2020

# Primary Care Needs Assessment of Arkansas


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## Overview

The Affordable Care Act of 2010 established the expansion of Medicaid eligibility levels with the intent of reducing the number of uninsured individuals. Arkansas was one of the first states to take advantage of the expansion. As a result, the number of uninsured Arkansans has decreased by roughly 50 percent since the 2015 Primary Care Needs Assessment. Despite slight improvements in health outcomes, Arkansas continues to rank on the bottom amongst the 50 states and the District of Columbia. Over the past few years, Arkansas has risen to 42nd from 49th in the Commonwealth Fund's Health System Scorecard. However, the consistent bottom level positioning is a clear indicator that Arkansas still has work to do to fulfill its vision of optimal health for all Arkansans to achieve maximum personal, economic, and social impact.

**Commonwealth Fund Scorecard Arkansas**

Overall Rank - 42

| | |
|---|---|
| Access: | 37 |
| Prevention/Treatment: | 46 |
| Avoidable Use/Cost: | 36 |
| Healthy Lives: | 45 |
| Equity: | 37 |
| *Medicaid Expansion:* | *yes* |

*Each year The Commonwealth Fund releases its State Health System Scorecard. In 2020, Arkansas ranked near the bottom overall. Although Arkansas continues to show slight improvements among the five divisions and most of the 42 indicators, the state continues to remain near the bottom.*

*Visit the Commonwealth Fund for more information.*

The Arkansas Department of Health is committed to protecting and improving the health of all Arkansans. The 2020-2024 State Health Improvement Plan outlines the agency's priorities in the form of eight aims, with a set of goals to reach them. The aims include social determinants of health, public health workforce development, health education, access to care, addiction /mental health/suicide, maternal and infant health, vaccine /infectious disease, and obesity. The Office of Rural Health and Primary Care (ORHPC) supports this commitment by promoting healthcare services and systems with a focus on increasing the availability of quality health care for all Arkansans. The office gives special attention to rural, low income, uninsured, isolated, and vulnerable populations. Arkansas's PCO does this by:

- Identifying communities with the greatest unmet healthcare needs and working toward solutions to decrease disparities through shortage designations and workforce recruitment and retention activities.
- Fostering collaboration with government entities, communities, community-based organizations, and other stakeholders interested in protecting and improving the health of all Arkansans.
- Providing support to organizations that serve the unique healthcare needs of rural, uninsured, isolated, vulnerable, and special needs populations.

# NEEDS ASSESSMENT METHODOLOGY

The 2020 Primary Care Needs Assessment of Arkansas is the Office of Rural Health and Primary Care's (ORHPC) contribution to the identification and understanding of the most pressing barriers associated with primary care across the state. Arkansas is predominately rural which creates a unique set of challenges regarding primary care.

The needs assessment methodology included both quantitative and qualitative data. The quantitative data highlights the healthcare needs according to the most recent data, as well as the economic, social and infrastructure challenges, while the qualitative data puts the perceived needs of key stakeholders into perspective. The Arkansas Department of Health provided primary data to conduct the needs assessment. Primary data sources include healthcare shortage, recruitment and retention, and health licensing data. The University of Arkansas, Division of Agriculture Research and Extension and the PCO performed secondary data analysis. Secondary data sources included the United States Census Bureau, County Health Rankings, the Commonwealth Fund 2020 Scorecard, and data from the Arkansas Department of Finance and Administration. The Rural Health Association of Arkansas (RHAA) and the PCO supplied qualitative data collected from stakeholders during meetings and workgroup sessions.

Although the Arkansas Primary Care Needs Assessment (ARPCNA) focuses on understanding key barriers to obtaining optimal health for Arkansans it is not all encompassing of the challenges that exist as identified by stakeholders. This needs assessment will identify the communities with the greatest unmet health care needs. It will also highlight the critical needs within the four priority areas as identified by the Rural Health Workgroup: access to care, workforce development, social determinants of health, and mental health services. The four priority areas (highlighted below) align with the State Health Improvement Plan, which outlines the aims and goals of the state to improve healthcare for all Arkansans.

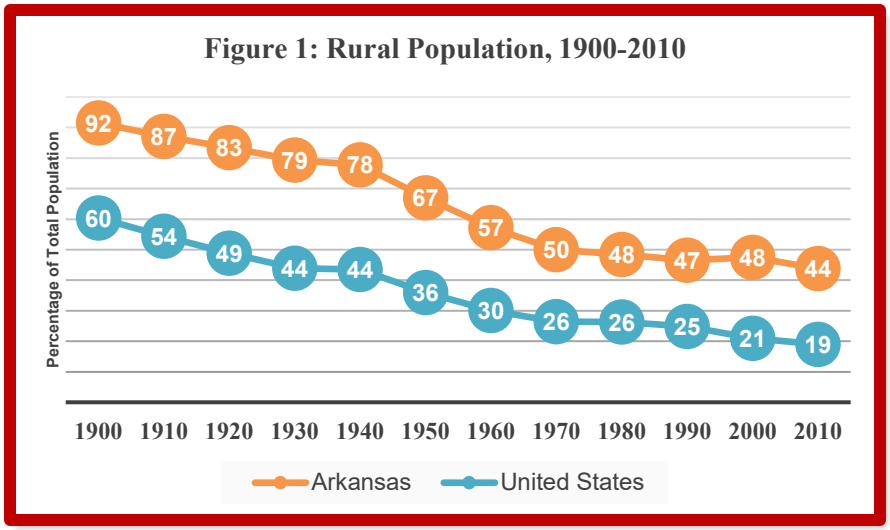
Arkansas Department of Health's' priority aims for 2020-2024 include:

1. **Social Determinants of Health**
2. **Public Health Workforce Development**
3. Health Education
4. **Access to Care**
5. **Addiction/Mental Health/Suicide**
6. Maternal and Infant Health
7. Vaccine and Infectious Diseases
8. Obesity

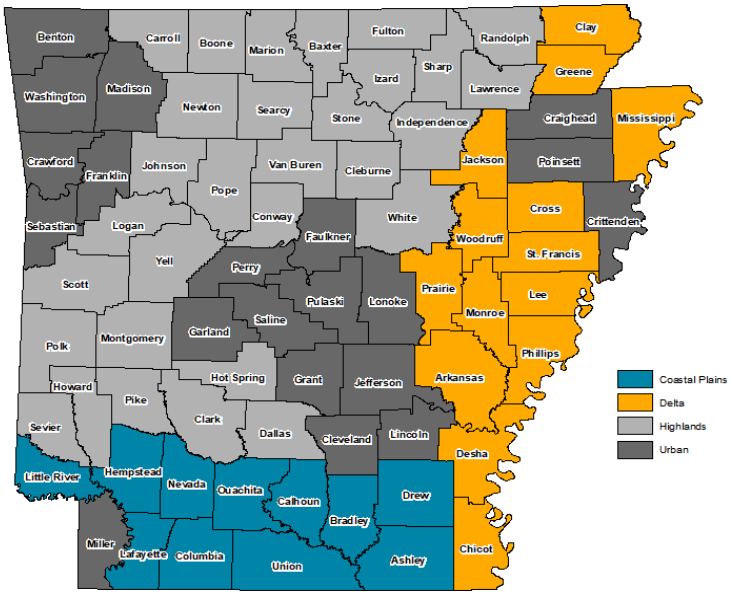
# ARKANSAS STATE PROFILE

## Rurality

The rural communities of Arkansas are rich with cultural diversity and history, but often lack the resources needed for optimal health and wellness. Therefore, while 41 percent of Arkansans call rural communities their home, the healthcare resources needed to sustain their lives and improve their health are not easily available. Many of these rural residents suffer from poor health outcomes and behaviors that jeopardize their quality of life. As seen in Figure 1, The percentage of people in Arkansas living in rural areas has been higher than the nation's since 1900. In the 2010 Census, 19 percent of the U.S. population was rural compared with 44 percent of Arkansas (University of Arkansas Research & Extension [UAEX], 2020).




