underlying Hea	Ith Factors			
Home Life / Adverse				
Childhood Events				
Senior Isolation	#3 Most Vulnerable Pop			
Opioid Abuse	#1 for Top 5 Most Prevalent Health Issues			
Street Drug Use /	#3 (tied) for Top 5 Most Prevalent Health Issues			
Substance Abuse	#3 for MOST Significant			
Spiritual Depletion				
Access to Mental Health				
Care				
Poor Understanding /	#3 Rank for			
Knowledge Gaps	Socioeconomic Fact			
Stress				
Household Income	#1 Rank for Socioeconomic Factor			
	#1 Most Vulnerable Pop			
Poverty Rates	#2 Rank for Socioeconomic Factor			



### **Priorities**

The CHI St. Vincent Hot Springs community needs logic model was presented to its hospital leadership team on April 15, 2019. The leadership team selected the following as their key priorities over the next 3 years.

CHI St. Vincent Hot Springs and Christus Dubuis Hospital				
Prioritized Community Health Need	Focus Area(s)	Population(s)		
Access to Healthcare Services	<ul><li>Primary Care</li><li>Chronic Disease Management</li></ul>	<ul> <li>Seniors (ages 65 and older)</li> <li>Medicaid recipients</li> <li>Individuals living in poverty</li> </ul>		
Mental Health*	Substance Use & Abuse (including opioid use)	<ul> <li>Seniors (ages 65 and older)</li> <li>Adults and families</li> <li>Individuals living in poverty</li> </ul>		
	Suicide Prevention	<ul> <li>Seniors (ages 65 and older)</li> <li>Adults</li> <li>Individuals living in poverty</li> </ul>		

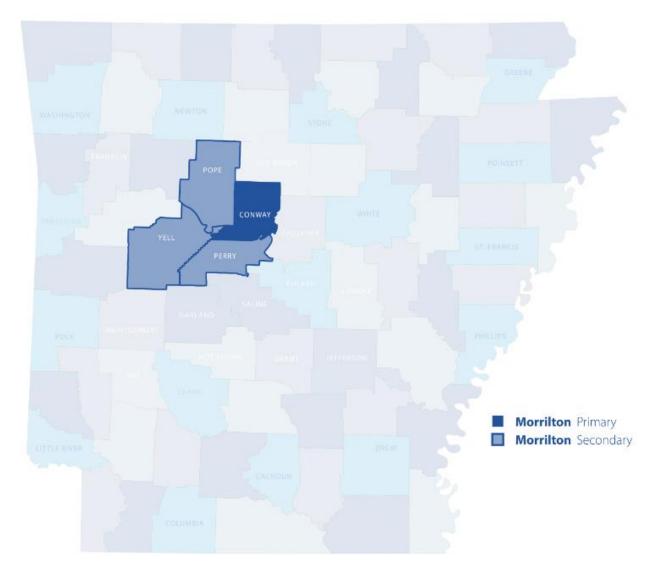
\*NOTE: It should be noted that CHRISTUS Dubuis Hospital will not be addressing the mental health prioritized community health need as CMS regulations do not allow long-term acute care facilities to provide such services.



### **CHI St. Vincent Morrilton**

### **Hospital Service Area**

The CHI St. Vincent Morrilton 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of the patients it serves. Conway County was identified as the hospital's primary service area because 60.9 percent of its patients live there. Perry County, Pope County and Yell County were designated the secondary service area.



### Secondary Data Review

The CHI St. Vincent Morrilton's demographic profile was reviewed in its primary and secondary service areas. The profile for Conway County can be viewed below (Table 13).



#### Table 13: CHI St. Vincent Morrilton PSA Demographic Profile

	Conway County		Bench	marks
	Health	% Differ from		
Measurement	Indicator	U.S. Avg	Arkansas	<b>United States</b>
Population Growth Rate	-1.7%	-130.9%	2.9%	5.5%
Median Household Income	\$39,638	-28.4%	\$42,336	\$55,322
Total Population Below Poverty Line	\$22,365	39.8%	16.4%	12.3%
Persons Without Health Coverage	8.8%	-13.7%	9.3%	10.2%
High School Degree	85.2%	-2.1%	85.2%	87.0%
Bachelor's Degree or Higher	15.8%	-47.9%	21.5%	30.3%
Race & Ethnicity	Race & Ethnicity			
White	84.9%	39.9%	72.5%	60.7%
Black or African American	11.4%	-14.9%	15.7%	13.4%
American Indian/Alaskan Native	0.8%	-38.5%	1.0%	1.3%
Asian	0.5%	-91.4%	1.6%	5.8%
Native Hawaiian/Other Pacific Islander	0.0%	-100.0%	0.3%	0.2%
Two or More Races	2.4%	-11.1%	2.1%	2.7%
Hispanic or Latino	3.9%	-78.5%	7.6%	18.1%
Age				
Children/Youth (Under 18 Years)	23.1%	0.9%	23.7%	22.9%
Adults (19-64 Years)	58.4%	-6.1%	60.3%	62.2%
Seniors (65+ Years)	18.5%	24.2%	16.0%	14.9%

A review of community health indicators related to Built Environment and Health, Disease Prevention and Health Promotion, Health Disparities, and Social Determinants of Health was conducted primarily in November and December 2018. Candidate critical focus areas were identified using the following selection criteria: 50 percent higher than the national average, a state ranking in the bottom quartile, or no improvement in outcomes since 2015 (Table 14).

