



ARKANSAS CHILDREN'S HOSPITAL

Community Health Needs Assessment

Exploring the Health Needs of Arkansas's Youngest Residents
Spring 2016



We champion children by making them better today and healthier tomorrow.

Contents

Preface	4
Executive Summary.....	5
Community Health Needs Assessment Overview.....	6
Methodology and Major Findings.....	9
Purposeful Sampling Framework for Focus Groups and Key Informant Interviews.....	11
Instruments for Focus Groups and Key Informant Interviews.....	12
Analysis Procedures for Focus Groups and Key Informant Interviews	13
Focus Group Major Findings	14
Access to Care	19
Childhood Obesity.....	19
Mental Health and Substance Use.....	19
Parent Supports	20
Oral Health	20
Key Informant Interview Major Findings	21
Access to Care	22
Childhood Obesity.....	23
Reproductive Health	24
Parent Supports	24
Telephone Survey Major Findings	28
Access to Care	30
Childhood Obesity.....	31
Mental Health and Substance Use.....	31
Reproductive Health	31
Food Insecurity.....	31
Social Issues	31
Secondary Data Review Major Findings	31
Demographic Data and Social Issues	32
Access to Care	37
Childhood Obesity.....	38
Mental Health and Substance Use.....	40
Reproductive Health	41
Child Maltreatment and Caregiver Mental Health and Substance Use.....	45

Child Injuries	46
Immunizations.....	48
Oral Health	49
Food Insecurity.....	50
Prioritization Process	52
Big Ideas and Magic Wands	54
Big Ideas for Children’s Health from Focus Groups	54
Low-Hanging Fruit Ideas from Focus Groups.....	56
Interview Child Health Vision.....	56
Natural Wonders Partnership Council Big Ideas.....	57
Community Resources to Support Child Health	58
Child Health Assets Mentioned in Focus Groups.....	58
Implementation Strategy and Previous CHNA Evaluation.....	59
Appendices.....	63
Endnotes	63

Preface

This Community Health Needs Assessment was produced during the Arkansas Children’s Hospital’s 2016 fiscal year/2015 tax year and made widely available to the public in May 2016. The assessment strategy was planned and executed by hospital staff and consultants experienced in public health practice and vetted by a wide variety of public health and child health stakeholders.

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Executive Summary

Internal Revenue Service (IRS) requirements formalized periodic needs assessments for nonprofit hospitals, detailed in final regulations published in December 2014 by the Department of the Treasury. ACH's first formal needs assessment was completed in 2013. **This report is Arkansas Children's Hospital's Community Health Needs Assessment (CHNA) for 2016.** It will serve as a foundation for the hospital's strategic initiatives that improve child health by identifying and prioritizing top health needs for children.

ACH is a private, nonprofit institution working to champion children by making them better today and healthier tomorrow. As the only pediatric medical center in the state that treats children from every county in Arkansas and some from neighboring areas, **ACH defines the community it serves as all children from birth to age 18 in the state of Arkansas.** According to the U.S. Census Bureau, there are about 710,000 children in Arkansas.¹ Of note, the hospital has about 30,000 Central Arkansas children who identify ACH as their primary care provider, but its community extends far beyond these children.

This CHNA will be informed by and used jointly by a number of agencies that serve children statewide. The Natural Wonders Partnership Council (NWPC) works to improve the health of children in Arkansas. The NWPC utilizes the Collective Impact model to guide partners' work and address the complex social issue of changing health outcomes for children in all four corners of the state.

From September 2015 through March 2016, hospital staff and consultants gathered primary and secondary data for the CHNA. The following data sources contributed to the wide range of input gathered from people and organizations who represent children's health interests:

- Eleven focus groups targeted to a diverse population of parents and children's service providers across Arkansas,
- Thirty-four key informant interviews targeted to Arkansas's child health thought leaders and subject matter experts,
- A telephone survey of 400 Arkansas parents that was statistically significant at the state level,
- A comprehensive review of child-specific secondary data from local, state, and national sources.

Resulting data was compiled and prioritized into 12 areas of need using a criteria weighting method.

- Access to Care
- Childhood Obesity
- Mental Health and Substance Use
- Reproductive Health
- Social Issues
- Parent Supports
- Oral Health
- Food Insecurity
- Child Maltreatment and Caregiver Mental Health and Substance Use
- Child Injuries
- Immunizations
- Developmental Screening and Services

A corresponding Implementation Strategy (IS) will be published in coming months after gathering stakeholder feedback and developing collaborative strategies to address child health needs in partnership with the NWPC members. The IS will incorporate the "big ideas" that participants shared along with evidence-based strategies to improve health. At ACH, a specific IS for improving child health will be defined and carried out through hospital community benefit programs.

Community Health Needs Assessment Overview

Arkansas Children's Hospital (ACH) is a private, nonprofit institution working to champion children by making them better today and healthier tomorrow. ACH is the only pediatric medical center in the state and treats children from every county in Arkansas and some from neighboring areas. The hospital's campus in Little Rock spans 36 city blocks and houses 359 beds, a staff of 500 physicians, 80 residents in pediatrics and pediatric specialties and more than 4,000 employees. Over the past century, ACH has grown from a small orphanage in Little Rock to a statewide network of care that includes an expansive pediatric teaching hospital and research institute as well as regional clinics in several counties.

ACH works broadly in Arkansas to meet the health-related needs of children and improve children's health status. Since 2006, ACH has served as the backbone agency for the Natural Wonders Partnership Council (NWPC), which periodically assesses the state of Arkansas children's health and makes recommendations for policy and programmatic changes that positively impact child health. This partnership of more than two dozen state agencies, nonprofit organizations, clinical leaders, funders, and other organizations that serve children meets regularly to coordinate strategic initiatives that make measurable improvements in health and quality of life for Arkansas children and families. The full list of Natural Wonders Partners are included in Appendix 1.

Internal Revenue Service (IRS) requirements formalized periodic needs assessments for nonprofit hospitals, detailed in final regulations published in December 2014 by the Department of the Treasury. ACH's first formal needs assessment was completed in 2013. **This report is ACH's Community Health Needs Assessment (CHNA) for 2016.** It will serve as a foundation for the hospital's strategic initiatives that improve child health by identifying and prioritizing top health needs for children. Additionally, **the CHNA provides a shared agenda for the Natural Wonders Partnership Council** and its members. A corresponding Implementation Strategy (IS) will be published in coming months after gathering stakeholder feedback and developing collaborative strategies to address child health needs in partnership with the NWPC members. At ACH, a specific Implementation Strategy for improving child health will be defined and carried out through community benefit programs.

Community Definition

For the purposes of the CHNA, the hospital must define its community. Arkansas children come from diverse communities ranging from Northwest Arkansas's booming business industry to the persistent poverty of the Mississippi Delta region. Patients' racial and ethnic subcultures also vary across the state including a growing Hispanic population in the north and west to a larger African-American population in the south and east. The hospital serves all who need its services regardless of race, religion, or ability to pay and places special emphasis on the lower-income neighborhood surrounding its main campus.

As the only pediatric medical center in the state, ACH defines the community it serves as all children from birth to age 18 in the state of Arkansas. According to the U.S. Census Bureau, there are about 710,000 children in Arkansas.ⁱⁱ The hospital serves about 30,000 children in Central Arkansas who identify ACH as their primary care, but children from all seventy-five counties in Arkansas receive care at the hospital. In 2015, a Arkansas children had more than 413,000 visits to ACH. Though the hospital serves a small number of adult patients with pediatric chronic conditions or severe burns and a handful of out-of-state patients for particular health conditions, the vast majority of those it serves fall into the community defined by this report.

ACH's current physical locations include a main campus and outpatient clinic in Little Rock, a clinic in northwest Arkansas, and a clinic in northeast Arkansas. In addition, the hospital offers regional clinics across the state on a periodic basis. Growing telemedicine capabilities connect ACH to off-campus providers and allow remote sites access to specialties including neonatology, emergency medicine, pediatric intensive care, burn, genetics, cardiology, and pulmonology. The hospital recently became part of a new pediatric health system, Arkansas Children's, Inc., which is slated to open a 24-bed hospital in northwest Arkansas in 2018 and expand clinical services to other parts of the state. The health system also includes foundation, research, and clinically integrated network entities. The current hospital's 2016 CHNA will help target expansion of Arkansas Children's, Inc. resources to children who need them most.

Broadening Impact through the Natural Wonders Partnership Council

This CHNA will be informed by and used jointly by a number of agencies that serve children statewide. The Natural Wonders Partnership Council works to improve the health of children in Arkansas. The NWPC utilizes the Collective Impact model to guide partners' work and address the complex social issue of changing health outcomes for children in all four corners of the state.

The Collective Impact model's five components are outlined below with details regarding the work of the NWPC. Details are documented in an August 2015 report, *Natural Wonders Partnership Council Five-Year Strategic Framework*.

1. **Common Agenda:** ACH's Community Health Needs Assessments will provide a common understanding of children's health issues and a joint approach to solving them.
2. **Shared Measurement System:** The Annie E. Casey Foundation's Kids Count Child Well-Being ranking and a custom NWPC Data Dashboard outline the measures that will inform stakeholders about progress toward improving children's health.
3. **Mutually Reinforcing Activities:** Workgroups for each Natural Wonders focus area outline goals, activities, outputs, and outcomes owned by specific partners that will move the larger group toward improving children's health.
4. **Continuous Communication:** Monthly NWPC meetings, regular workgroup meetings, email communication, one-on-one meetings, and an independent public presence (website, social media) will help facilitate the conversation needed to improve children's health.
5. **Backbone Support Organization:** Arkansas Children's Hospital will continue to serve as the entity that will plan, manage, and support the NWPC's efforts through financial, administrative, logistic, and evaluative support.

This 2016 community health needs assessment will inform an updated set of priorities for the NWPC. In the fall of 2016, an updated strategic framework will be completed and will serve as the Implementation Strategy for the entire coalition, with specific activities slated for ACH investments. As the coalition and its workgroups add new members, they will seek to tackle cross-sector, multi-organizational solutions to improve child health outcomes. Figure 1 outlines the integration of strategy for the CHNA, NWPC, and ACH.

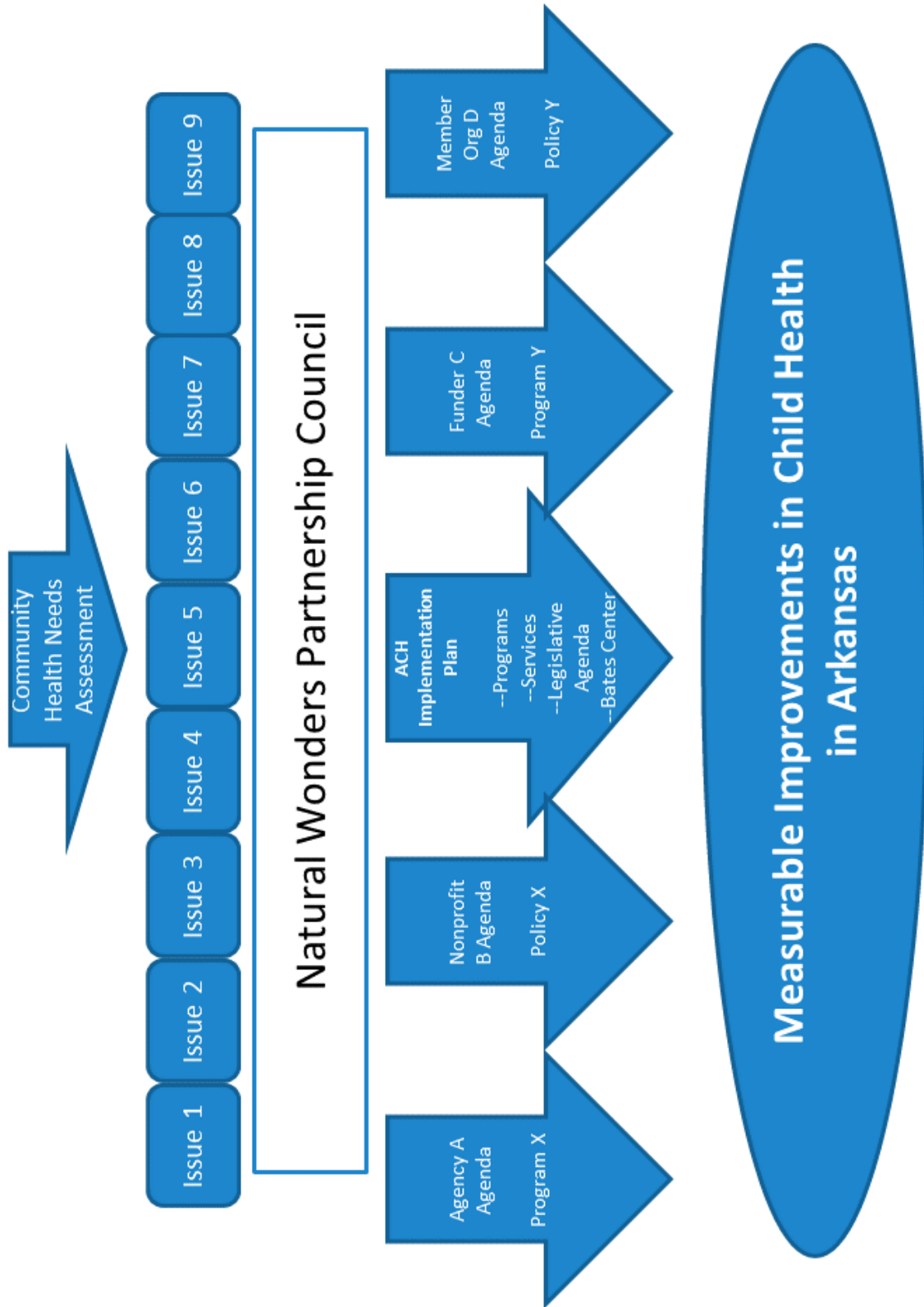


Figure 1: CHNA and Natural Wonders Relationship

Methodology and Major Findings

Similarly to past needs assessments, ACH employed a comprehensive strategy for gathering information about child health needs in Arkansas. **From September 2015 through March 2016, hospital staff and consultants gathered primary and secondary data for the CHNA.** The hospital's Executive Director of Child Advocacy and Public Health led the CHNA project with significant assistance from a local contractor with extensive experience conducting CHNAs. College and graduate students also assisted with some primary data collection.

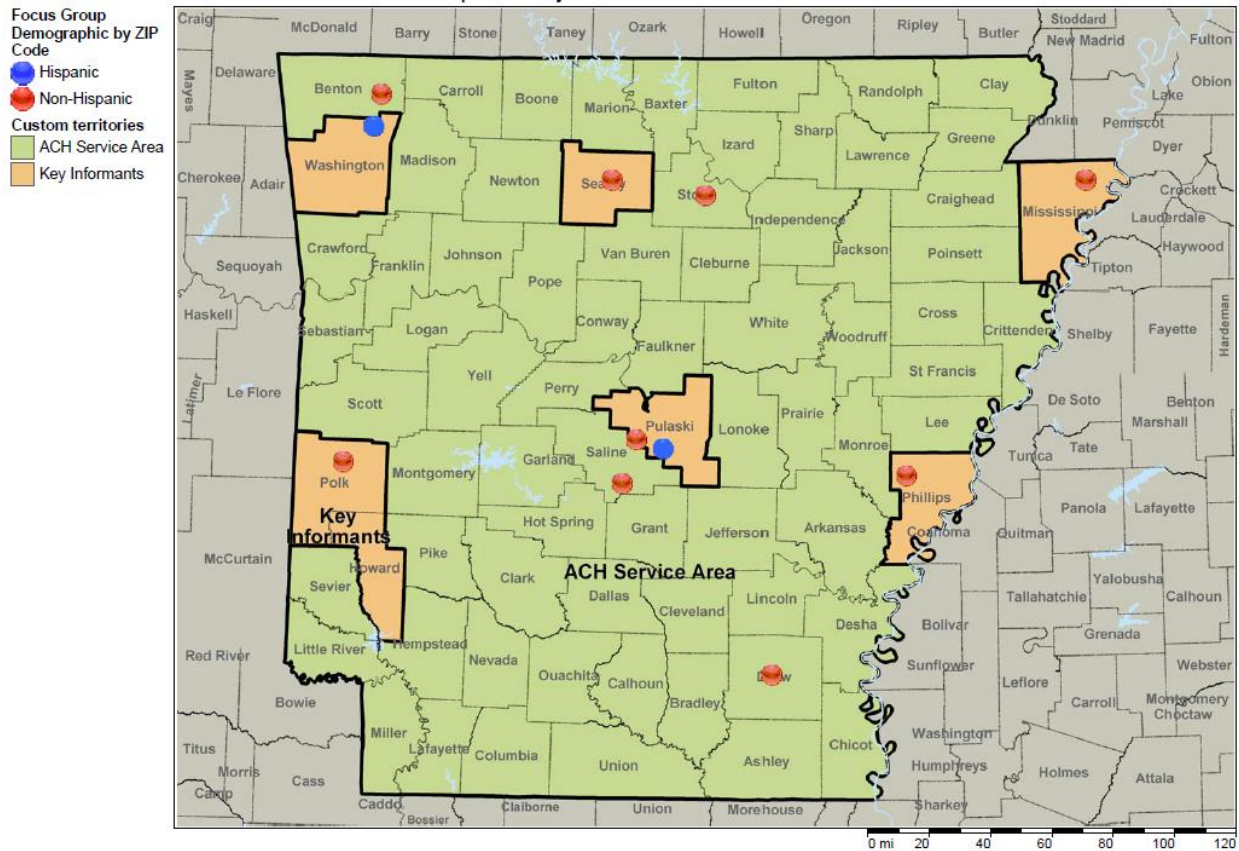
Members of the Natural Wonders Partnership Council provided input to and feedback on the CHNA at all stages of its development from design to initial outcomes to a final report. Many members also participated by providing data to and interviews for the CHNA team. NWPC members represent a variety of stakeholders including Arkansas Department of Health officials, the University of Arkansas's College of Public Health and Clinton School of Public Service, child/consumer advocates, health policy organizations, health care providers, researchers, nonprofit organizations, membership organizations including the American Academy of Pediatrics and the Arkansas Hospital Association, the state's Departments of Education and Human Services, the Arkansas Minority Health Commission, community health centers, behavioral health agencies, dental insurance providers, private health insurance companies, the faith community, low-income legal services, a juvenile court judge, private foundations, and a statewide education-focused collective impact coalition.

Although the CHNA team did not seek feedback directly from children, meaningful engagement and input from a broad cross-section of organizations and individuals throughout the state was important to the successful completion of this CHNA. Hundreds of parents and caregivers gave feedback on child health assets and needs through focus groups and a statewide telephone survey. Both rural and urban populations were included in the data collection, and the Hispanic community was able to give feedback via two focus groups conducted in Spanish. Unfortunately, limited primary data was collected from the small but underserved Marshallese population in Northwest Arkansas.

The following data sources contributed to the wide range of input gathered from people and organizations who represent children's health interests:

- Eleven focus groups targeted to a diverse population of parents and children's service providers across Arkansas,
- Thirty-four key informant interviews targeted to Arkansas's child health thought leaders and subject matter experts,
- A telephone survey of 400 Arkansas parents that was statistically significant at the state level,
- A comprehensive review of child-specific secondary data from local, state, and national sources.

Figure 2: Focus Group and Key Informant Interview Statewide Distribution



A further description of the methodology used in each component of the needs assessment is included in the report, along with major findings from each type of data collection. Specifically, the focus groups and key informant interviews were part of a unified methodology and together created a statewide purposeful sampling qualitative design. This method helped obtain in-depth information, opinions, and insight about important dimensions in health, healthcare, and health promotion from critical stakeholders in child health. Investigators consulted and collaborated with ACH staff and advisors to decide on final sampling and data collection methods. Together they selected a statewide sample to create study current child health needs from several perspectives: parents, front line providers, and child health experts.

The questions the focus groups and key informant interviews sought to answer were as follows:

1. What do parents, providers, and child health experts perceive are the health, healthcare and health promotion needs for children in Arkansas?
2. What are the health, healthcare and health promotion priorities identified by parents, providers, and child health experts?
3. What are the perceived disparities among the children of Arkansas as identified by the parents, providers, and child health experts?
4. What are the resources identified locally and statewide to address these priorities?
5. What are the potential solutions and the role of ACH and NWPC to address the perceived health needs for children’s health in Arkansas?

Purposeful Sampling Framework for Focus Groups and Key Informant Interviews

Geography

The first sample segmentation was by geographic location in the state. The state of Arkansas has five geographic areas: Northwest, Northeast, Central, Southwest, and the Southeast regions, and the focus groups and interviews sought representation from all regions in both focus group and key informant interviews. However, the effort was more successful in focus groups than in key informant interviews.

Table 1: Geographic Distribution for Primary Data Collection

REGION	COUNTY
Northwest	Benton, Washington, Searcy
Northeast	Stone, Mississippi
Southwest	Polk
Southeast	Phillips, Drew
Central	Pulaski, Saline

Rural versus Urban

Arkansas is a predominantly rural state. However, it has medium to large metropolitan statistical areas. Our goal was to understand if rural and urban communities have similar or different health priorities for children and how children overall experience health in these respective settings. The county sample for focus groups and key informant interviews included 6 rural counties and 4 urban counties.