Defining exactly where a city ends, and a rural area starts can be hard. The Arkansas PCO relies on federal definitions for qualifying rurality. The Federal Office of Management and Budget (OMB) has designated eight Metropolitan Statistical Areas (MSA) for Arkansas: the Little Rock-North Little Rock- Conway MSA (Faulkner, Grant, Lonoke, Perry, Pulaski, and Saline); the Fayetteville-Springdale-Rogers MSA (Benton, Madison, and Washington); the Fort Smith, AR-OK MSA (Crawford, Franklin, and Sebastian); the Texarkana, AR-TX MSA (Miller); the Jonesboro MSA (Craighead and Poinsett); the Hot Springs MSA (Garland); the Pine Bluff MSA (Cleveland, Jefferson, and Lincoln); and the West Memphis, TN-MS-AR MSA (Crittenden). The OMB defines any county outside of the MSA as rural, thus 55 of the 75



Arkansas counties are rural by OMB's definition.

In addition to the OMB definition, rural areas are further divided into regions that are composed of counties with similar economic activity, history, physical setting, and settlement patterns and culture. As seen above in Map 1, the three rural regions of Arkansas are the Coastal Plains, the Delta, and the Highlands.

## Population

The total population of Arkansas is 3,011,524 (U.S. Census Bureau, n.d.). Children under the age of 18 make up 23 percent of the population. People over the age of 65 make up 17 percent of the population (Arkansas Department of Health [ADH], 2020).

There are 75 counties in Arkansas. Some counties in central Arkansas, northwest Arkansas, and northeast Arkansas have seen population increases. Whereas counties in southern and eastern Arkansas have decreased in overall population. The most drastic decrease from 2010-2019, occurred in Jefferson County where the population dropped from 77,000 to 67,000. Overall, Arkansas's rural population is declining, and the urban population is increasing. Forty-eight rural counties have seen significant population reduction over the past 10 years (U.S. Census Bureau, n.d.). The percentage of rural-dwelling citizens has declined since 2000, from 47% to 41% in 2017 (UAEX, 2020).

## Race and Ethnicity

According to the U.S. Census Bureau, 79.0% of the state's population is white, 15.7% is African American/African American, and 7.8% is of Hispanic/Latino origin. Arkansas's Hispanic population increased from 186,050 in year 2010 to 235,389 in 2019 (U.S. Census Bureau, n.d.). Ten counties had more than 10 percent of their population identify as Hispanic (County Health Rankings, 2021). Seven of the ten counties with at least 10 percent of their population identifying as Hispanic are located in rural areas. All but one county (Bradley) was in the western half of the state. Even though the Hispanic population has increased significantly over the last decade, the concentration of the Hispanic population varies widely across counties. In one county (Sevier County), more than one-third of the population (34.0 percent) is Hispanic, compared to Fulton and Lawrence counties with slightly less than 2 percent (U.S. Census Bureau, n.d.).

## Age

Arkansans age 65 and over account for 17.4 percent of the population (U.S. Census Bureau, n.d.). Slightly more than 20% of the population living in rural counties are 65 years of age and older. The rural population median age was 43.0 when compared with urban areas, with a

median age of 38 (UAEX, 2020). The age distribution within a county greatly influences the health status and health care needs of its population. An aging population indicates an increased need for social support systems to meet and address the needs of this unique population.

## Poverty

Arkansas has the fifth highest percentage of people living in poverty in the nation—16.8 percent (UAEX, 2020). County poverty rates within the state range widely from a low of 8.6 percent in Benton County to a high of 43.0 percent in Lee County. Counties located in the Delta tend to have higher rates of poverty (U.S. Department of Agriculture [USDA], 2019). All seven counties bordering the Mississippi River have a poverty rate between 20-36 percent (USDA, 2019). The average family income in Arkansas is $58,000 per year. This amount is lower than the average family income in the United States, which is $76,000 per year (ADH, 2020). Family income takes into account every person in the family who works, so it may include more than one worker (ADH, 2020).

Arkansas is the only state that lacks habitability laws to protect renters. Therefore, those who live in poverty may also have subpar housing conditions that are not conducive to positive health behaviors or health outcomes. There are 6,200 homes without plumbing and 9,700 without kitchens (ADH, 2020). Poverty and location also influence transportation. There are 75,600 homes without a car, van, or truck available for household use (ADH, 2020). Lack of transportation influences access to healthcare, food, and other life sustaining resources.

## Food Insecurity

Thirty-seven million people (12 percent) were food insecure nationwide in 2018, compared to 500,000 or 17 percent of Arkansans (UAEX, 2020). Within Arkansas, rural areas experienced slightly more food insecurity compared to urban areas of the state, 18 percent and 15 percent respectively. The Delta had the highest regional rate of 21 percent (UAEX, 2020). In 2019, Arkansans living in the state's rural region were more likely to receive Supplemental Nutrition Assistance Program (SNAP) benefits than those living in the urban region. About one-in-five rural residents (19 percent) received SNAP compared to 15 percent of urban residents (ADH, 2020).

## Education

Educational attainment is lower in Arkansas than the U.S. average. Only Twenty-three percent of adult Arkansans have completed a bachelor's degree or higher; in comparison to, 33 percent of U.S. adults that have achieved this level of education. Eighty-seven percent of Arkansans 25 years of age and older have completed high school (UAEX, 2020). This is on par with the national average of 88 percent. Level of educational attainment is a contributing factor to

employment opportunities and health literacy (ADH, 2020), with Arkansans in rural areas having lower employment rates than Arkansans in urban areas.

## Health Literacy

It is estimated that 37 percent of Arkansans have low health literacy (ADH, 2020). Health literacy plays an important role in health care and in public health. It can also help health care workers to better communicate with patients about their medical needs, such as how to take their medicine the right way and what medical tests they need or do not need. It can help people better understand the important steps they can take to stay healthy or get healthy (ADH, 2020).

# HEALTH

| Key Health Indicators (Centers for Disease Control and Prevention [CDC], 2021) | |
|---|---|
| Fertility Rate | 63.2 (births per 1,000 women 15-44 years of age) |
| Teen Birth Rate | 30.0 (births per 1,000 females 15-19 years of age) |
| Infant Mortality Rate | 6.9 (infant deaths per 1,000 live births) |
| Life Expectancy (at Birth) | 75.6 years (2018) |
| Marriage Rate | 8.4 (marriages per 1,000) |
| Divorce Rate | 4.0 (divorces per 1,000) |
| Leading Cause of Death | Heart Disease |
| Drug Overdose Death Rate | 13.5 (per 100,000) |
| Firearm Injury Death Rate | 19.3 (per 100,000) |
| Homicide Rate | 9.4 (per 100,000) |
| COVID-19 Death Rate (Q3, 2020) | 100.1 (per 100,000) |
| COVID-19 Death Rate (12 months ending in Q3 2020) | 32.8 (per 100,000) |

In Arkansas, factors such as race, age, household income, lack of health insurance, and other social determinants of health affect the general health status of rural citizens. There are significant gaps in health care quality and safety. Racial and ethnic health disparities, as well as geographic barriers, negatively affect health care in rural and underserved communities throughout the state. Counties located in the Delta have high rates of teen births, poverty, mortality, and Medicaid-eligible persons (UAEX, 2021).