#### Table 14: CHI St. Vincent Morrilton Critical Community Health Needs

Health Indicator	County	National	% Difference	State Rank '18
No First Trimester Care	33%	6%	448%	47
Opioid Prescriptions	122	59	108%	49
Infant Mortality	11	6	94%	46
Teen Births	52	27	93%	50 <i>(2015)</i>
Suicide	22	14	65%	37
Depression	25%	17%	50%	35

Talking points for Morrilton's community health needs critical focus areas were developed to assist with internal and external communications.

- 1 in 3 mothers in Conway County go without prenatal care beginning in the first trimester. This is 5.5 times higher than the national average.
- 1 in 12 babies in Conway County are born at a low birth weight (less than 5.5lbs).
- 1 in 88 babies born in Conway County die within the first year. This is 1.9 times higher than the national average.



- 1 in 19 teenagers, ages 15 to 19, will give birth each year in Conway County. This is 1.9 times higher than the national average.
  - In 2015, Arkansas had the highest teen pregnancy rate in America.
- 1 in 4 Conway County residents have been told they have Depressive Disorder by a health provider. This is 1.5 times higher than the national average.
- The Suicide rate in Conway County is 1.6 times higher than the national average. Conway County's rate is 22 in 100,000.
- Conway County opioid prescription rates are 2.1 times higher than the national average.
  - There are more opioid prescriptions in Conway County than there are residents at 1.2 prescriptions per person.

Needs in the community related to chronic disease management also surfaced. They did not meet the selection criteria set to be on the list of critical community health needs but were considered important metrics by key stakeholders (Table 15).

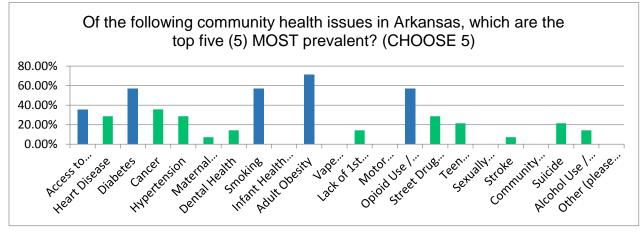
Health Indicator	Conway County	National	% Difference	State Rank '18
Stroke	70	38	87%	50
Hypertension	42%	33%	25%	48
Coronary Heart Disease	6.4%	5.7%	12%	48
Heart Disease Mortality	321	219	27%	47
Cancer	191	156	23%	47
Adult Obesity	38%	28%	36%	44
Diabetes	14%	10.5%	35%	42

#### Table 15: CHI St. Vincent Morrilton Chronic Disease Management Focus Areas

### Key Informant Survey

The key informant survey had 19 respondents affiliated with Conway County. Survey results indicated that community stakeholders believe the top 5 most prevalent health issues in their areas were the following: Adult Obesity, Opioid Use / Abuse, Smoking, Diabetes and Access to Care / Uninsured (Chart 10). Of the top five prevalent health issues identified, community stakeholders selected <u>Adult Obesity</u> followed by <u>Access to Care / Uninsured</u>, as the most significant contributor to poor community health.







Additionally, respondents selected the following socio-economic factors as having the greatest impact on community health issues: Household Income, Poverty Rate and Lack of Healthcare Coverage (*Chart 11*).

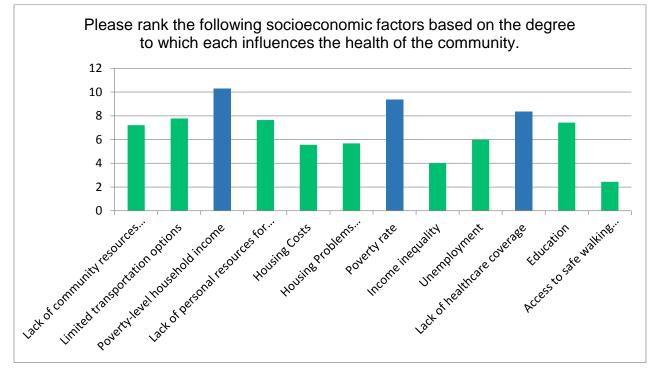
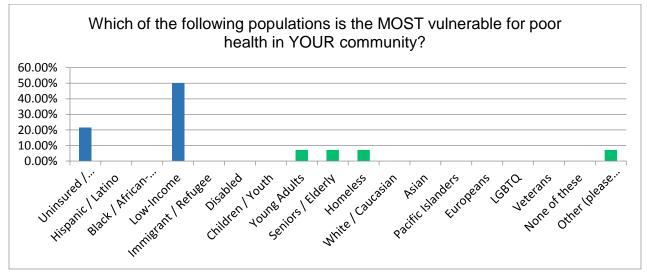


Chart 11: Community Stakeholder's Top Most Impactful Socio-Economic Factors in Conway County

Furthermore, survey results indicated that community stakeholders believed the following populations were the most vulnerable to poor health and outcomes: Low Income and Uninsured/Underinsured (*Chart 12*).