Adult Role in Child Health

Children have many adults who affect their health and wellbeing. To understand the views and experiences of different types of caretakers, consultants purposefully sampled three types of groups:

- The lay community of legal **parents or guardians** of children under 18 years of age
- Healthcare **providers or educators** who serve children and their families such as school nurses and teachers, social service agency employees, health educators and providers who provide services to children and their families
- **Expert stakeholders** and subject matter experts in various areas of child health who represent a diverse array of organizations at the local, regional, and state level

Table 2: Purposeful Sampling Frame

	PARENTS	HEALTH CARE PROVIDERS and EDUCATORS	KEY INFORMANTS
URBAN	Washington †** Pulaski † **	Benton † Saline †	Pulaski Washington
RURAL	Stone † Searcy † Mississippi †	Drew † Phillips † Polk †	Drew Howard Polk Searcy Mississippi

† English focus group ** Spanish focus group

Instruments for Focus Groups and Key Informant Interviews

Interview Guide

In collaboration with ACH staff, structured interview guides for focus groups and key informant interviews was adapted from the 2013 CHNA guides. Interview guides were structured with broad topic domains and open-ended questions designed to obtain seminal information to answer the study questions. Some questions on both guides were similar to allow for comparisons, but some were also specific to the sampling group. The focus group guide included twelve questions, and the key informant interview guide included nine. Both guides included suggested probes in many questions. The full guides are included in Appendix 2 and 3. Following are descriptions of the domains included in each of the interview guides.

- Child Health – to identify the perception and definition of a child with ideal health, to understand the perceptions to compare this ideal with the reality of child health in Arkansas, and to identify utilized sources of health information.
- Child Health Concerns – to identify and prioritize main community concerns about child health and explore opinions about the causes.
- Community Report Card (CRC) – to grade key child health issues of interest to Arkansas Children’s Hospital and the Natural Wonders Partnership Council.
- Disparities – to understand community perceptions about the existence and nature of differences in how all children in the state experience health.
- Community Resources –to understand who the community considers responsible for child health and what the most important resources are in the community to treat illness or prevent poor health in children.
- Community Vision – to capture the communities’ ideal visions and wishes to have healthy children in Arkansas.
- ACH/NWPC Role –This domain aimed to identify specific community generated ideas on what ACH/NWPC could do to champion the health of children in Arkansas.

Participant Information Questionnaire

Study facilitators used a 16-item Participant Information Questionnaire (PIQ) to obtain basic information about focus group participants, their children and their families. The questionnaire asked about demographic information, number of children, family insurance coverage, and availability of resources in the community to keep children healthy. The full PIQ is in Appendix 4.

Community Report Card

Participants in both key informant interviews and focus group interviews completed a community report card. Participants rated thirteen health issues important to children's health and of particular concern to ACH and NWPC on a standard five letter grading scale (A, B, C, D, and F). The report card is included as Appendix 5. Basic definitions were included in the CRC, and participants were instructed to consider these, their perception of the prevalence of the issue, and available resources in their community to address each issue when grading each issue. Focus group participants were asked to grade their community, while key informants were asked to grade the entire state of Arkansas. To obtain average grades for each issue, weights were assigned to letter grades given by participants (A=4, B=3, C=2, D=1, F=0). The mean scores of the weighted grades were calculated.

Analysis Procedures for Focus Groups and Key Informant Interviews

Quantitative Data

For the focus groups and key informant interviews, quantitative data collected with the Participant Information Questionnaire (PIQ) and the Community Report Card (CRC) were entered into and analyzed with Epi Info™ 7.1. This is a data collection, management, analysis, visualization, and reporting software program for public health professionals provided by the Centers for Disease Control and Prevention (Dean AG, 2011). Analysis results were used to prepare all the tables in this report.

A report of eleven demographic variables from the PIQ data set was created to clean and recode data where needed. Mean frequencies stratified by group type (parents or providers) were generated. These variables included Age, Gender, Race, Hispanic Ethnicity, Years of residency, Number of Children, Marital status, Education, Family income, and Years of residence in state.

Ages of the children of focus group participants were categorized into four age groups; 0-4 for early preschool childhood, 5-9 for early school age children, 10-14 young adolescents, and 15-17 for adolescents. The consultant excluded any children reported 18 years of age and older from analysis. Insurance status was determined from three items in the questionnaire.

For the Community Report Card, lead consultant calculated the mean scores for each item in the report card and stratified the results by focus group participants and key informants. After obtaining mean scores, the consultant assigned back a letter grade to each category by using a refined scale to identify variation within each grade with a (+) or (-). For example, a 3.7 would be a B+ or a 3.2 would be a B-.

Qualitative Data

The consultant used QSR International's NVivo 11 qualitative data analysis software to analyze all qualitative study data. (QSR, 2012) A document summarizing each completed interview was formatted to include only question numbers, response summaries, and notable quotes. Initial analysis consisted of coding all data documents by question code. Coding query reports for all interviews were completed for each case group (parents, providers, key informants) were generated. These queries clustered the responses in each question from all participants in each case group. The consultant analyzed these clustered queries and coded by the domains consultants described previously. Once the consultant coded interview responses by question and domain, she conducted new coding queries for each domain and analyzed them with pre-identified codes of key child health issues to understand the themes and perspectives of respondents within each domain.

Prioritization

Focus group participants prioritized child health issues through an interactive activity. In each focus group, participants collaboratively discussed and generated a list of child health concerns in their community. Once the list was completed, each participant voted for their top three issues of concern in order to identify the overall top child health priorities for each community. These top community health concerns from each focus group were then grouped to identify major and moderate issues across all groups. Major issues had a collective consensus or top vote across most focus groups. Moderate issues were those that community members listed as an important issue in their community but did not receive a top-three ranking consistently.

The consultant asked key informant participants to provide the top three issues they strongly believe ACH should address to improve child health in the state. This was purposefully the last question of the interview, with the intention of having key informants prioritize all the issues they had chosen to discuss and share during the rest of the interview. Because the key informant participants did not conduct a collective prioritization process, consultants identified their major and moderate child health themes during coding and analysis. The consultant identified dominant child health themes and recognized these as major issues for key informants. Key informants' moderate issues were responses that were listed but were not dominant themes.

Focus Group Major Findings

The CHNA team facilitated eleven two-hour focus groups using an interactive and open-ended approach. The team conducted two of the eleven focus groups in Spanish. All focus groups were digitally recorded using a Zoom H2n recorder. Informed consent and the Participant Information Questionnaire (PIQ) were collected using forms in English or Spanish. Information from the PIQ was only used to describe and understand who was engaged in the CHNA process not to identify child health themes or priorities.

The consultant did not transcribe interview recordings word for word but prepared summary notes for each focus group site, using onsite notes and digital recordings. In addition, she translated Spanish interview notes into English for analysis. The consultant identified notable quotes from each domain and transcribed them word for word editing only for clarity and style. The team did not identify individual focus group participants in final summary notes and have not identified individual communities in the qualitative analysis of this report. Each participant received a fifteen-dollar gift card or a non-monetary gift of the same value, a light meal, and refreshments as an incentive for their time. Two participants turned down the gift card.

The number and percent of participants in the two types of focus (parent and provider) groups by location and type of community are in Table 3. Fifty-three parents and forty-three providers participated in focus groups for an overall total of ninety-six participants. Consultants facilitated two parent groups in Spanish and recruited from communities with known Latino populations. There were a higher number of participants in focus groups in rural communities in both parents and providers groups. There were a wide range of group sizes with the smallest group engaging five participants in Rogers in Benton County and the largest with thirteen participants in Mena in Polk County.

Table 3: Parent Focus Group Participants by City and County

Location	Participants (N)	Percent (%)	Community Type
Springdale, Washington**	9	17.0%	Urban
Little Rock, Pulaski**	7	13.0%	Urban
Little Rock, Pulaski	10	19.0%	Urban
Blytheville, Mississippi	6	11.0%	Rural
Marshall, Searcy	12	23.0%	Rural
Mountain View, Stone	9	17.0%	Rural
TOTAL	53	100.00%	

** Spanish focus group

Table 4: Provider Focus Group Participants by City and County

Location	Participants (N)	Percent (%)	Community Type
Benton, Saline	7	16.0%	Urban
Rogers, Benton	5	12.0%	Urban
Monticello, Drew	7	16.0%	Rural
Marvell, Phillips	11	26.0%	Rural
Mena, Polk	13	30.0%	Rural
TOTAL	43	100.00%	

Demographic Characteristics of Focus Group Participants

Most focus group participants were longtime Arkansas residents, with only 14% living in the state less than 10 years. Insurance coverage was high among most participants. Higher percentages (68 percent) of participants were married and have at least one dependent child (i.e., person <18 years of age). The participants' ages were almost evenly distributed with 39 percent between 18-35 years, 38 percent were 36-49 years, and 23 percent were 50 years of age or older. The majority of focus group participants were female and Caucasian. African American and Hispanic populations were over-represented in the assessment. Forty percent of participants have some college, but no degree and approximately the same percentage (39 percent) of participants reported having a bachelor or postgraduate degree. Most participants reported having an annual family income between \$20,000 and \$39,999 per year.

Table 5: Focus Group Participant Demographics

Characteristic	All (N=96)	Parents (N=53)	Providers (N=43)
	Number (%)		
Age			
18-35	35 (39.3)	22 (44.0)	13 (33.3)
36-49	34 (38.2)	20 (40.0)	14 (36.0)
50-64	20 (22.4)	8 (16.0)	12 (30.7)
Gender			
Female	88 (92.0)	49 (96.0)	34 (85.0)
Male	8 (8.0)	2 (4.0)	6 (15.0)
Race			
African-American	28 (33.3)	12 (27.0)	16 (41.1)
Asian Pacific Islander	2 (2.3)	1 (2.0)	3 (7.6)
Non-Hispanic White	43 (51.2)	23 (51.0)	20 (51.3)
Other	11 (13.1)	9 (20.0)	
Ethnicity			
Hispanic	18 (19.0)	17 (34.69)	1 (2.70)
Years of state residency			
< than 10 yrs	13 (14.0)	10 (19.0)	3 (8.0)
10 – 20 yrs	19 (21.0)	17 (32.0)	2 (5.0)
Over 21 yrs	59 (65.0)	26 (49.0)	34 (87.0)
Marital Status			
Divorced	10 (12.0)	8 (17.0)	2 (5.0)
Married	57 (68.0)	29 (63.0)	28 (72.0)
Single	17 (20.0)	9 (20.0)	9 (23.0)
Education			
<High School	8 (9.0)	8 (17.0)	0
High School/GED	11 (12.0)	10 (21.3)	1 (2.0)
Some college, Associates degree	36 (40.0)	19 (40.4)	17 (44.0)
Bachelor +	35 (39.0)	16 (21.3)	21 (54.0)
Annual Household Income (N=88)			
≤ 19,999	17 (19.0)	11 (22.4)	6 (15.0)
20,000-39,999	36 (41.0)	27 (55.2)	9 (23.0)
40,000-59,000	14 (16.0)	7 (14.2)	7 (18.0)
60,000 +	21 (24.0)	4 (8.2)	17 (44.0)

Demographic Characteristics of Children of Focus Group Participants

The majority of focus groups participants (84 percent), reported being parents or caretakers of a dependent child. Only 16 percent reported not having any dependent children currently living at home. However, many explained through focus group conversations that while they were not a parent of a child 0 – 17 years of age now, they had been in the past. Families with three or more children (27 percent) were equally represented among focus group participants as families with only one child (27 percent). The largest percentage of participants reported having only two children (30 percent). Overall, **focus group participants represented one hundred seventy eight children** between the ages of one and 17.

Table 6: Dependent Children of Focus Group Participants by Age

Child Age	All (N=178)	Parents (N=118)	Providers (N=60)
	Number (%)		
0-4	43 (24)	21 (19.0)	12 (20.0)
5-9	56 (31)	43 (39.0)	14 (23.0)
10-14	51 (29)	30 (28.0)	19 (32.0)
15+	28 (16)	15 (14.0)	15 (25.0)

Insurance Coverage for Participants and Children

The majority of focus group participants reported high insurance rates for their children, especially through ARKids First (59 percent).

Table 7: Insurance Type of Dependent Children of Focus Group Participants

Insurance type	All (N=96)	Parents (N=53)	Providers (N=43)
	Number (%)		
ARKids First	57 (59.0)	41 (77.0)	16 (37.0)
Private	36 (38.0)	9 (17.0)	27 (63.0)
Uninsured	3 (3.0)	3 (6.0)	0 (0.0)

Insurance status of the respondents themselves was high. Most participants reported they had health coverage through private insurance. More parents than providers reported not having insurance.

Table 8: Focus Group Participants' Insurance Status

Insurance status	All (N=93)	Parents (N=51)	Providers (N=41)
	Number (%)		
Insured	76 (82)	35 (69.0)	40 (98.0)
Uninsured	17 (18)	16 (31.0)	1 (2.0)

Community Report Card

In addition to the interview, consultants asked participants to complete a Community Report Card (CRC) on health conditions and available health services in 13 categories. Participants rated each category as A, B, C, D, or F. The grades in each category as graded by all focus group participants for both the current CHNA and the 2013 CHNA are included in Table 9.

Table 9: Focus Group Participants' Community Report Card Grades

Health category	Grade 2016	Grade 2013
Access to care	C	--
Food security	C	--
Teen pregnancy	D+	D
Sexual health	D+	--
Education	C+	--
Childhood obesity	C-	D
Injuries	C	C
Parent support	C-	--
Mental health	D+	C-
Substance use	D+	--
Dental health	C	C
Immunization	B	C+
Quality early childhood programs	B	--

Findings from focus groups' qualitative discussions were nuanced and detailed. When asked to **describe a healthy child**, both parents and providers in the study described child health in a broad and holistic way. They included many characteristics a child needs to be healthy. Both groups emphasized positive emotional and affective explanations of what constitutes a healthy child with descriptions like *"happy, active, smiling, restless, wanting to play."* Mental health was an issue identified in all sites in both parent and provider groups. Some differences were evident between both groups. Below are each group's specific comments about healthy children.

Parent Responses

- All parent groups identified a healthy child as one with a *"balanced"* or *"good weight."* When asked to define *"good weight"* parents from different communities explained the term as weight appropriate for their age. One parent who disclosed having challenges with the weight of her child stated, *"Not fat, not thin just the right weight for them."* Parents also included in their description children who are *"active," "involved in sports,"* and *"playing outside"* as healthy children.
- The characteristics most identified by sites dealt with healthy parents, immunizations, absence of disease (citing *"asthma"* or *"diabetes"*), and oral health.
- Screening for developmental needs/referral to developmental services and food insecurity were mentioned in two rural sites as important factors in enabling children to be healthy.
- When asked to compare the health of their children or children in the community to the healthy child participants described as a group, parent groups shared more negative comparisons than positive for both children in their family or in the community. Parents from an urban community reported primarily a positive health experience for their own children but also noted issues in the health of children in the community. However, not all parents in these groups had healthy children. One young African American focus group participant parent cited having all three of her children struggling with health issues.
- Explanations offered by parents for the contrast between the ideal healthy child and the actual health of children in Arkansas focused in on parenting. Participants explained that healthy children have parents who care about their health and wellbeing, are legal citizens, and have sufficient resources both financial and personal to care for their children. Children who were not viewed as healthy were children who had parents who do not have one or more of these resources.

Provider Responses

- Most provider groups identified access to care, childhood obesity, reproductive health, food security, parenting and social issues as characteristics of a healthy child.
- Providers discussed obesity in a way similar to parents. They described a healthy child as having an age-appropriate weight: *“proper weight not obese or underweight for age and height.”*
- Providers in two rural groups specifically listed absence of child maltreatment and a positive home environment with caring parents as an important characteristic of a healthy child. These participants described a healthy child as a *“well rounded with a solid household...”* and *“stable environment at school and home, free of dysfunction with things, as peaceful as possible.”*
- Participants from a rural county with a large population center did address oral health throughout the interview.

Prioritization of Major and Moderate Issues

As described in the Analysis section of this report, focus group participants prioritized child health issues through an interactive activity. In each focus group, participants collaboratively discussed and generated a list of child health concerns in their community. **Major issues had a collective consensus or top vote across most focus groups. Moderate issues were those that community members listed as an important issue in their community but did not receive a top-three ranking consistently.** Across all focus groups, parents and providers shared concern for many similar issues. Parents expressed concern for oral health of children while providers did not. Providers identified substance use by parents and children as an issue of concern; although parents did notice substance use, they did not vote it into the top issues.

Access to Care

Access to children’s care was an important area in particular for rural communities. Participants listed poor access to services ranging from primary pediatric care to more specialized services, especially behavioral, mental and psychiatric health services. Parents mentioned poor vision as a problem that affected too many children. Insurance cost and difficulty in maintaining coverage were also concerns for participants.

Childhood Obesity

Although not identified by all groups, obesity was still a priority identified in many sites especially among Spanish speaking parents. Like in other groups, Spanish-speaking parents disclosed that some of their children struggle with obesity, but they also expressed concern for the obesity they saw in general in their community. These parents expressed concern for the food served to children at school and for what appears to be a high number of overweight kids in the community. Lack of access to healthy and affordable food and limited physical activity for children who are not in sports was identified as a problem in several rural communities.

Mental Health and Substance Use

Both urban and rural communities noted and prioritized behavioral and mental health problems as top areas of concern. Use of illicit and prescription drugs was identified as a main concern. Participants also emphasized that, in their opinion, problems with behavioral and mental health affect too many children, increasing the need for more specialized care for these problems. Their concerns for these challenges were not limited to older kids but extend to younger children who are exhibiting behavioral problems earlier in their development.

Parent Supports

The concern of child neglect and lack of parental involvement was a top issue for several communities. Participants linked many of the other health problems and concerns with this one issue. In some of the groups, participants identified this lack of parental involvement and capacity as caused by young parents and teen pregnancy. One participant stated, *"Parents are just not growing up."* In other groups, participants explained this lack of parental involvement and child neglect is due to parental substance abuse and incarceration. Parents were thus unable to care for their children and leave them alone or with grandparents who often lack skills, resources, and good health to take care of grandchildren. Service providers especially identified that these neglected and abandoned children are left to be cared by an overburdened school system.

Oral Health

Parents and providers agreed that ARKids First expanded oral care access to children. However, lack of knowledge about coverage and the services available mean parents may not access adequate levels of oral care for their children. One parent noted, *"I gave [oral care] a D, because not all kids get care but there are services."* Marginalized populations, particularly children not born in the U.S., often cannot access oral care services due to parents' inability to pay and their immigration status. Some of the focus groups, especially the Spanish groups, cited poor oral health and a high number of cavities in children, *"there are a lot of kids with bad teeth"*. Access to oral care for children, especially in rural communities, at convenient or after hour times for parents was another barrier, *"... no after-hours care, hard to get in to see the dentist."*

Moderate Priorities included

- **Reproductive Health:** Participants graded reproductive health poorly, citing that too many teens get pregnant and that there was poor or lack of reproductive health education in their community. One teen parent participant made clear that her friends needed education on sexually transmitted infections. Some parents were surprised that sexual and reproductive health are not discussed or explained more openly to kids in school stating, *"For a country that is so open and where kids initiate their sexual activity so early, I am surprised that they don't cover it at all in schools."* Others explained the challenges young people experience when they receive limited reproductive information, saying, *"I know some are not educated, I was one. You are not aware of certain things, and when you find out it is too late."* Problems identified as related to teen pregnancy included a chronic cycle of poverty, lower educational attainment, a higher social cost to the community, and a lack of parenting skills. Hygiene was another concern participants often cited as an issue among adolescents and that health education classes could address.
- **Child Maltreatment and Caregiver Mental Health and Substance Use:** Child maltreatment in Arkansas was characterized by community participants as being due to young inexperienced and unprepared parents and parents with problems such as drug use. Drug use was the main reason cited for grandparents taking care of children due to the parents drug use. Violence or dysfunction within the family coupled with related issues such as poverty, low education and substance abuse also create an environment in which children are neglected and ill-treated. This child maltreatment does not only affect the family or child experiencing it, but the entire community because it is the community that experience the negative effects of a mistreated child either through aggressive behavior at school, delinquent behavior, and cost to society for treatment or punishment.

- **Developmental Screenings and Services:** Rural communities were concerned with lack of developmental screenings and expertise in their communities for specialized health concerns including Attention Deficit Hyperactivity Disorder (ADHD), hearing tests, speech therapy, and other services to support children with learning and developmental delays. Rural parents also expressed high need for services for physically disabled children in school and the community at large. One parent painfully described how her family could not eat at any of the community restaurants because none of them can accommodate her daughter’s disabilities. Providers, especially educators, expressed a feeling of overwhelm when discussing meeting the needs of children with developmental, learning, and physical disabilities.

Disparities

To understand communities’ perception of children’s health disparities, consultants asked participants: “Do all children in your community experience health the same way?” The child health disparity most identified by parents and providers in all groups was “poverty.” They discussed poverty disparities both in economic and in socio-cultural terms and described it as a complex interrelated issue. As one parent explained, “...there are some kids that experience more problems than others. For a lot of reasons, social economic, cultural, education level, especially of the parents, and even their nationality.” A provider also noted, “Your financial means will determine the outcome [referring to a healthy child] We have a lot of young and poverty stricken folks in our [county] and we all know it comes hand in hand with a lot of different issues.”

The economic conversations included issues of “living wages” and adequate “job opportunities” as well as limited prospect for financial support of young parents to take care of their children. One parent explained her view:

“You have really poor people, middle of the road people, and the rich people who can get whatever, a doctor anytime because he may be a friend or have been to their house, but on the other end you have people who are going all around town and don’t even know exactly where to go or how to get care for their children.”

A different perspective came from a provider participant, who had this view, “I don’t always think it is economic; it is the commitment of the parent, it is PARENTING!” Another provider stated: “Responsible parents vs. not responsible parents are younger, poor, and uneducated on how to care for their kids.”

