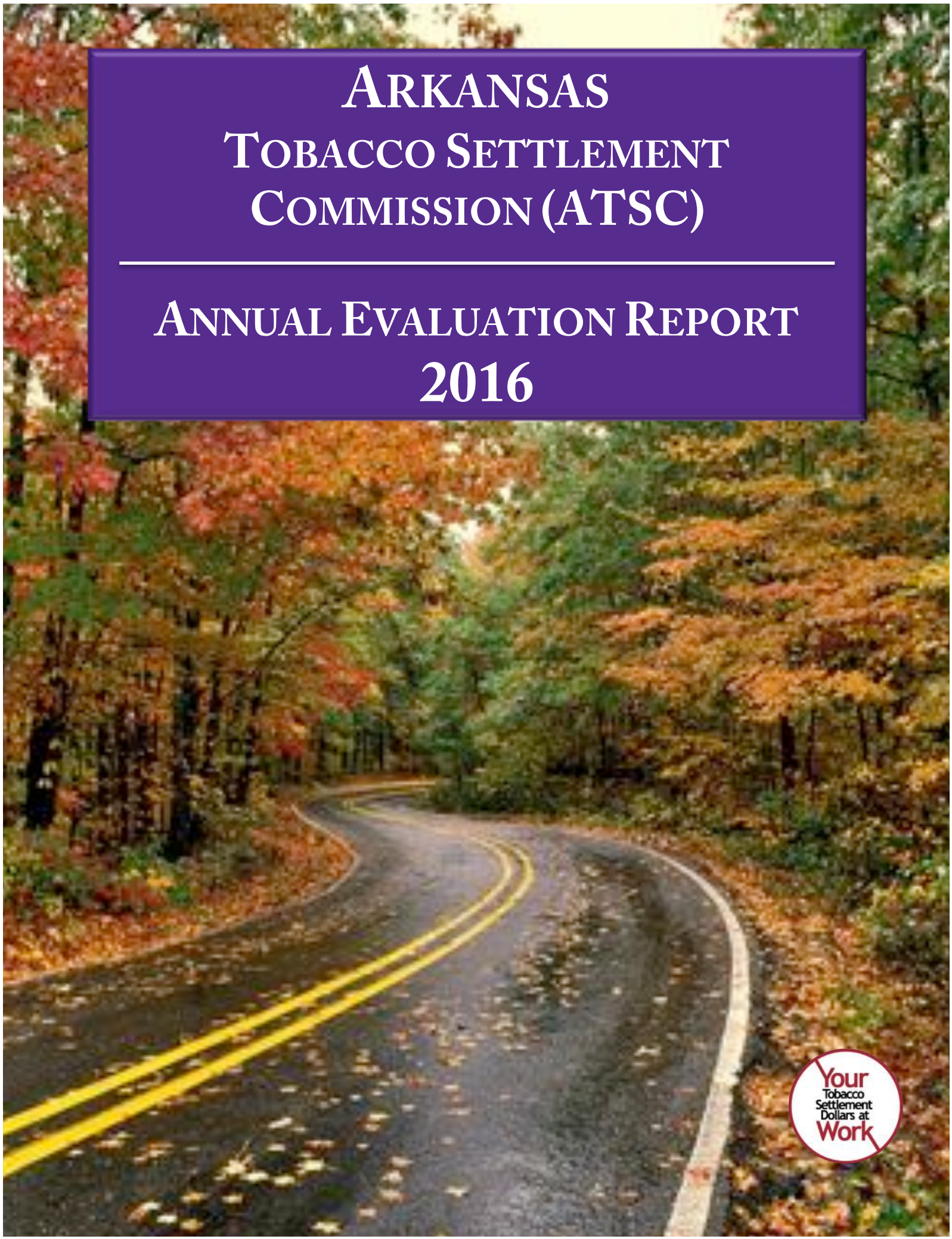
Arkansas Tobacco Settlement Commission (ATSC)

Annual Evaluation Report 2016



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REPORT PREPARED JULY 2017

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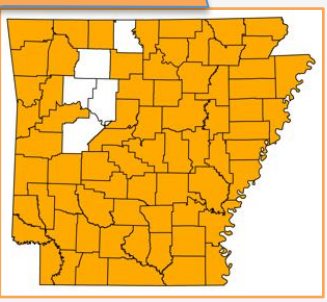
Collective Impact

Arkansas Aging Initiative (AAI); Arkansas Biosciences Institute (ABI); College of Public Health (COPH); Minority Health Initiative (MHI); Tobacco Prevention and Control Program (TPCP); Tobacco Settlement Medicaid Expansion Program (TS-MEP); UAMS Helena, West Memphis, Lake Village

Education

77,152 Arkansans Educated

In 2016, there were 77,152 Arkansans reached by **community education** programs through AAI, MHI, and UAMS Helena, West Memphis, Lake Village. In total, these programs and events reached 70 of 75 counties.



11,186

AAI and TPCP strive to provide educational opportunities to **healthcare professionals** each year. In 2016, these programs reached 11,186 professionals.

746

In 2016, ABI and COPH provided 746 **research and educational presentations** across the state.

More than **11,000 youth** were educated through various school-based and community programs provided by MHI and UAMS Helena, West Memphis, and Lake Village.

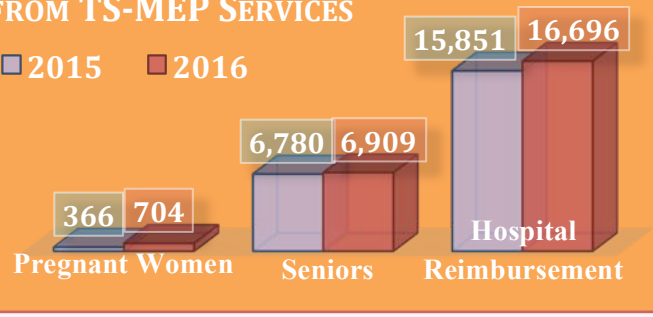
Service

Since 2015, TPCP implemented 445 new **smoke-free/tobacco-free** policies in schools, workplaces, and residential buildings, surpassing their annual goal of 96 new policies.

445

TS-MEP provided expanded access to **health benefits and services for 24,309 Arkansans,** an increase from 22,997 persons served in 2015.

Number of Arkansans Benefitting from TS-MEP Services



TPCP increased the proportion of **youth** and young adults who engage in **tobacco control** activities by **25%.** TPCP's efforts also contributed to a decrease in **smoking prevalence** among youth to **15.7%**.

In 2016, MHI and UAMS Helena, West Memphis, and Lake Village provided 24,770 **health screenings**.

24,770 Health Screenings

Collective Impact

Arkansas Aging Initiative (AAI); Arkansas Biosciences Institute (ABI); College of Public Health (COPH); Minority Health Initiative (MHI); Tobacco Prevention and Control Program (TPCP); Tobacco Settlement Medicaid Expansion Program (TS-MEP); UAMS Helena, West Memphis, Lake Village

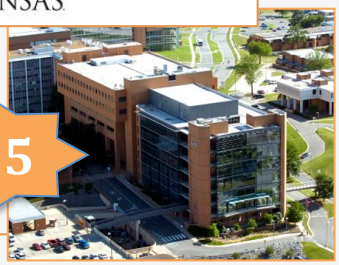
Research

In 2016, ABI and COPH reported 824 **publications,** each contributing to scientific and public health knowledge in the state.

824

ABI's five member institutions and the College of Public Health engaged in 225 new and ongoing **research projects** in 2016, the majority of which were based in Arkansas.

225



Austin Porter, III
COPH Graduate

"The training that I have received while a student at the **COPH** has provided me with the **leadership and communication skills** to successfully carry out my job duties as a trauma registry administrator at the Arkansas Department of Health."

ABI's five member institutions focus in five research areas.

Area 1: Agricultural Research

Area 2: Bioengineering Research

Area 3: Tobacco-Related Research

Area 4: Nutritional Research

Area 5: Other related areas of Research

Economic Impact

For every dollar invested in the **Arkansas Tobacco Quitline**, administered by the TPCP, the people of Arkansas save $28 in future healthcare costs.

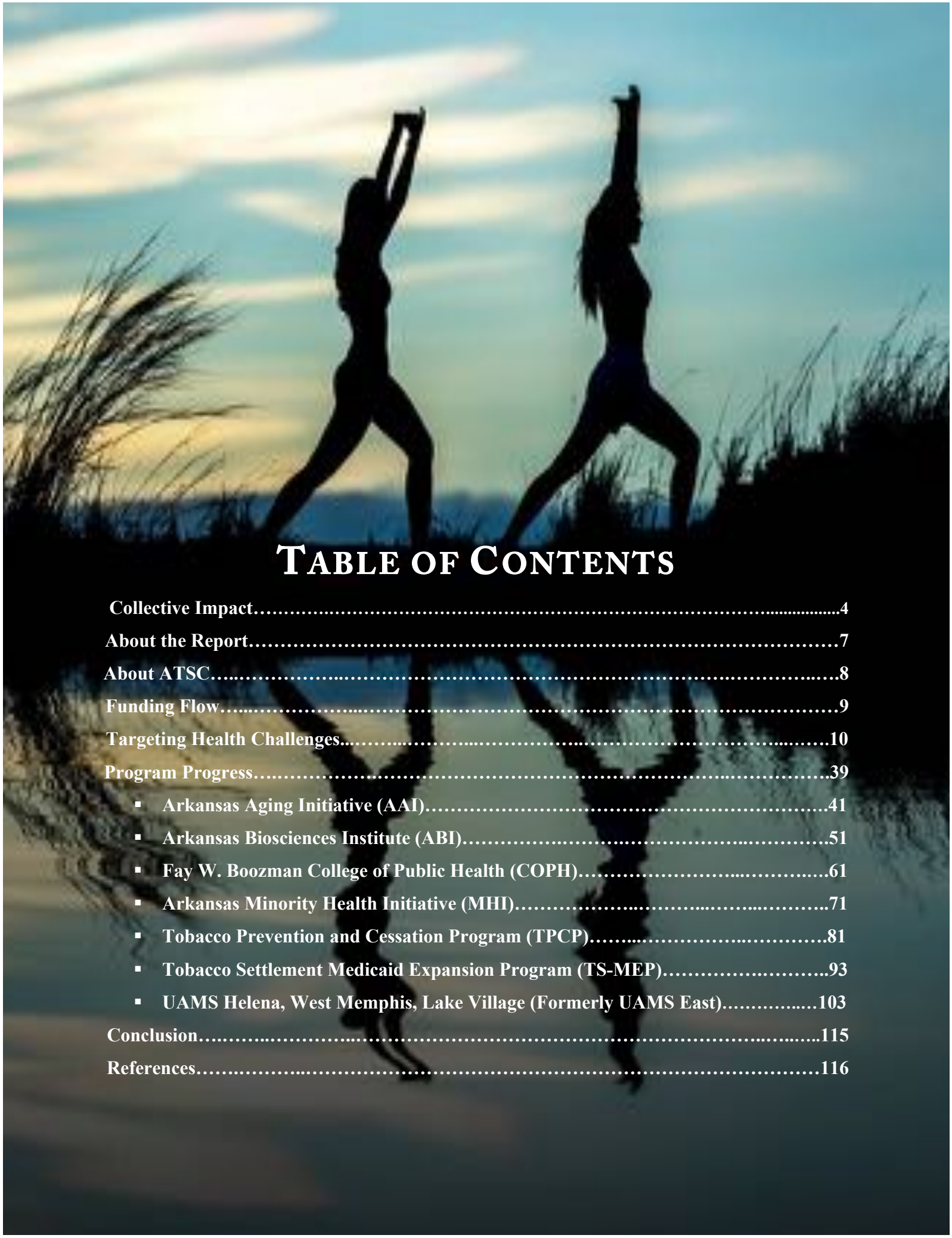
$28 Saved for Every $1 Invested

$49 Million Leveraged

In 2016, AAI, ABI, COPH, and UAMS Helena, West Memphis, and Lake Village—together—**leveraged** approximately $49 million in **external funds**.