Social, economic, behavioral, clinical, and environmental factors influence health and determine health outcomes in complex and interconnected ways. According to the Robert Wood Johnson Foundation, clinical care is responsible for 20 percent of health outcomes while the remaining 80 percent of health outcomes are determined by non-clinical factors including behavioral and environmental conditions (County Health Rankings, 2021). Public Health experts often use indexes to track how a variety of health factors and outcomes vary across different communities.

Infant mortality and obesity are indicators of population health. Infant mortality is a proxy measure utilized to denote that structural factors affecting the health of entire populations also influence infant health. Likewise, obesity is associated with higher risk for many other serious diseases, such as type 2 diabetes, heart disease, and cancer. Although neither is a perfect or comprehensive representation of population health, measures like infant mortality and obesity offer a way to broadly view the health of Arkansans.

## Infant Mortality

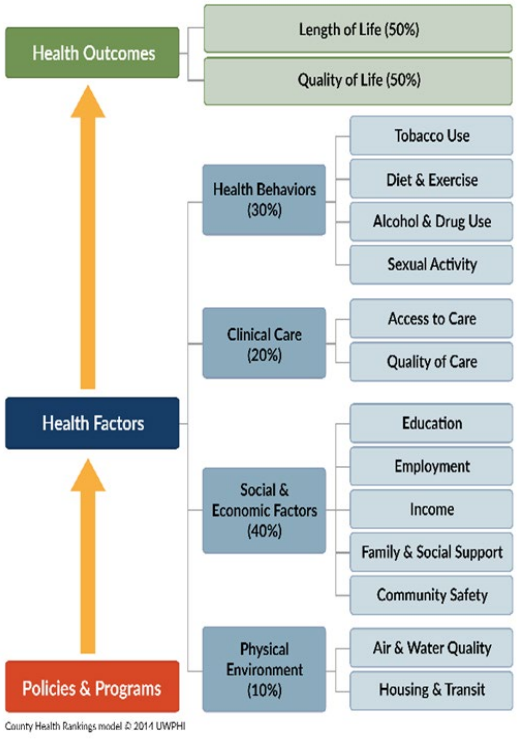
Infant mortality is a statistic that accounts for the number of babies who die each year before reaching their first birthday. It is calculated as the number of babies who die out of every 1,000 babies who are born alive each year. Infant mortality is used as an indicator of community health status, poverty, and socioeconomic status levels in a community, as well as availability and quality of health services and medical technology (Association of Maternal & Child Health Programs [AMCHP], n.d.). Arkansas' infant mortality rate is the third highest in the country and well above the national average. In 2020, the infant mortality rate in Arkansas was 6.9 infant deaths before age one per 1,000 live births, as compared to the U.S. average of 5.8 infant deaths before age one per 1,000 live births (CDC, 2021). Public health practitioners have linked the consistent above average rates to the lack of access to care, and health behaviors including smoking and lack of safe sleep practice (Webb, 2021).

## Obesity

People who are obese, defined as a body mass index (BMI) of 30 or above, are at higher risk of severe illness from coronavirus disease (COVID-19), more likely to have a decreased quality of life, and have an increased risk of developing serious health conditions. Since 1990, Arkansas' adult obesity rate has been above the U.S. average. In 2019, the obesity rate in Arkansas was 37.4 percent of adults compared to the national average of 31.9 percent of adults (UAEX, 2020).

## Health Ranking

The Robert Wood Johnson Foundation's County Health Rankings combine many indicators into a single index for easy comparison (County Health Rankings, 2021). The indicators are grouped into two scores, health factors and health outcomes.




The **Health Factors** score reflects things we can change to improve health. This index includes data on:

- **Health Behaviors:** i.e., smoking, diet, and physical activity

- **Clinical Care Factors:** access and quality of healthcare services and providers
- **Social and Economic Factors**: educational attainment, unemployment, poverty, and crime
- **Physical Environment Factors**: air and water quality, housing, and transit systems

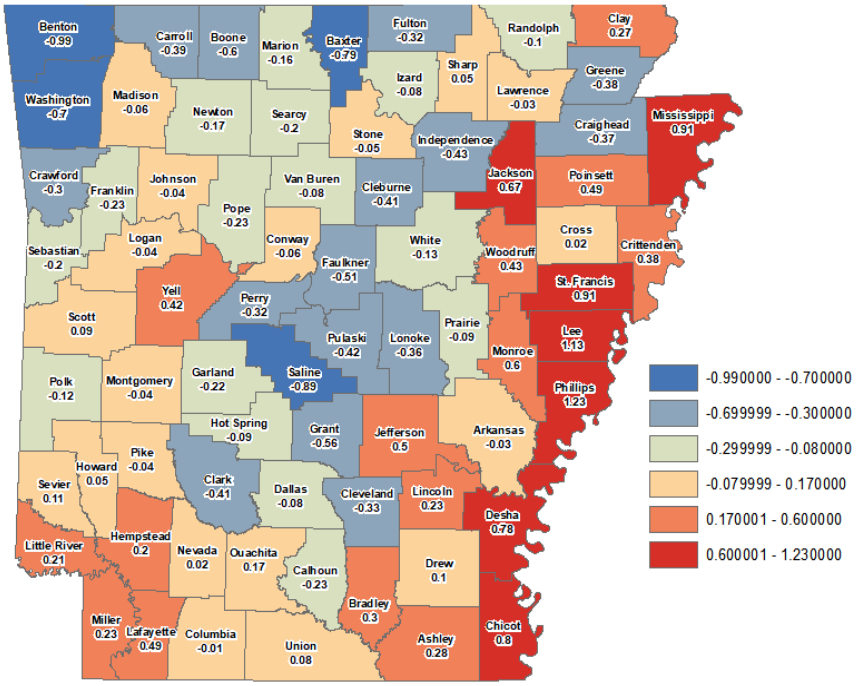
The **Health Outcomes** score measures the major health results that communities experience. This index includes data on:

- **Length of life:** measures premature death by assessing the years of potential life lost before age 75.
- **Quality of Life**: measures poor physical or mental health utilizing self-reported health data, and low birthweight of newborns.

## Rural Areas Rank Low in Health Factors and Outcomes

Health Factor scores vary across Arkansas counties [Map 2]. This score is designed to help us understand the conditions that determine how long and well people live. A lower score indicates more favorable conditions for positive health outcomes. In general, the counties in the urban regions of the state had better health factor scores than the rural regions. Four of the seven counties with the best health factor scores were urban. These counties were: Benton, Saline, Washington, and Faulkner. The Delta and Coastal Plains regions had the worst health factor scores. The seven counties with the worst health factor scores were in the Delta region. These counties were: Chicot, Desha, Jackson, Lee, Mississippi, Phillips, and St. Francis.