Both parent and provider groups did not identify child health disparities solely by race or ethnic terms. Their discussions were often on the relationship of poverty to other social and behavioral aspects that influence children’s health. Overall, the disparity affecting Arkansas children’s health as identified by both parents and providers is to have young, poor, uneducated parents, which affect how they parent Arkansas children.

Key Informant Interview Major Findings

The lead consultant and ACH staff completed thirty-four one-hour key informant interviews in person or by telephone in January 2016. The key informant interviews were open-ended and lasted one hour. The key-informants also completed a Community Report Card. Neither descriptive demographic information was collected nor incentives given to participating key informants; participation was voluntary. Interviewers conducted the interviews at the time and place most convenient to participants. All interviews were conducted in English and most were in person.

Key informant interviews were not transcribed word for word, but interviewers prepared summary notes for each interview conducted at the time of the interview. All key informant interviews were conducted in English. Where possible, interviewers identified notable quotes during the interview.

Key informants, like community representatives in focus groups, completed a report card on 13 key child health issues. Below is a summary table of the mean scores and the corresponding letter grade for each category graded by key informants and focus group participants.

Table 10: Key Informants’ Community Report Card Grades

Health category	KI Grades (N=33)
Access to care	C+
Food security	D+
Teen pregnancy	D
Sexual health	D+
Education	C+
Childhood obesity	D+
Injuries	C
Parent support	C
Mental health	D+
Substance use	C
Dental health	C-
Immunization	C
Quality early childhood programs	C+

Key informant participants described child health in a broad and holistic way. They included many characteristics a child needs to be healthy and emphasized both physical and emotional wellbeing. One participant summarized it well, *“A healthy child is a child who has the physical, emotional, psychological and even environmental resources for growing and developing in a way to achieve their full potential.”*

Prioritization of Major and Moderate Issues

The consultant asked key informant participants to provide the top three issues they strongly believe ACH should address to improve child health in the state. This was purposefully the last question of the interview, with the intention of having key informants prioritize all the issues they had chosen to discuss and share during the rest of the interview. Because the key informant participants did not conduct a collective prioritization process, consultants identified their major and moderate child health themes during coding and analysis. The consultant identified dominant child health themes and recognized these as major issues for key informants. Key informants’ moderate issues were responses that were listed but were not dominant themes. The top concern identified across all interviews was access to care. Most interviewees next prioritized social issues and parenting, followed by obesity and reproductive health. All were discussed with equal intensity. Only one participant identified developmental screenings and services as a priority issue to address. However, this issue was in relation to the needs of disabled Marshallese children in Arkansas who do not have any of these services available to them right now due to language barriers and no healthcare coverage.

[Access to Care](#)

Access to care and prevention is an important and complex issue the state faces to improve and maintain the health of children. Many informants recognized ARKids First for its role in improving access

for many children in the state. However, gaps in coverage and barriers to access coverage are still challenges. Administrative and clerical problems and delays with enrollment can and have interrupted continuity of care or have prevented access to care for children. Such issues are sometimes due to parents' lack of knowledge or understanding about enrollment and eligibility process and requirements.

Another important issue affecting access even when children have insurance coverage is the persistent stigma families and children experience in the healthcare system. Getting a primary care provider is sometimes difficult even for families with children with Medicaid or ARKids First coverage. Furthermore, even when a provider is secured, some of these families and children experience a lower standard of care and support because of a Medicaid stigma. As a key informant explained, *"It seems there are more barriers for our Medicaid families. I understand it can be challenging with families in poverty, but with Medicaid we are trying to help and sometimes there is a tendency to not help."*

Other participants identified access as being different and in some ways more challenging in rural areas than in urban centers in the state. One participant described rural populations as *"geographic minorities."* The participant went on to say that rural children, without respect to racial/ethnic identity, experience many of the disparities minority groups experience, in particular poverty and low education. Rural geography was also one of the top explanations expressed for disparities in health among children. The geographic location of where a child and her family live, according to our informants, directly affects their health outcomes. As one participant noted, *"A child without coverage in Central Arkansas is not the same as a child without coverage in a rural area."* Uninsured children in urban areas may still get some care because of the enhanced and broader safety net available in urban centers.

Another key finding regarding the access to healthcare in rural areas, as mentioned in focus groups and interviews, was the lack of adequate levels of primary care, specialty care, and some specialty services such as urgent after-hours care. Families in rural communities had access to some primary and preventive care, however, the informant and focus groups participants said they may not receive the standard of care compared to urban areas, primarily because specialty care is limited, not existent, or not of the same quality. Providers with experience serving children in rural communities cited such needs as in specialty care for pediatric skin conditions for infants, pediatric urology, and pediatric and adolescent behavioral and mental health care. In some rural communities, the only care option for children is the primary care provider for adults. Mothers with children with specialized healthcare needs can only be seen by family or general providers. Behavioral and mental health services for children are needed to address conduct disorders, mental health conditions and substance abuse issues in the family that affect the child.

Childhood Obesity

Despite increased efforts to address obesity in children, most respondents said that addressing obesity in children is a long-term and necessary effort. More communities need to adopt the Growing Healthy Communities model, which gets everyone in the community motivated.

A lack of access to affordable nutritious food is a challenge to address obesity effectively. *"Children will not change their own diets, parents need to be able get healthy nutritious food on children's plates. If they can't then obesity rates will not change."* Barriers for parents to successfully accomplish providing safe and nutritious food are poverty, food deserts, and lack of parental education about the problems a poor diet causes and the benefits of a healthy diet. Decreased or lack of physical education for kids was also an issue identified as contributing to the problem of obesity in children.

Reproductive Health

Teen pregnancies create and perpetuate the “*the perfect storm*” for children to live in poverty, not learn good parenting skills themselves, and have poor health outcomes throughout their lives. Although Arkansas state teen birth rates are higher as compare to national ones, the rate has decreased. However, stakeholders identified this decrease more to teens themselves changing their own behavior and not to any widespread coordinated effort. A larger decrease could change the tide for a generation. *“Arkansas needs a generation to catch up and heal from multigenerational effects of unstable and unhealthy adverse childhood experiences of many children in the state.”*

To decrease teen pregnancies further and in a more prolonged way, key informants stated that more adolescent reproductive health programs needed to be implemented. Individuals running these programs will need to be able to understand and be effective at managing and addressing adverse childhood effects young people in Arkansas may have experienced.

Stakeholders should address having a comprehensive sexual health curriculum that includes abstinence in the schools. Teen pregnancies are both intended and unintended, and they each need different approaches to address them.

Parent Supports

Issues in parenting affecting child health focused on two dimensions: 1) Poor parenting skills of some Arkansas parents affect children negatively in their health and overall well-being and development. 2) Families and parents need support to improve their parenting skills, especially young mothers.

Informants’ descriptions of poor parenting skills ranged from tangible parental expectations such as inability to provide basic necessities including safe and nutritious food and clothing to more serious ones like providing a safe stable home environment without any abuse or neglect. A small minority attributed the lack of parenting skills to apathy and parents not caring. According to most respondents, parents face many challenges that prevent them from being better parents. They themselves experience poor physical and mental health, poverty, discrimination, past personal abuse and neglect, and low education and limited awareness of what they can do for their children’s health and well-being. Respondents shared that parents “*cannot give what they do not have.*” If parents themselves were not cared and provided for, and were abused as children it is the only thing they know.

The second aspect of parenting that respondents addressed was the unequitable availability of parenting support throughout the child’s life. Respondents recognized there was a lot of support for parents in the early stages of a child’s life but this support wanes as the child grows up until the child enters school. Despite the availability of many good early childhood parent support programs, gaps in services and limitations in eligibility prevents many parents who need parenting education from getting the help they need.

A key theme within the parenting domain was that for statewide investment, interventions, and systems change to improve children’s health, they should address the health of the adults around the child. These adults include parents, caretakers, and the collective community. As one participant summed up *“The health of children is a reflection of the health of their community.”*

Moderate Priorities included:

- **Mental Health and Substance Use:** Informants suggested that a substantial proportion of Arkansas children have significant adverse childhood experiences that negatively affect their mental health, manifesting in behavioral and psychological problems that can be coupled with aggression. These adverse childhood experiences range from experiencing school bullying to living in unstable home environments that include physical, sexual and mental abuse. The experiences may have effects that last beyond the current generation of children, putting future generations at risk for poor health. Too often, children's mental health needs are unmet due to lack of available and specialized providers. Another barrier the stigma of mental health. In addition, parents' fear of any legal ramifications due to issues identified during counseling also place a barrier to accessing services. According to stakeholders, mental health problems are both a causes of and result of other determinants of social issues including poverty, substance use, and low educational attainment. One stakeholder looking at the individual level intervention or treatment noted, *"We see many things that just don't align for children. They don't have their needs met, neglect, abuse. Generational cycles of physical, sexual and mental abuse exist. Kids are abused and are not going to benefit from school. I think one of the things that we see is often times [we] forget about the trauma that these kids have endured..."* Another stakeholder offered a more systems level approach, stating, *"We have many children who are not valued or cared for, they are sort of thrown away. It takes a village, but it needs to be a competent village....We do not put our efforts, our money, our policies into what we say we value. Children and families always get the short end of the stick."*
- **Food Insecurity:** According to stakeholders, food insecurity is *"something we experience way too much in Arkansas."* Stakeholders discussed food insecurity in relation to poverty and obesity. They expressed a need for Arkansans to address, support, and promote programs that address food insecurity, especially unique partners such as restaurants who often throw away a lot of food which could help feed the hungry. More innovation and collaboration is still needed to fully address food insecurity.
- **Social Issues:** The main social determinants of health that stakeholders identified in interview discussions were poverty and/or financial family insecurity, low educational attainment especially of parents, and racial and ethnic disparities. Most stakeholders expressed a need to address these issues directly and effectively in order to be able to improve the health of children in Arkansas. A stakeholder's summary stated, *"Poverty, it drives all access, literacy, education and racism. They are all connected."* One participant described the education challenge, *"Arkansas has a low percentage of high school graduation, not enough decent paying jobs and has historically had low or inadequate education."* Another stakeholder explained the equity problem when it comes to racial and ethnic minorities in the state, *"While we have a lower percentage of minority populations that the states next to us (Mississippi/ Alabama) we have higher percentage of poverty among those groups."*
- **Oral Health:** Oral health problems were minimally discussed by most informants. Stakeholders who identified and expressed oral care as an important health need were ones who are working directly with children or community members. Informants identified that services are available, but there is not enough education and outreach to parents about why or where to access oral health services for their children. Also, oral health was identified as a significant problem in Latino and Marshallese populations due to barriers to health coverage.

Figure 2 shows the relationship of major issues identified by focus groups and key informant interviews in a single diagram. Access to care, obesity, and parent supports were mentioned across both data collection sources.

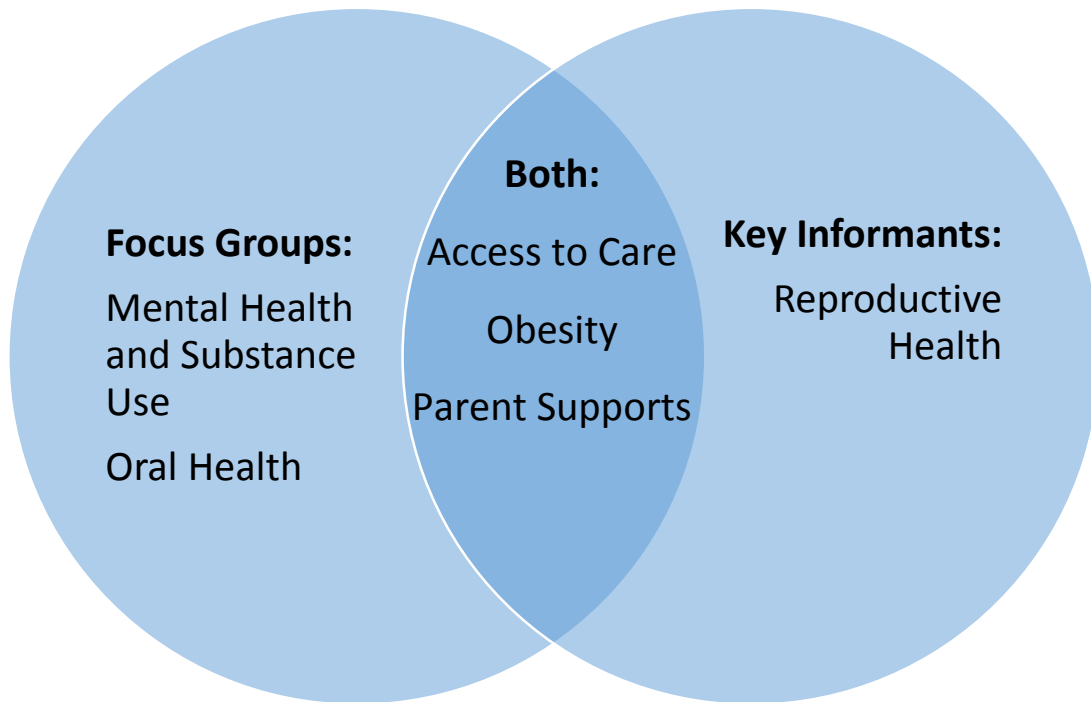


Figure 3: Health Priority Issues Identified by Focus Group and Key Informant Participants

Disparities

Key informants were also asked about their perception and understanding of the health disparities that children face in the state. Like focus group participants, key informant discussed disparities as an interrelated outcome of socioeconomic status, culture and ethnicity, geographic location and family environment. However, they discussed socioeconomic status in the context of to access health and not as a culture of poverty. *“...there are levels of access. If you are Marshallese your access is extremely limited, if you are Latino it is somewhat limited, if you are Caucasian, it can be limited, especially if you are poor and live in a rural area.”* Many underscored that poverty is the main determinant of the health of children.

- *“I think that it affects children from all backgrounds and it depends on the means of the family they have, poor families are more affected.”*
- *“There is a higher infant mortality in African American communities, a higher preterm birthrate...because of poverty, because of adverse childhood experiences.”*
- *“If you try to find a common theme in all things that affect a child, poverty is one of the most important things, and then the mother’s health.”*

Poverty can bring about many hardships and adverse childhood experiences that cause long-lasting health effects in the life of a child and in their children, as one expert noted, *“there is evidence of how toxic stress can affect a child cognitively and developmentally at the cellular level, and these potentially can be passed from generation to generation.”*

Key informants discussed the connection between poverty and geographic location for families in Arkansas, differentiating between individuals from any ethnic or racial background living in a rural community experience poverty and children's health in a very different way than a person in a city, even if that person is also poor. One participant explained, *"The geographic one is a tough one for Arkansas. A child who does not have health care coverage in central AR is very different than a child that does not have coverage in a rural area."*

Although all acknowledged that poverty is a challenging and improbable issue to resolve, they acknowledged that to improve child health in the state, poverty issues of families have to be understood and addressed better. To accomplish this it will require change in policy, how providers work together, and how the community is involved in planning and implementation of solutions. Addressing the health of children in poor families is not only good for them but also for all families in the community.

- *"All these things [referring to child health challenges] have clear effective interventions, but we need political and institutional will to make a good effort."*
- *"We need to look at root causes and social determinants for morbidity and mortality for various age groups."*
- *"We operate in silos in Arkansas, we talk to each other, but working together is not easy."*
- *"Underprivileged kids it affects them the most, but really it affects all kids."*

Stakeholders Important to Addressing Child Health

Consultants asked key informants to help identify stakeholders, who in their opinion should be at the table to help address child health concerns in Arkansas. They provided a diverse and extensive list. Only a few participants offered no suggestions stipulating that all were already at the table. In contrast, a few others shared that "everybody" in the community committed to address child health issues should be included. However, the majority of respondents did identify specific stakeholders to engage to work on improving the health of children in the state. Below are the stakeholders categories identified and described by interviewees. They characterized some as established but which need strengthening and others were "new" or "unexpected" which have not been included before.

- **Educators** Description by participants included educators and administrators both in schools and in the department of education. It also referred to the entire range of the educational experience of children from *"early childhood education all the way to high school"* and through *"higher education such as junior colleges."* One participant explained, *"More collaborations and shared responsibility are needed between education and health"* while another one specified, *"Education is notably absent...when they are it is usually not consistent."*
- **Policy and Elected Officials** These include state and local elected officials. Examples given were the governor or his office, local mayors, or county officials as well as state legislators. Participants emphasized the importance of this stakeholder to *"getting things done"* and having them *"...understand not just what the problems are, but clear about the solutions."* One participant explained, *"It is one thing that [an organization] says it support an effort, and quite another to say the Governor supports this effort."* Another participant described the current involvement from elected officials, *"Occasionally legislators are present, but not usually, it is a very small number and there needs to be more of a presence from legislators and the governor."*
- **Business and Industry Leaders** This was a stakeholder that all who identified it specified as new and currently not being engaged. Participants described this stakeholder as business owners, leaders in state industry, employers of the state population, chambers of commerce and the workforce development sector. *"This work has to be through the collaboration of the*

community, providers and employers, it is important that everyone works toward the same goal.” Explanations for their inclusion included creative was to address problems like one participant who stated, *“why don’t we work with all-terrain vehicle ATV sellers,”* to help address injuries. Others explained the need to *“make them aware of the importance of health and what the health problems”* their employees are facing with their children. Others discussed more long-term bottom line motivation to engage them, the assurance of a *“healthy and productive workforce”* and consumer base.

- **Faith Leaders** Faith communities are an important part of life for many Arkansas according to interviewees, however, *“Churches are not at the table.”* Participants included in their depiction of faith communities as actual churches and faith based organizations such as private schools.
- **Families** Another stakeholder that key informants identified as important was the family, including parents, caretakers and children themselves. *“Parents, kids are not at the table.”* The interviewee acknowledged that parent engagement exists but described it as *“limited”* and not really *“meaningful.”* Parents and children need to be engaged at the local level in their communities.
- **Key Organizational Leaders** This category of participants included leaders from various organizations which participant emphasized needed to be included. These were managers of not for profit clinics who provide services to poor populations, department of Education, Medicaid, and the medical board. While participants cited these specific examples, their explanation of emphasizing *“key leaders”* was that sometimes people participate in the process but they are there because they have a personal interest and they are not necessarily representing their institution and organization. Stakeholders from key child health organizations need to be decision makers and people who can commit the entity to the shared goals.

Telephone Survey Major Findings

ACH contracted with the University of Arkansas at Little Rock (UALR) Survey Research Center (SRC) and its subcontractor ReconMR to design and carry out a statewide telephone survey of parents and guardians who had children currently living in their home. The goal of the survey was to assess Arkansas caregivers’ views and attitudes towards their children’s health care and community health needs.³

Methodology

ACH and UALR staff worked together to develop a questionnaire that would highlight parents’ perspectives on needs regarding existing and emerging child health issues and access to health care. When possible, previously-tested questions from other prominent public health surveys were used to guide phrasing. Efforts were made to limit the survey to approximately ten minutes.

Data collection was conducted during December 16, 2015 – January 3, 2016 by ReconMR in San Marcos, TX. A total of 401 completed interviews were conducted with Arkansas adult residents who are a parent, stepparent or guardian of a child under the age of 18 who lives in the household, either full- or part-time. The survey was conducted in English only. Protocols and coding used by ReconMR were under the supervision of the SRC and consistent with usual SRC practices. The Response Rate for the survey is 56 percent. This rate represents the number of completed interviews expressed as a percentage of all eligible persons in the sample. The cooperation rate is 93 percent. This rate represents the number of all completed interviews expressed as a percentage of all eligible persons ever contacted.

The study used a dual-frame sample of phone numbers drawn from both an RDD landline phone bank and a cell phone bank. A total of 3 percent of participants were interviewed via landline and 97 percent of participants were interviewed via cell phone. For cell phone participants, there was no screening for the presence of a landline phone in the household, or its percentage of use.

This research was conducted in accordance with protocols and procedures approved by the UALR Institutional Review Board for Human Subjects Research. Both the stratified RDD landline samples and the cell phone samples were generated through Scientific Telephone Samples. With this level of completed interviews one can say with 95 percent confidence that the margin of sampling error is ± 5 percentage points.

The telephone survey asked parents open-ended and multiple-choice questions about their opinions on community problems, access to health care services, social determinants of health, and top public health issues. Additionally, demographic data was collected from each participant. The complete questionnaire used in this survey is available in Appendix 6.

Table 11: Oldest Child’s Race (n = 401)

	Count	Percent
White	292	73%
Black or African American	63	16%
Asian	4	1%
Nat Hawaiian or Oth Pacific Is	0	0%
American Indian or Alaska Native	9	2%
Bi-racial/Multi-racial	21	5%
Don’t Know/Not sure	4	1%
Refused	8	2%

Table 12: Highest Grade Completed (n = 401)

	Count	Percent
Less than high school	16	4%
Grade 12 or GED	106	26%
Some college	128	32%
College graduate	148	37%
Refused	3	1%

Table 13: Income from All Sources (n = 401)

	Count	Percent
More than \$100,000	72	18%
\$75,000-\$100,000	44	11%
\$50,000- \$75,000	64	16%
\$25,000 - \$50,000	92	23%
Less than \$25,000	101	25%
Don’t know	16	4%
Refused	12	3%

Table 14: Age of Oldest Child (n = 401)

	Count	Percent
Less than 1 year	11	3%
1-2 years	23	6%
3-5 years	51	13%
6-8 years	52	13%
9-11 years	75	19%
12-14 years	70	17%
15-17 years	119	30%

Parents were asked “When it comes to your child’s health and well-being, what do you consider to be the number one problem being faced by your community today?” Access to health care topped the list, followed by obesity-related factors such as nutrition and exercise and a broad category of social issues that could impact health.