Total claims paid for the TS-MEP populations for 2016 was nearly $15.9 million. These funds were used to leverage 70% **federal Medicaid matching dollars** of nearly **$9.9 million**.

UAMS Helena, West Memphis, Lake Village provided **prescription assistance** for 814 participants for a total **savings of $687,594**.



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About The Report

Purpose

The purpose of the annual report is to assess progress for the 2016 calendar year for each of the seven programs funded under the Arkansas Tobacco Settlement Commission (ATSC). Progress is shown through activities related to program indicators that were created by program directors, in consultation with the evaluation team, and approved by the ATSC. Program activities are evaluated each quarter, and this annual report serves as the culmination of activities recorded across the four quarterly reporting periods.

Structure

The annual report consists of six parts: (1) an infographic of the collective impact of the seven programs in 2016; (2) a brief of the purpose and structure of the report; (3) an overview of ATSC and the flow of funding to health programs; (4) an overview of health challenges in Arkansas—and how ATSC-funded programs are targeting these challenges; (5) individual program progress in 2016; and (6) a conclusion accompanied by references. The program progress section offers seven subsections highlighting each program. These subsections each will include (a) an infographic that illustrates key accomplishments under a central theme; and (b) overall program goals, long-term and short-term objectives, indicators and their associated activity, comments by program evaluators, and testimonials from program recipients and providers who share stories about the real impact of ATSC-funded programs.

About ATSC

The mission of the Arkansas Tobacco Settlement Commission (ATSC) is to provide oversight and assessment of the performance of the seven programs funded by the Tobacco Settlement Proceeds Act of 2000. The Act mandates the distribution of Master Settlement Agreement funds. The seven health programs that receive funding work to enhance the health and well-being of Arkansans through various projects, programs, and outreach. The seven programs are as follows:

Arkansas Aging Initiative (AAI)

Claudia Beverly, PhD, RN, FAAN Director of AAI

Amy Leigh Overton-McCoy, PhD, GNP-BC, Associate Director of AAI

Arkansas Biosciences Institute (ABI)

Robert McGehee, Jr., PhD, Director of ABI

Leslie Humphries, Program Coordinator

Fay W. Boozman College of Public Health (COPH)

Jim Raczynski, PhD, FAHA, COPH Dean

Liz Gates, JD, MPH, Assistant Dean for Special Projects

Arkansas Minority Health Initiative (MHI)

ShaRhonda Love, MPH, Director of MHI

Louise Scott, Senior Grant Coordinator

Tobacco Prevention and Cessation Program (TPCP)

Debbie Rushing, Branch Chief

Tobacco Settlement Medicaid Expansion Program (TS-MEP)

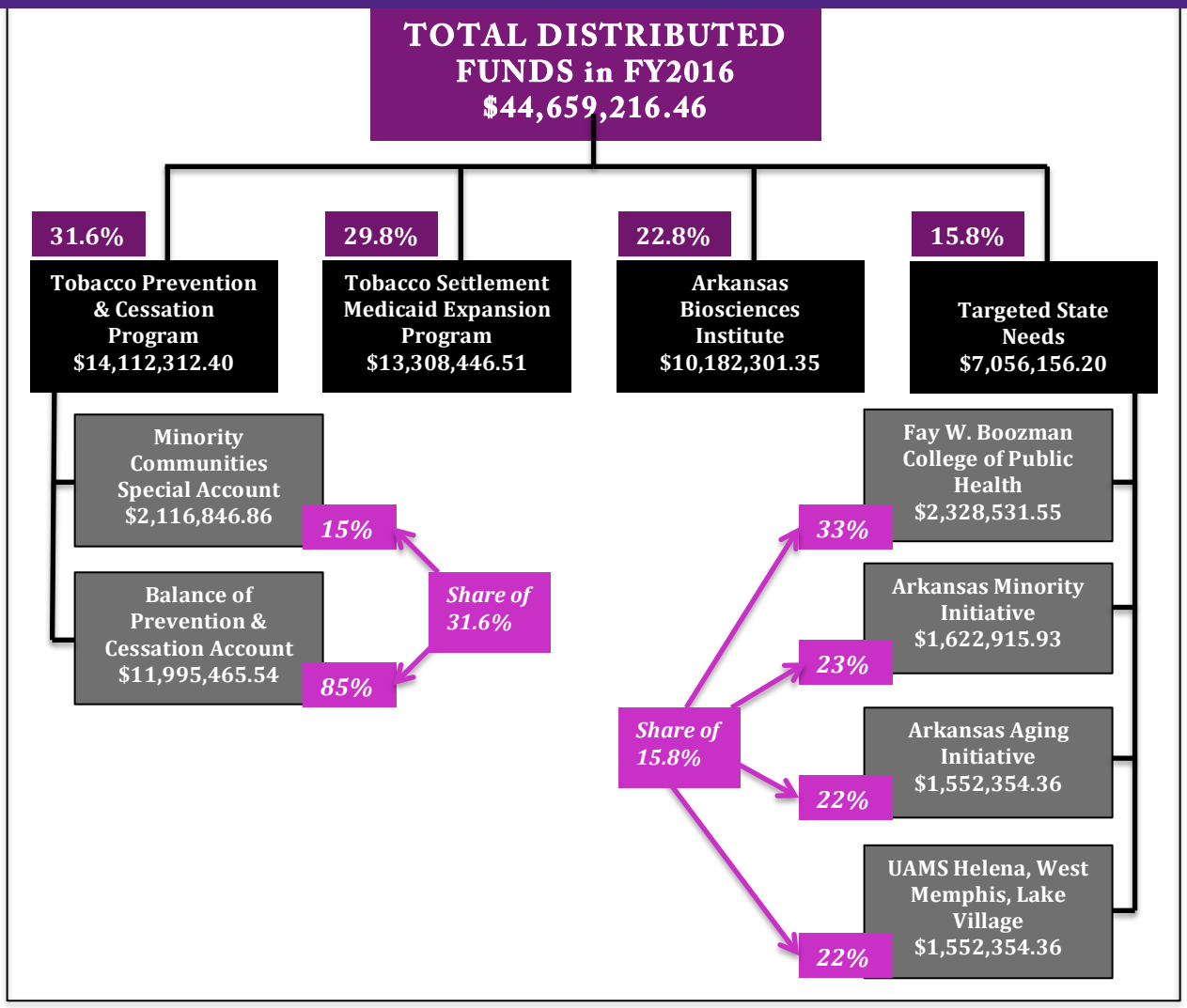
Mary Franklin, Director, DHS Division of County Operations

UAMS Helena, West Memphis, Lake Village (Formerly UAMS East)

Becky Hall, EdD, Director

Stephanie Loveless, MPH, Associate Director

ATSC Funding Flow



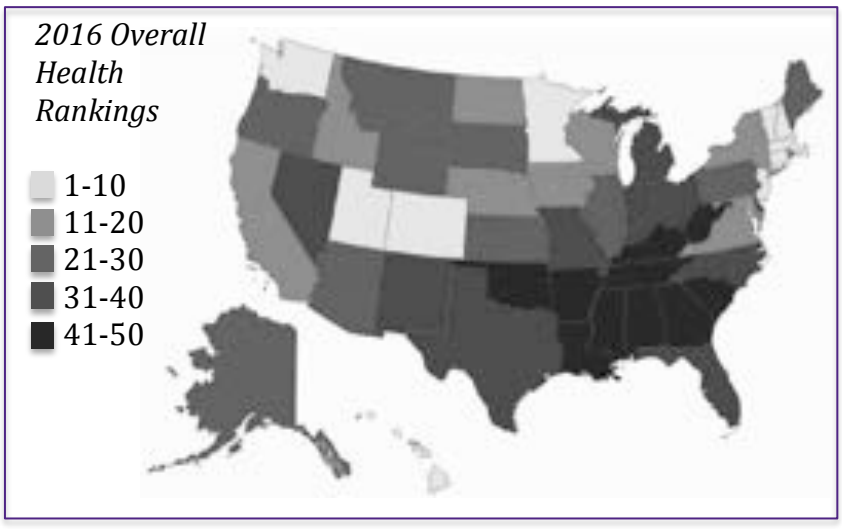
The chart above illustrates the flow of ATSC funds for fiscal year 2016 as well as the percentage of funds that the programs receive—as mandated by the Tobacco Settlement Proceeds Act of 2000. As shown, the funds are divided among four major accounts: the Tobacco Prevention and Cessation Program, the Tobacco Settlement Medicaid Expansion Program, the Arkansas Biosciences Institute, and Targeted State Needs. The Tobacco Prevention and Cessation Program is separated into a special account for Minority Communities and the remaining balance stays in the Prevention and Cessation account. The Targeted State Needs account is divided among four programs: the College of Public Health; the Arkansas Minority Initiative; the Arkansas Aging Initiative; and UAMS Helena, West Memphis, and Lake Village.