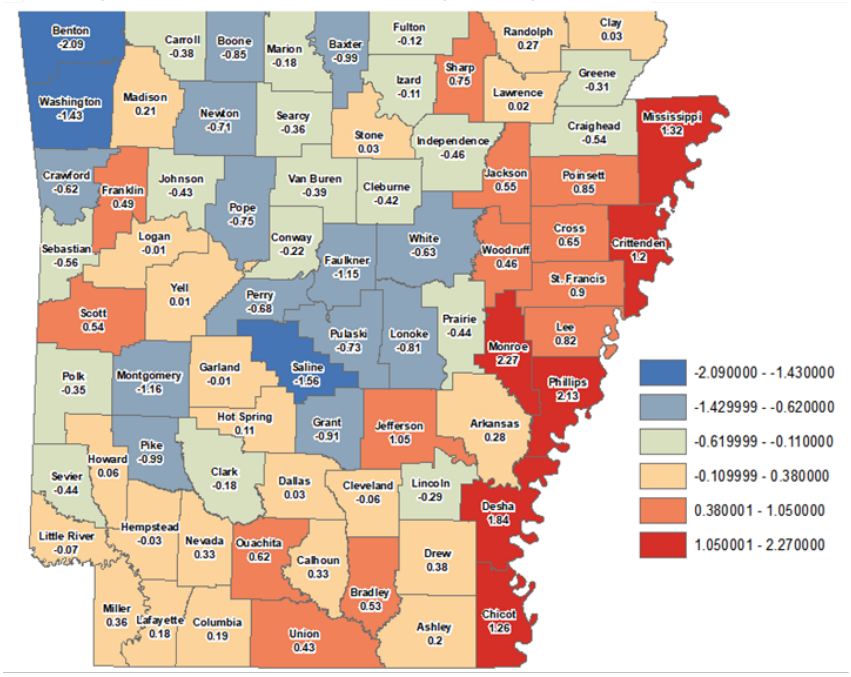
Map 2: Health Factor Scores by County, 2020




Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2020. www.countyhealthrankings.com

Similarly, [Map 3] shows that counties in the urban regions have better health outcome scores compared to the rural regions. This trend suggests a positive relationship between health factors and health outcomes in 2020. A lower score indicates a great life expectancy and better quality of life. Three of the five counties with the best health outcomes were in the urban region. These counties were Benton, Saline, and Washington. Counties in the Delta and Coastal Plains had the worst health outcomes. Five of the six counties with the worst health outcomes were in the Delta. These counties were Chicot, Desha, Mississippi, Monroe, and Phillips.

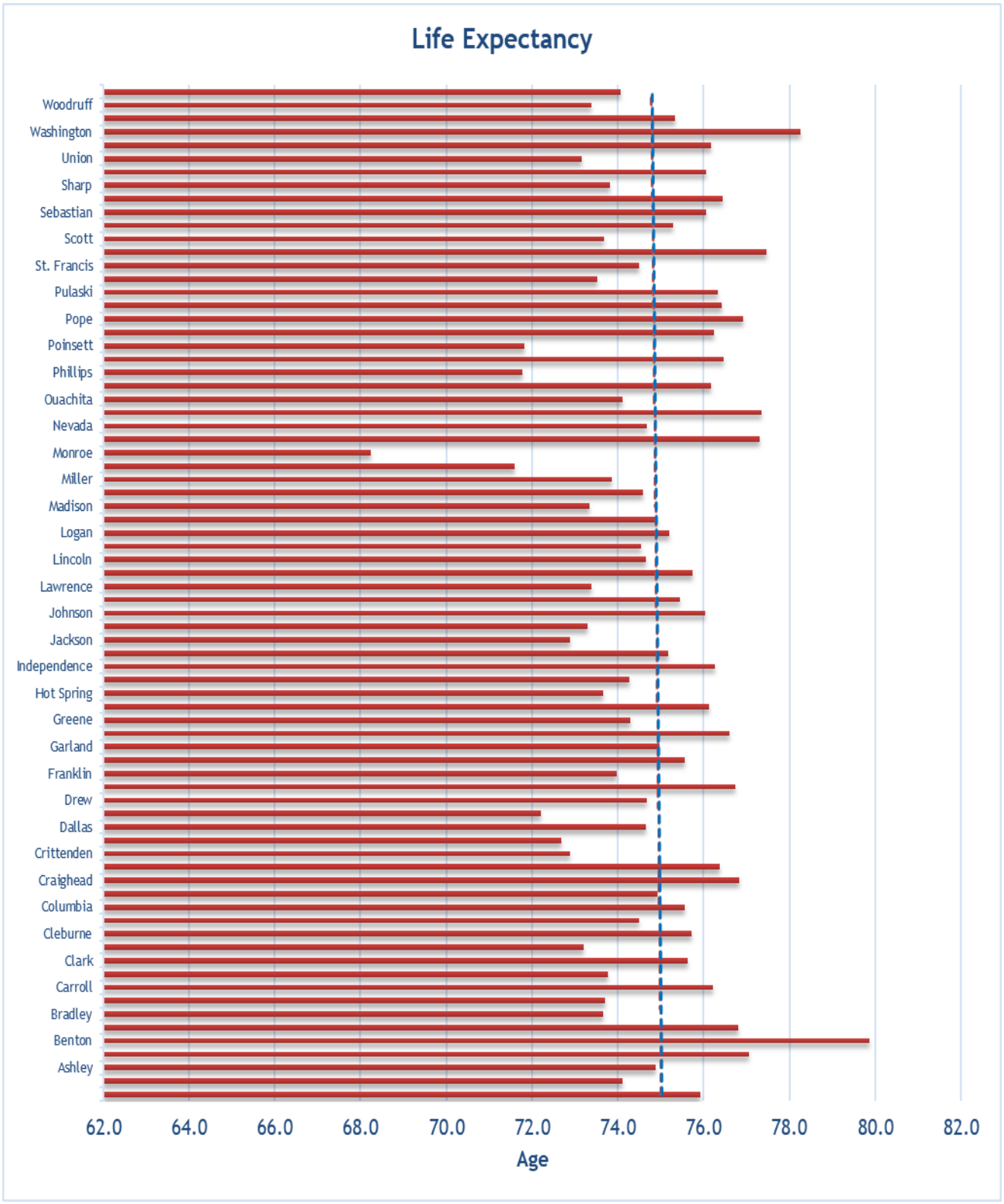
Map 3: Health Outcome Scores by County, 2020




Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2020. www.countyhealthrankings.com