Table 15: Top Issues Parents Consider Affecting Child Health and Well-Being (n = 401)

	Count	Percent
Access: Being able to reach medical care that is both quality and convenient in a timely manner, need for access to specialists	57	14%
Nutrition/Exercise: Lack of access to healthy foods, obesity, and lack of exercise	42	10%
Social Issues: Poor education, peer pressure and bullying, global issues such as terrorists attacks and murder/mass shootings	39	10%
Vaccinations/Germ Spreading: Parents choosing not to vaccinate a child, cleanliness of schools	34	8%
Specific Health Issues: Health issues such as allergies, flu, or asthma	31	8%
Insurance/Cost: Being able to pay for services and/or obtaining health care coverage for children; problems with specific coverage plans	31	8%
No Problems: Respondents felt there were not any problems facing their community	26	6%
Substance/Medications: Drug usage, smoking, and alcohol abuse as well as overuse of prescription medications such as ADHD medications	25	6%
Miscellaneous	23	6%

Major findings from the telephone survey follow. Results from the survey’s 34 questions were prioritized into six major findings and four moderate findings. Major findings had more than 60 percent of respondents identify the issue as a problem or were mentioned by 10 percent or more of respondents in the open-ended question. Moderate issues were mentioned as a problem by 40-59 percent of respondents or represented a significant or concerning public health trend.

Access to Care

When asked about the convenience of medical care for their children, 62 percent of respondents stated the distance they had to travel for medical care was “very convenient.” Another 20 percent said it was “somewhat convenient.” Only 11 percent cited it as “somewhat inconvenient” or “inconvenient.” Nine in ten respondents had one person they thought of as their child’s doctor. However, access to care was cited as the top concern in the open-ended question about issues affecting child health.

Childhood Obesity

When asked about the number of overweight children and adolescents in their community, 37 percent of parents considered this a "serious problem," and 75 percent saw this as a serious or moderate problem. However, 27 percent of respondents said their child did no type of activities that caused them to sweat or increase their breathing within the past week. Just one-third of respondents stated their child did some sort of activity to cause them to sweat or increase their breathing or heart rate 5 or more times within the past week.

Mental Health and Substance Use

Two-thirds of respondents (68 percent) think alcohol and drug use by children and adolescents is a serious or moderate problem. Fifty-nine percent (59 percent) think child and adolescent smoking is a serious or moderate problem, and smoking and overuse of prescription medication were listed as a top issue affecting children's health. One-quarter of respondents (23 percent) would not know where to go in their community to access mental health services.

Reproductive Health

Two-thirds of respondents (62 percent) believe that the number of teen pregnancies in their community is a serious or moderate problem, with more than a quarter (28 percent) responding that it was a serious problem.

Food Insecurity

Although just 13 percent of respondents had been personally concerned about having enough food for themselves or their family in the past year, lack of access to healthy food was one component of the second-most-frequently-mentioned top child health problem.

Social Issues

This broad category of social issues was a top-listed issue affecting child health. It social determinants of health such as poverty, education, transportation, home environment, and community safety.

Moderate Priorities included:

- **Parenting Supports:** About two out of ten (21 percent) respondents stated they had looked for parenting support resources, but 58 percent of those who had looked were unable to find adequate resources in their community.
- **Child Maltreatment:** Almost six in ten (58 percent) respondents felt that the number of child abuse and neglect instances in their community was a serious or moderate problem.
- **Child Injuries:** Of respondents who reported having firearms kept in or around their home, 41 percent said that the firearms were "unlocked." This represents 18 percent of all parents surveyed who stored unlocked firearms in their home.
- **Immunizations:** One out of ten respondents (10 percent) said they had elected not to get their child a vaccine shot for reasons other than illness or allergy.

Secondary Data Review Major Findings

A comprehensive review of child-specific secondary data from local, state, and national sources informed the needs assessment from a public health perspective. Local data included sources such as Arkansas Children's Hospital, specific program that address child health needs, or research studies that focus on specific diseases or groups. The Arkansas Health Department, other state agencies, and

statewide nonprofit organizations such as Arkansas Advocates for Children and Families provided state-level data, some of which can be viewed at the county level. Nationally, sources included the Annie E. Casey Foundation's Kids Count Data Center, the Centers for Disease Control and Prevention, the Youth Risk Behavior Survey, and the U.S. Census Bureau. When possible, year-over-year trends are noted, Arkansas data is compared to national data, and county-level data is used to provide more granular evidence of need.

This section includes an overview of demographic data and the major and moderate findings from the secondary data review. Further analysis is included in the priority issue area sections of the CHNA. A full data appendix is available upon request. Major findings were categorized by a high public health risk, significant disparities, or a state rank near the bottom in national rankings. Moderate findings had limited available data or the public health risk was notable but not as severe as major findings.

Demographic Data and Social Issues

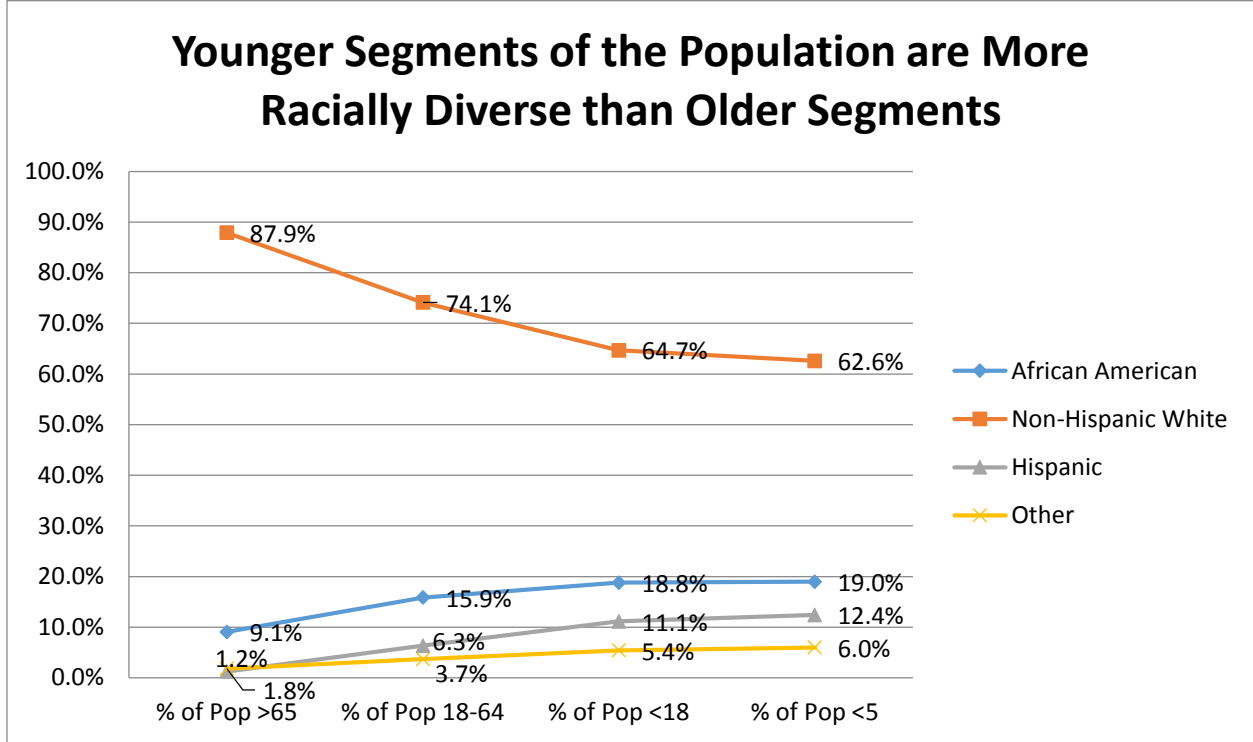
Arkansas children face significant challenges to optimal well-being due to many basic demographic factors. **The Annie E. Casey Foundation 2015 Kids Count Databook ranks Arkansas 44th in the nation in overall child well-being**, a move down from 2014 when the state was 41st and 2013 when the state was 40th. This trend is moving in the wrong direction for Arkansas children. Following an analysis of population trends, economic, educational, and community-related data provides context for Arkansas's low ranking on this national child well-being index.

A recent study supported in part by the Children's Hospital Association surveyed adults about children's health issues and found that they believe children today are worse off than when respondents were growing up. More than half of adults responded that children today have worse mental or emotional health compared to when the respondent was a child, and 42 percent believe that children today have worse physical health. Two-thirds (65 percent) believe that children today have less quality family time. The Children's Hospital Association analysis of the study shared that, "These findings suggest child health must become a higher priority at the national and community levels....[and] that adults in the U.S. today would support a stronger focus in research and programs on children's mental and emotional health, where most respondents perceive a clear need."⁴

Population

Arkansas's population of almost 3 million residents includes 710,236 children who make up almost a quarter (23.8 percent) of the population.⁵ Younger segments of the population in Arkansas are significantly more racially and ethnically diverse than older segments of the population, signifying a national trend toward majority-minority communities.

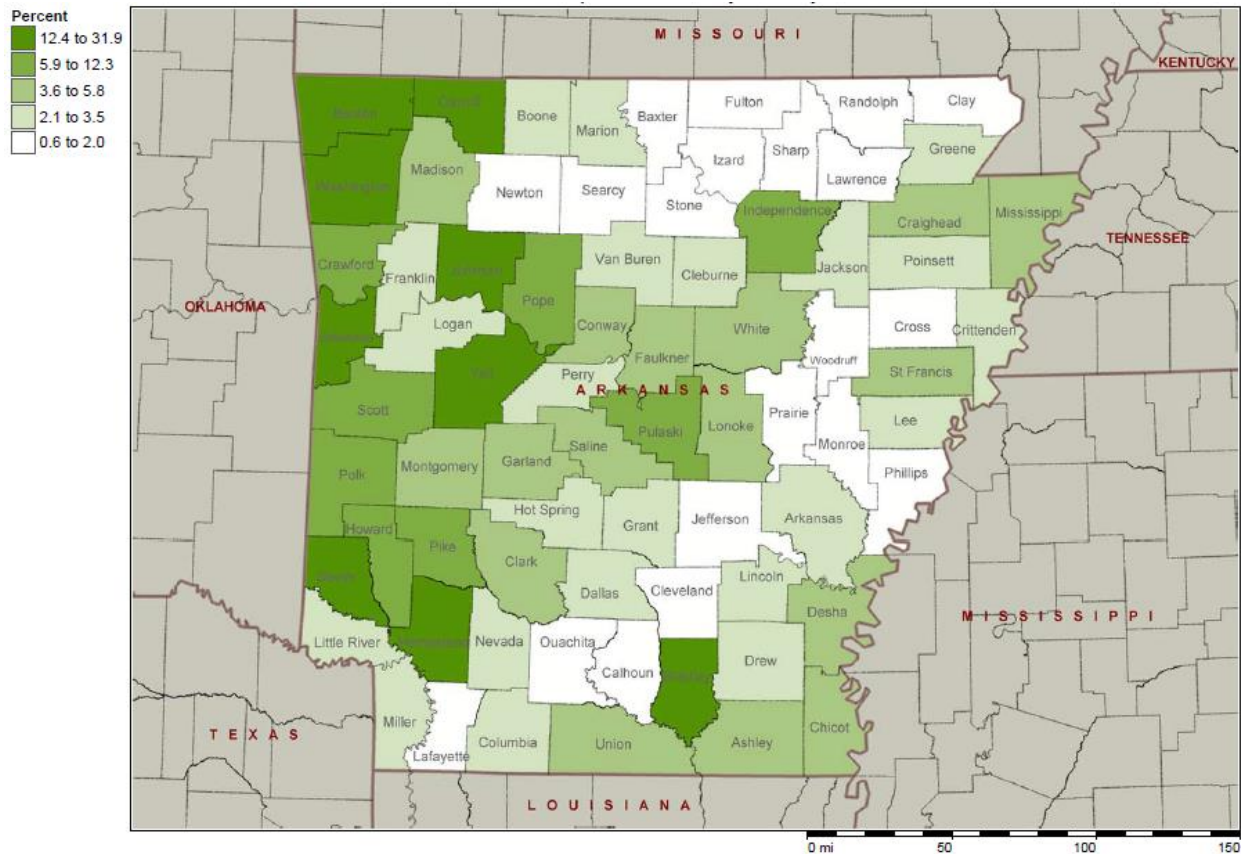
Figure 4: Racial and Ethnic Diversity by Age, 2014



Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

The Hispanic population in Arkansas continues to grow as percentage of the population. During the 2000 Census, just three percent of Arkansas children under age 18 and six percent of children under age five were Hispanic.⁶ The 2010-2014 American Community Survey five-year estimates show that eleven percent of children under age 18 and **twelve percent of children under age five are Hispanic.**⁷ The concentration of the population of Hispanic or Latino ethnicity varies widely across the state from less than one percent in Woodruff County to 32 percent in Sevier County.⁸

Figure 5: Percent of Total Population of Hispanic or Latino Ethnicity, 2014



Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Recent estimates from local providers are that 8,000 – 10,000 Marshallese people live in northwest Arkansas, making it one of the largest communities in the United States of Marshall Islanders.⁹ More than seven percent of Arkansans five years old or older speak a language other than English at home, and more than 80 percent of foreign-born families speak a language other than English at home. Slightly more than half of Arkansans live in urban communities, but 45 percent live in a rural community.¹⁰

Poverty

The Annie E. Casey Foundation 2015 Kids Count Databook ranks Arkansas 44th in the country in economic well-being. Arkansas is tied at sixth in the nation for the number of children living in poverty. **Twenty-six percent of Arkansas children are growing up below the poverty line**, currently set at \$20,160 for a family of three.¹¹ Nationally, 22 percent of children live in poverty.

Table 16: Percent of Population Living Below the Federal Poverty Level, 2014

	Arkansas	United States
Overall population	19%	16%
Children under age 18	26%	22%
Children under age 5	30%	24%
Children in extreme poverty (<50% FPL)	11%	10%
African American children under age 18	46%	38%
Hispanic children under age 18	39%	32%
White children under age 18	19%	13%
Foreign-born population with children	31%	

Source: Population Reference Bureau, analysis of data from the U.S. Census Bureau, 2010 - 2014 American Community Survey

Income is not the only financial challenge facing Arkansas families; **more than half of the state’s households live in liquid asset poverty**, meaning that they “lack sufficient liquid assets to subsist at the poverty level for three months in the absence of income.” Almost a third of Arkansas households live in asset poverty, which means they lack “sufficient net worth to subsist at the poverty level for three months in the absence of income.” Given that **37 percent of Arkansas jobs are low-wage jobs**, it can be difficult for families to make ends meet much less save for the future or be ready for unpredicted expenses.¹² Additional facts impacting children’s families’ economic security include that 245,000 Arkansas parents lack secure employment and the median household income is just \$41,264.^{13,14}

Arkansas does not have a state Earned Income Tax Credit, which would help low-income families keep more of their paychecks in their pockets.¹⁵

Housing, homelessness, and poor housing affect many Arkansas families. Arkansas ranks 47th for child homelessness; **almost 22,000 children are homeless**, according to the National Center on Family Homelessness.¹⁶ The state also lacks many policy and planning efforts that could help reduce child homelessness, including a statewide plan for child homelessness and increasing the number of housing units to help homeless families.¹⁷

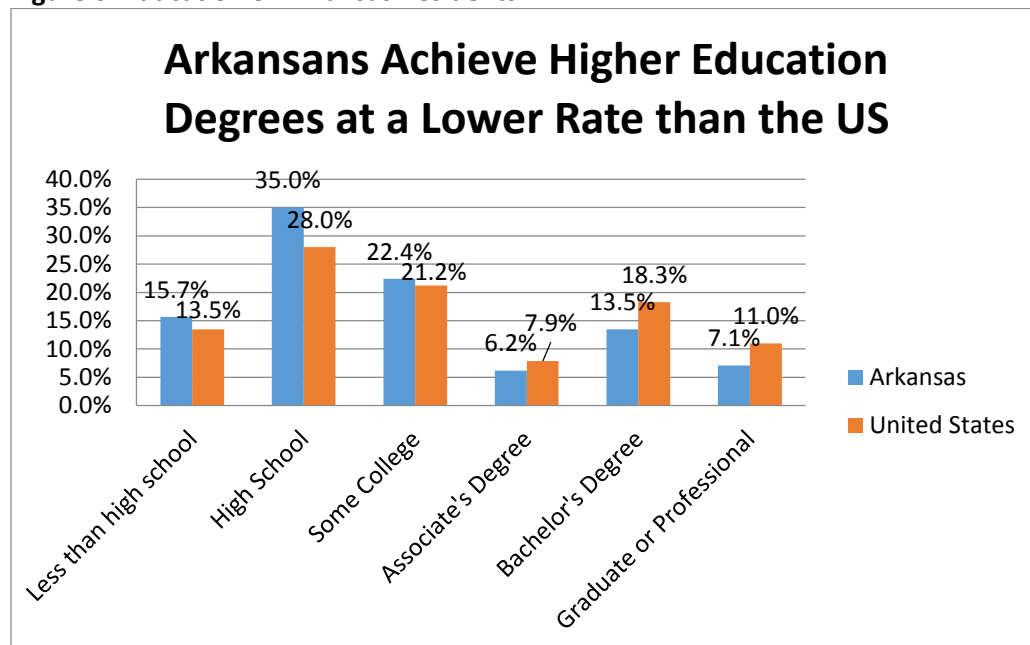
A recent report on the state’s landlord-tenant laws that was compiled by a team led by the University of Arkansas for Medical Sciences College of Public Health and Arkansas Community Organizations highlighted the results of more than 1,100 surveys of Arkansas residents and five in-depth interviews with renters.¹⁸ **Arkansas is the only state in the nation without an implied warranty of habitability**, meaning landlords are not required to maintain their properties at any minimum standards unless they specifically write those details in their lease agreements. Given that 34 percent of Arkansas housing units are renter-occupied, this could have a large impact on health.¹⁹ A few highlights from the report:

- 32 percent of renters reported a problem with their landlord making needed repairs in a timely and responsive manner
- The top three household problems were plumbing, heating/cooling, and pest/rodent control.
- A quarter of those who had a problem with their landlord experienced a health issue they attributed to the property.

Education

The Annie E. Casey Foundation 2015 Kids Count Databook ranks Arkansas 39th in the country in education. Arkansans graduate from higher education programs at a lower rate than the United States, and **half of Arkansans have a high school degree or less.**²⁰ Only 71 percent of Arkansas high school students graduate.²¹ Of those who do, 22 percent do not graduate on time.²² This data means that many parents taking care of children do not have optimal educational attainment.

Figure 6: Education of Arkansas Residents



Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Starting early with education is important. Although Arkansas's state-funded Arkansas Better Chance (ABC) pre-k program receives very high quality rankings on national assessments, more than half of children in Arkansas **(55%) do not get the opportunity to attend preschool.**^{23,24} Geographic disparities and a limited number of publicly-funded slots mean that many children simply do not have an option.²⁵ At home, according to a report from Arkansas Advocates for Children and Families on needs for young children, only "47 percent of parents or family members read to their children each day while 58 percent tell stories and sing" to young children.²⁶

Grade school students do not fare much better. Only **32 percent of fourth graders are proficient in reading, and 28 percent of eighth graders are proficient in math.**²⁷ Parents and families are not as engaged in children's learning as teachers would prefer, and students suffer from a lack of basic needs that affects their classroom performance.²⁸ A recent national survey showed that only 13 percent of Arkansas students participate in summer or after-school program, leading to summer learning loss and missing opportunities to help struggling students avoid falling behind.²⁹

Family and Community

The Annie E. Casey Foundation 2015 Kids Count Databook ranks Arkansas 45th in the country in Family and Community factors. Family structure and stability is a challenge for Arkansas children. Approximately 41,000 Arkansas children (6 percent) live in a household where the grandparent is responsible for child-rearing.³⁰ Almost 4 in 10 children (38 percent) live in a single-parent family.³¹ Many

Arkansas children are born to young parents who may still be children themselves; Arkansas has the highest teen birth rate in the country. In 2013, more than 4,100 children were born to teenage mothers.³² **Twenty-nine percent of Arkansas children have had two or more Adverse Childhood Experiences**, which are potentially traumatic events such as abuse, parental incarceration, or parental divorce that can have negative, lasting effects on health and well-being.³³

Additional social factors impact children. In a rural state, lack of transportation can be a significant barrier to conducting day-to-day necessary activities, and 6.4 percent of Arkansas households do not own a vehicle. At the county level, the number of households without a vehicle is as high as 19.7 percent in Lee County, with similarly high rates in several Delta counties.³⁴ Another issue that has been in the media often in recent years is large-scale disasters such as school shootings. One hundred forty-two 142 school shootings have killed 73 people and injured 104 since January 2013.³⁵ Lastly, many health-harming legal needs affect low-resource families. From a need for legal assistance for issues like guardianships for developmentally delayed children aging into the adult system to appeals for denials of health care services, low-income families have legal needs to achieve health, but there is only one legal aid attorney for every 16,050 eligible Arkansans.³⁶

Access to Care

Health Coverage

Arkansas children have excellent access to health coverage through the ARKids First program, and just 6.5 percent of children under age 19 lack coverage. However, significant disparities exist for race/ethnicity (low-income Hispanic children are disproportionately uninsured), age (79 percent of low-income uninsured children are between ages 6 and 11), and immigration status (54 percent of low-income foreign-born are uninsured).³⁷ In recent months, news coverage of enrollment system challenges and a requirement for all children to re-enroll in coverage for technological reasons has highlighted barriers to families retaining coverage.