Respondents were given the opportunity to share additional thoughts in an open response format. A sample of their quotes are listed below.

- "Growing old is not pretty even if you have money to pay the bills."
- "It would be nice if there was more free transportation options for seniors to get to places such as the Senior Adult Center, Community Center for exercise, grocery shopping, etc."
- "Conway County did have a free clinic a few years ago, not sure what happened to it."

### **Focus Groups**

A total of 2 focus groups were conducted in Conway County capturing the perspective of 17 community members.

Date	Meeting Space	Facilitator(s)	Scribe	# Attended
February 26, 2019	CHI St. Vincent Morrilton Hospital	Deb Roybal		8
February 28, 2019	CHI St. Vincent Morrilton Hospital	Rebecca Stone		9

The first focus group was conducted at CHI St. Vincent Morrilton hospital with representatives of the auxiliary team. Evaluation demographic responses, completed by all 8 participants, indicated that the focus group had representation from 8 senior adults ages 65 and up who identified as Caucasian.

Key community problems or concerns discussed during the focus group are listed below.

- Senior Isolation / Mental Health
- Teen Pregnancy
- Drug Abuse (all ages)
- Unhealthy Lifestyle Choices (i.e. eating at McDonalds)
- Disjointed Family Units (seniors raising grandchildren)

The second focus group was conducted with employees at CHI St. Vincent Morrilton hospital who live in the community. The focus group had representation from 9 adults who were between the ages 18 to 65. Participants include 7 Caucasian adults and 2 black or African American individuals.

Key community problems or concerns discussed during the focus group are listed below.

- Prevalence of Diabetes
- Lack of Access to PCPs and Specialists (e.g. no OBGYN in the community)
- Prevalence of Teen Pregnancies
- Knowledge Gaps in the Area about the Abundant Life Pregnancy Resource Center
- High Prevalence of Drug Abuse
- Lack of Resources for Mental Health



### Logic Model

A logic model of key community health needs and underlying factors review was performed using the results of CHI St. Vincent Morrilton's secondary data review, key informant survey and focus groups.

Access to Care				
Health Indicator	County	U.S.	% Differ	State Rank
No First Trimester Care	33%	6%	448%	47
Infant Mortality	11	6	94%	46
Teen Births	52	27	93%	50

Chronic Disease Management				
Health Indicator	County	U.S.	% Differ	State Rank
Adult Obesity	38%	28%	36%	44
Diabetes	14%	10.5%	35%	42
Cancer	191	156	23%	47

Mental Health				
Health Indicator	County	U.S.	% Differ	State Rank
Suicide	22	14	65%	37
Depression	25%	17%	50%	35
Opioid Prescriptions	122	59	108%	49







Underlying Health Factors				
Household Income	#1 Rank for Socioeconomic Factor			
Poverty Rates	#2 Rank for Socioeconomic Factor			
Lack of Specialists & PCPs (e.g. OBGYN)				
No Healthcare Coverage	#3 Rank for Socioeconomic Factor #2 Most Vulnerable Pop			
Cost of Prescriptions (e.g. Diabetes)				
Limited Transportation	#4 Rank for Socioeconomic Factor			
Education / Knowledge Gaps				
Support System (Family Ties)				
Vouchers for Appointments				
Hopelessness / Spiritual Dep				

Underlying Health Factors			
Unhealthy Lifestyle			
Access to Care	#5 Rank for Top 5 Most Prevalent Health Issues #2 MOST Significant		
Access to Healthy Food			
Household Income	#1 Rank for Socioeconomic Factor		
Poverty Rates	#2 Rank for Socioeconomic Factor		
Knowledge Gaps			
Stress			
Smoking	#2 (tied) Rank for MOST Significant Health Issue		
Occupational Hazards			

Underlying Health Factors			
Home Life / Adverse Childhood Events			
Senior Isolation			
Opioid Abuse	#2 (tied) Rank for MOST Significant Health Issue		
Spiritual Depletion			
Access to Mental Health Care			
Stress			
Household Income	#1 Rank for Socioeconomic Factor		
Poverty Rates	#2 Rank for Socioeconomic Factor		

### **Priorities**

The CHI St. Vincent Morrilton community needs logic model was presented to its hospital leadership team on April 10, 2019. The leadership team selected the following as their key priorities over the next 3 years.