## Life Expectancy

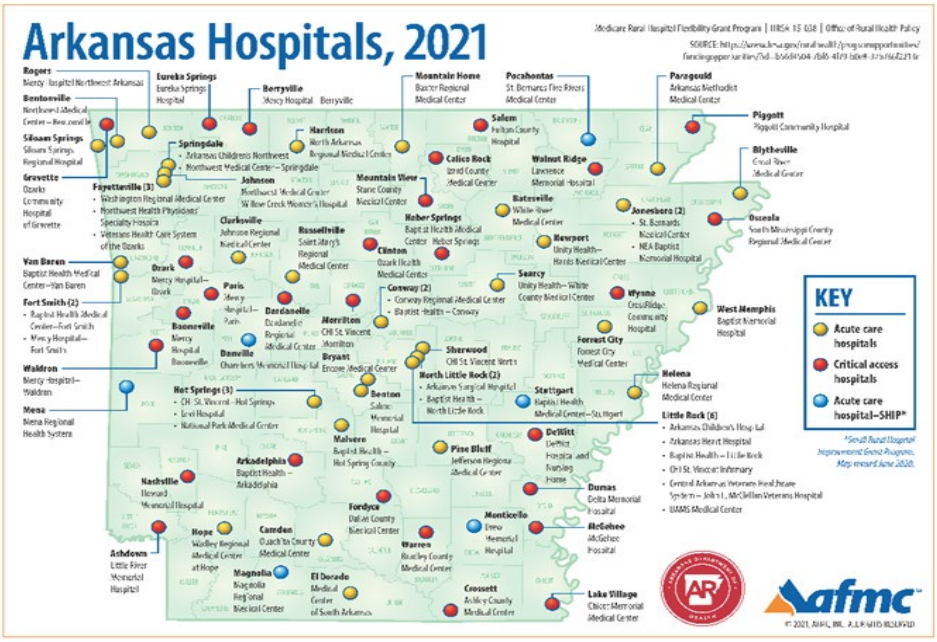
The life expectancy in Arkansas has been consistently lower than the United States. The life expectancy chart below details the average life expectancy for every county in Arkansas in 2020 (County Health Rankings, 2020). In general, females tend to live longer than males, and Arkansas is no exception. The life expectancy at birth for male residents was 75.3 years compared to 79 years for females. African Americans in Arkansans have lower life expectancies than their white counterparts. Statistically, white Arkansans live 2.7 years longer than African American Arkansans. White males live 3.9 years longer than African American males, and white females live 2.0 years more than African American females (Arkansas Economic Development Institute [AEDI], 2021).


Life Expectancy
Woodruff
Washington
Union
Sharp
Sebastian
Scott
St. Francis
Pulaski
Pope
Poinsett
Phillips
Ouachita
Nevada
Monroe
Miller
Madison
Logan
Lincoln
Lawrence
Johnson
Jackson
Independence
Hot Spring
Greene
Garland
Franklin
Drew
Dallas
Crittenden
Craighead
Columbia
Cleburne
Clark
Carroll
Bradley
Benton
Ashley
62.0
64.0
66.0
68.0
70.0
72.0
74.0
76.0
78.0
80.0
82.0
Age

# ARKANSAS HEALTH SYSTEM

The National Academies report, Access to Healthcare in America (1993), defined access as the timely use of personal health services to achieve the best possible outcomes. Ideally, residents should be able to access basic healthcare services conveniently and confidently, regardless of circumstance.

The hospital landscape of Arkansas includes 115 hospitals, 28 of which are Critical Access Hospitals (CAHs). Of the state's 75 counties, 28% do not have access to a hospital within county limits. These counties are Calhoun, Cleveland, Grant, Hot Springs, Lafayette, Lee, Lincoln, Madison, Marion, Monroe, Montgomery, Nevada, Newton, Perry, Pike, Poinsett, Prairie, Searcy, Sevier, Sharp, and Woodruff.




A patchwork of Federally Qualified Health Centers (FQHCs), Rural Health Centers (RHCs) and Charitable Clinics serve as Arkansas's outpatient care safety net. Arkansas has 12 Community Health Centers (CHCs), operating 165 FQHCs, most of which are in rural and/or underserved areas. According to 2019 Uniform Data System (UDS) data, FQHCs in Arkansas served as the health care delivery site for 239,099 patients. Approximately 19.4% of the health centers' patients were uninsured, and an additional 33.6% of those patients were Medicaid eligible.

Arkansas has 17 Charitable Health Clinics. Created by Act 180 of 2009, the Arkansas Charitable Clinics Grant program strengthens health care systems and services at the local level, thereby increasing the number of Arkansans receiving health care services. These funds ($45,000 per clinic) support the purchase of supplies, pharmaceuticals, equipment, provision of basic primary care and dental and behavioral health services. These clinics specifically serve the state's most vulnerable populations, including homeless, uninsured, and underserved citizens of Arkansas. During the state fiscal year ending June 30, 2020, Charitable Clinics funded through this program served 15,373 patients, providing 32,080 encounters.

Arkansas also has 109 rural health clinics. These clinics increase local access and allow patients to receive care within their community.

# ACCESS TO CARE

Federal programs utilize shortage designation scoring to determine priorities for the distribution of resources to states. Health professional shortage area (HPSA) scores range from 1 to 25 for primary care and mental health, 1 to 26 for dental health. The higher the score, the greater the priority.

## Primary Care

Arkansas currently has 170 primary care designations in place. The table below details the primary care HPSAs by type and rurality. Forty-eight percent of the primary care designations are in rural communities, 49 percent are in non-rural communities, and 3 percent are in partially rural communities.

| Designation Type | Rural | Non-Rural | Partially Rural |
|---|---|---|---|
| Correctional Facility | 7 | 4 | - |
| Federally Qualified Health Center | 9 | 3 | - |
| Geographic HPSA | 14 | 3 | 1 |
| High Needs Geographic HPSA | 9 | - | - |
| HPSA Population | 37 | 71 | 5 |
| Rural Health Clinic | 5 | 2 | - |

## Mental Health HPSA

Arkansas currently has 104 mental health designations in place. The table below details the mental health HPSAs by type and rurality. Seventy-five percent of the mental health designations are in rural communities, 16 percent are in non-rural communities, and 9 percent are in partially rural communities.

| Designation Type | Rural | Non-Rural | Partially Rural |
|---|---|---|---|
| Correctional Facility | 9 | 4 | - |
| Federally Qualified Health Center | 9 | 3 | - |
| Geographic HPSA | - | - | - |
| High Needs Geographic HPSA | 13 | 3 | 3 |
| HPSA Population | 42 | 5 | 6 |
| Rural Health Clinic | 5 | 2 | |

## Dental HPSA

Arkansas currently has 84 dental health designations in place. The table below details the mental health HPSAs by type and rurality. Seventy-seven percent of the dental health designations are in rural communities, 16 percent are in non-rural communities, and 7 percent are in partially rural communities.

| Designation Type | Rural | Non-Rural | Partially Rural |
|---|---|---|---|
| Correctional Facility | 4 | 3 | - |
| Federally Qualified Health Center | 9 | 3 | - |
| Geographic HPSA | 2 | 1 | - |
| High Needs Geographic HPSA | 1 | 1 | - |
| HPSA Population | 44 | 3 | 6 |
| Rural Health Clinic | 5 | 2 | - |

## Medically Underserved Areas (MUAs)

Arkansas currently has 172 medically underserved areas. Sixty-three of the designations are for full counties, 63 are based on census tracts, and 59 are subcounty designations. Fifty-four percent of MUAs are in rural communities, 42 percent are in non-rural communities, and 4 percent are in partially rural communities.

| Designation Type | Rural | Non-Rural | Partially Rural |
|---|---|---|---|
| County Subdivision | 42 | 5 | 3 |
| Census Tract | 2 | 61 | - |
| Single County | 48 | 6 | 5 |

# Projected Needs of Providers in Arkansas, 2020

## Purpose

An analysis for counties identified as having an insufficient capacity of providers was conducted to project the number of full-time equivalents (FTEs) needed to obtain sufficient capacity. We conducted, for all 75 counties, an analysis of the population to provider ratio based on discipline: 3,500:1 for primary care, 30,000:1 for mental health, and 4,000:1 for dental health. The calculated FTEs needed to reach sufficient capacity is an indicator of the number of providers needed to care for the population.