Screenings

Of children enrolled in traditional Medicaid or ARKids First A, **only 48 percent received at least one of their Early Period Screening Diagnosis and Treatment (EPSDT) preventive visits** required by Medicaid in 2014.³⁸ Though the data cannot be published per DHS data request terms, county-level data used in strategy planning shows significant county-level disparities.

Newborn screening has improved in recent years. In 2012, only 9.7 % of newborn screening samples arrived to the Public Health Lab in the recommended 48 hour time frame. ADH implemented new quality improvement initiatives and updated the Newborn Screening rules and regulations to reflect best practices. In 2015, 62.5% of samples arrived to the lab on time. Two new screenings, critical congenital heart disease and severe combined immunodeficiency, were added to the panel in 2015. In 2015, 40,739 newborns were screened, and **107 newborns were diagnosed with a genetic condition as a result of newborn screening.**³⁹

Access Points

Children access primary care across Arkansas primarily through a mix of pediatricians and family practice physicians. Some of these sites may not have accessible after-hours or weekend care options. Rural families often lack providers in their communities and must travel to reach a provider. Because ACH is the only hospital in Arkansas with children's subspecialty services, and it is located in Little Rock, **many families must travel a long distance to access specialty care** for children with special health care needs.

New Patient-Centered Medical Home requirements have placed emphasis on quality measures, some of which apply directly to children’s care, such as EPSDT screenings and asthma care plans. Almost 200 primary care practices in Arkansas have enrolled in the Medicaid PCMH program, and these practices have shown improvements in pediatric quality measures including wellness visits and ADHD management.⁴⁰

Though the state’s **27 school-based health centers (SBHCs) are bridging barriers to care** for more students across Arkansas, there are geographic and economic disparities regarding the counties where SBHCs are located.⁴¹ School nurses treat a wide variety of chronic health conditions ranging from asthma and Attention Deficit Hyperactivity Disorder to depression and seizure disorders. They also must provide specialized care such as tracheostomy care, tube feedings, insulin pumps, and catheterization. In the 2014-2015 school year, **school nurses treated a total of 131,289 chronic health conditions and 10,427 specialized procedures.** They also took care of 818 known pregnant students and more than 3,400 cases of abuse and neglect. Some school nurses cover as many as six school campuses.⁴²

ACH treats children for a very wide variety of injuries and illnesses in its inpatient and outpatient departments. However, children do not always access the health system in the most efficient or appropriate ways. Between July 2014 and June 2015, the hospital saw more than 44,000 patients in its emergency department. Overall, almost 91 percent of those were categorized as “non-emergent.” In the zip codes for the neighborhoods around the hospital, 93-94 percent of the emergency department visits were “non-emergent.” Asthma is a particular health issue that drives visits to ACH; there were almost 9,000 appointments or visits in 2014 for asthma-related issues across the age spectrum of children. Numerous barriers to care for asthma include access to subspecialty, distance/geographic/transportation barriers, environmental trigger exposure, medication non-adherence, disparities in appropriately prescribed therapies in certain populations (i.e. Medicaid and low-income), provider non-adherence to guidelines-based recommendations, and competing financial priorities or insurance barriers, particularly for uninsured or underinsured children.⁴³

Other Access Factors

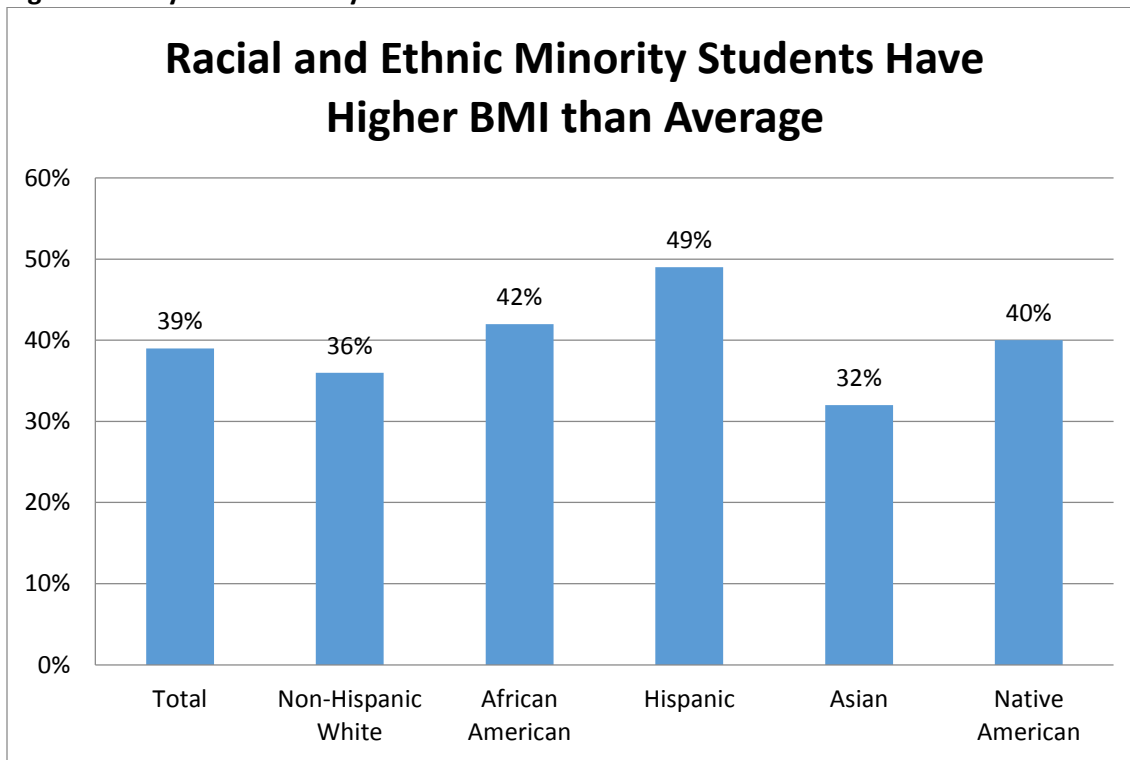
In Arkansas, 6.4 percent of households have no vehicle and 3 percent have no telephone, which makes travel to and communication with providers difficult.⁴⁴ Many parents in Arkansas may be affected by a lack of time off work to attend to their children’s health needs during the day. The United States is one of only a few countries in the world that does **not require that families be offered paid leave when they need time off to recover from illness or take care of a new baby.** Only about 60 percent of workers are covered by the Family Medical Leave Act (FMLA) and 80 percent of low-wage earners do not earn any paid sick time. Similarly, Arkansas has no paid family leave requirements, leaving families a difficult choice between a paycheck and caring for a sick child or newborn baby.

Childhood Obesity

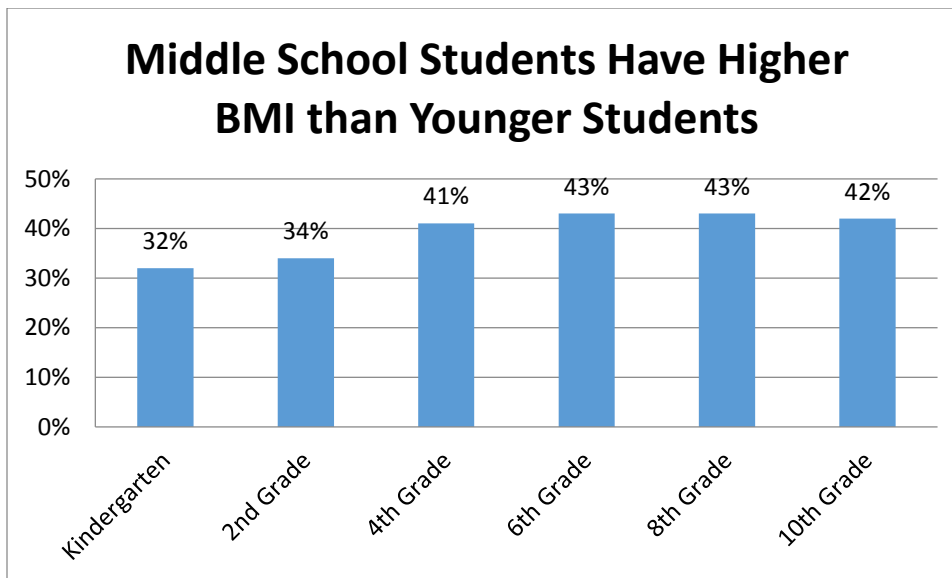
Arkansas’s comprehensive body-mass index (BMI) screening for school-age children has provided eleven years of data on childhood obesity. Positively, the obesity rate does not seem to be increasing over time, but unfortunately it is not going down either. During the 2013-2014 school year, **39 percent of Arkansas students had a BMI in the overweight or obese category.**⁴⁵ A detailed analysis of this comprehensive data by Arkansas Center for Health Improvement staff set showed that children who entered kindergarten overweight or obese were likely to continue to be overweight throughout their youth – **most kids don’t “grow out of it.”**⁴⁶ A national report showed that 34 percent of Arkansas children across

the age spectrum are overweight or obese.⁴⁷ However, only 32 percent of Arkansas high school students described themselves as slightly or very overweight.⁴⁸

Figure 7: Body Mass Index by Race



Source: Arkansas Center for Health Improvement. Assessment of Childhood and Adolescent Obesity in Arkansas: Year Eleven (Fall 2013 – Spring 2014). Little Rock, AR: ACHI; October 2014.



Source: Arkansas Center for Health Improvement. Assessment of Childhood and Adolescent Obesity in Arkansas: Year Eleven (Fall 2013 – Spring 2014). Little Rock, AR: ACHI; October 2014.

Obesity is a multi-faceted disease. Dietary and physical activity factors play a role. High school students do not report ideal behaviors in these areas.⁴⁹

- 17 percent of youth ate fruit or drank 100% fruit juice three or more times per day in past 7 days
- 14 percent of youth ate vegetables three or more times per day in the past 7 days
- 33 percent of youth watch three or more hours of TV on school day

At ACH, physicians estimate that type 2 diabetes is increasing alarmingly. Within the hospital's "COACH" program (the Center for Obesity And its Consequences in Health), type 2 diabetes prevalence is estimated to increase by 30 percent annually.⁵⁰ Another recently published national study showed a 30.5 percent increase between 2001 and 2009.⁵¹ Arkansas does not currently have a registry or population-level survey for pediatric type 2 diabetes.

Mental Health and Substance Use

Social emotional development occurs through a child's relationship with others, especially their adult caregivers. When children do not have a strong attachment to caregiver, "they are at increased risk for social, emotional, and behavioral problems." **One in five Arkansas children under age 5 has at least one emotional or behavioral difficulty**, and 16 percent of children screened in pre-k programs have significant behavioral concerns.⁵² These concerns continue to develop in adolescence and often occur along with other risky behaviors. Only 32 percent of youth age 12-17 received treatment for a major depressive episode.⁵³

Suicide is the second leading cause of death for children ages 1-18, and Arkansas's suicide rate for all ages is 48 percent higher than the U.S. rate.⁵⁴ An increasing percentage of Arkansas youth (19 percent, up significantly from 14 percent in 2011) report having considered suicide in the past year. Alarmingly, 16.5 percent of youth have made a plan for suicide, and 10.8 percent have attempted suicide at least once time.⁵⁵ Female (23.3 percent) and Hispanic (24.3 percent) youth considered suicide at much higher rates than average rates.

Unfortunately, Arkansas's behavioral health care system is highly fragmented, and needed services are not available in all parts of the state. Primary care providers do not all provide front-line treatment for behavioral health issues. Additionally, **preventive services and care coordination for a broad range of family support and recovery-oriented services are limited through public and private health coverage**. Treatment is primarily limited to treatment for conditions that have already escalated, such as inpatient treatment.⁵⁶

Smoking and drug use are also prevalent in Arkansas youth.

- More than half of youth have tried smoking cigarettes, and 19 percent report current cigarette use.⁵⁷
- **Thirty-seven percent of 12th graders have used e-cigarettes.**⁵⁸
- Thirty-six percent of high school students drank alcohol in the last 30 days.
- Twenty-two percent of high school students took prescription drugs not prescribed for them.
- Thirty-seven percent of high school students have used marijuana.⁵⁹

Reproductive Health

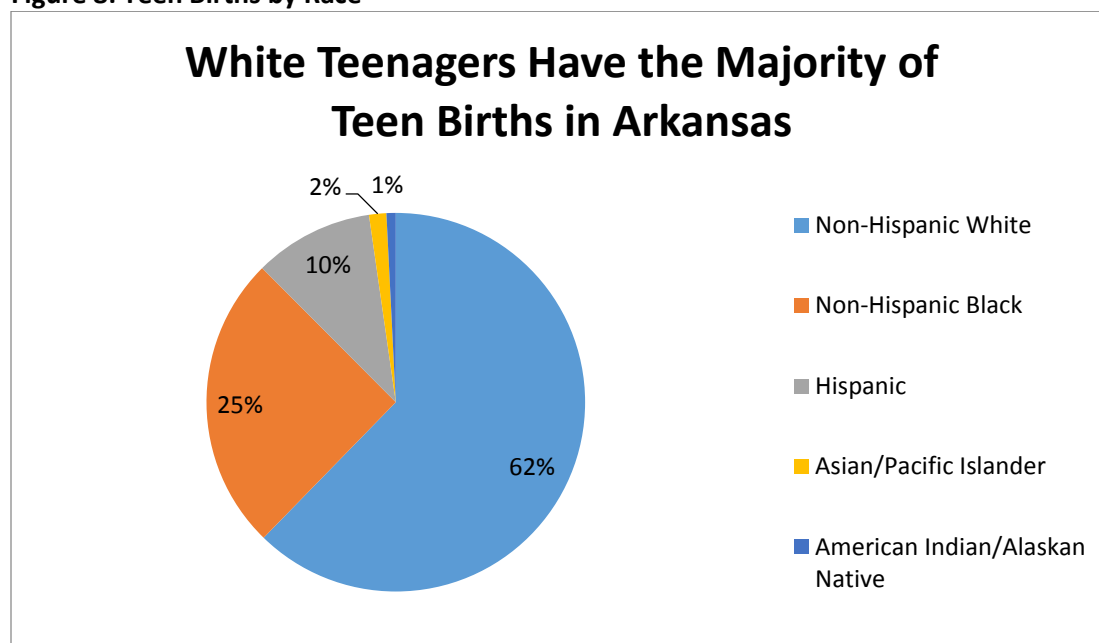
Though Arkansas's teen birth rate has fallen by half from 1991 to 2014, it has not been falling as quickly as other states'. Unfortunately, **Arkansas's teen birth rate ranks 50th in the nation** at 39.5 births to teens age 15-19 per 1,000 girls.⁶⁰ Pregnancy rates among teenagers are much higher among 18- to 19-year-olds than younger teens in Arkansas.⁶¹

Table 17: Live Births to Teens as a Percent of all Births

	Percent
Teens under age 18	2.9%
Teens age 18 -19	8.2%
Total percent for teens under age 20	11.1%
Unmarried women	45%

Source: AR Department of Health, Current Birth data, accessed 1/28/16

Figure 8: Teen Births by Race



Source: National Campaign to Prevent Teen and Unplanned Pregnancy, Arkansas Data 2014

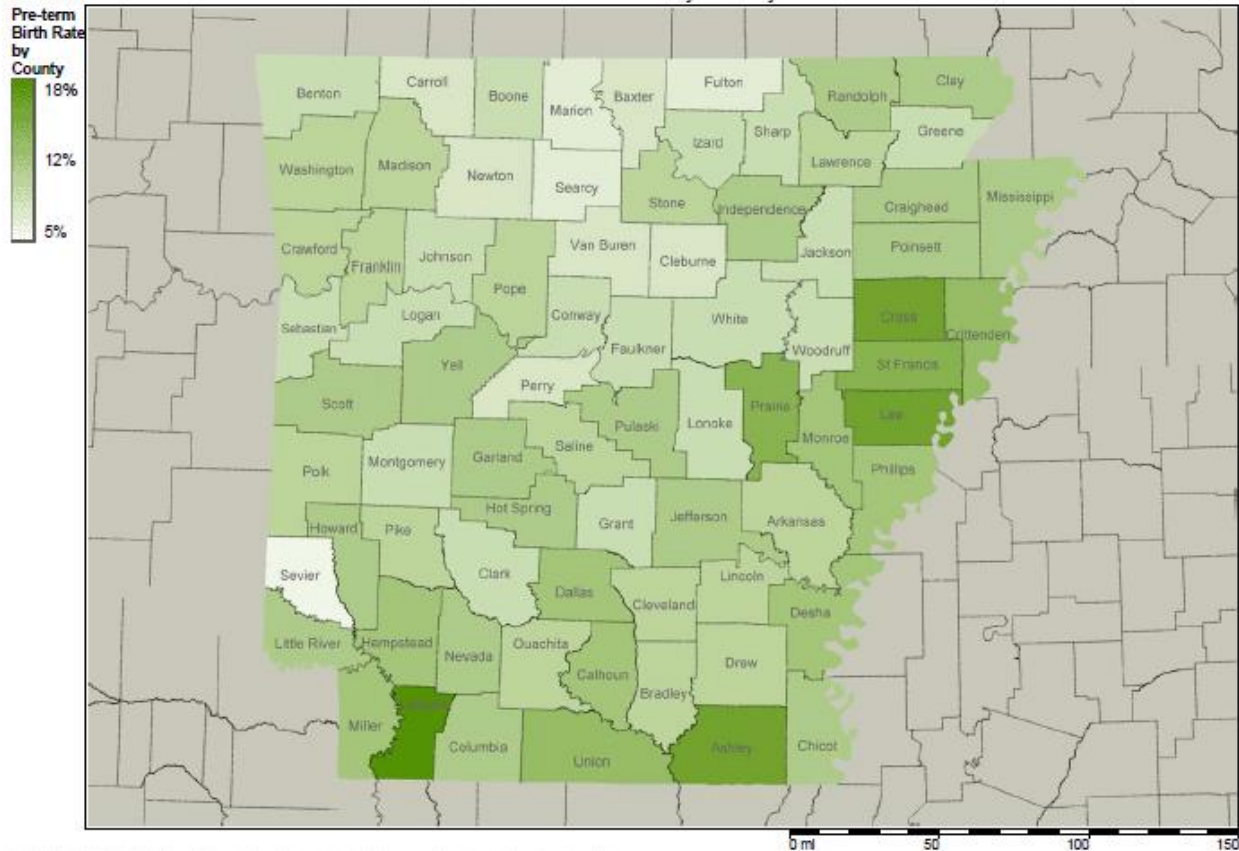
Arkansas teenagers also contract sexually transmitted infections (STIs). Seventy-two percent of chlamydia infections, 61 percent of gonorrhea infections, 38 percent of syphilis cases occur in youth ages 15-24. African Americans contract STIs at a rate much higher than other racial groups, with 50 percent of chlamydia infections, 65 percent of gonorrhea infections, and 53 percent of syphilis infections. Of the 429 newly reported cases of HIV or AIDS in 2014, 115 (27 percent) occurred in 15-24-year-olds.

Arkansas students are engaging in risky sexual behaviors that contribute to these statistics. **By 12th grade, 65 percent of students have ever engaged in sexual activity, and half are currently sexually active.**⁶² Due to a lack of requirements in Arkansas for reproductive health education in a school setting,

many students may receive no evidence-based education about the dangers of risky behaviors that could lead to pregnancy or sexually transmitted infections.