TARGETING HEALTH CHALLENGES

Good health is more than an absence of disease or injury and should be determined by more than physiological measures like blood pressure or body mass index. Health is a holistic concept, akin to well-being, and it hinges on social, economic, and environmental factors; healthcare delivery; individual mindset and behavior; and other quality of life markers. Cultivating good health and well-being requires strategic and comprehensive investments in a number of areas including health education and equity, human development and community sustainability, knowledge creation and innovation, and an action orientation towards fostering a *culture of health*. Meeting this complex charge head-on is difficult for any state or nation, and is particularly so in an area—like Arkansas—that consistently ranks poorly in overall quality of life. So how does the investment of Tobacco Settlement dollars in the state target health challenges and cultivate well-being? Before addressing this question in the subsections below, we provide an overview of health challenges in the state.

HEALTH CHALLENGES IN ARKANSAS

The most recent *America's Health Rankings* (AHR) report ranked Arkansas 48 (out of 50) nationally in overall health (2017). The overall ranking by AHR is determined by four categories of health determinants (health behaviors, community and environment, clinical care, policy) as well as one category focused on health outcomes (e.g., cancer deaths or infant mortality). Arkansas is ranked in the bottom five states in total health behaviors, total clinical care, and overall health outcomes.



Arkansas ranks in the bottom 10 states in several individual markers under the health determinants category, including obesity, physical inactivity, smoking prevalence, infectious disease, occupational fatalities, violent crime, immunizations for children and adolescent males, dentists, primary care physicians, low birthweight, and preventable hospitalizations. In terms of individual health outcomes, Arkansas ranks in the bottom ten in cancer deaths, cardiovascular deaths, diabetes, frequent mental distress, frequent physical distress, infant mortality, and premature death. See Table 1 for a list of rankings of the individual markers mentioned above.

Table 1. Individual Health Markers Ranked in Bottom 10 States

Health Marker	Rank
Obesity	45
Physical Inactivity	49
Smoking Prevalence	48
Infectious Disease	45
Occupational Fatalities	43
Violent Crime	45
Immunizations for Children	46
Immunizations for Adolescent Males (HPV)	49
Dentists	50
Primary Care Physicians	43
Low Birthweight	41
Preventable Hospitalizations	46
Cancer Deaths	46
Cardiovascular Deaths	47
Diabetes	44
Frequent Mental Distress	48
Frequent Physical Distress	45
Infant Mortality	47
Premature Death	45

Other national and state data sets show Arkansas faring poorly in other categories related to well-being: access to healthcare, mental health providers, health literacy, educational attainment, income, children in poverty, food security, STIs, and life expectancy (Arkansas Department of Health, 2013; ADH, 2015a; ADH, 2015b; County Health Rankings, 2017; Measure of America, 2014). These social, economic, and environmental factors cluster with traditional health factors like obesity or infectious disease and contribute to poor quality of life for many Arkansans, and require the healthcare sector to incorporate a culture of health model that emphasizes inclusivity, equity, and cross-sector collaboration to maximize impact of health programs and services.

ATSC-funded programs serve a variety of functions including (a) educating community members, youth, and healthcare professionals; (b) serving communities through various programs and policies, often designed to uplift vulnerable and marginalized populations; (c) expanding public health knowledge through research and investment in the cultivation of homegrown health professionals; (d) leveraging ATSC dollars to supplement, sustain, and grow vital programs and services; and (e) contributing to an overall culture of health. In the sections that follow, we highlight four major areas of health disparities in Arkansas and illustrate how ATSC-funded programs are addressing these disparities. We also highlight how programs are impacting vulnerable populations, including the burgeoning population of older Arkansans.

Obesity, Diabetes, and Cardiovascular Disease

- **Obesity:** Obesity has been rising steadily across the country, and in the last four years has increased by more than 0.5% per year (America's Health Rankings, 2017). Arkansas has seen one of the fastest increases in obesity with an average annual rate of change of 0.9% from 2012 to 2016, leading to 34.5% of the population (more than one million Arkansans) being obese (AHR, 2017). The fastest rate of change in obesity can be seen in Arkansans who reported having attended *some college*. Unlike many other states in the nation, there is no glaring disparity in obesity prevalence between educational levels. Plainly, Arkansans across the board are becoming more obese.

More than three out of 10 Arkansans are obese.

  - **Consequences of Obesity:** The Centers for Disease Control and Prevention list a number of health consequences of obesity including increased risk for high blood pressure, high cholesterol, diabetes, stroke, sleep apnea, body pain, mental illness, some cancers, and overall mortality rates. Further, the economic and societal costs of obesity can be seen in large direct and indirect costs for medical treatment as well as absenteeism and lowered productivity while at work (CDC.gov). In 2008, it was estimated that medical care costs for obesity were $147 billion, while the costs of obesity-related absenteeism were estimated as high as $6.38 billion.

$147 Billion in obesity-related medical care costs nationwide

➢ **TARGETING OBESITY:** Several ATSC-funded programs target obesity through educational offerings, nutritional courses and fitness opportunities, obesity-related research, and more.

- The **Minority Health Initiative** (MHI) has a number of programs and partners that target obesity. The "Southern Ain't Fried Sundays" program is designed to educate members of African-American and Hispanic churches, community members, and organizations about healthier alternatives to preparing and cooking traditional style meals. In 2016, there were 283 registrants of this program, covering 31 counties, and many more Arkansans were reached through public presentations by MHI. The motivations for participating in this program included the desire for weight loss, lowered cholesterol, diabetes control, self-motivation, setting a good example for children and family, and generally living a healthier lifestyle.

- **UAMS Helena, West Memphis, Lake Village** provides regular, hands-on opportunities related to obesity prevention like "Cooking Matters" courses. Topics covered in the course relate to planning, creating, and enjoying healthy meals on a budget. A community outreach coordinator, public health educator, and registered dietician collaborate to facilitate "Cooking Matters" courses.

- ATSC-funded programs also research ways to treat and prevent obesity. In 2016, the **Arkansas Biosciences Institute** (ABI) had five ongoing research projects focused on obesity, and partnered with six outside universities to carry out the research, including Duke University, University of Philippines, and University of Ghent in Belgium, among others.

- Students at the **College of Public Health** (COPH) engaged in projects related to obesity. One Preceptorship Project explored a potential correlation between childhood obesity and antibiotic use in children in Arkansas. One Culminating Experience Project aimed to develop a multi-level worksite wellness program for the Little Rock School District, focusing on school bus drivers.

❖ **DIABETES:** Diabetes is a chronic condition, and the 7th leading cause of death in the nation (AHR, 2017). Like obesity, diabetes is on the rise and has more than doubled in the last 20 years to reach 9.9% of the U.S. population (AHR, 2017). Nationally, Arkansas ranks 44 out of 50 in diabetes, with 12.6% of the state's population suffering from the disease.

➢ **CONSEQUENCES OF DIABETES:** Diabetes contributes to other major causes of death like stroke and heart disease, and is a major contributor to lower-limb amputations, blindness, and kidney failure. Those with the disease spend 2.3 times more in medical expenses than those who do not have diabetes. In 2012, costs to treat and manage diabetes were more than $322 billion (AHR, 2017).

$322 Billion in diabetes-related medical costs nationwide

➢ **TARGETING DIABETES:** Diabetes is a focus of many ATSC-funded programs and is addressed through community education and health fairs, health screenings, and research.

- The **Arkansas Aging Initiative** (AAI) offers numerous evidence-based educational modules throughout the state including the Diabetic Empowerment Education Program (DEEP). DEEP certified instructors attend specialized training in diabetes management that they bring back to the community. Real-life situations are utilized in the training program to provide helpful information that the participants can utilize in their daily activities to empower their diabetes management efforts.

Kasandra is a Community Outreach Educator for the Texarkana Regional Center on Aging and regularly presents DEEP sessions.

- The **Minority Health Initiative** provided 2,877 glucose screenings and also partnered with numerous organizations that implemented educational events and programs across the state to target diabetes, including the Arkansas Human Development Corporation, Community First Alliance, Sweet Home Community Initiative, Dallas County Alliance Supporting Health, Dixie Addition Community Development Corporation, and Ambitious Girls, Inc.

- **UAMS Helena, West Memphis, Lake Village** had 164 encounters in 2016 for diabetes education classes, and more than doubled the number of participants from 2015. Further, UAMS Helena was a sub-award grantee from the Greater Delta Alliance for Health. The three-year, $92,000 grant will provide additional funds to expand the diabetes education program, the "Cooking Matters" classes and a registered dietician to work in Chicot, Desha, St. Francis, and Phillips counties.

- A **College of Public Health** Master of Public Health student took on a Culminating Experience Project to analyze food pantry data and Marshallese food habits and to explore implications for diabetes prevention and control in the Marshallese population.

❖ **CARDIOVASCULAR DISEASE:** Cardiovascular disease refers to conditions related to the narrowing or blockage of blood vessels, which may lead to a heart attack, stroke, or other health outcomes. Cardiovascular disease (particularly heart disease) is the leading cause of death nationally and in Arkansas. Stroke is the 3rd leading cause of death in Arkansas according. Recent data show that there are approximately 317 cardiovascular deaths per 100,000 people in the state, placing Arkansas at 47th nationally (AHR, 2017).

➢ **CONSEQUENCES OF CARDIOVASCULAR DISEASE:**
In addition to its contribution to increased mortality rates, cardiovascular disease accounts for 17% of all medical expenditures and 30% of Medicare expenditures (AHR, 2017).

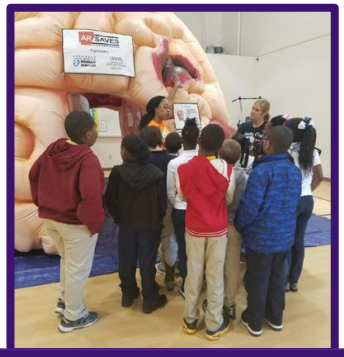
Cardiovascular disease accounts for 17% of all medical expenses.

➢ **TARGETING CARDIOVASCULAR DISEASE:** Cardiovascular disease is preventable. Maintaining a healthy weight, refraining from tobacco use, and getting regular exercise are all factors that help prevent cardiovascular disease. ATSC-funded programs provide opportunities that target these preventive measures and provide support for vital research on the subject.

- In 2016, the **Arkansas Biosciences Institute** engaged in three research projects related to cardiovascular disease, which received more than $300,000 in extramural funds.

- A **College of Public Health** faculty member began a research project that examined the possible role of genetics in hypertension and cardiovascular disease, which has not been tested before in any population in the US.
- The **Minority Health Initiative** has several initiatives aimed at preventing cardiovascular disease including providing health screenings for blood pressure, cholesterol, BMI, and glucose. In 2016, MHI provided 5,853 blood pressure screenings alone, 1,134 of which were abnormal. MHI also distributed 3,740 educational packets containing heart disease information.
- The **Arkansas Agining Initiative** routinely provides exercise opportunities to seniors across the state, including Tai Chi classes, as shown in the photo on the right. In 2016, AAI averaged 1,500 exercise encounters per quarter, totalling approximately 6,000 encounters for the year.