## Primary Care

"Primary care is the only health care component where an increased supply is associated with better population health and more equitable health outcomes" (National Academies of Sciences, Engineering, and Medicine, 2021). Arkansas has 1,861 FTE'S primary care providers (PCP) serving 75 counties. The distribution of providers is not equitable across the state with many communities experiencing critical shortages of PCPs. Table 1 shows the number of primary cares FTE'S needed to reach sufficient capacity. Although Calhoun lacks providers, Marion has the greatest need based on the population to provider ratio. Marion and Miller have the largest amount of FTE'S required to meet sufficient capacity. Hempstead County has a population to provider ratio that is closest to meeting sufficient capacity (3589:1) and only needs 0.15 FTE'S.

*Table 1: Projected need for primary care providers in 2020*

| County | Population | Total PC FTE | PC Population to Provider Ratio | PC Provider FTE for Sufficient Capacity | FTE Needed to Reach Sufficient Capacity |
|---|---|---|---|---|---|
| Calhoun | 5,189 | 0 | 5189 | 1.48 | 1.483 |
| Chicot | 10,118 | 2 | 5059 | 2.89 | 0.891 |
| Cleveland | 7,956 | 1 | 7956 | 2.27 | 1.273 |
| Fulton | 12,477 | 3 | 4159 | 3.56 | 0.565 |
| Grant | 18,265 | 3 | 6088 | 5.22 | 2.219 |
| Hempstead | 21,532 | 6 | 3589 | 6.15 | 0.152 |
| Lincoln | 13,024 | 3 | 4341 | 3.72 | 0.721 |
| Little River | 12,259 | 3 | 4086 | 3.50 | 0.503 |
| Marion | 16,694 | 1 | 16694 | 4.77 | 3.770 |
| Miller | 43,257 | 10 | 4326 | 12.36 | 2.359 |
| Montgomery | 8,986 | 2 | 4493 | 2.57 | 0.567 |
| Newton | 7,753 | 1 | 7753 | 2.22 | 1.215 |
| Perry | 10,455 | 1 | 10455 | 2.99 | 1.987 |
| Prairie | 8,062 | 1 | 8062 | 2.30 | 1.303 |

## Mental Health

Arkansas has 305 FTE'S for mental health providers. The range of providers by county are as many as 93 in Pulaski County and as few as 0 in Yell County. Only 44% of the counties have mental health providers, drastically taxing the resources available. Table 2 shows the number of mental health FTE'S needed to reach sufficient capacity in underserved counties. Although 37

counties lack providers, Crawford has the greatest need based on population to provider ratio (63,257:1). Crawford is the only county requiring more than one FTE'S to meet sufficient capacity. Lonoke has a population to provider ratio that is closest to meeting sufficient capacity (36,655:1) and only needs 0.44 FTE'S.

Table 2: Projected need for mental health providers in 2020

| County | Population | Total MH FTE | PC Population to Provider Ratio | MH Provider FTE for Sufficient Capacity | FTE Needed to Reach Sufficient Capacity |
|---|---|---|---|---|---|
| Arkansas | 17,486 | 0 | 0 | 0.58 | 0.583 |
| Boone | 37,432 | 1 | 37,432 | 1.25 | 0.248 |
| Calhoun | 5,189 | 0 | 0 | 0.17 | 0.173 |
| Carroll | 28,380 | 0 | 0 | 0.95 | 0.946 |
| Chicot | 10,118 | 0 | 0 | 0.34 | 0.337 |
| Clay | 14,551 | 0 | 0 | 0.49 | 0.485 |
| Cleburne | 24,919 | 0 | 0 | 0.83 | 0.831 |
| Cleveland | 7,956 | 0 | 0 | 0.27 | 0.265 |
| Columbia | 23,457 | 0 | 0 | 0.78 | 0.782 |
| Crawford | 63,257 | 1 | 63257 | 2.11 | 1.109 |
| Crittenden | 47,955 | 1 | 47955 | 1.60 | 0.599 |
| Cross | 16,419 | 0 | 0 | 0.55 | 0.547 |
| Franklin | 17,715 | 0 | 0 | 0.59 | 0.591 |
| Fulton | 12,477 | 0 | 0 | 0.42 | 0.416 |
| Hempstead | 21,532 | 0 | 0 | 0.72 | 0.718 |
| Howard | 13,202 | 0 | 0 | 0.44 | 0.440 |
| Izard | 13,629 | 0 | 0 | 0.45 | 0.454 |
| Johnson | 26,578 | 0 | 0 | 0.89 | 0.886 |
| Lafayette | 6,624 | 0 | 0 | 0.22 | 0.221 |
| Lawrence | 16,406 | 0 | 0 | 0.55 | 0.547 |
| Lincoln | 13,024 | 0 | 0 | 0.43 | 0.434 |
| Little River | 12,259 | 0 | 0 | 0.41 | 0.409 |
| Logan | 21,466 | 0 | 0 | 0.72 | 0.716 |
| Lonoke | 73,309 | 2 | 36655 | 2.44 | 0.444 |
| Marion | 16,694 | 0 | 0 | 0.56 | 0.556 |
| Mississippi | 40,651 | 1 | 40651 | 1.36 | 0.355 |
| Monroe | 6,701 | 0 | 0 | 0.22 | 0.223 |
| Montgomery | 8,986 | 0 | 0 | 0.30 | 0.300 |

| | | | | | |
|---|---|---|---|---|---|
| Newton | 7,753 | 0 | 0 | 0.26 | 0.258 |
| Ouachita | 23,382 | 0 | 0 | 0.78 | 0.779 |
| Perry | 10,455 | 0 | 0 | 0.35 | 0.349 |
| Phillips | 17,782 | 0 | 0 | 0.59 | 0.593 |
| Pike | 10,718 | 0 | 0 | 0.36 | 0.357 |
| Polk | 19,964 | 0 | 0 | 0.67 | 0.665 |
| Prairie | 8,062 | 0 | 0 | 0.27 | 0.269 |
| Randolph | 17,958 | 0 | 0 | 0.60 | 0.599 |
| Scott | 10,281 | 0 | 0 | 0.34 | 0.343 |
| Sevier | 17,007 | 0 | 0 | 0.57 | 0.567 |
| Stone | 12,506 | 0 | 0 | 0.42 | 0.417 |
| Van Buren | 16,545 | 0 | 0 | 0.55 | 0.552 |
| Woodruff | 6,320 | 0 | 0 | 0.21 | 0.211 |
| Yell | 21,341 | 0 | 0 | 0.71 | 0.711 |

## Dental Care

Arkansas has 1,253 FTE'S for dental health providers (DH) serving 75 counties. Table 3 shows the number of dental health FTE'S needed to reach sufficient capacity in underserved counties. Although there are no providers in Calhoun, Cleveland, Lafayette, Nevada, Newton, Perry, and Prairie, and the greatest need based on population to provider ratio is in Nevada County. Lawrence County is closest to sufficient capacity at 4102:1 and only needs 0.102 FTE'S.