CHI St. Vincent Morrilton			
Prioritized Community Health Need	Focus Area(s)	Population(s)	
Access to Healthcare Services	Primary Care	<ul> <li>Seniors (ages 65 and older)</li> </ul>	
	<ul> <li>Chronic Disease Management</li> </ul>	<ul> <li>Individuals living in poverty</li> </ul>	
Mental Health	Senior isolation	<ul> <li>Seniors (ages 65 and older)</li> </ul>	
Wental Health	Suicide	<ul> <li>Individuals living in poverty</li> </ul>	

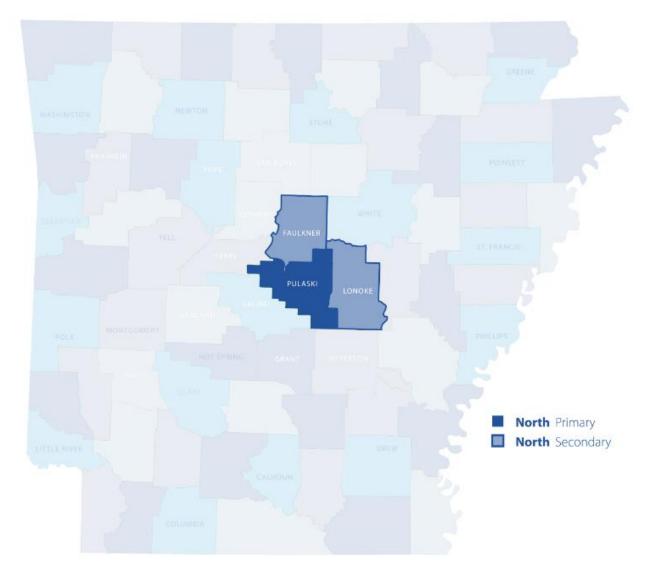


### **CHI St. Vincent North**

### **Hospital Service Area**

The CHI St. Vincent North 2019 CHNA defines its commitment area as the geographical region that encompasses approximately 75 percent of the patients it serves. Pulaski County was identified as the hospital's primary service area because 70.3 percent of its patients live there. Lonoke County and Faulkner County were designated the secondary service area.

Note: Although the service area is different from that of CHI St. Vincent Infirmary, the north facility shares its tax ID number with CHI St. Vincent Infirmary and the annual 990H form is completed as a composite.





### Secondary Data Review

The CHI St. Vincent North demographic profiles were reviewed in their primary and secondary service areas. CHI St. Vincent North shares its service area with CHI St. Vincent Infirmary, and its secondary data review can be viewed on pages 16 and 17.

### **Key Informant Survey**

CHI St. Vincent North's key informant survey results can be viewed under the CHI St. Vincent Infirmary section on pages 17 through 19.

### **Focus Groups**

CHI St. Vincent North's focus group summary can be viewed under the CHI St. Vincent Infirmary section on pages 19 and 20.

### Logic Model

CHI St. Vincent North's logic model of key community health needs and underlying factors can be viewed under the CHI St. Vincent Infirmary section on pages 20 and 21.

### **Priorities**

The CHI St. Vincent North community needs logic model was presented to its hospital leadership team on May 8, 2019. The leadership team selected the following as their key priorities over the next 3 years.

CHI St. Vincent North					
Prioritized Community Health Need	Focus Area(s)	Population(s)			
Access to Healthcare Services	Primary Care     Chronic Disease Management	Medicaid recipients     Individuals living in poverty			
	Substance Use & Abuse (including opioid use)	Individuals living in poverty     Individuals living in poverty			
Mental Health	Suicide Prevention	<ul> <li>Adults and families (emphasis on children ages 13 to 19)</li> <li>Individuals living in poverty</li> </ul>			



### Impact Evaluation – 2016 CHI St. Vincent CHIP

### CHI St. Vincent Infirmary

The CHI St. Vincent Infirmary Community Health Needs Assessment was developed in 2016 and identified seven priority areas which the hospital addressed in its Community Health Implementation Plan (CHIP). CHI St. Vincent Infirmary's work to address these priorities over the past 3 years is summarized below.

### <u>Obesity</u>

- CHI SVI created 3 indoor and outdoor walking paths that promote exercise to visiting community members.
- CHI SVI conducts weekly produce markets in the cafeteria that offer assorted seasonal produce procured from local sources when available.

### Health Promotion and Education

- CHI SV provides nutrition education utilizing Well-Fed Me curriculum in the format of monthly e-newsletters to 3,800 subscribers and the distribution of 10,000 booklets per year.
- CHI SVI supported the Arkansas United Soccer Club in 2017 through a \$15,000 sponsorship.