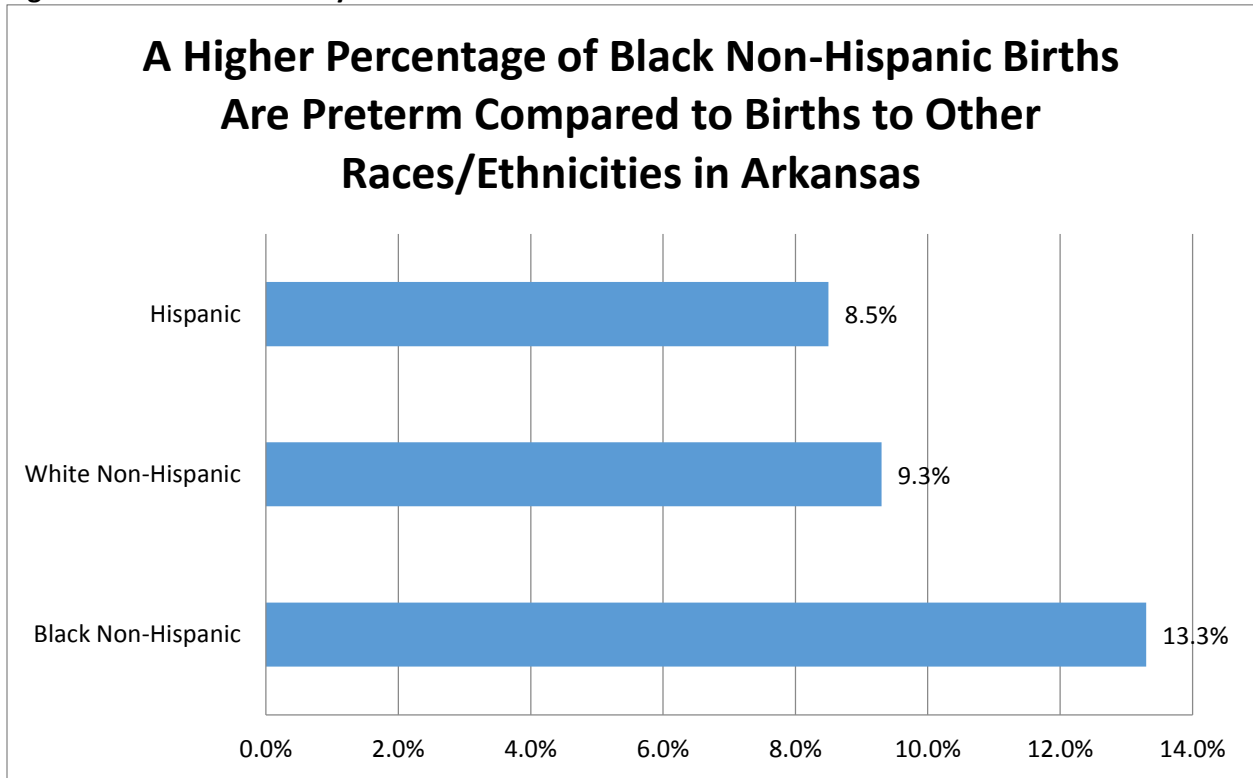
These and other risk factors contribute to Arkansas's high infant mortality rate and low birth weight rates. Almost 13 percent of babies born in Arkansas were preterm, and low birth weight babies were 8.7 percent of all live births in 2013.⁶³ The March of Dimes gave Arkansas a "C" for premature births in 2015.⁶⁴ Significant racial disparities exist for preterm births.⁶⁵ More than 1 in 5 mothers (20.6 percent) did not receive first trimester prenatal care in 2013.⁶⁶

Figure 9: Preterm Birth Rate by County, 2013-2015



Source: Arkansas Department of Health, Birth Data 2013-2015

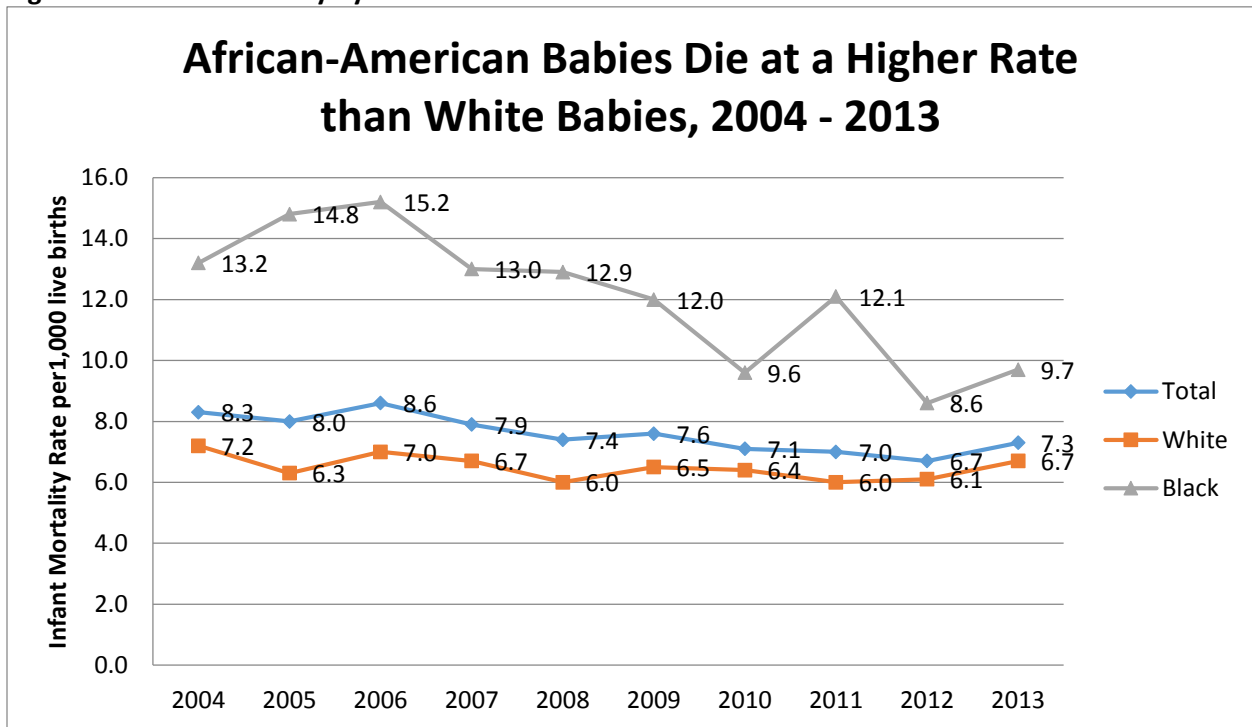
Figure 10: Preterm Births by Race



Source: Hamilton BE, Martin JA, Osterman MJK, et al. Births: Final data for 2014. National vital statistics reports; vol 64 no 12. National Center for Health Statistics. 2015.

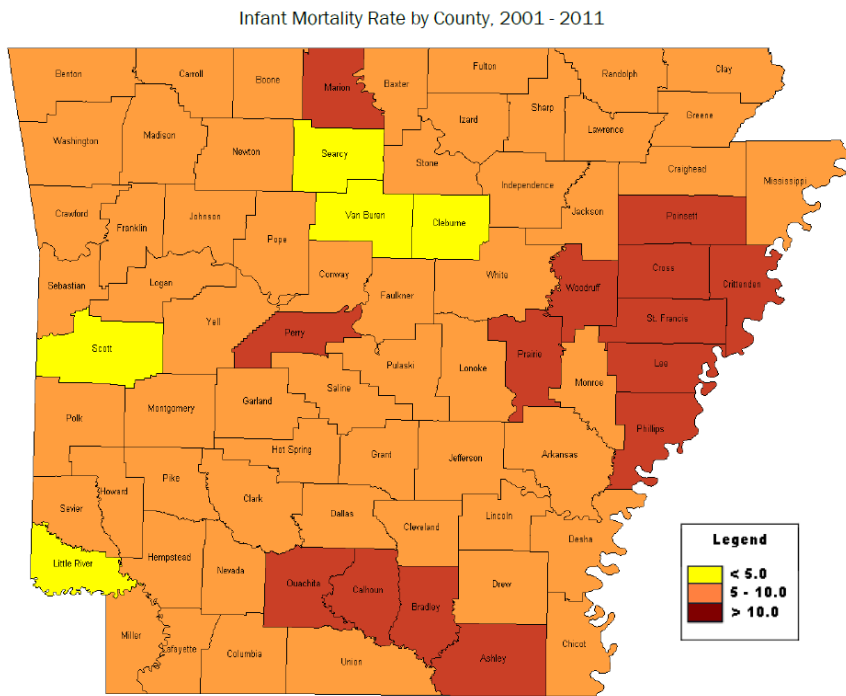
Significant disparities exist by race for infant mortality as well, with African American babies dying at a 55 percent higher rate than white babies according to 2013 birth data.⁶⁷ Arkansas's infant mortality is also higher than the nation's; at 7.3 deaths per 1,000 live births, Arkansas's infant mortality rate is 22 percent higher than the national average.⁶⁸ From 2006 to 2014, Arkansas saw a 13 percent increase in its infant mortality rate, and Arkansas remains 23 percent higher than the U.S. rate.⁶⁹ Arkansas's Sudden Infant Death Syndrome (SIDS) rate is significantly higher (75 percent higher) than the U.S. rate.⁷⁰

Figure 11: Infant Mortality by Race



Source: Arkansas Health Statistics Branch Linked Birth / Infant Death Files, Arkansas Department of Health. Note: Data for years 2007-2013 are provisional and subject to change. Includes Arkansas resident births.

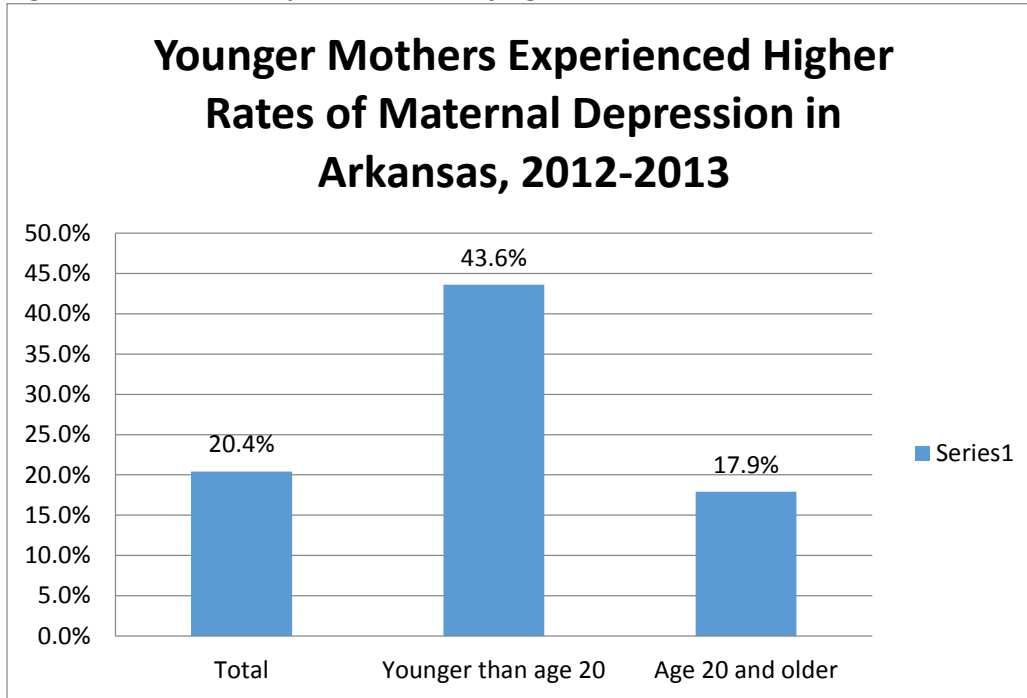
Figure 12: Infant Mortality by County
Geographic Disparities



Source: Infant Mortality in Arkansas: Disparities in 2013. Prepared for the AR Minority Health Commission by Jennifer Maulden and Martha Phillips.

Some Arkansas babies miss out on the benefits of breastfeeding. Only 71 percent of Arkansas mothers who had a live birth ever breastfed or pumped breast milk.⁷¹ Maternal depression is another factor affecting young mothers, particularly, and impacting child health.

Figure 13: Maternal Depression Rates by Age



Source: Pregnancy Risk Assessment Monitoring System (PRAMS), Arkansas Department of Health

Adding a new lens to reproductive health discussions, new data from the 2015 Youth Risk Behavior Survey collected information about students’ sexual orientation. Though the full dataset was not available, a snapshot of data showed that lesbian, gay, or bisexual students reported much higher rates of non-consensual intercourse (39.1 percent) than heterosexual students (12.9 percent), indicating a higher risk profile.⁷²

Child Maltreatment and Caregiver Mental Health and Substance Use

It is clear that children are affected by the actions of their caregivers. Child maltreatment, which may often go hand-in-hand with mental health and substance use issues, directly impacts children in a lasting way. As noted previously, 29 percent of children in Arkansas have experienced Adverse Childhood Experiences (ACE) that can cause lasting trauma and affect long-term health outcomes and even a child’s DNA, according to recent research cited by Arkansas Department of Health officials.⁷³ **For participants in home visiting programs for vulnerable families, 68 percent of children in the families served have had at least one ACE.**⁷⁴

Twenty-seven percent of mothers participating in home visiting programs screened positive for depressive symptoms.⁷⁵ The pressures of parenting, poverty, and other issues can take a toll on parents. In 2015, Arkansas’s Division of Child and Family Services at the Department of Human Services responded to **33,683 reports of child maltreatment and found 9,543 children to be victims of substantiated maltreatment.**⁷⁶ In the same year, 4,418 children were in the foster care system, and 40

children died due to a maltreatment incident.⁷⁷ National substance use surveys found about 5.4 percent of Arkansans age 12 and older (128,000 people) to be dependent on alcohol, and 3 percent (72,000) were dependent on or abused illicit drugs between 2008 and 2012. Only 11.8 percent of those using alcohol received treatment, but 21 percent of those using illicit drugs received treatment.⁷⁸

One positive to note for this section is that non-elderly caregivers have vastly improved access to health coverage that covers treatment for mental health and substance use. Under the Private Option, Arkansas's Medicaid expansion, more than 250,000 low-income adults have affordable health coverage. The Private Option reduced Arkansas's adult uninsured rate from 22.5 percent in 2013 to 9.1 percent in 2015, making the state a national leader in covering the uninsured.⁷⁹ However, there are no state resources to help families navigate the health care system, so many families remain unaware of their new options.

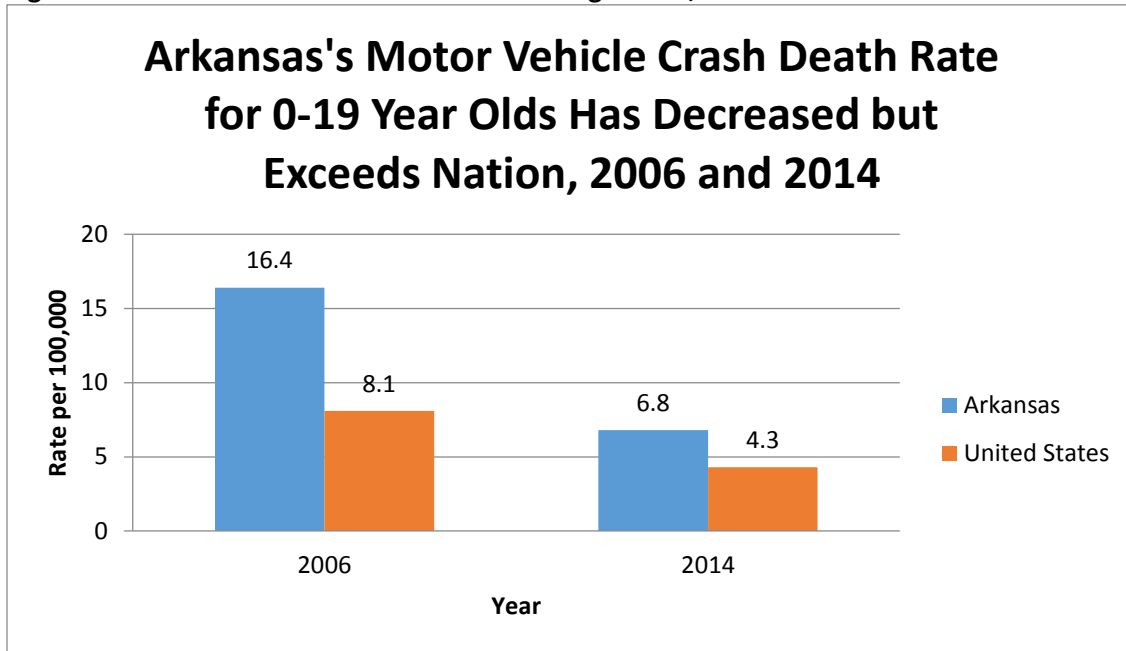
Child Injuries

Various types of child injuries have been discussed in other sections of this report, and because unintentional injuries remain the leading cause of death for Arkansans age one to 44, special attention must be paid to this issue. From 2006 – 2014, Arkansas had a 37 percent decrease in its injury-related child death rate, but the state rate (21.2 per 100,000) is still 39 percent higher than the national rate.⁸⁰ For unintentional injury-related child deaths, Arkansas's rate (13.2 per 100,000) is still 46 percent higher than the United States rate.⁸¹

Sudden Infant Death Syndrome (SIDS) and suffocation account for more than half of all Sudden Unexpected Infant Deaths and are leading causes of deaths in infants ages 28 days to 1 year in the United States. The SIDS rate for Arkansas is 133% higher than the national rate. Universal adoption of risk reduction strategies, including supine sleep position and safe sleep environment, is critical for prevention, but adoption among certain high risk groups is low.⁸²

Motor vehicle crashes remain a prominent cause of injury-related death for children and youth in Arkansas. Despite progress, Arkansas still lags the nation on reducing motor vehicle-related deaths.

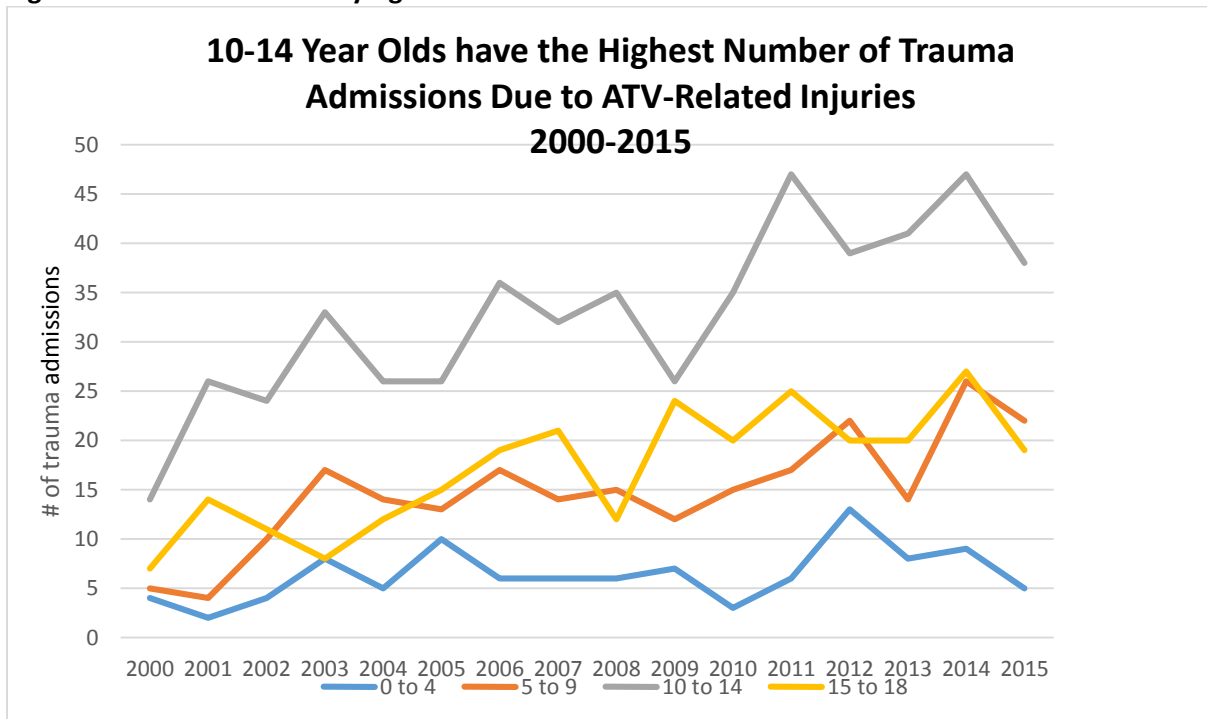
Figure 14: Motor Vehicle Crash Death Rate for ages 0-19, 2006 and 2014



Source: CDC Wisqars. 2016.

All-Terrain Vehicles (ATVs) are another concern for Arkansas child injury prevention. ATV-related admissions to the ACH Emergency Department are severe injuries that frequently result in life-long medical needs and disabilities, especially for 10 – 14 year olds. Many young children do not wear helmets when riding, making them especially susceptible to head injuries.

Figure 15: ATV Admissions by Age and Year



Source: Arkansas Children’s Hospital admissions data, 2000-2015

Access to firearms is another issue that affects child health. A recent Johns Hopkins study listed Arkansas as one of seven states with a disproportionately high rate of unintentional firearm-related death. Access to unlocked guns can put families at risk of injury and death, including suicide. Suicide death rates for children under age 19 are high (and growing) in Arkansas, currently 48 percent higher than the national rate.⁸³ Other risky behaviors also put youth at risk of injuries and death.

Table 17: Risky Behavior for High School Students, 2013

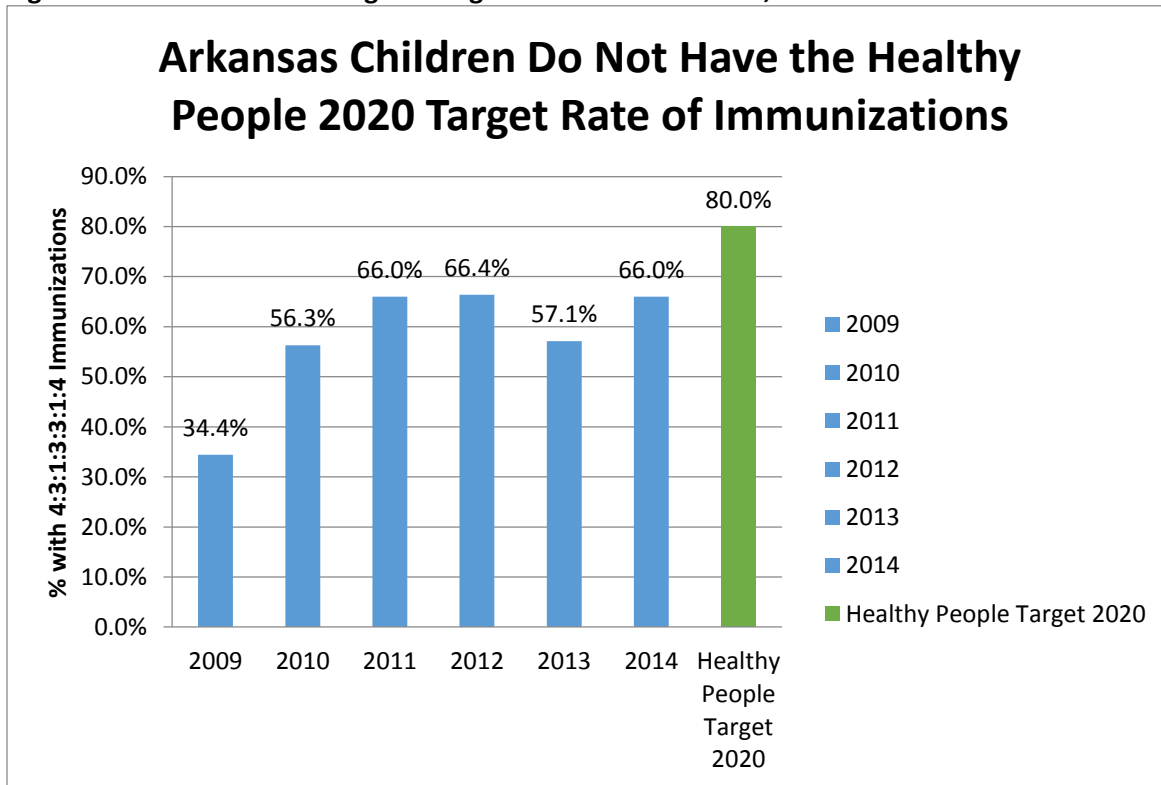
	Percent
Texted or emailed while driving a car	49%
Students who carried a weapon last 30 days	27%
Students bullied at school in last 12 months	25%
Riding with someone who was drinking in past 30 days	24%
Students bullied online in last 12 months	18%
Rarely or Never wore a seatbelt	14%
Drove while drinking in past 30 days	12%

Youth Risk Behavior Survey, 2013

Immunizations

Arkansas Children continue to lag the nation in immunization coverage. In 2014, only 66 percent of children age 19-35 months have completed their full “4:3:1:3:3:1:4” series recommended by the American Academy of Pediatrics.⁸⁴

Figure 16: Vaccination coverage among children 19-35 months, Arkansas



Source: National Immunization Survey 4:3:1:3:3:1:4 Series.