Table 3: Projected need for dental health providers 2020

| County | Population | Total DH FTE | DH Population to Provider Ratio | FTE Needed to Reach Sufficient Capacity |
|---|---|---|---|---|
| Calhoun | 5,189 | 0 | 0 | 1.297 |
| Carroll | 28,380 | 6 | 4730 | 1.095 |
| Chicot | 10,118 | 2 | 5059 | 0.530 |
| Cleveland | 7,956 | 0 | 0 | 1.989 |
| Crawford | 63,257 | 11 | 5751 | 4.814 |
| Drew | 18,219 | 3 | 6073 | 1.555 |
| Franklin | 17,715 | 2 | 8858 | 2.429 |

| | | | | |
|---|---|---|---|---|
| Fulton | 12,477 | 2 | 6239 | 1.119 |
| Hempstead | 21,532 | 5 | 4306 | 0.383 |
| Hot Spring | 33,771 | 7 | 4824 | 1.443 |
| Howard | 13,202 | 3 | 4401 | 0.301 |
| Lafayette | 6,624 | 0 | 0 | 1.656 |
| Lawrence | 16,406 | 4 | 4102 | 0.102 |
| Lincoln | 13,024 | 3 | 4341 | 0.256 |
| Little River | 12,259 | 2 | 6130 | 1.065 |
| Marion | 16,694 | 3 | 5565 | 1.174 |
| Montgomery | 8,986 | 2 | 4493 | 0.247 |
| Nevada | 8,252 | 0 | 0 | 2.063 |
| Newton | 7,753 | 0 | 0 | 1.938 |
| Perry | 10,455 | 0 | 0 | 2.614 |
| Phillips | 17,782 | 4 | 4446 | 0.446 |
| Pike | 10,718 | 2 | 5359 | 0.680 |
| Poinsett | 23,528 | 5 | 4706 | 0.882 |
| Prairie | 8,062 | 0 | 0 | 2.016 |
| Sevier | 17,007 | 4 | 4252 | 0.252 |
| Sharp | 17,442 | 2 | 8721 | 2.361 |
| Stone | 12,506 | 3 | 4169 | 0.127 |
| Woodruff | 6,320 | 1 | 6320 | 0.580 |
| Yell | 21,341 | 5 | 4268 | 0.335 |

# COMMUNITY NEEDS ASSESSMENT

## Stakeholders

The ORHPC collaborated with the Rural Health Association of Arkansas (RHAA) to bring

together stakeholders from across the state. The Rural Health Workgroup was developed to convene stakeholders to identify the key barriers faced by rural providers and citizens when attempting to provide and seek care. The Rural Health Workgroup met weekly for 4-weeks discussing the primary barriers of rural healthcare. Each week, the team strategically worked through identifying missed opportunities to make an impact until the group felt that the needs and issues of rural Arkansas were well represented. On November 2, 2020, the ORHPC brought together twenty-four (24) rural health stakeholders to identify and prioritize the key barriers to quality healthcare and optimal health in Arkansas' rural communities. The Rural Health Workgroup identified the four primary aims with specific areas of concern as:

- Workforce Development
- Social Determinants of Health
- Mental and Behavioral Health Services
- Access to Care

## Contributing Organizations

- Office of Rural Health and Primary Care
- Rural Health Association of Arkansas
- Arkansas Community Health Institute
- Arkansas Public Health Association
- Community Health Centers of Arkansas, Inc.
- Arkansas Rural Health Partnership
- South Central Telehealth Resource Center
- Arkansas Community Health Workers Association
- Tri-County Network
- University of Arkansas for Medical Sciences

## Data Sources

The Rural Health workgroup collaborative supplied data and research from both internal and external resources to determine the top issues currently facing health and care delivery in Arkansas. Some of these sources include datasets derived from internal metrics and tracking. Others included the results of in-person meetings held over the last four years focused on rural health. This blend of both quantitative and qualitative data helped the workgroup decipher not only what conclusions the numbers point to, but also what is being seen in the field. As such, the Workgroup stands behind the four chosen key areas. These areas represent the most immediate factors for and barriers to success in rural health and care delivery. Whether a long-standing issue or one arising as care standards and practices continue to evolve, the following areas are the most persistent and widely shared pain points in rural health as of this report. Those areas are workforce development, social determinants of health, access to behavioral health services, and access to primary care.

## Workforce Development

Workforce shortages affect all aspects of rural health and care. One of the most critical challenges facing Arkansas is the imminent retirement of aging physicians. Approximately 33.3 percent of practicing primary doctors are 60 years of age or older (Association of American Medical Colleges [AAMC], 2019). Many of these doctors cover a much greater per-capita patient rural load than their urban counterparts and are set to retire with no clear successors. Without an adequate pipeline of new doctors coming to replace those retiring, the already resource-strained rural areas will suffer even greater access issues.

Doctors are, of course, only one piece to the health puzzle. There are also workforce development challenges in a broad range of other members of the healthcare team, including nurses, techs, nursing/medical assistants, coders, pharmacists, behavioral health, nutritionists, and various specialists, among others. While there are efforts underway to help increase the pipelines to rural medical careers, a long-term investment in multi-faceted, strategic, and targeted programs and incentives must be a continual priority to address this complex issue with sustainable solutions.

Common barriers for professionals considering practicing in rural areas include concerns about lifestyle and cultural fit, profitability in the face of student loans, spouse, and family considerations such as quality education, employment opportunities, and various amenities, as well as access to specialty resources and professional networks.

## Early pipeline programs

Young people in rural areas often have little (if any) exposure to the wide variety of potential health careers available. Additionally, underperforming schools may fail to provide the academic rigor and educational resources needed to adequately equip students for healthcare careers. It is well documented that individuals who come from rural and underserved areas are much more likely to return to practice in such areas than are those who come from urban areas. Thus, with the persistent shortage of healthcare providers in rural areas, targeted recruitment of students from rural and underserved populations is vital to ensure adequate providers for future generations.

There is a 15-year educational pipeline for a physician, as student academic requirements begin as early as 9$^{th}$ grade to ensure an adequate Science, technology, engineering, and math (STEM) foundation to successfully navigate a pre-medical and then medical school track. Thus, early, and ongoing exposure to various health professions, sustained investments, rigorous academics, and consistent career coaching and educational advisement are essential. Many such programs are offered across the state at various stages of the educational pipeline and in different locations, but lack of awareness or coordination among programs frequently minimizes their reach and impact. There is a strong need for students to know about and engage in such programs, especially in more rural areas. Individual resources, career coaches, guidance counselors and ongoing support

services are needed to help inform and navigate students successfully through what is often a complex and intimidating process.

## Targeted recruitment/training programs to address local workforce needs

The changing composition of healthcare teams and roles of various team members is still evolving. We don't yet know whether increasing numbers of PA's and APRN's will help alleviate physician shortages by expanding services to more rural areas, or if mid-level providers will mainly help to deliver existing services for their supervising physicians. Some rural hospitals are shifting toward a hospitalist model and some are no longer delivering babies (AAMC, 2020a).

Rural communities and facilities also often have more need for cross-training certain members of their smaller workforce to accommodate local population and facility needs that may not always align with urban and/or statewide licensure or certification expectations. Smaller community hospitals and healthcare facilities may need to create local internship or apprenticeship programs aligned with their specific workforce needs. Recruiting and equipping area residents through on-the-job training may need to be explored to help fulfill a variety of roles, especially administrative and patient care staff.

## Racial and Cultural Diversity and Equity in the Workforce

In Arkansas, only 7% of General/Family Physicians are African American, although 15% of our state's overall population is African American (Arkansas Minority Health Commission, 2020). An important factor in the likelihood of underrepresented minority (URM) students pursuing health careers is whether they see or know any URM professionals in those careers. Thus, engaging URM role models and mentors is a tremendous need.