### Chronic Disease Management

- CHI SVI promoted chronic disease management through community health fairs and screenings, which included 26 health fairs and physicals from FY16 to FY18 that served 5,685 community members.
- CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 53,937 lives in FY16, 71,416 lives in FY17 and 92,298 in FY18.

### Latino Health

• CHI SVI conducted a health fair for the Latino community at the St. Teresa's Church on June 30, 2016 that served 75 community members.

### Mental Health

- CHI SV provided Mental Health First Aid trainings to 45 hospital staff across the four facilities and 100 community members.
- CHI SV facilitated the evidenced-based safeTALK program which reached 83 professionals/community members and 53 youth, ages 15 to 21.

### Access to Care

- CHI SVI provided charity care, defined as self-pay and Medicaid shortfalls, which totaled in charges at \$6.9M in FY16, \$11.0M in FY17 and \$27.4M in FY18.
- CHI SVI conducted a total of 26 health fairs and physicals from FY16 to FY18 in the community that served 5,685 community members.

### Senior Health

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 4.062 senior lives in FY16, 4,413 senior lives in FY17 and 6,209 senior lives in FY18.



### CHI St. Vincent Hot Springs

The CHI St. Vincent Hot Springs Community Health Needs Assessment was developed in 2016 and identified seven priority areas which the hospital addressed in its Community Health Implementation Plan (CHIP). CHI St. Vincent Hot Spring's work to address these priorities over the past 3 years is summarized below.

### <u>Obesity</u>

- CHI SVHS created 3 indoor and outdoor walking paths that promote exercise to visiting community members.
- CHI SVHS conducts weekly produce markets in the cafeteria that offer assorted seasonal produce procured from local sources when available.

### Health Promotion and Education

- CHI SV provides nutrition education utilizing Well-Fed Me curriculum in the format of monthly e-newsletters to 3,800 subscribers and the distribution of 10,000 booklets per year.
- CHI SVHS facilitated community health education in cancer, diabetes, heart disease, substance abuse and women's health from FY16 to FY18 that reached 1,178 community members.

### Chronic Disease Management

- CHI SVHS promoted chronic disease management through community health fairs and screenings, which included 22 health fairs and physicals from FY16 to FY18 that served 2,972 community members.
- CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 53,937 lives in FY16, 71,416 lives in FY17 and 92,298 in FY18.

### Latino Health

• CHI SVHS conducted a health fair for the Latino community at Our Lady of Guadalupe Church in Glenwood on September 17, 2016 that served 102 community members.

### Mental Health

- CHI SVHS facilitated a total of 46 mental health educations in the form of trainings and conference presentations that reached 3,713 persons.
- CHI SV provided Mental Health First Aid trainings to 45 hospital staff across the four facilities and 100 community members.
- CHI SV facilitated the evidenced-based safeTALK program which reached 83 professionals/community members and 53 youth, ages 15 to 21.

### Access to Care

- CHI SVHS provided charity care, defined as self-pay and Medicaid shortfalls, which totaled in charges at \$22.7M in FY16, \$15.6M in FY17 and \$15.1M in FY18.
- CHI SVHS conducted a total of 22 health fairs and physicals from FY16 to FY18 that served 2,972 community members.

### Senior Health

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 4.062 senior lives in FY16, 4,413 senior lives in FY17 and 6,209 senior lives in FY18.



### CHI St. Vincent Morrilton

The CHI St. Vincent Morrilton Community Health Needs Assessment was developed in 2016 and identified seven priority areas which the hospital addressed in its Community Health Implementation Plan (CHIP). CHI St. Vincent Morrilton's work to address these priorities over the past 3 years is summarized below.

### <u>Obesity</u>

- CHI SVM created 1 outdoor walking path that promotes exercise to visiting community members.
- CHI SVM conducts weekly produce markets in the cafeteria that offer assorted seasonal produce procured from local sources when available.

### Health Promotion and Education

• CHI SV provides nutrition education utilizing Well-Fed Me curriculum in the format of monthly e-newsletters to 3,800 subscribers and the distribution of 10,000 booklets per year.

### Chronic Disease Management

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 53,937 lives in FY16, 71,416 lives in FY17 and 92,298 in FY18.

### <u>Latino Health</u>

• ???

### Mental Health

- CHI SV provided Mental Health First Aid trainings to 45 hospital staff across the four facilities and 100 community members.
- CHI SV facilitated the evidenced-based safeTALK program which reached 83 professionals/community members and 53 youth, ages 15 to 21.

### Access to Care

• CHI SVM provided charity care, defined as self-pay and Medicaid shortfalls, which totaled in charges at \$481,990 in FY16, \$475,408 in FY17 and \$366,561 in FY18.

### Senior Health

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 4.062 senior lives in FY16, 4,413 senior lives in FY17 and 6,209 senior lives in FY18.

### CHI St. Vincent North

The CHI St. Vincent North Community Health Needs Assessment was developed in 2016 and identified seven priority areas which the hospital addressed in its Community Health Implementation Plan (CHIP). CHI St. Vincent North's work to address these priorities over the past 3 years is summarized below.