- **UAMS Helena, West Memphis, Lake Village** also operates a fitness center with exercise programing for all ages and fitness levels. The UAMS Fitness Center reported 29,191 fitness center visits. Also, the number of youth and adults who participated in other community based exercise programs and events increased by 54% in 2016 with 42,417 total encounters. In addition to exercise programs that help prevent cardiovascular disease, UAMS Helena, West Memphis, Lake Village implemented a number of educational programs for youth and adults that target stroke prevention.



Youth learn about the brain and stroke in the stroke prevent project, AR SAVES.

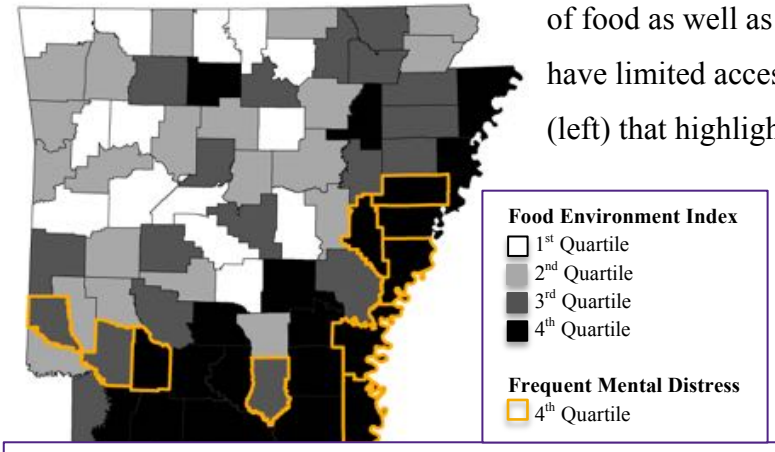
- The **Tobacco Prevention and Cessation Program** (TPCP) is committed to addressing tobacco use, which is a cardiovascular risk factor. In 2016, youth smoking prevalence decreased by 15.7%, and youth engagement in tobacco control activities increased by 25%, setting up Arkansas youth for healthy cardiovascular systems as they age.

Smoking prevalence among youth decreased by 15.7%.

FOOD INSECURITY

❖ **FOOD INSECURITY:** Food insecurity, nationally, has been decreasing in recent years, although there are still 42 million people across the nation that may not know where their next meal will come from. Though food insecurity rates have dropped, data show that those who struggle with hunger are experiencing increasing "food budget shortfalls," as food-insecure families report needing an additional $17.38 per person per week to meet their food needs, which is an increase of 13% since 2008—accounting for inflation (Map the Meal Gap, 2017). Persistent economic challenges like stagnant wages and underemployment, along with rising costs of housing put our most vulnerable families in a precarious position; and, often, spending tradeoffs must be made by food insecure families to meet food needs.

More than 18% of Arkansans are food insecure (Map the Meal Gap, 2017). Arkansans who live in rural areas, 45% of the population, have a more difficult time accessing food due to a lack of grocers and challenges with transportation costs (Arkansas Department of Health, 2013). Though our rural areas see higher rates of food insecurity, Arkansans living in low-income neighborhoods in larger cities also face similar challenges. Data from *County Health Rankings* illustrate areas of food insecurity in Arkansas using the *food environment index* (FEI). The FEI measures the percentage of the population who do not have a reliable source of food as well as the percentage of people who have limited access to healthy foods. See the map (left) that highlights those counties in Arkansas that are most food insecure. The FEI data are overlaid with data on *frequent mental distress* (FMD), a health marker associated with food insecurity.



Food Environment Index (FEI) & Frequent Mental Distress (FMD)—The map presents the food environmental index (FEI) per county in four quartiles. The fourth quartile (in black) represents those counties with the lowest FEI (i.e., counties that are most food insecure). Conversely, counties in the first quartile (in white) are the most food secure. Research shows that frequent mental distress (FMD) often is associated with FEI, and Arkansas is no exception. Those counties that fall into the fourth quartile for FMD (highest distress) are highlighted in orange, and reveal that 70% of counties with the highest FMD also fall into the most food insecure areas. These data reiterate that health challenges are not isolated; rather they may cluster together, and—potentially—contribute to or corrode each other.

- **CONSEQUENCES OF FOOD INSECURITY:** Consequences of food insecurity are particularly insidious for young children and seniors. An estimated 15% of seniors in Arkansas are food insecure (Ziliak & Gundersen, 2016), and this population faces unique socioeconomic challenges. Seniors who confront food insecurity are more likely to experience physical and mental distress. Children who live in food insecure households are faced with nutritional deficiencies, increased hospitalizations, developmental delays, and behavior problems—stemming from anxiety, depression, aggression, and attention deficit disorder (Black, 2012). These consequences have been shown to lead to poor performance in school, and eventually, more pervasive health disparities and poverty (Black, 2012). So, programs that target food insecurity are helping to prevent many pervasive and long-lasting health disparities.

15% of seniors in Arkansas face food insecurity

- **TARGETING FOOD INSECURITY:** ATSC-funded programs work diligently to address issues related to food insecurity by providing educational materials and hands-on courses that help families maximize their food resources, providing financial assistance to low-income populations who struggle to access and purchase food, and providing relevant research on the topic.

UAMS Donald W. Reynolds Institute on Aging

- Dr. Amyleigh Overton-McCoy with the **Arkansas Aging Initiative** is leading efforts with the Arkansas Hunger Relief Alliance in evidence-based "Cooking Matters" classes in grocery stores. Additional training for community "Cooking Matters" classes was initiated, incorporating supplemental educational material created by the AAI for older adults. Dr. Overton-McCoy also leads partnerships with the Arkansas Department of Health Division of Aging, the Arkansas Foundation for Medical Care, and the Arkansas Coalition for Obesity Prevention to address food insecurities for older Arkansans. In addition, AAI provides ongoing evidence-based continuing education programs for their inter-professional team to identify food insecurities and make appropriate referrals for older adults.

UAMS
Helena, West Memphis, Lake Village

- **UAMS Helena, West Memphis, Lake Village** also provides regular opportunities for "Cooking Matters" classes for community members living in the Delta, one of the most food insecure regions of the state.

ARKANSAS DEPARTMENT OF HUMAN SERVICES
Tobacco Settlement Medicaid Expansion

- The **Tobacco Settlement Medicaid Expansion Program** (TS-MEP) offers vital support for our most vulnerable populations, including seniors, pregnant women, and low-income families. One way that TS-MEP assists vulnerable populations is through the Supplemental Nutrition Assistance Program (SNAP). SNAP provides benefits on a monthly basis through an electronic benefits card that can be used to purchase food at a grocery store or a participating farmers' market where families can access fresh fruits and vegetables. Many vulnerable and low-income families in the state are in survival-mode and the assistance provided through TS-MEP helps ensure that these families have food on the table.

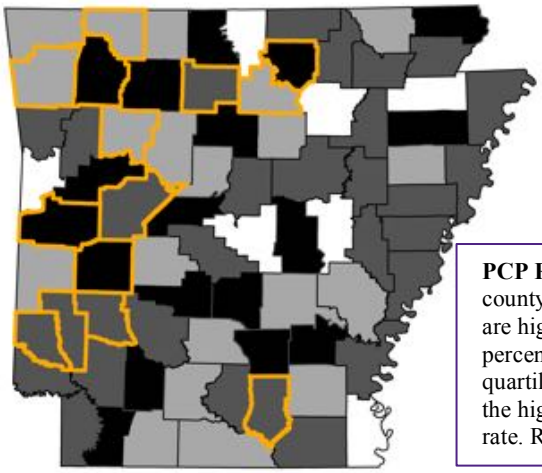
UAMS
Fay W. Boozman College of Public Health

- Students at the **College of Public Health** engaged in a number of projects in 2016 that address issues related to food insecurity. One Capstone Project aimed to (a) develop and validate a framework and toolkit designed to help communities understand the various elements of a local food system and the interactions of those elements in the local environment, (b) assess a community's existing local food system, and (c) set priorities for system change. A Preceptorship Project incorporated local foods in Conway Public Schools through a Farm to School Service-Learning Project that implemented school gardens and the development of a nutrition education and garden curriculum resource for food services staff, teachers, and principals.

Access to Care

❖ **Access to Care:** Several factors determine the level of access an individual or family has to health services and benefits. The conversation on access usually centers on health insurance, number of clinics and providers, healthcare costs, health literacy, and public transportation. Since the implementation of the Affordable Care Act (ACA) in 2010, the percentage of Americans without insurance has dropped significantly to 10.7%, which is the lowest uninsured rate in the last 50 years (AHR, 2017). However, there are still millions of Americans without health insurance, and these individuals have more challenges in accessing healthcare or programs that prevent poor outcomes, and as such, tend to have more health needs that are unmet than those with health insurance. In Arkansas, as with many other states, there has been a noticeable decline in the uninsured population, although the state still has a higher rate of uninsured people than the national average. Since the implementation of ACA, the percentage of uninsured Arkansans has dropped from 21% to 14%, and has allowed more than 200,000 people to access health insurance (County Health Rankings, 2017). However, more than 330,000 Arkansans are still without insurance (CHR, 2017).

The number and location of clinics and providers also determines the level of access to healthcare. Arkansas is ranked 43rd in the rate of primary care physicians (PCPs) and 50th in dentists. The average rate for PCPs in Arkansas is 1,531 residents to one physican, though some counties see a much higher rate like Perry County and Izard County where the PCP rate is 10,245:1 and 13,486:1 respectively. See the map below that illustrates the PCP rate per county, which is overlaid with the percent uninsured rate per county.



PCP Rate & Percent Uninsured—The map presents the PCP rate per county in quartiles. The counties with the highest PCP rate (fewer physicians) are highlighted in black. These PCP data are overlaid with data on the percentage of uninsured Arkasans per county, highlighting only the fourth quartile (highest uninsured percentage) in orange. The data reveal that 71% of the highest unisured counties fall into the third and fourth quartile for PCP rate. Residents of these counties see significant barriers to accessing care.

Another barrier to accessing healthcare is cost. In 2013, approximately 17% of Arkansans reported that they had not seen a physician in the past 12 months due to costs; this percentage is slightly higher than the national average of 15% (ADH, 2013). Rural counties see the highest cost burden for Arkansans as 20% of rural residents could not access a physician over the previous 12 months (ADH, 2013).