Targeted recruitment and programming are vital for increasing the racial and geographical diversity in Arkansas' healthcare workforce. A new Historically African American Colleges & Universities (HBCU) MedTrack was established in 2020, as a partnership between the University of Arkansas at Pine Bluff and Philander Smith College and UAMS, to create a cohesive and integrated series of programs and supports to help facilitate successful matriculation of underrepresented minority (URM) students into health professional programs. Expanding such programs across the state with strategic initiatives to connect schools and populations with high percentages of URM students into these pipeline programs can help move the needle toward increased racial and cultural diversity and equity in our healthcare workforce.

## Shortage of rural primary care residency training slots

Simply increasing the number of medical students in Arkansas will not solve the physician shortage in Arkansas if there are not enough residency training slots in Arkansas to retain them in-state for the last stage of their training. Most physicians tend to practice within 100 miles of

where they completed their residency training programs, thus having an adequate number of GME slots in primary care across the state is critical (Fagan et al., 2013).

Currently, Arkansas' three medical schools are graduating approximately 448 new doctors annually. Once graduated, new medical school graduates must complete at least a three-year residency program before they are eligible to practice independently, and Arkansas currently has slightly more than 200 total first-year slots in primary care, including Family Medicine, Internal Medicine and Pediatrics (Arkansas Foundation for Medical Care [AFMC], 2018).

Research demonstrates that among those individuals who complete medical school in Arkansas, we can expect to retain 57.9% in state. But of those who complete BOTH medical school and residency in Arkansas, 80.4% will remain in Arkansas to practice (AAMC, 2019).

Continued efforts to launch new rural residency programs and rural training tracks in various locations across Arkansas are vital.

## Social Determinants of Health

## Access to Education

A key component to social determinants of health is access to education. This can include traditional education through school courses, specific health education and health literacy. According to U.S. News and World Report, Arkansas is ranked 41st out of 50 states in education. Almost 19% of Arkansans 25 and older are without a High School diploma or GED and over 130,000 have less than a ninth-grade education (U.S. Census Community Survey, 2009). Additionally, 13.7% of adults age 16 and older are without basic literacy skills (Health Rankings, 2015).

Being without adequate levels of education and literacy skills is a barrier to many different things affecting health. Not only is underemployment with lower wages and lower or no insurance provided a challenge, but so is general health knowledge. Much information on health topics and health guidelines are relayed in print materials. Many of these factors combine to create health disparities and barriers where there otherwise would be none.

## Food Deserts

Despite growing and exporting many foodstuffs around the globe, most notably poultry and rice, many rural areas in Arkansas are food deserts where very little fresh food is available. According to the Arkansas Center for Health Improvement, every one of Arkansas's 75 counties have a food desert within them. The impacts of these food deserts include being not only the leading cause of hunger in 5.7% of US households (National Coalition for the Homeless, 2011) but also a significant driver of obesity, especially in children when families are forced to consider more processed options (Alviola et al., 2014)

## Adverse Childhood Experiences (ACEs)

Arkansas has the highest rate of children with two or more ACEs in the nation with 29.6% of children suspected of enduring at least two ACEs (PACEs Connection, 2021). Exacerbating the situation is the fact that Arkansas is a largely rural state and rural areas are prone to more frequent and repeated ACEs than urban areas and is often treated less efficiently due to the access to care challenges explored in this section, including the lack of resources and negative stigma around mental health. This increased and enduring mental stress on a developing brain leads to a host of additional problems surrounding emotional management, impulse control, and judgement. Those in turn can lead to lifelong struggles with addiction, interpersonal struggles, and chronic stress-related health problems. Worse yet, the problem can be generational, with an individual affected by ACE's then creating adverse experiences for their own children (Talbot et al., 2016) necessitating continuing intergenerational medical care.

## Mental and Behavioral Health Services

### Stigma

In Arkansas, especially in rural areas, there is a stigma surrounding mental health treatment as well as substance use treatment and recovery. This can lead to patients choosing not to address behavioral and mental health issues for fear of being labeled negatively by their community. In other cases, patients travel to nearby communities for treatment to keep their health issues secret from their home communities. Both instances lead to inadequate treatment and poor consistency. The need to overcome the stigma is great, with Arkansas accomplishing poorer than the national average on number of suicides. According to a State Health Access Data Assistance Center (SHADAC) brief from 2018, Arkansas saw 18.3 deaths by suicide per 100,000 people, the 20$^{th}$ highest rate in the nation (SHADAC, 2020).

### Lack of Behavioral Health Integration

Integrated behavioral health has been shown to decrease delays in accessing care, which reduce cost to patient and system. Integrating and normalizing behavioral health and substance use disorder care within primary care reduces stigma and promotes treatment engagement. This can also help support an enhanced focus on health and wellness rather than illness, helping destigmatize the issue. Having such an integration can also help rural residents receive more of the care they need. With many traveling long distances to receive treatment of any sort, having several treatment options and services integrated into their visits can fill and address gaps in service delivery. This is of course made more difficult in Arkansas where, according to the Health Resources & Services Administration (HRSA) in 2020, only had one county (Grant) that wasn't partially or fully a medically underserved area. The lack of resources to help cover general care make integrating new services difficult.

## Access to Care

### Lack of Reliable Transportation

Rural citizens of Arkansas rely heavily on personal automobile transportation to commute to work, school, and medical care. Data from the Federal Highway Administration (FHWA), National Household Travel Survey (NHTS), and American Housing Survey (AHS) show there are significant differences in transportation behavior between urban and rural areas. According to this data, only 4% of rural households do not have a vehicle available, compared to more than 10% of urban households. At the same time, according to an American Community Survey, 2015 1-year estimates show that rural workers are more likely to drive alone to work and less likely to commute by public transportation than those in urban areas (see Table 7). Only 0.5% of rural residents use public transportation to travel to work, compared to 6.3% of urban residents.

What this data shows is a heavy reliance on personal transportation vs. public transportation. With the clear data of rural citizens fairing less-off financially than their urban counterparts, this naturally translates to vehicles being older and less reliable. With less reliable personal transportation being the primary method of commuting to and from healthcare facilities, this creates a distinct burden among those citizens for accessing quality care. This, mixed with limited emergency transportation in lower populated and less affluent counties, creates a tremendous barrier to access and a danger for accessing quality healthcare.

### Lack of Insurance

According to data from the US Census Bureau, 8.5% of the population of Arkansas lacked health insurance for all of 2018, up from 7.9% the year before. This translates to approximately 244,000 people in the state not having affordable health insurance, which is largely seen as a needed element to accessing quality healthcare. The lack of health insurance creates a vulnerability among citizens in Arkansas, and it also creates a burden on healthcare facilities that often absorb this cost against the less than 1% margin that most facilities have each year. This has led to a significant rise in uncompensated care. The lead driver of this in Arkansas, a state that has expanded its Medicaid program, is the high cost of healthcare on the federal exchange and the limited flexibility of health insurance policies. With a high cost and rigid structure of insurance products, it has become difficult for rural citizens to access and afford quality health insurance.

### Broadband Access

Broadband access in rural areas allows for the use of telemedicine interventions across a wide array of different health care fields, from direct care services to referrals and shared EMR systems. However, broadband access in rural areas is still a challenge. In terms of Arkansans with access to broadband connections of at least 25/3 Mbps, UAEX reports that over 78% of the state has access. Residents in urban areas have greater access (89%) than those in rural areas (61%) (2020).

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