### **Obesity**

- CHI SVN created 2 indoor and outdoor walking paths that promote exercise to visiting community members.
- CHI SVN conducts weekly produce markets in the cafeteria that offer assorted seasonal produce procured from local sources when available.



#### Health Promotion and Education

• CHI SV provides nutrition education utilizing Well-Fed Me curriculum in the format of monthly e-newsletters to 3,800 subscribers and the distribution of 10,000 booklets per year.

#### Chronic Disease Management

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 53,937 lives in FY16, 71,416 lives in FY17 and 92,298 in FY18.

#### Latino Health

• ???

### Mental Health

- CHI SV provided Mental Health First Aid trainings to 45 hospital staff across the four facilities and 100 community members.
- CHI SV facilitated the evidenced-based safeTALK program which reached 83 professionals/community members and 53 youth, ages 15 to 21.

#### Access to Care

• CHI SVM provided charity care, defined as self-pay and Medicaid shortfalls, which totaled in charges at \$652,368 in FY16, \$1.1M in FY17 and \$4.8M in FY18.

#### Senior Health

• CHI SV promotes chronic disease management through the Arkansas Health Network, CHI SV's clinically integrated network, which managed 4.062 senior lives in FY16, 4,413 senior lives in FY17 and 6,209 senior lives in FY18.



### **Appendices**

### Appendix 1: Secondary Data Review Sources

Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Population	Population estimates, July 1, 2017, (V2017)	census.gov/quickfacts	census.gov/quickfacts	2017	2017
Median Household Income	Median household income (in 2017 dollars), 2013-2017	census.gov/quickfacts	census.gov/quickfacts	2013-2017	2013-2017
Per Capita Income	Per capita income in past 12 months (in 2017 dollars), 2013-2017	census.gov/quickfacts	census.gov/quickfacts	2012-2016	2012-2016
Total Population Below Poverty Line	Person in poverty, percent	census.gov/quickfacts	census.gov/quickfacts	2017	2017
Persons Without Health Coverage	Persons without health insurance, under age 65 years, percent	census.gov/quickfacts	census.gov/quickfacts	2017	2017
High School Degree	High school graduate or higher, percent of persons age 25 years+,	census.gov/quickfacts	census.gov/quickfacts	2013-2017	2013-2017
Bachelor's Degree or Higher	Bachelor's degree or higher, percent of persons age 25 years+	census.gov/quickfacts	census.gov/quickfacts	2013-2017	2013-2017
Race & Ethnicity	Race and Hispanic Origin	census.gov/quickfacts	census.gov/quickfacts	2017	2017
Age		census.gov (ACS)	census.gov (ACS)	2013-2017	2013-2017
Premature Death	Years of potential life lost before age 75 per 100,000 population (age- adjusted)	County Health Rankings (NCHS- Mortality Files)	County Health Rankings (NCHS- Mortality Files)	2014-2016	2014-2016
Poor or Fair Health Status	Percent of adults reporting fair or poor health (age-adjusted)	County Health Rankings (BRFSS)	County Health Rankings (BRFSS)	2016	2016
Poor Physical Health Days	Average number of physically unhealthy days reported in past 30 days (age adjusted)	County Health Rankings (BRFSS)	County Health Rankings (BRFSS)	2016	2016
Poor Mental Health Days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	County Health Rankings (BRFSS)	Data.gov, BRFSS	2016	2016
Low Birth Weight	Percent of live births with low birth weight (<2500g)	National Vital Statistics System -Natality Files	National Vital Statistics System -Natality Files	2010-2016	2010-2016
All-Cause Mortality	ICD10 Cause of Death Codes (All Causes A00–Y89.9) per 100,000 (age-adjusted)	CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Infant Mortality	Rate of all infant deaths (within 1 year), per 1,000 live births	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2007-2016