20% of rural Arkansans struggle with healthcare costs

Health literacy is another component of access to care and is defined generally as how well people can understand medical and health information and make good choices about their health based on this information. Health literacy also applies to doctors, nurses, and health providers in general, and how well they can meet the needs of their patients in a way that helps patients make good choices about their health. A physician or healthcare provider that uses too much medical jargon, without a laymen's explanation, may have a difficult time meeting the needs of patients, no matter the patient's level of education. According to the Arkansas Department of Health (2013), more than one-third of the adult population in the state (approximately 820,000 adults) have low health literacy.

820,000 adults in Arkansas have low health literacy

Deficiencies in public transportation also provide substantial barriers to accessing healthcare, especially for seniors, low-income individuals, people with disabilities, and those living in rural areas. The Arkansas Highway and Transportation Department (AHTD) has estimated that over the course of a year, those individuals without personal transportation require approximately 13 million total trips to get to school, work, clinics, or anywhere else they need to go (ADH, 2013). However, public transportation, in 2012, met only one third of these required trips, and left almost 500,000 Arkansans without access to transportation at some point during the year (ADH, 2013). According to AHTD, the number of Arkansans left behind is expected to rise to 560,000 by 2020.

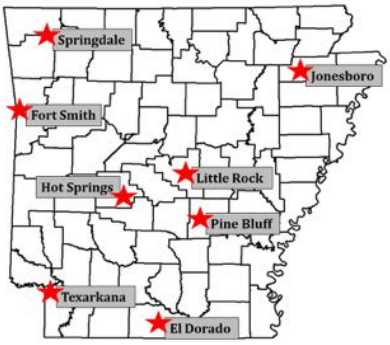
➢ **CONSEQUENCES OF LACK OF ACCESS TO CARE:** As it relates to health insurance, according to the Institute of Medicine, uninsured adults are more likely to suffer poor health outcomes including acute ischemic stroke, advanced cancer, heart attacks and heart failure, hypertension, diabetes, and serious injury or trauma (2009). Further, research shows that when community-level rates of uninsurance are high, adults that are insured in those communities have more difficulty accessing healthcare and, generally, are less satisfied with the care they receive (Institute of Medicine, 2009). Lack of insurance as well as physician shortages result in higher rates of preventable hospitalizations for various health problems like diabetes, asthma attacks, and infectious diseases (AHR, 2017). The financial burden of preventable hospitalizations on healthcare systems has been estimated at $30.8 billion a year (AHR, 2017). Consequences related to low health literacy have been laid out by Polumbo (2015) who identified four major consequences in the literature: (1) patients perceive low self-efficacy when dealing with personal health conditions, (2) patients face a higher risk of hospitalization, (3) patients are not willing to play an active role in the provision of their care, and (4) patients are unaware of the determinants of well-being. Scholars have labeled low health literacy as a "silent epidemic" (Polumbo, 2015, p. 418). Finally, a lack of public transportation can lead to a significant increase in preventable hospitalizations as individuals are not able to access preventive care or other services that meet their well-being needs—like driving across town to the farmers' market for fresh foods or accessing a local city park for exercise or exposure to green space.

$30.8 Billion financial burden of preventable hospitalizations on healthcare systems

➢ **TARGETING ACCESS TO CARE:** ATSC-funded programs offer a number of services and events each year that target the issue of access to healthcare. These efforts include providing direct clinical care, no-cost health screenings, worksite wellness programs, continuing education for healthcare providers who serve vulnerable communities, research aimed to improve access, and generally providing assistance to low-income families and those most in need, including pregnant women, seniors, and those requiring extended hospitalization.

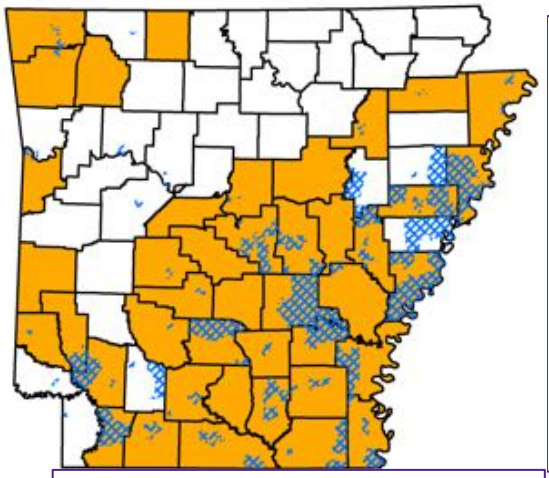
UAMS
Donald W. Reynolds Institute on Aging

- The **Arkansas Aging Initiative** has eight Centers on Aging (COA) around the state, each with a clinical component. In 2016, AAI assisted in approximately 27,000 Senior Health Clinic encounters across the state.



Arkansas Minority Health Commission

- Each year, the **Minority Health Initiative** and their partners offer thousands of health screenings and educational events that help to fill part of the access gap for many Arkansans. In 2016, MHI provided 22,000 screenings and educated more than 30,000 Arkansans. Their efforts focus primarily on minority populations, though their services are open to anyone in the community. See the map below that illustrates the reach of MHI screening and educational events in 2016.



Counties reached by MHI screenings & events
Census Block Groups in the 4th quartile for % minority population

The map illustrates the 42 counties where MHI screening and educational events were held in 2016, highlighted in orange. The areas shaded in blue represent Census Block Groups (CBGs) in the fourth quartile for percent minority population. These CBGs have a minority population of 43% or higher. In all, MHI events reached counties that cover 93% of the CBGs with the highest minority populations.

UAMS
Helena, West Memphis, Lake Village

- **UAMS Helena, West Memphis, Lake Village** provides health screenings and educational events on a regular basis. In 2016, they provided 2,764 screenings and educated 1,946 adults. There were also 8,206 youth educated through community programs like the Healthy Smiles dental project.

Healthy Smiles dental project in Marvell, Arkansas

UAMS Helena, West Memphis, Lake Village also has a Worksite Wellness program that partners with local places of employment to implement on-site wellness activities including developing wellness profiles. The program offers the local workforce free, biannual, health screenings, information, and counseling. UAMS Helena, West Memphis, Lake Village also continues to provide assistance to health professions students and residents, medical students, and other interns with the intended outcome to increase qualified healthcare providers in the Delta to improve healthcare access. In 2016, assistance was provided to 44 nursing students; an additional nine nurse practitioner students were provided assistance by the advanced practice nurse serving as an adjunct instructor in their program of study, and two health education students completed their internship at UAMS Helena.

UAMS
Fay W. Boozman College of Public Health

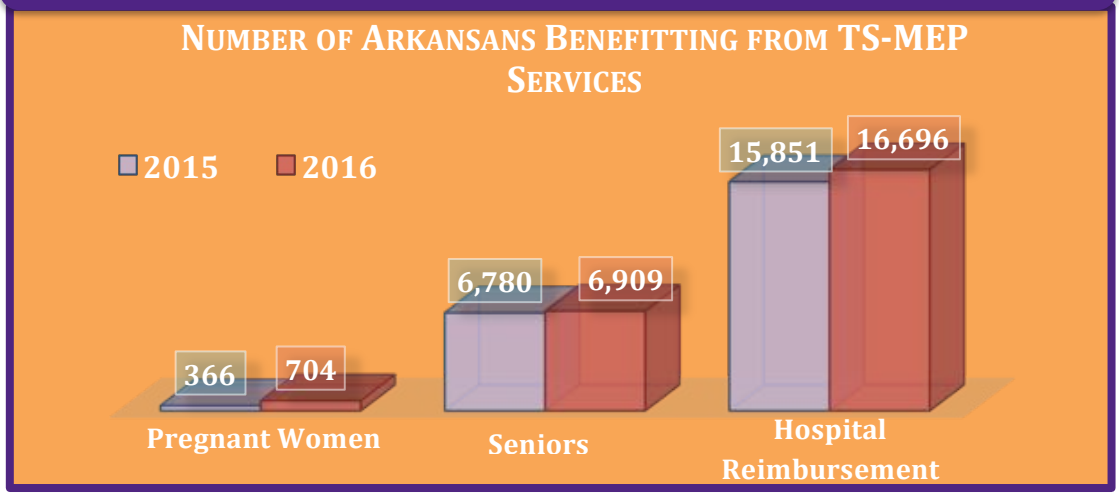
The **College of Public Health** had a number of projects in 2016 relative to issues of access to care. One faculty research project aims to determine reduction in barriers to mammography screening access, while another will develop research that improves access to quality prevention and healthcare programs for racial and ethnic minorities with a goal of eliminating health disparities. The latter project has been ongoing since 2008, with a planned end date of 2017. Master of Public Health students at COPH also took on access issues in their studies. One Preceptorship Project focused on improving access and quality of care for LGBTQ patients through outreach programs and workshops, analysis of access to prophylactic treatments for HIV, and development of education information for clinicians. One student's Culminating Experience Project examined predictors of participation in research to create a culturally accessible presentation to inform the Marshallese population in Northwest Arkansas on the importance of health related data and research, which attends to disparities in levels of health literacy among this population.

COPH Preceptorship Project focused on improving access for LGBTQ populations.

ARKANSAS DEPARTMENT OF HUMAN SERVICES
Tobacco Settlement Medicaid Expansion

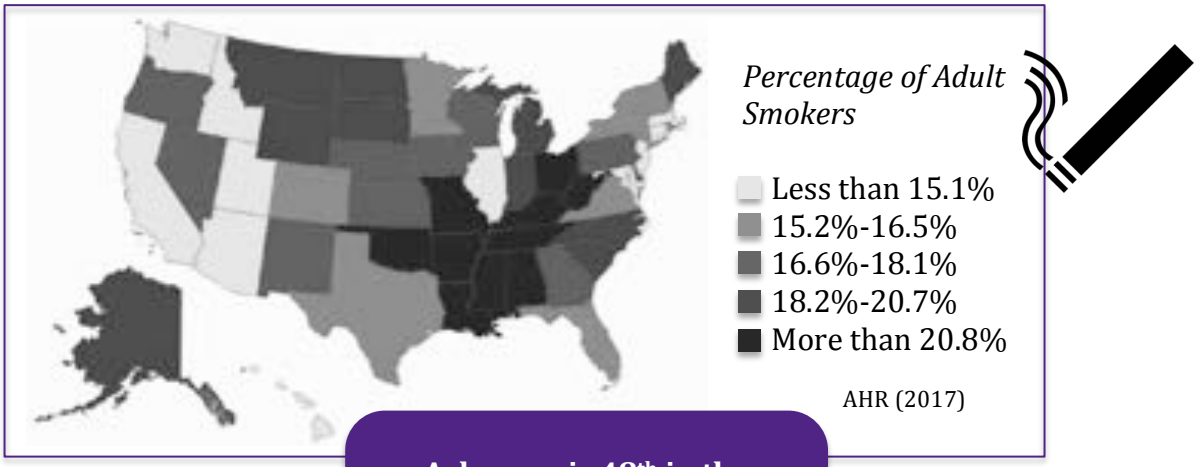
- The main goal of **Tobacco Settlement Medicaid Expansion Program** is to improve access to vital care for vulnerable Arkansans. One service offered is expanded access to prenatal care to low-income women between income levels of 133% to 200% of poverty. TS-MEP also has expanded hospital reimbursements and coverage for adults age 19 through 64 so that those who were participating in inpatient or outpatient hospitalization programs increased coverage from 20 days to 24 days, and the benefits also decrease the co-pay for the first day from 22% to 10%. The third group served by TS-MEP is seniors aged 65 and older who are provided access to non-institutionalized benefits and coverage. These seniors have incomes that are 80% of the federal poverty level, and they automatically qualify for the ARSeniors program, which provides benefits that Medicare does not cover like non-emergency medical transportation of personal care services. TS-MEP reaches each county through 83 local DHS offices, kiosks, and online portals.