Though rates have been rising and Arkansas received a “biggest improvement” award for adolescent immunization compliance recently, teenagers remain immunized at low rates against Human Papillomavirus (HPV), which causes cancer. Only 23 percent of female and 11 percent of male teenagers have received all three of the vaccines in the HPV series.⁸⁵ Additionally, barriers exist to children receiving their immunizations including issues with the state registry, low reimbursement rates for providing vaccines, parent education, and enforcement of compliance by child care and educational sites.

Oral Health

Oral health surveillance has not been updated since 2010 for children. At that time, only 27 percent of children had sealants with significant disparities by race, and more than a quarter of children were in need of routine dental care. Additionally, two-thirds of children (64 percent) had past dental caries experience and one-third (29 percent) had untreated caries.⁸⁶ The state data should be updated to continue to inform public health dentistry efforts.

The Arkansas Children’s Hospital Seal the State initiative tracked data for the children it served across the state. Though not representative of the state, the data is useful as a snapshot of children’s dental health status.

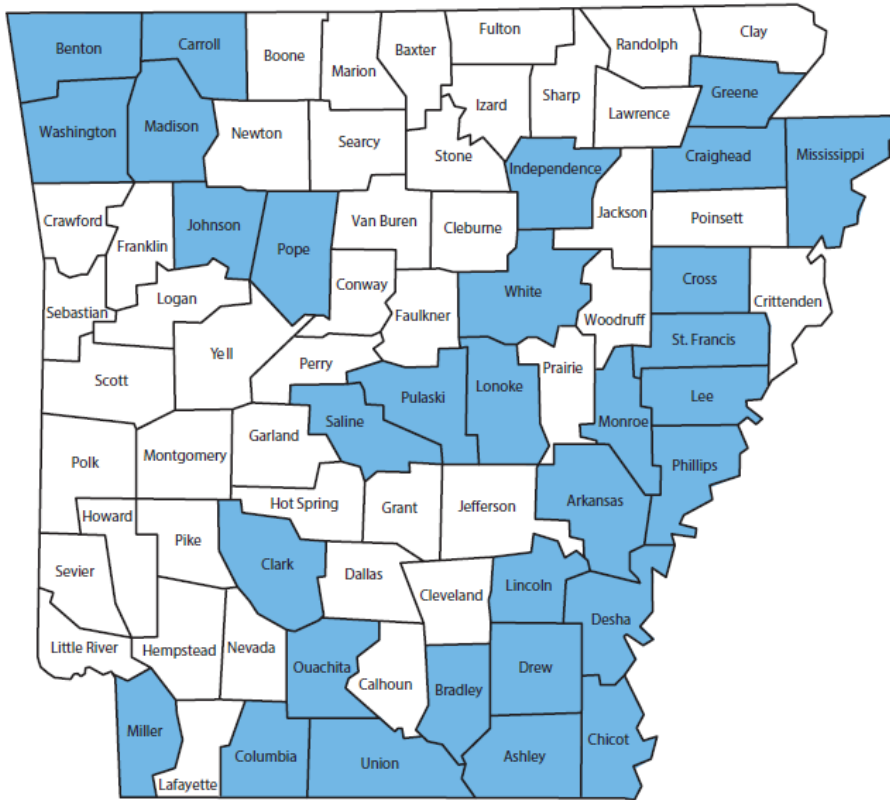
Table 18: ACH Dental Sealant Screening Data, 2010 – 2014, Grades 2-3

School Year	Screened	Active Dental Decay	Caries Experience	Sealants Present	Treatment Referrals
2010	454	43%	58%	13%	43%
2011	697	31%	52%	14%	31%
2012	579	34%	59%	9%	34%
2013	891	39%	64%	15%	40%
2014	1073	41%	65%	19%	41%

Source: ACH Dental Sealant Program Data

Figure 17: ACH Dental Sealant Counties visited, 2014-2016

DENTAL SEALANT PROGRAM Program County Map

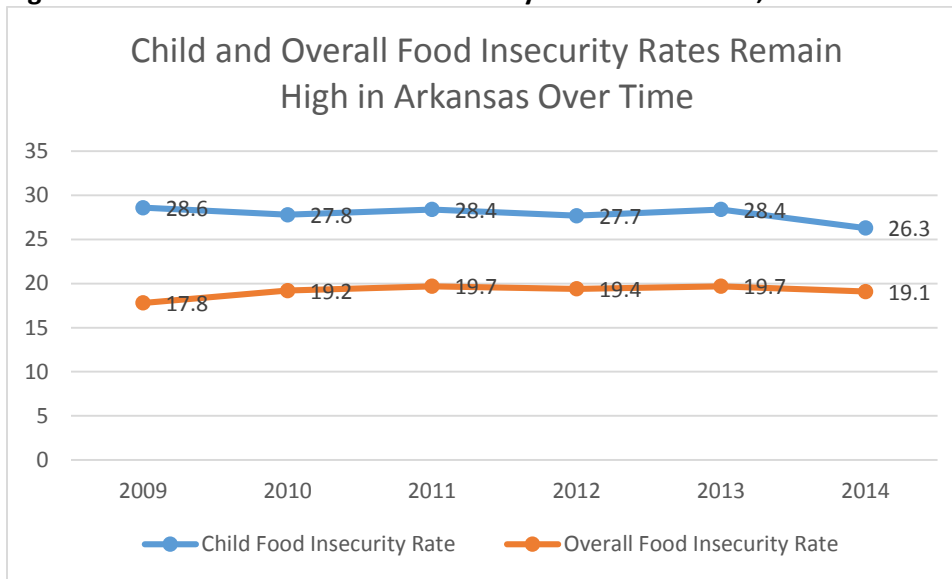


Source: ACH Dental Sealant Program Data

Food Insecurity

For the past three years, Arkansas has had the second-highest food insecurity rate in the United States. In 2014, the overall food insecurity rate was 19.1 percent, and more than 26 percent of households with children identify as food insecure.⁸⁷ Surveys in the emergency department at Arkansas Children’s Hospital found that 23 percent of families with children under age four were food insecure.⁸⁸ Food insecurity can mean that families make health trade-offs in order to feed their families. Many Arkansans live in food deserts and have limited access to healthy and affordable food. Food pantries and programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP) help families purchase needed food and reduce food insecurity. Positively, Arkansas’s SNAP program serves a higher percentage of families with children (72 percent of those receiving SNAP have children) than the national average (69 percent).⁸⁹ Children’s programs such as school breakfast and summer and after-school meals help ensure that children receive two to three healthy meals each day, but the number of sites participating in these programs needs to grow to reach all children in Arkansas.⁹⁰

Figure 18: Child and Overall Food Insecurity Rates in Arkansas, 2009-2014



Source: Feeding America Map the Meal Gap, 2016

The only moderate finding from the secondary data analysis was developmental screenings and services for young children: A recent grant application for improving systems for early childhood screenings state that “there is a fragmented, underutilized referral process and poor coordination and communication of community-based services, which results in significant delays” for children with developmental needs receiving the services they need to succeed.⁹¹ Baseline data is being determined for this area, but anecdotal information indicates that it can take many months or even years to determine eligibility and receive services, negatively impacting children’s health outcomes.

Prioritization Process

After all four data sources (focus groups, interviews, telephone survey, and secondary data analysis) had been analyzed and prioritized individually, the results of all data collection were combined into a single overall ranking. **Data was grouped around top issues facing Arkansas children** that a) already had natural existing workgroups or initiatives addressing them based on the 2013 CHNA, b) were naturally aligned, or c) were characterized by a gap in services or initiatives to address the issue. Twelve issues were prioritized.

The CHNA team prioritized this refined list of child health issues using a criteria weighted ranking method. The ranking consisted of identifying major, moderate, and low-need issues in each data source and assigning a value of 2 for a major need, 1 for a moderate need, and 0 for a low need. The values were summed to a total score for each issue across all 4 data sources. Based on the total score for each issue area, issues were defined as Tier 1 (total score of 5-8 points) or Tier 2 (total score of 1-4 points.)

- **Tier 1 (5-8 points)** – Access to care, childhood obesity, mental health and substance use, reproductive health, social issues, parent supports, oral health, and food insecurity
- **Tier 2 (1-4 points)** – Child maltreatment and caregiver mental health and substance use; child injury, immunization, developmental screenings and services

The final prioritization process for the CHNA was through the participation of the members of the Natural Wonders Partnership Council. Results were presented at a regular monthly council meeting in January 2016. Attendance at this meeting was high, and members reviewed findings from each of the needs assessment data collection sources, a description of the prioritization process, and draft prioritization results. The group supported the CHNA process and results.

Table 19: Prioritized Community Health Needs, 2016

Need	Data Analysis	Focus Groups	Key Informants	Phone Survey	Total	Tier
Access to Care: health coverage, quality of care, prevention, well-child/newborn/vision screenings, school-based health, parent time off, after-hours care, specialty appointments	2	2	2	2	8	1
Childhood Obesity: sufficient and high-quality food, physical activity	2	2	2	2	8	1
Mental Health and Substance Use: illicit and prescription drug use, alcohol, tobacco, behavior and conduct problems, availability of behavioral health providers	2	2	1	2	7	1
Reproductive Health: teen and unplanned pregnancy, teen births, sexually transmitted infections, prenatal care, adolescent health and hygiene	2	1	2	2	7	1
Social Issues: poverty, education, transportation, home environment, housing, large-scale disasters	2	0	1	2	5	1
Parent Supports: parenting skills, home visiting programs, teen parenting support	0	2	2	1	5	1
Oral Health: oral health screening, preventive care, access to dental care	2	2	1	0	5	1
Food Insecurity: Malnourishment, access to healthful food	2	0	1	2	5	2
Child Maltreatment and Caregiver Mental Health and Substance Use: parent health coverage, mental health and substance use rates, foster care and juvenile/adult justice systems	2	1	0	1	4	2
Child Injury: unintentional injury, motor vehicle safety, intentional injury including suicide and homicide, safe sleep, infant mortality	2	0	0	1	3	2
Immunization: child and adolescent vaccinations, parent education, access to immunizations	2	0	0	1	3	2
Developmental Screenings and Services: access to cognitive, behavioral, or other screenings and appropriate follow-up	1	1	0	0	2	2

provide a place for people to work, it would provide a way for people to make a decent wage instead of working 15 hours a day at Walmart, it would domino to a lot of other things.”

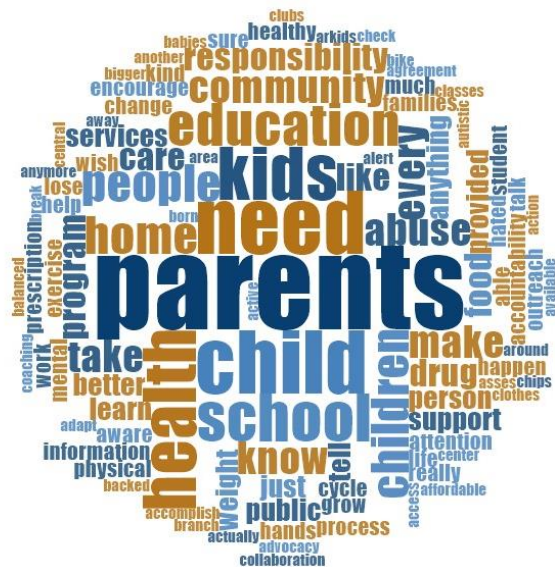


Figure 20: Providers’ Vision for Children Word Cloud

Providers’ hope and vision centered around two main issues: parenting skills and child maltreatment. This is evident in their word cloud illustrated above which has the words “Kids, Need, Parents” as the most prevalent words mentioned by providers. Providers discussed finding solutions for kids whose parents do not adequately take care of them both in regard to healthcare and provision of basic care like food and shelter, describing their concern for the emotional and mental health impact neglect has on children. One provider expressed her desire to change the “...neglect and abuse from homes, not only physical. Some of those kids really live in dark homes...it is so hard to know there were issues and not be able to make it better.” Another one sought “Knowledge for families, so they understand how important it is to be loving and nurturing to children.” Parental substance abuse and young and inexperienced parents were the main things providers wanted to change to prevent children from living in unsafe and uncaring homes. Providers also wished for a more equitable relationship with parents in terms of child responsibility. One of them explained, “what is needed is more hands on parents, parents that know that it is not only your responsibility [as a parent] to take care of your child, but if we work together for the child to succeed, it will be better instead of putting it all on one person.”

Secondarily, providers wished to improve access to care including collaboration among agencies to assure continual insurance coverage for children and school based programs. “Have programs that go into the school system with the kids and do health outreach once or twice a week, see who has the sniffles, check teeth, and they can tell parents what is needed. Healthcare in the school!” “Have DHS and ARKids work in collaboration to accomplish what we need for the kids. You would think we did, but we don’t.” To a lesser extent providers also expressed a desire to make changes in terms of childhood obesity and socioeconomic issues for families. “I wish there were fairy god mothers that support kids, providing them with what they need like food and clothes.”

Low-Hanging Fruit Ideas from Focus Groups

Focus group participants were asked to contribute **one idea that ACH and the NWPC could implement** to improve children's health. Facilitators asked participants to make this idea specific and practicable. Below are brief summary descriptions of the ideas by type of child health priority among all groups.

- **Access to care** Most of these ideas related to expanding ACH clinics and specialty services via mobile units or satellite clinics to conduct more mobile screening services such as hearing tests, eye exams, or specialty care. Ideas also included ways that ACH could work with doctors in other communities to improve the quality of care they provide.
 - *“Do access through venues like churches”*
 - *“Expand mobile clinics that specialize in children’s health”*
 - *“Do more health clinics in schools. Some schools have a health clinic or a mental health clinic, why not a physical health care clinic [meaning for wellness and physical activity]”*
- **Parenting Supports** Participants want to address the lack of education for parents in many health topics especially *“prevention campaigns ...and how to detect child illnesses.”* Parents asked for prevention campaigns, information and workshops on important health topics that teach parents what to do *“beyond medication.”*
- **Obesity** These ideas consist of education on healthy eating and being active for children and their parents, *“have kids learn along with their parents.”* Other ideas included community wide multi-generational activities such as a fitness camp for kids or health fairs for parents.
 - *“A fitness camp for children, something that is really big with coaches and things. Where the whole community can bring attention to the issue of eating healthy and exercise.”*
 - Create *“physical activities for disabled children in rural areas;”* one parent lamented *“there is nothing around here for [her disabled child] to do for physical activity”*
- **Reproductive Health** Providers suggested providing support and reproductive health education to young mothers early.
- Two sites advocated to start a mentoring program, an idea that did not fit neatly in any of the priority areas. A parent participant described her ideas for a mentoring program as she was discussing how to address problems in her community; she said *“Train volunteers in how and where to start.”* Another participant, a provider, also described a mentoring program, but for youth. This program would be at ACH and the youth would learn about helping and serving the community.

Interview Child Health Vision

Interviewees were asked to contribute **ideas that ACH and the NWPC could implement** to improve children's health. Staff and consultants asked participants to try to make this idea more specific and practicable. Below are brief excerpts from the diverse ideas generated by the key informants.

ACH Suggestions:

- Address social determinants of health inside and outside the walls of ACH.
- Increase innovation and creativity at ACH by formally including it in the culture and staffing.
- Make a connection with regional AHEC clinics to do patient follow up and assure continuity of care.
- Set the standard for quality pediatric care and spread it to clinics across Arkansas.
- Provide parenting classes and encourage pediatricians to refer to them.
- Advocate for policies that improve child health at the Capitol.

- Expand telemedicine across Arkansas with ACH as a partner, not a competitor.
- Work with school coaches on injury prevention.

NWPC Suggestions

- Improve training to physicians, especially about adverse childhood experiences.
- Embrace and facilitate use of technology for health promotion. For example, give cell phones to parents of preterm babies to stay connected to them.
- Develop solutions to transportation barriers.
- Engage the business community to support family-friendly policies.
- Immunize every child.
- Invite major foundations to participate in NWPC and grow resources for NWPC efforts.
- Collaborate on marketing initiatives for single issues from oral health to immunizations.
- Improve access to contraception to focus on healthy births.
- Define, organize, and build bridges between existing assets.

Natural Wonders Partnership Council Big Ideas

As a final method of gathering feedback on the Community Health Needs Assessment, the Natural Wonders Partnership Council reviewed preliminary results and shared their own “Big Ideas” for improving children’s health in Arkansas. Following a robust presentation and discussion, the group concurred that the prioritized areas and the communities’ “Big Ideas” were appropriate and reflective of the opinions of the child health experts in the room and of communities.

NWPC Big Ideas:

- Implement the “Growing Healthy Communities” model in all Arkansas communities to build a culture of health.
- Provide every school in Arkansas with a school-based health clinic; adopt the “whole school, whole community, whole child” approach to integrating health and education
- Institute plain language requirements for information distributed by all state-supported programs.
- Connect maternal health interventions and parenting support programs to ensure a “warm handoff” to long-term parent support while moms are pregnant.
- Consider health in every policy.
- Include faith-based groups in all child health interventions to add their perspective and resources
- Provide families with culturally-competent, language-appropriate assistance for navigating Arkansas’s health care systems and health resources.
- Implement a variety of obesity-prevention initiatives in schools since schools are a place for children to receive full wraparound supports.
- Integrate the treatment of physical health, mental health, and substance use care.

Community Resources to Support Child Health

The needs assessment outlines a broad range of child health issues that need help. Thankfully, a similarly extensive variety of resources exist to improve child health in Arkansas, and the vast majority of those resources are at the Natural Wonders Partnership Council table. Schools, parents, caregivers, and a variety of organizations with an interest in this issue are engaged in defining the issues through this CHNA and are likewise engaged in the process of addressing child health through their daily work.

- Arkansas Children’s Hospital
- Arkansas Department of Health
- Arkansas Department of Education
- Arkansas Department of Human Services
- Arkansas Minority Health Commission
- The University of Arkansas’s College of Public Health
- The Clinton School of Public Service
- Advocacy organizations including Arkansas Advocates for Children and Families
- Health policy organizations including the Arkansas Center for Health Improvement
- Health care providers including pediatricians, family practices physicians, and nurses
- Health researchers
- Nonprofit organizations working on issues from food insecurity to obesity
- Membership organizations including the American Academy of Pediatrics, the Arkansas Hospital Association, pharmacy representatives, and dentist representatives
- Community Health Centers of Arkansas
- Behavioral health agencies
- Dental insurance companies
- Private health insurance companies
- Faith community representatives
- Low-income legal services
- Juvenile justice system
- Private foundations
- The Arkansas Campaign for Grade-Level Reading
- Private industries ranging from pharmaceutical companies to chambers of commerce
- Parents

Child Health Assets Mentioned in Focus Groups

All focus group participants were asked to identify the resources that are available when children are ill or to keep children healthy. The focus groups asked all participants where they accessed information to keep their children healthy. Participants enthusiastically shared many positive community resources and successes. The top community wins most often identified and discussed by participant were the following:

- Collaborations to improve child health
- Improved access to healthcare (*Insurance coverage, school-based and community health clinics*)
- Obesity interventions
- Early education initiatives

Both parent and provider participants identified community clinics as key resources to care for children when they were ill. Parent groups identified providers (doctors) as much as community clinics. Both

parents and provider groups identified school, school services and programs, especially school based clinics, as key resources to help them keep their children healthy. One parent stated, *“Kids are at school more than they are at home...schools have a lot to do with keeping your children healthy.”* Participants mentioned school based care as a good idea for schools to keep children healthy, *“Schools or other entities, why don’t they go around some of the barriers for children to get care and prevention. Like a school who brought a doctor to the school so their athletes could get their physical. What about for all the other kids who are not athletes?”*

Provider and parent focus group participants also identified non-profits, the Arkansas Department of Health and churches as important resources to keep children healthy in their communities. Examples of what churches implement were food pantries and feeding and support programs for families. The health department is a resource *“especially for vaccines and WIC - they give them for free or at a low price.”* Several public and non-profits programs were identified as resources: afterschool programs, early childhood education programs, home visiting programs, community health centers, and libraries. One parent focus group participant identified employers as a resource in the community to help keep kids healthy by providing income as well as leave when children are sick. She explained, *“The jobs too, because here in the US everyone has to work, parents have to work...when you have a sick child, then what, do they fire us because we have a sick child?”* Two parent groups also identified parks and natural outdoor spaces as resources for keeping kids healthy, something not identified in the provider groups.