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Pregnancy Deaths	ICD10 Cause of Death Codes (Pregnancy, childbirth and the puerperium, (Other complications) O10-O99) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Cancer	ICD10 Cause of Death Codes (Neoplasms C00–D48) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Stroke	ICD10 Cause of Death Codes (Cerebrovascular diseases I60–I69) per 100,000 population (age- adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Chronic Lower Respiratory Disease	ICD10 Cause of Death Codes (Chronic lower respiratory diseases J40–J47) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Diabetes	ICD10 Cause of Death Codes (Diabetes mellitus E10-E14) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Heart Disease	ICD10 Cause of Death Codes (100- 198) per 100,000 population (age- adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Flu Deaths	ICD10 Cause of Death Codes (Influenza and pneumonia Influenza) J10-J11) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Suicide	ICD10 Cause of Death Codes (Intentional self-harm X60-X84, Y87.0) per 100,000 population (age- adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Suicide by Firearm	ICD10 Cause of Death Codes (Intentional self-harm (by discharge of firearm) X85-Y09, Y87.0) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Assault	ICD10 Cause of Death Codes (Assault-homicide X93-X95) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Assault by Firearm	ICD10 Cause of Death Codes (Assault-homicide (by discharge of firearm) X93-X95) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Injury-Related Deaths	ICD10 Cause of Death Codes (Accidents (unintentional injuries) V01–X59) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Motor Vehicle Deaths	ICD10 Cause of Death Codes (Motor Vehicle Accidents) per 100,000 population (age-adjusted)	ADH Health Statistics Branch, CDC WONDER	CDC WONDER	2015-2017 (provisional)	2015-2017
Alcohol Impaired Driving Deaths	Percent of driving deaths with alcohol involved	County Health Rankings (Fatality Analysis Reporting System)	County Health Rankings (Fatality Analysis Reporting System)	2012-2016	2012-2016
Hypertension	Percent of adults who been told they have high blood pressure	ADH/CDC BRFSS	CDC.gov (FastStats)	2016	2015-2016
Asthma	Percent of adults who have been told they currently have asthma	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2016
Coronary Heart Disease	Percent of adults who have been told to have angina or coronary heart disease	ADH/CDC BRFSS	CDC.gov (FastStats)	2016	2016
Arthritis	Percent of adults who have been told they have arthritis	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2016
High Cholesterol	Percent of adults who have had their blood cholesterol checked and have been told it was high	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2015
Diabetes	Percent of adults reporting diabetes	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2016
Adult Obesity	Percent of adults that report a BMI higher than 30	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2016
Adult Smoking	Percent of adults who are current smokers	ADH/CDC BRFSS	Data.gov, BRFSS	2016	2016
Excessive Drinking	Percent of adults reporting binge or heavy drinking	County Health Rankings (BRFSS)	Data.gov, BRFSS	2016	2016
Sexually Transmitted Infections	Number of newly diagnosed chlamydia cases per 100,000 population	County Health Rankings (STDSS)	County Health Rankings (STDSS)	2015	2015



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Physical Inactivity	Percent of adults reporting no physical activity in the past month	ADH/CDC BRFSS	ADH/CDC BRFSS	2014	2016
Teen Birth Rate	Teen birth rate per 1,000 female population, ages 15-19	NCHS - Natality Files	NCHS - Natality Files	2010-2016	2010-2016
No First Trimester Health Care	Percent of pregnant women who received no first trimester health care	Kids Count Data Center (AACF)	Kids Count Data Center (AACF)	2016	2016
Uninsured	Percentage of population under age 65 without health insurance	Census.gov/quickfacts	Census.gov/quickfacts	2017	
Primary Care Physicians	Ratio of population to primary care physicians	Area Health Resource File/American Medical Association	Area Health Resource File/American Medical Association	2015	2015
Dentists	Ratio of population to dentists	Area Health Resource File/National Provider Identification file	Area Health Resource File/National Provider Identification file	2016	2016
Mental Health Providers	Ratio of population to mental health providers	CMS, National Provider Identification file	CMS, National Provider Identification file	2017	2017
Preventable Hospital Stays	Number of hospital stays for ambulatory care sensitive conditions per 1,000 Medicare enrollees	Dartmouth Atlas of Health Care	Dartmouth Atlas of Health Care	2015	2015
Mammography	Percent of female Medicare enrollees ages 67-69 that receive mammography screening	Dartmouth Atlas of Health Care	Dartmouth Atlas of Health Care	2014	2014
Diabetic Monitoring	Percent of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring	Dartmouth Atlas of Health Care	Dartmouth Atlas of Health Care	2014	2014
Medicare Healthcare Costs	Health Care Costs are the price- adjusted Medicare reimbursements (Parts A and B) per enrollee.	County Health Rankings - Dartmouth Atlas of Health Care	www.cms.gov	2015	2017
Medicaid Healthcare Costs	Total Medicaid Enrollees Expenditures divided by Total Number of Medicaid Enrollees	HumanServices.Arkans as.gov	KFF Henry J. Kaiser Family Foundation, State Health Facts	2017	2014
Not High School Graduates	Health Care Costs are the price- adjusted Medicare reimbursements (Parts A and B) per enrollee.	census.gov (ACS)	census.gov (ACS)	2017	2017
High School Graduation in 4 years	Percent of ninth-grade cohort that graduates in four years	County Health Rankings (data.gov)	Data.gov, BRFSS	2014-2015	2016