TS-MEP provided expanded access to health benefits and services for 24,309 Arkansans, an increase from 22,997 persons served in 2015.



TOBACCO USE

❖ **TOBACCO USE:** When it comes to health and well-being, tobacco use is a supremely important topic as it is the leading cause of preventable disease, disability, and death in the United States. The Center for Disease Control and Prevention (CDC) reiterates, "There is no safe form of tobacco use." Tobacco products include cigarettes, cigars, and their variants (e.g., cigarillos, bidis, kreteks); electronic nicotine delivery systems (ENDS) like e-cigarettes, e-cigars, e-pipes, and vaporizers; and smokeless products (snuff, chewing tobacco, and dissolvables). Almost 40 million adults (17.5% of the population) in the U.S. smoke cigarettes (see map below for the percentage of adult smokers by state), more than 11 million adults use smokeless tobacco (95% of these users are men), and 3.7% of adults use ENDS like e-cigarettes (CDC.gov; FDA.gov). Approximately 4.7 million adolescents and young adults use tobacco products (CDC.gov).



Arkansas is 48th in the nation in adult smoking rates, as 24.9% of adults (1 in 4) smoke (AHR, 2017).

Over the last several decides there have been sharp declines in some areas of tobacco use, particularly in smoking prevalence, which has decreased by 17% over the last four years alone (AHR, 2017). However, there have been some more alarming trends in ENDS use, particularly among youth. During 2012-2013, sales of e-cigarettes grew by 320% (CDC.gov), and from 2011-2015, e-cigarette use by high school students increased from 1.5% to 16%. In 2015, more than 3 million middle school and high school students used e-cigarettes, up from 2.46 million in 2014. The U.S. Food and Drug Administration (FDA) has recently warned consumers that e-cigarettes may increase nicotine addiction in youth and young adults and lead to use of other tobacco products (FDA.gov). A research project by the Arkansas Tobacco Cessation and Prevention Program showed that ENDS reduced the success of adult smokers' ability to quit in Arkansas (Cardenas, Simon, Delongchamp, & Wheeler, 2014). Also, The FDA holds concerns about e-cigarettes because the liquid ingredients used in some products may be toxic for human consumption (FDA.gov). Further, many electronic products have not been submitted to the FDA *for their intended use*, so the agency cannot determine the efficacy and safety of the product.

The main ingredient in tobacco—nicotine—may be as addictive as cocaine or heroin (CDC.gov), and this highly addictive product is marketed to the masses on a grand scale. Tobacco companies spent more than $9 billion in the U.S. on promotions and advertisements in 2014 alone (CDC.gov). This equates to almost $25 million a day, $1 million an hour, and roughly $28 per person. Despite heavy marketing campaigns, there was a 2.5% decrease in cigarette sales from 2015 to 2016, though 258 billion cigarettes were still sold in the United States (CDC.gov).

Tobacco companies spent approximately $25 million per day on advertising and promotion.

Since the 1960s, there have been a number of measures taken to reduce tobacco use and prevent future initiation. Some states have adopted laws prohibiting or restricting smoking in

public places, workplaces, and other areas; some have implemented quitlines staffed with trained counselors; and some states have put forth policies to raise prices of tobacco products (AHR, 2017). The CDC notes that the most effective way to reduce tobacco use is through raising the price of tobacco products; an increase of 10% is estimated to decrease cigarette use by 3-5%. Research also shows that youths and young adults are two to three times more likely to lessen engagement in tobacco use when there is an increase in product pricing (CDC.gov).

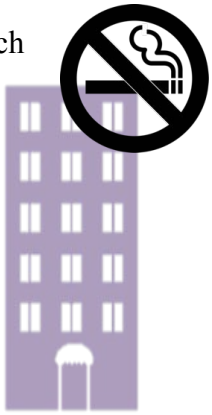
- **CONSEQUENCES OF TOBACCO USE:** The CDC estimates that 16 million Americans are living with a disease caused by smoking, and approximately 500,000 people across the nation die each year from tobacco-related illness, including secondhand smoke. This equates to one in five deaths in the U.S. annually. Smokers, also, die an average of 10 years earlier than nonsmokers. Smoking can damage nearly early major organ in the body and it contributes to respiratory diseases, cancer, stroke, heart disease, stroke, adverse reproductive effects like preterm birth and low birthweight, and premature death (AHR, 2017). Smoking increases risk of other adverse health effects like certain diseases of the eye, tuberculoses, problems with the immune system, and erectile dysfunction in males (CDC.gov). In addition, smokeless tobacco is associated with a number of health problems including cancer of the esophagus, mouth, and pancreas; diseases of the mouth, poor reproductive outcomes, nicotine poisoning in children; and an increased risk for death from stroke and heart disease (CDC.gov). Currently, the U.S. spends more than $300 billion each year in the treatment of smoking-related disease in the adult population, including $170 billion in direct medical care for adults, and $156 billion in lost productivity (CDC.gov). The state of Arkansas currently spends $1.2 billion on healthcare costs related to tobacco use.

One in five deaths in the U.S. each year can be attributed to tobacco-related illness.

The U.S. spends more than $300 billion a year in the treatment of smoking-related disease.

➢ **TARGETING TOBACCO USE:** The Tobacco Prevention and Cessation Program (TPCP) is a leader in Arkansas in targeting tobacco use, and other ATSC-funded programs contribute to addressing challenges of tobacco use as well. Efforts by these state programs include educational events, community and youth engagement activities, implementation of smoke-free/tobacco-free policies, implementation of a statewide quitline, and tobacco-related scholarship.

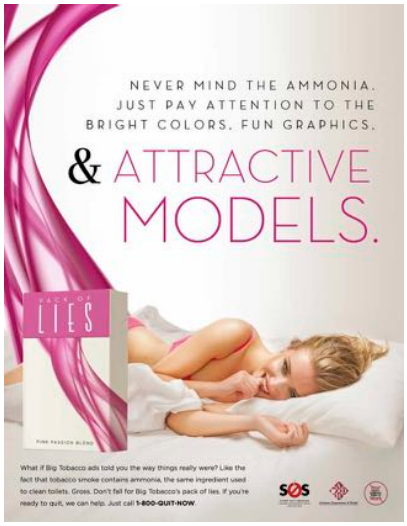
- The **Tobacco Prevention and Cessation Program** engages in a number of efforts that follow CDC guidelines for best practices for tobacco control. The four goals areas under CDC include decreasing youth initiation, decreasing second-hand smoke exposure, providing cessation opportunities for anyone who wants to quit, and addressing tobacco use in disparate populations.
- The **TPCP** works hard to engage youth in the state in tobacco control activities, and successfully increased the proportion of youth engaged in these activities by 25% in 2016. The Project Prevent Youth Coalition started a recruitment campaign in August 2016, and so far 101 members have joined.
- The **TPCP** also regularly partners with schools and community groups that encourage youth to engage in tobacco control. One school program in particular, *My Reason to Write*, offers opportunities for children to write an essay about tobacco. This exercise helps kids have conversations with their parents and loved ones about smoking and other tobacco use.
- In terms of smoke-free/tobacco-free policies, leading up to March 2016, **TPCP** had implemented 445 new smoke-free/tobacco-free policies in workplaces, schools, and residential buildings across the state, far surpassing their goal of 96 new policies. Between July and December of 2016, TPCP implemented an additional 39 policies that help protect Arkansans from the harmful effects of tobacco.

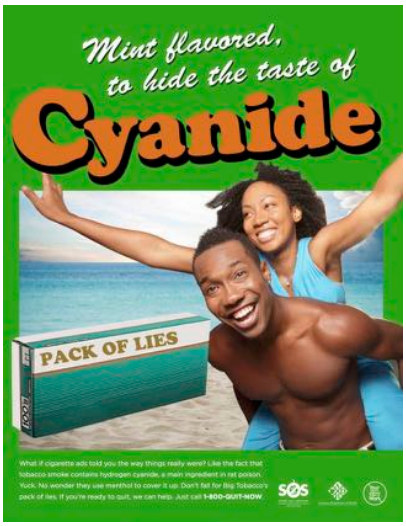


- The **TPCP** also implements the Arkansas Tobacco Quitline (ATQ). The ATQ has statewide reach, is available 24 hours a day, seven days a week, and is accessible in more than 150 languages. It has been estimated that for every dollar invested in the quitline, the people of Arkansas save $28 in future healthcare costs.

For every $1 invested the quitline, Arkansans save $28 in future healthcare costs.

- The **TPCP** also produces multimedia advertisements throughout the state to encourage tobacco cessation and prevention. Some of their poster advertisements are featured below.



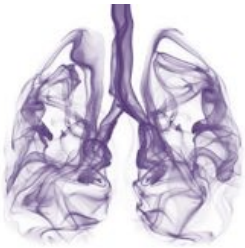


- For their efforts, **TPCP** has had a number of successes in 2016. Youth smoking prevalence dropped to 15.7%, there was a decrease in sales to minors violations, a 3.4% decrease in smoking prevalence by pregnant women, and a quit rate of 28.8% from the quitline.

UAMS
Helena, West Memphis, Lake Village

- **UAMS Helena, West Memphis, Lake Village** regularly collaborates with others to provide educational offerings for tobacco prevention and cessation. In 2016, the program partnered with Freedom for Youth and local churches to provide monthly family nights and "Fun Saturdays," a program that provides various prevention presentations including tobacco, alcohol, and other drug prevention as well as mental health promotion.