Implementation Strategy and Previous CHNA Evaluation

The Treasury regulations that require nonprofit hospitals to conduct a CHNA also require ACH to develop an Implementation Strategy (IS) for addressing the prioritized needs. The IS must be approved by the ACH board by November 15, 2016. Over the coming months, ACH will work with the Natural Wonders Partnership Council to update its existing Strategic Framework to reflect the new priority health issues and changes in the public health landscape in Arkansas. This document will be a shared IS with clear roles, goals, and owners for action steps. The shared IS will guide the organizations who are part of the NWPC. Additionally, ACH will separately document its own IS with only ACH activities to address the needs identified in the CHNA. The NWPC plans to host a child health conference during the 2017 fiscal year to highlight child health needs and engage even more stakeholders in addressing child health.

The 2016 CHNA and IS build upon a history of progress in addressing child health needs. For the first formal CHNA cycle, from 2013 – 2016, ACH and NWPC members took many steps to address the health needs of children that were included in the 2013 CHNA. In 2014, under the leadership of a new Chief Strategy Officer, the hospital hired a new Executive Director (ED) of Child Advocacy and Public Health to oversee the hospital’s community benefit work, among other duties. Organizational changes were made to bring ACH’s community-facing departments together under a single Child Advocacy and Public Health division to ensure strategic and proactive efforts were made to improve the health of children in Arkansas. Additionally, the NWPC developed a collaborative Five-Year Strategic Framework using the Collective Impact Model. This Framework provides strategic direction and ensures backbone support from ACH for organizations seeking to improve the health of children in Arkansas. In this Framework, the ACH CHNA is used as the “common agenda” for many organizations working together to improve child health in Arkansas. The NWPC selected a “shared measurement system” of data indicators and “mutually reinforcing activities” framed as measurable goals to move forward shared strategies. ACH provides “backbone” financial support for this initiative as well as administrative guidance and partnership-building for NWPC. Program evaluation capacities began to be discussed and implemented.

The needs that were identified in the most recent CHNA and embraced by the NWPC are listed below with the action steps that ACH and its partners took to improve the health of children in these areas. In some cases, NWPC member organizations led the strategy for an issue and identified natural places for ACH to partner on child health improvement. The issues and action steps align with the implementation plan outlined in the most recent CHNA.

Access to Care: The Franklin Elementary school-based health center continued to serve patients in a low-income, urban school near the hospital by supporting the cost of a nurse practitioner who works at the school 20 hours per week. ACH participated actively in the NWPC's Access to Care group which seeks to reduce systemic barriers to access to quality care for children in Arkansas and to expand school-based health offerings. ACH began exploring new ways to engage in school-based health initiatives through community benefit investments. ACH provided financial counselors who help connect patients and families to health care coverage, an after-hours resource line that helps families after-hours, and interpreters to help non-English-speaking families access care, beyond what is required for accreditation. ACH supported the continuation of the Medical-Legal Partnership, a program implemented in collaboration with Legal Aid of Arkansas to help reduce health-harming legal needs. Arkansas Advocates for Children and Families advocated for policies that helped reduce the uninsured rate for children, and efforts began to identify a way to track quality metrics for children through the state's Medicaid Patient-Centered Medical Home program. The state Departments of Health and Education continued to support school-based health center expansion across Arkansas.

Food Insecurity: Led by the Arkansas Hunger Relief Alliance (AHRA), Arkansas has improved its national ranking for child food insecurity from last in the nation. AHRA has worked to expand the number of children eating breakfast in school, establish year-round meal sites in statewide, and expand the use of Community Eligibility for school meals. ACH works through the NWPC with the Hunger Relief Alliance to identify and implement innovative ways to address childhood food insecurity for patients. During this time period, the hospital continued to address Food insecurity on the ACH campus through a variety of investments that were studied by the Congressionally-appointed National Hunger Commission in May 2015. Since the program began, more than 40,000 United States department of agriculture (USDA) meals were provided to children thanks to ACH's ground-breaking efforts to establish the Children's Medical Nutrition and Feeding Program. The hospital's partnership with the nearby Helping Hand food pantry continues to provide food to hungry patient families, and families staying in the hospital received meals and assistance from the hospital. Families can also enroll in the Supplemental Nutrition Assistance Program (SNAP) and Women, Infants and Children (WIC) on the ACH campus thanks to state agency partnerships. ACH began taking steps toward implementation of a community garden on its campus that will allow neighborhood residents to access fresh fruits and vegetables and learn to grow their own food. ACH began to make plans to partner with a local church and Helping Hand to bring a mobile food pantry to the hospital's neighborhood that would visit the ACH campus regularly.

Sexual Health: ACH provided backbone support to the Reproductive Health NWPC sub-group, re-energizing its work and establishing measurable goals. ACH also participated in a workgroup to implement a new law requiring colleges and universities to have an action plan to reduce unplanned teenage pregnancies and to support young mothers. A student from the Clinton School of Public Service completed a community toolkit for reproductive health education to simulate locally-driven programs, and the Department of Education convened a workgroup to begin discussing revision of the state's health education frameworks. More providers, including local health units, are utilizing long-acting reversible contraceptives (LARCs) to prevent unplanned pregnancies.

Childhood Obesity: Governor Hutchinson launched the Healthy Active Arkansas initiative in 2015 to help encourage Arkansans to lead healthier lives. The group has developed working groups across a variety of issues that affect obesity and chronic disease including physical activity and healthier eating, and many action steps align with NWPC goals. ACH supports statewide access to an enhanced version of GoNoodle, a physical activity program that allows teachers to work 2-5 minute “brain breaks” into the school day. More than 700 schools and over 6,000 teachers utilized the program in April 2015, improving active minutes for more than 158,000 students. ACH’s Community Outreach team reached hundreds of schools and thousands of students through its F.A.N. (Fitness and Nutrition) Club program that educates students and its Healthy Habits program that teaches about health and hygiene. ACH also supported 3 six-session Cooking Matters programs that teach low-income residents to cook healthful, low-cost meals. All of ACH’s Community Outreach obesity prevention programs will transition to evidence-based programs in the 2017 fiscal year.

Intentional and Unintentional Injuries: The ACH Injury Prevention Center (IPC) continued to lead other agencies and organizations in efforts to reduce child injuries and deaths through research and outreach on the issues of motor vehicle safety, safe sleep/infant mortality, intentional injuries, and all-terrain vehicle safety, utilizing a comprehensive approach that includes education, awareness, and advocacy. ACH also implements several grants that help to reduce trauma and improve trauma coordination for Arkansas. The IPC’s efforts have generated many program events, activities, brochures, fact sheets, and other useful educational materials for statewide distribution (including rural areas). In addition, continuing education activities and training continue to be available to physicians, medical students, nurses, medical applications of science students, emergency medical services and Arkansas department of health professionals. Likewise, the IPC is leading the efforts of the infant death review team for the state to better understand and prevent infant mortality.

Parenting Skills: Prior to 2015, no active group focused on parenting supports, so a new group launched in 2015 supported by the NWPC and is working to establish goals and baseline data to guide future interventions. The federally-funded Arkansas Home Visiting Network (AHVN), a grant-funded partnership between the Arkansas Department of Health and ACH, has improved maternal-child health outcomes in five of six federally-required benchmark areas. The HIPPY and Parents as Teachers state offices are housed at ACH as well with state-funded support. All of these departments have been combined under one director who works at the statewide and national levels to improve visibility and reach for home visiting. The evaluation team and training institute for the home visiting network are nationally-recognized for their work. ACH also provides HIPPY USA a discounted lease for space on the ACH campus for the national office. ACH opened the new Family Resource Center that helps to connect families to resources that help them go home from the hospital with the knowledge to raise healthy and happy children.

Oral Health: ACH staffs and supports the Oral Health for Children subgroup of the statewide oral health coalition. This group is planning to collaboratively fund surveillance on children’s oral health that has not been conducted since 2010. In partnership with statewide partners such as the Ronald McDonald House Charities and Delta Dental of Arkansas, ACH continued to operate three mobile dental vans that provide restorative and preventive treatment to children without a dental home in the southeast, central, and northwest regions of Arkansas. The hospital’s Seal the State school-based sealant program reaches about 50 schools and 3,000 children each year, providing health education and preventive care.

Mental Health and Substance Use: Prior to 2015, no active group focused on drawing together a group of neutral stakeholders to plan for improvements to children’s behavioral health from a community-based perspective. This group has been slow to start, but the state has several ongoing initiatives on behavioral health. ACH began exploring opportunities for behavioral health partnerships as part of its current strategic planning process.

Immunization: The Childhood Immunization Task Force subgroup of the Arkansas Immunization Action Coalition compiled a priority list of issues in policy, education, and system supports in order to seek state funding to address barriers to immunization for children. Longer-term strategies for improving immunization rates were identified as well, including policy change and future studies on immunization hesitance.

Appendices

Appendices are available online.

- 1) List of Natural Wonders Partnership Council Members
- 2) Focus group Guide
- 3) Key Informant Guide
- 4) Patient Information Questionnaire
- 5) Report Card
- 6) Phone Survey Questionnaire

Endnotes

ⁱ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

ⁱⁱ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

³ Bennett, Cindy; Thiedig, David, & Isgrig, Reveille. 2016. "Arkansas Children's Hospital Health Care and Community Needs Parents Survey." (Little Rock: UALR Survey Research Center).

⁴ C.S. Mott Children's Hospital National Poll on Children's Health, in Collaboration with the Children's Hospital Association, 2016. Last retrieved from <http://www.mottnpch.org/reports-surveys/today-versus-back-day-kids-health-getting-worse>

⁵ U.S. Census Bureau, Population Estimates Program (PEP), Updated annually. <http://www.census.gov/popest/>. U.S. Census Bureau, 2010 Census of Population. <http://factfinder2.census.gov>. 2014 Data. U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

⁶ U.S. Census Bureau, Population Estimates Program (PEP), Updated annually.

⁷ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

⁸ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates. Last retrieved from http://factfinder.census.gov/bkmk/tm/1.0/en/ACS/14_5YR/DP05/0400000US05.05000?mapyear=2014&bm=gray&zl=7&minx=-11969637.931963358&miny=3566514.090881694&maxx=-9644729.279642056&maxy=4422608.807675441&mm=&by=&bl=&catsetid=ESTIMATE%3DHC03!GEO%3D050000!OUS05001!SUBJECT%3DVC88&trans=0.5&sr=255&sg=255&sb=190&er=76&eg=115&eb=0&cc=5&cm=NATURAL_B REAKS

⁹ Pearl McElfish, University of Arkansas for Medical Sciences, email correspondence January 2016.

¹⁰ U.S. Census Bureau, 2010 Census

¹¹ Poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2). Last retrieved April 2016 from <https://aspe.hhs.gov/poverty-guidelines>.

¹² Corporation for Enterprise Development (CFED), 2016. Arkansas Assets and Opportunity Scorecard. Definitions last retrieved from <http://scorecard.assetsandopportunity.org/latest/issue-area/finance> April 2016.

¹³ Annie E. Casey Foundation Kids Count Databook, 2015.

¹⁴ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

¹⁵ What do #ARKidsNeed from Birth to 8? 2015. Arkansas Advocates for Children and Families.

¹⁶ America's Youngest Outcasts: A report card on child homelessness, 2014. Last retrieved from <http://www.homelesschildrenamerica.org/mediadocs/282.pdf> April 2016.

¹⁷ America's Youngest Outcasts: A report card on child homelessness, 2014. Last retrieved from <http://www.homelesschildrenamerica.org/mediadocs/282.pdf> April 2016.

¹⁸ Bachelder, Ashley; Stewart, Kate, Nash, Creshelle, and Sealy, Neil, 2015. Out of Balance: Arkansas Renters share their experiences navigating the state's unique landlord-tenant laws. Last retrieved from http://publichealth.uams.edu/files/2012/06/Arkansas-Renters-Report_final.pdf April 2016.

¹⁹ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

²⁰ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

²¹ What do #ARKidsNeed from Birth to 8? 2015. Arkansas Advocates for Children and Families.

²² Annie E. Casey Foundation Kids Count Databook, 2015.

-
- ²³ What do #ARKidsNeed from Birth to 8? 2015. Arkansas Advocates for Children and Families.
- ²⁴ Annie E. Casey Foundation Kids Count Databook, 2015.
- ²⁵ ForwARd: A new vision for Arkansas education. 2015.
- ²⁶ What do #ARKidsNeed from Birth to 8? 2015. Arkansas Advocates for Children and Families.
- ²⁷ Annie E. Casey Foundation Kids Count Databook, 2015.
- ²⁸ ForwARd: A new vision for Arkansas education. 2015.
- ²⁹ ForwARd: A new vision for Arkansas education. 2015.
- ³⁰ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
- ³¹ Annie E. Casey Foundation Kids Count Databook, 2015.
- ³² Annie E. Casey Foundation Kids Count Databook, 2015.
- ³³ "Arkansas Report from the National Survey of Children's Health." NSCH 2011/12. Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health website. Retrieved 1/26/16 from www.childhealthdata.org.
- ³⁴ Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
- ³⁵ Vox. Map: America has had 142 school shootings since 2013. Last retrieved from <http://www.vox.com/2015/10/6/9457449/school-shootings-map> April 2016.
- ³⁶ Arkansas Access to Justice Foundation. 2015 Justice Partners Report: Representing Hope. <http://arlegalaid.org/wp-content/uploads/2016/05/2015-annual-report.pdf>.
- ³⁷ Little, Marquita, 2015. Racing Toward the Finish Line: Kids' health coverage in 2015.
- ³⁸ Annual EPSDT Participation Report: Form CMS-416. Federal Fiscal Year 2014. Arkansas Report.
- ³⁹ Email correspondence with multiple Arkansas Department of Health staff, January 2016.
- ⁴⁰ Arkansas Center for Health Improvement. Arkansas Patient Centered Medical Homes: Comparison to other state programs. 2016. <http://www.achi.net/Content/Documents/ResourceRenderer.ashx?ID=345>
- ⁴¹ Tamara Baker presentation to Natural Wonders Partnership Council, February 2016.
- ⁴² Summary Report of Arkansas School nursing in Public and Charter Schools. School Year 2014- 2015. Paula Smith.
- ⁴³ Email correspondence with Dr. Tamara Perry, January 2016.
- ⁴⁴ U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
- ⁴⁵ Arkansas Center for Health Improvement. Assessment of Childhood and Adolescent Obesity in Arkansas: Year Eleven (Fall 2013 – Spring 2014). Little Rock, AR: ACHI; October 2014.
- ⁴⁶ Heather Rouse, Arkansas Center for Health Improvement, 2015. Presentation to Natural Wonders Partnership Council.
- ⁴⁷ "Arkansas Report from the National Survey of Children's Health." NSCH 2011/12. Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health website. Retrieved 1/26/16 from www.childhealthdata.org.
- ⁴⁸ Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>
- ⁴⁹ Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>
- ⁵⁰ Email correspondence with Dr. Jon Oden. January 2016.
- ⁵¹ Dabelea D, et al. Prevalence of type 1 and type 2 diabetes among children and adolescents from 2001 to 2009. JAMA 2014; 311(17): 1778 – 1786.
- ⁵² Arkansas's Strategic Plan for Early Childhood Mental Health. 2014 – 2015.
- ⁵³ Behavioral Health Barometer: Arkansas, 2013. SAMHSA Last retrieved from <http://www.samhsa.gov/data/sites/default/files/Arkansas-BHBarometer.pdf> April 2016.
- ⁵⁴ Centers for Disease Control and Prevention, WISQARS database. Retrieved January 2016.
- ⁵⁵ Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>
- ⁵⁶ Email conversation with Julie Meyer, Division of Behavioral Health Services. January 2016.
- ⁵⁷ Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>

-
- ⁵⁸ AR Prevention Needs Assessment Student Survey, 2014. Last retrieved from <http://www.healthy.arkansas.gov/programsServices/tobaccoprevent/Documents/downloads/Arkansas2010YTSBriefSummaries.pdf> January 2016.
- ⁵⁹ Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>
- ⁶⁰ National Campaign to Prevent Teen and Unwanted Pregnancy, Arkansas Fact Sheet. Last retrieved from <http://thenationalcampaign.org/data/state/arkansas> April 2016.
- ⁶¹ Kost, K, Henshaw S. U.S. Teenage Pregnancies, Births and Abortions, 2010: National and State Trends by Age, Race and Ethnicity, Guttmacher Institute. <http://www.guttmacher.org/pubs/USTPtrends10.pdf>
- ⁶² Youth Risk Behavior Survey, 2013.
<http://www.arkansascsch.org/tinymce/filemanager/files/2013ARH%20Detail%20Tables.pdf>
- ⁶³ Arkansas Department of Health. Current Birth Data. Last retrieved February 2016 from <http://www.healthy.arkansas.gov/programsServices/healthStatistics/Documents/birthdata/BULLS00.pdf>.
- ⁶⁴ March of Dimes website, 2015. Last retrieved from <http://www.marchofdimes.org/materials/premature-birth-report-card-arkansas.pdf>
- ⁶⁵ Hamilton BE, Martin JA, Osterman MJK, et al. Births: Final data for 2014. National vital statistics reports; vol 64 no 12. Hyattsville, MD: National Center for Health Statistics. 2015.
http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_12.pdf.
- ⁶⁶ Arkansas Department of Health. Current Birth Data. Last retrieved February 2016 from <http://www.healthy.arkansas.gov/programsServices/healthStatistics/Documents/birthdata/BULLS00.pdf>.
- ⁶⁷ Maulden, Jennifer and Phillips, Martha. Infant Mortality in Arkansas: Disparities in 2013. Prepared for the AR Minority Health Commission. Last retrieved February 2016 from <https://publichealth.uams.edu/files/2012/06/Infant-Mortality-Report-20131.pdf>
- ⁶⁸ Source: Arkansas Health Statistics Branch Linked Birth / Infant Death Files, Arkansas Department of Health. Note: Data for years 2007-2013 are provisional and subject to change. Includes Arkansas resident births.
- ⁶⁹ Centers for Disease Control and Prevention. CDC Wonder database. 2014.
- ⁷⁰ Centers for Disease Control and Prevention. CDC Wonder database. 2014.
- ⁷¹ Arkansas Pregnancy Risk Assessment Monitoring System Survey (PRAMS). 2009-2011 results.
- ⁷² Kathleen Courtney, presentation. February 2016.
- ⁷³ "Arkansas Report from the National Survey of Children's Health." NSCH 2011/12. Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health website. Retrieved 1/26/16 from www.childhealthdata.org.
- ⁷⁴ McKelvey LM, Whiteside-Mansell L, Conners-Burrow NA, Swindle T, FitzgeraldS. Assessing adverse experiences from infancy through early childhood in home visiting programs. *Child Abuse Negl.* 2016; 51:295-302. doi:10.1016/j.chiabu.2015.09008.
- ⁷⁵ McKelvey LM, Whiteside-Mansell L, Conners-Burrow NA, Swindle T, FitzgeraldS. Assessing adverse experiences from infancy through early childhood in home visiting programs. *Child Abuse Negl.* 2016; 51:295-302. doi:10.1016/j.chiabu.2015.09008.
- ⁷⁶ DHS DCFs Annual Report Card, SFY 2015. Last retrieved April 2016 from <http://humanservices.arkansas.gov/dcf/dcfDocs/ARC%20SFY%202015%20-%20FINAL.pdf>
- ⁷⁷ DHS DCFs Annual Progress and Service Report. 2015. Last retrieved April 2016 from [http://humanservices.arkansas.gov/dcf/dcfDocs/Updated%20Initial%20comments%20addressed%20ARKANSAS%20ANNUAL%20PROGRESS%20AND%20SERVICE%20REPORT%202015%20th%2010-5-15%20\(2\).pdf](http://humanservices.arkansas.gov/dcf/dcfDocs/Updated%20Initial%20comments%20addressed%20ARKANSAS%20ANNUAL%20PROGRESS%20AND%20SERVICE%20REPORT%202015%20th%2010-5-15%20(2).pdf)
- ⁷⁸ Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Arkansas, 2013*. HHS Publication No. SMA-13-4796AR. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013.
- ⁷⁹ Little, Marquita. Arkansas Works on Health Coverage. 2016. Last retrieved from <http://www.aradvocates.org/wp-content/uploads/Arkansas-Works-Brief-1.pdf>.
- ⁸⁰ Centers for Disease Control and Prevention. CDC Wisqars
- ⁸¹ Centers for Disease Control and Prevention. CDC Wisqars
- ⁸² CDC WONDER, 2012
- ⁸³ Centers for Disease Control and Prevention. CDC Wisqars
- ⁸⁴ National Immunization Survey, 2008-2014

⁸⁵ National Immunization Survey - Teen, 2008-2014

⁸⁶ Arkansas Department of Health, Oral Health in Arkansas, 2012

⁸⁷ Feeding America: Map the Meal Gap, 2014.

http://map.feedingamerica.org/?_ga=1.103579392.1650413626.1444671900

⁸⁸ Children's Health Watch. Doctor's Orders: promoting healthy child development by increasing food security in Arkansas. 2015.

⁸⁹ Center on Budget and Policy Priorities, 2016.

http://www.cbpp.org/sites/default/files/atoms/files/snap_factsheet_arkansas.pdf

⁹⁰ Conversation with Arkansas Hunger Relief Alliance staff, 2015.

⁹¹ Arkansas State Implementation Grant for improving services for Children and Youth with Autism Spectrum Disorder and Other Developmental Disabilities.