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Some College	Percent of adults ages 25-44 with some post-secondary education	County Health Rankings (ACS)	County Health Rankings (ACS)	2012-2016	2012-2016
Unemployment Rate	Number of unemployed people as a percent of the labor force	Bureau of Labor Statistics	Bureau of Labor Statistics	Sep 2017 - Oct 2018 for County Data, Nov 2017 - Oct 2018 for US data	Sep 2017 - Oct 2018 for County Data, Nov 2017 - Oct 2018 for US data
Median Household Income	Median income	SAIPE	SAIPE	2017	2017
Children in Poverty	Percent of children under 18 below the poverty line	SAIPE	County Health Rankings (SAIPE)	2017	2016
Population in Poverty	Percent of population below the federal poverty line	SAIPE	SAIPE	2017	2017
Income Inequality	Ratio of households at the 80th percentile to income at 20th percentile	County Health Rankings (ACS)	County Health Rankings (ACS)	2012-2016	2012-2016
Children in Single- Parent Households	Percent of children that live in a household headed by single parent	County Health Rankings (ACS)	County Health Rankings (ACS)	2012-2016	2012-2016
Social Associations	Number of membership associations per 10,000 population	County Health Rankings (County Business Patterns)	County Health Rankings (County Business Patterns)	2015	2015
Median Gross Rent	Median gross rent	census.gov/quickfacts	census.gov/quickfacts	2013-2017	2013-2017
Violent Crime	Number of reported crime offenses per 100,000 population	County Health Rankings (Uniform Crime Reporting - FBI)	County Health Rankings (Uniform Crime Reporting - FBI)	2012-2014	2012-2014
Homicides	Number of deaths due to homicide per 100,000 population.	County Health Rankings (CDC WONDER mortality data)	N/A	2010-2016	N/A
Firearm Fatalities	Number of deaths due to firearms per 100,000 population.	County Health Rankings (CDC WONDER mortality data)	N/A	2012-2016	N/A
Residential Segregation - black/white	Residential Segregation is the index of dissimilarity where higher values indicate greater residential segregation between black and white county residents. The residential segregation index ranges from 0 (complete integration) to 100 (complete segregation).	County Health Rankings (American Community Survey)	Average of all states in American Community Survey http://censusscope.or g/ACS/Segregation.ht ml	2012-2016	2005-2009



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Residential Segregation - non- white/white	Residential segregation is the index of dissimilarity where higher values indicate greater residential segregation between non-white and white county residents. The residential segregation index ranges from 0 (complete integration) to 100 (complete segregation)	County Health Rankings (American Community Survey)	N/A	2012-2016	N/A
Food Environment Index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	County Health Rankings (USDA Food Environment Atlas, Map and the Meal Gap)	County Health Rankings (USDA Food Environment Atlas, Map and the Meal Gap)	2015	2015
Food Insecurity	Food Insecurity Rate. Food insecurity refers to USDA's measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food- insecure households are not necessarily food insecure all the time. Food insecurity may reflect a household's need to make trade- offs between important basic needs, such as housing or medical bills, and purchasing nutritionally adequate foods.	2016	Map the Meal Gap	2016	2016
Access to Exercise Opportunities	Percent of population with adequate access to locations for physical activity	County Health Rankings (Business Analyst, Delorme map data, Esri, US Census Tiger)	County Health Rankings (Business Analyst, Delorme map data, Esri, US Census Tiger)	2010 & 2016	2010 & 2016
Air Pollution - Particulate Matter	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	County Health Rankings (CDC WONDER environmental data)	County Health Rankings (CDC WONDER environmental data)	2012	2012
Drinking Water Violations	Percent of population potentially exposed to water exceeding a violation limit during the last year	County Health Rankings (Safe Drinking Water Information System)	N/A	2016	N/A
Severe Housing Problems	Percent of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing	County Health Rankings (Comprehensive Housing Affordability Strategy Data)	County Health Rankings (Comprehensive Housing Affordability Strategy Data)	2010-2014	2010-2014
Driving Alone to Work	Percent of the workforce that drives alone to work	County Health Rankings (ACS)	County Health Rankings (ACS)	2012-2016	2012-2016
Long Commute - Driving Alone	Among workers who commute in their car alone, the percent that commute more than 30 minutes	County Health Rankings (ACS)		2012-2016	



Measurement	Description	AR Source	U.S. Source	AR Year	U.S. Year
Frequent Physical Distress	Percent of adults reporting 14 or more days of poor physical health per month	County Health Rankings (CDC WONDER mortality data)	N/A	2016	N/A
Frequent Mental Distress	Percent of adults reporting 14 or more days of poor mental health per month	County Health Rankings (CDC WONDER mortality data)	N/A	2016	N/A
Depression	Ever told had Depressive Disorder	Arkansas BRFSS County Estimates	CDC.gov (WEAT)	2016	2016
Drug Overdose Deaths	Number of drug poisoning deaths per 100,000 population (ICD-10 codes used include X40-X44, X60- X64, X85, and Y10-Y14)	County Health Rankings (CDC WONDER mortality data)	CDC WONDER	2014-2016	2014-2016
Opioid Prescriptions Per 100 Persons	Opioid prescriptions per 100 persons	CDC Drug Overdose Maps	CDC Drug Overdose Maps	2017	2017