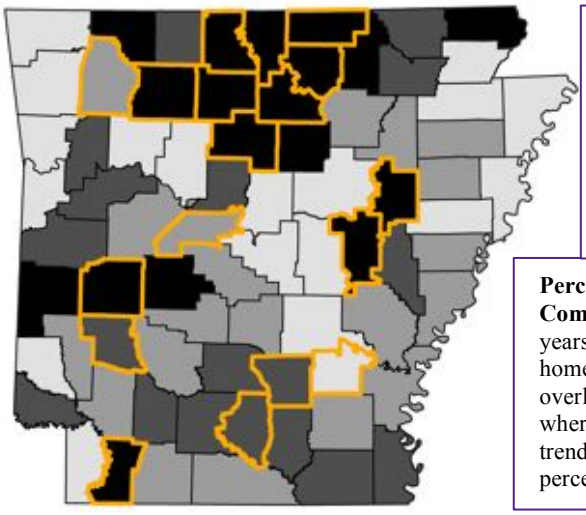
- The **Minority Health Initiative** collaborated with TPCP to distribute 5,000 fact cards during the 2016. The MHI also partnered with the Arkansas Cancer Coalition, Harding College of Pharmacy, and Heritage College for the Arkansas State Fair. During the event, MHI distributed tobacco education literature, surveyed over 800 people on tobacco and cancer, provided 76 carbon monoxide screenings, and completed 13 tobacco fax referrals.
- The **MHI** also partnered with Historically Black College and Universities (HBCUs) in Arkansas for a HBCU Tobacco Initiative. The goal was a comprehensive tobacco/vapor-free policy. At Shorter College, the initiative involved collaboration between students, faculty staff, taskforce members, and community organizations. Outreach activities consisted of surveys and educational forums. Tobacco Quitline information was provided to smokers. On May 2, 2016 a press conference was held announcing that President Jerome Green and the Shorter College Board of Trustee approved the Tobacco/Vapor Free Campus Policy. Smoking urns were officially removed and no-smoking/vapor signs were placed across campus. The policy also included an enforcement section with sanctions for up to three violations.
- Faculty at the **College of Public Health** engaged in numerous projects related to tobacco use in 2016. One mini-grant initiated a pilot intervention to increase use of the Arkansas Tobacco Quitline in rural Arkansas. Another research project used mixed-methods, including concept mapping and content analysis of You-Tube, to understand attitudes, beliefs, motivations and perceived effects (including adverse events) associated with the e-cigarette product when it is used as it is marketed, as well as non-marketed, and "unorthodox" use behaviors. Finally COPH faculty provided a presentation focused on vape shop manufacturers and distributors.
- In 2016, the **Arkansas Biosciences Institute** engaged in 18 research projects on tobacco-related issues including studies that explored addiction, lung cancer treatments, lung development and pediatric cancers related to tobacco, smokeless tobacco, policy implications of e-cigarettes and adolescents, and heat stress in smokers versus nonsmokers, among others.



VULNERABLE POPULATIONS

❖ **VULNERABLE POPULATIONS:** ATSC-funded programs target a number of vulnerable groups including seniors, youth, pregnant women, minorities, LGBTQ individuals, low-income populations, and those with language barriers. The following section highlights two vulnerable populations and how ATSC-funded programs serve then. First, we discuss the older adult population in the state, followed by a discussion of minority populations.

➢ **OLDER ADULT POPULATION:** The older adult population (65 years and older) in the U.S. is expected to double by 2060 (from 2014 levels) to 98 million people (Mather, Jacobsen, & Pollard, 2015). Much of the older population lives in rural areas, and these areas see seniors "aging in place" as younger generations are increasingly moving out of these areas. Population aging in rural areas is also a result of job loss, associated with declining tax revenues, dwindling school enrollments, and decreases in the availability of services like healthcare (AHR, 2017). In Arkansas, 16% of the population is 65 years and older. See map below with the percentage of seniors age 65 and older per county overlaid with the most rural areas in the state.



Percentage of Adults Age 65 Years and Older & Percent Rural Communities—The map presents the percentage of adults age 65 years and older in four quartiles, highlighting those counties that are home to the highest percentage of seniors (in black). These data are overlaid with the most rural counties in the state (in orange), those where more then 82% of communities are rural. As with national trends, we see that almost 69% of counties with the highest percentage of seniors also fall into the most rural areas of the state.

Older adults are living longer and are less likely to engage in tobacco use or suffer from certain health outcomes (like emphysema or health attacks) as often as previous generations of similar ages, (Mather et al., 2015). However, older Americans are more likely to be obese, have diabetes, and have high blood pressure. Between 1988

and 2012, obesity rose in the older adult population by 65%, and now more than one-third of older adults are obese (Mather et al., 2015). In addition, millions of seniors across the nation face food insecurity, and Arkansas sees one of the highest rates of food insecure seniors in the country at 15% (AHR, 2017). Also, because of high divorce rates and fewer children among baby boomers, many older Americans rely on family or outside caregivers to meet their needs, and this trend is expected to continue.

More than one in three older adults are obese.

➢ **TARGETING THE OLDER ADULT POPULATION:** The Arkansas Aging Initiative is charged with addressing the health of older adults in the state; however, other ATSC-funded programs contribute to the health of this vulnerable population. Programs offer education to seniors, their families, and other caregivers; exercise opportunities; direct clinical care as well as coverage under Medicaid; and research.

- In 2016, the **Arkansas Aging Initiative** conducted a variety of community education events throughout Arkansas resulting in over 37,000 contacts. The AAI also offers several evidence-based educational modules, including the Virtual Dementia Experience, Healthy Eating and Tasting, Older Wiser, and Livelier Seniors, and Diabetic Empowerment Education Program. In addition, AAI initiated more than 11,700 educational contacts with healthcare professionals, paraprofessionals, and students during the calendar year.

37,000 Community Education Encounters

- **AAI** averaged more than 1,500 exercise encounters per quarter with older adults. Each exercise activity provided through AAI is evidence-based and customized to meet the needs of older Arkansans.

Having fun at Tai Chi class

- **AAI** assisted in an average of 6,800 Senior Health Clinic encounters per quarter, more than 27,000 encounters total, during this calendar year.

Tobacco Settlement Medicaid Expansion

- The **Tobacco Settlement Medicaid Expansion Program** served 6,909 seniors in 2016 under the ARSeniors program, which is an increase 6,780 in 2015. Examples of benefits for seniors under the TS-MEP include non-emergency medical transportation and personal care services.

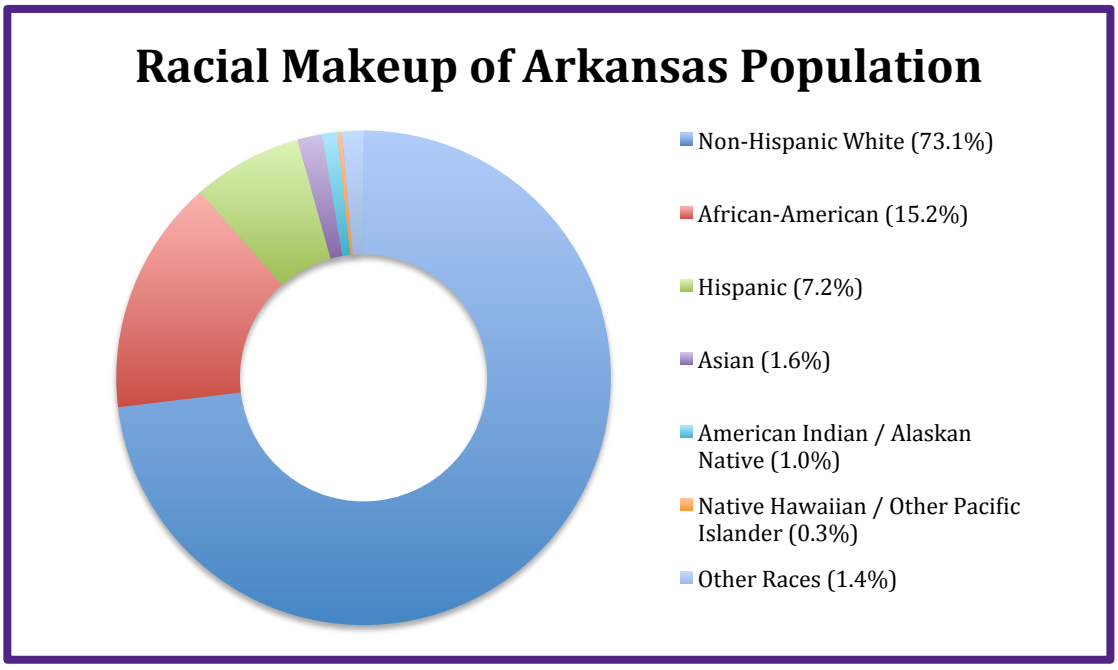
Helena, West Memphis, Lake Village

- **UAMS Helena, West Memphis, Lake Village** routinely holds educational and exercise programs for seniors. Two popular exercise programs are Silver Sneakers and PEPPI—Peer Exercise Program Promotes Independence.

Fay W. Boozman College of Public Health

- **College of Public Health** faculty engaged in data collection, research, and policy analysis for the state DHS Department of Aging and Adult Services.

➢ **MINORITY POPULATIONS:** Though "minority" is a broad term and may refer to any group that falls outside of a dominate demographic subset, in this section we focus on racial minorities in the state. Currently, more than 800,000 Arkansans, roughly 26.9% of the overall population, fall into the minority category and several ATSC-funded programs are focused on uplifting well-being for these populations.



There are a number of health disparities between minority populations and non-hispanic whites in the U.S., including rates of uninsurance and disparities in quality of care (Agency for Healthcare Research and Quality, 2014); and other well-being markers like educational attainment and income, unemployment prevalence, non-fatal

work-related injuries and illessnes, fatal work-related injuries, years free of activity limitations due to chronic illnesses (a measure of morbidity), diabetes prevalence, obesity, tobacco use, HIV, periodontitis, preterm births, and other health markers and outcomes (Meyer, Yoon, & Kaufmann, 2013). Considering the multitide of health disparities among minority populations, eliminating health disparities in these populations would relieve a great burden on the state. The Minority Health Initiative commissioned a study in 2014 that determined that eliminating health disparities for minorities in the state would result in a reduction of direct medical care expenditures of $518.6 million.

➢ **TARGETING MINORITY POPULATIONS:** Of the ATSC-funded programs, the Minority Health Initiative is most explicitly focused on uplifting quality of life for minority populations across the state, although other ATSC-funded programs provide programs and services for minorities. Efforts include providing health screenings and educational information on conditions that disproportionately affect minorities, offering youth engagement opportunities, promoting smoking prevention and cessation, and conducting research to improve healthcare delivery and address disparities in minority populations.

- The **Minority Health Initiative** strives to be a leader in offering health education and screenings to the minority populations, and in 2016 provided 22,000 health screenings to Arkansans for a variety of health measures like glucose, blood pressure, cholesterol, BMI, HIV, and others. If a screening returned an abnormal reading, MHI provided information and advised the individual for follow-up with a primary care physician.
- The **MHI** is intentional about building relationships with community partners to enhance the impact of programs and services. In 2016, MHI partnered with more than 60 grassroots, nonprofit, and faith-based organizations.
- Every five years, the **MHI** initiates a new pilot project. In 2015, Camp iRock was launched to promote fitness, nutrition,

self-confidence, and an overall healthy lifestyle. The camp targeted young, minority women. Since the completion of the camp, MHI has held regular follow-ups with participants to gauge the success of the experience and to brainstorm about future camps for young women as well as young men. Follow-ups with campers reveal that 78% of participants have a positive body image, and a vast majority engages in healthy eating behaviors. MHI is planning for a male version of Camp iRock, to begin in 2018.

- Each year, 15% of the ATSC funds distributed to the **Tobacco Prevention and Cessation Program** go directly to Minority Programs—administered under the University of Arkansas at Pine Bluff, and these funds attend to health disparities among minority populations. The TPCP also regularly provides education on tobacco prevention and cessation for minority populations, particularly targeting youth. Also, as directed by CDC goals for tobacco control, the TPCP monitors tobacco use among disparate populations including racial minorities. Additionally, the TPCP aims to increase the number of minorities that call into the Arkansas Tobacco Quitline.

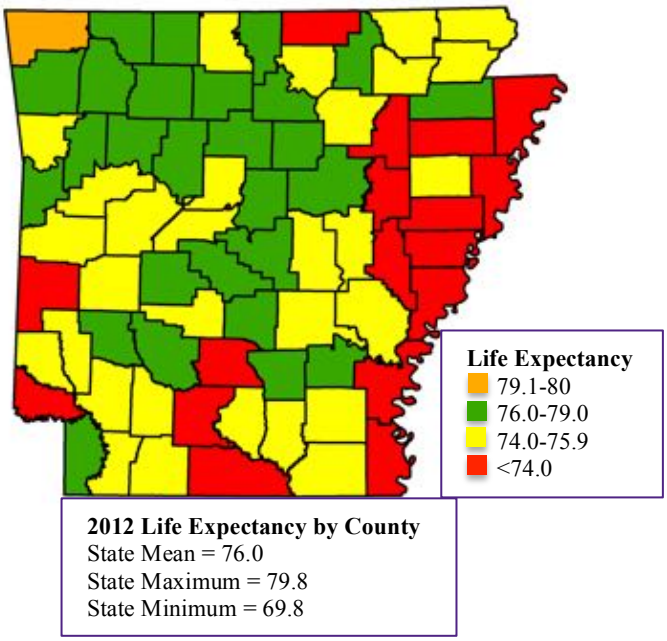
- The **College of Public Health** is engaged in a number of activities related to minority populations in the state. First, they aim to maintain a robust representation of minority groups in their MPH and DrPH programs, with the goal to reflect the overall demographics of Arkansas. The COPH also conducts regular research on minority populations. In 2016, faculty research explored ways to improve access to quality prevention and health programs for racial and ethnic minorities, developed community-based prevention research educational programs that reduce risks for chronic diseases among racial minorities, focused on gender-specific health matters in the African-American community, and tested the effectiveness of culturally adapted behavioral interventions within rural African-American churches.

- Students at the **COPH**, as mentioned earlier, also engaged in Culminating Experience Projects that address health issues for the Marshallese population

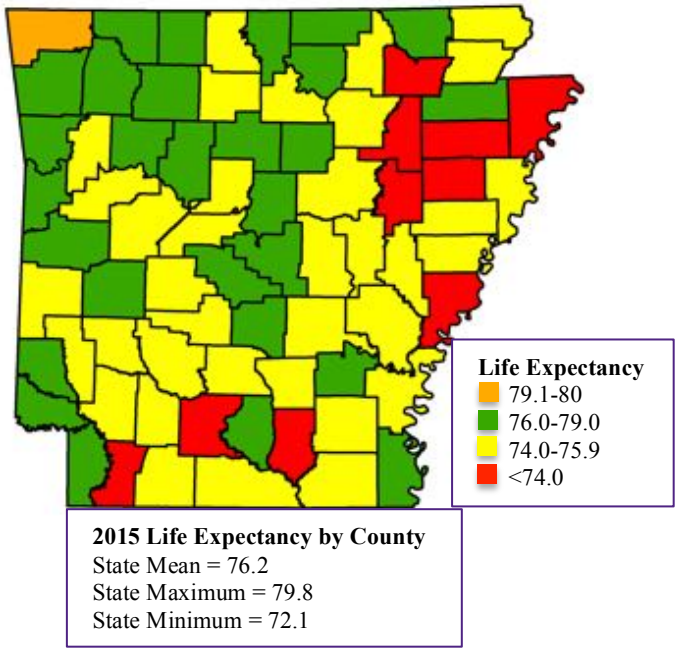
(primarily concentrated in northwest Arkansas). Other COPH students participated in preceptorships that focused on raising awareness of Healthy Active Arkansas among minority community, analyzing barriers for adherence to care measures that prevent poor health outcomes among African-Americans, and exploring alterations in the microbiome of Hispanic immigrants (particularly women) and the increased risk of breast cancer.

How Programs Contribute To a Culture of Health

ATSC-funded programs work directly with communities, provide vital coverage under the Tobacco Settlement Medicaid Expansion Program, and conduct relevant research under the Arkansas Biosciences Institute and the College of Public Health. Programs also strive to serve those populations most in need—to be inclusive of all people; to lessen or eliminate gaps between population groups; to work together across sectors with area schools, churches, and other organizations to maximize impacts of programs and services; and to offer opportunities for family and individuals to engage in programs, services, and events that uplift their overall health and well-being. All of these efforts contribute to cultivating a culture of health in Arkansas and also help improve life expectancy. Recent "Red County Reports" show that most counties have gained in life expectancy in the last few years, and the gap between the maximum and minimum life expectancy has tightened. In 2012, there was a 10-year gap in life expectancy between Benton County (79.8 years) and Phillips County (69.8 years), but in 2015, while Benton County remained at the same level, the counties with the lowest life expectancy (Phillips and Poinsett) rose to 72.1 years (ADH, 2012; ADH, 2015). See the maps below that illustrate comparisons in life expectancy between 2012 and 2015. Next, we explore the collective impact of ATSC-funded programs.



Arkansas Department of Health, 2012



Arkansas Department of Health, 2015

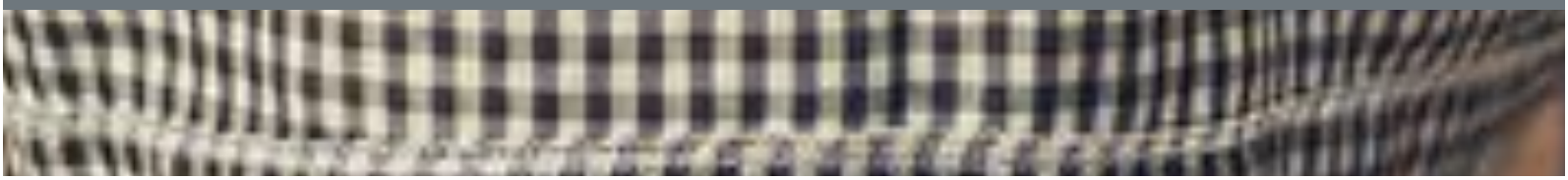
Program Progress

ARKANSAS AGING INITIATIVE (AAI)

Claudia Beverly, PhD, RN, FAAN Director of AAI

Amy Leigh Overton-McCoy, PhD, GNP-BC, Associate Director of AAI

UCA ATSC Evaluator: Ed Powers, PhD



"Aging Never Looked So Good"

Arkansas Aging Initiative (AAI)

UAMS Donald W. Reynolds Institute on Aging

Working It Out

6,000 Exercise Encounters

Growing Minds

AAI conducted a variety of **community education** events in 2016, resulting in more than **37,000** contacts. Some events focused on dementia or diabetes, while others focused on healthy eating or physical activity.

Kasandra is a Community Outreach Educator for the Texarkana Regional Center on Aging. This photo was taken during her visit to the Wadley Senior Clinic where she presented a session of the ongoing **Diabetes Empowerment Education Program** (DEEP). DEEP is one of several evidence-based programs that AAI offers each year.

Quality Clinical Care

AAI assisted in more than **27,000** **Senior Health Clinic encounters** in 2016. Many of these encounters occur at one of eight Centers on Aging around the state.

Economic Impact

$20,000

All hands on deck! **Volunteer hour contributions** were valued at more than $20,000 in 2016.

$3.2 Million

External funding supplied more than $3.2 million in 2016. As a consequence, AAI leveraged more than $2 in external funding for every $1 supplied by ATSC.

AAI Evaluator Summary & Comments

Program Description: The purpose of the Arkansas Aging Initiative (AAI) is to address one of the most pressing policy issues facing this country: how to care for the burgeoning number of older adults in rural community settings. The overall goal is to improve the quality of life for older adults and their families through two primary missions: an infrastructure that provides quality interdisciplinary clinical care and innovative education programs.

Economic Impact: It is difficult to make precise estimates of AAI's total economic impact on the state. However, in an era of high medical costs, it is safe to say that any health improvement among the vulnerable older population is likely to make a positive economic impact. AAI receives slightly more than 3% of ATSC funds annually. This relatively small funding stream provides a broad range of services to the state including:

- Training healthcare providers to respond to the unique needs of seniors;
- Directing older Arkansans to appropriate clinical services;
- Elevating community awareness about aging;
- Providing health enrichment activities for older Arkansans; and
- Attracting grant funding to improve geriatric healthcare approaches.

Each of these services can be associated with positive economic gains primarily through more efficient and effective management of chronic conditions associated with older populations. AAI training promotes awareness of best practices for confronting health issues within a geriatric population. Ideally, refined practice saves money by helping to prevent disease conditions from reaching critical and costlier modes. Excellent examples of this during 2016 are AAI's campaigns to raise awareness about diabetes and AAI's promotion of improved dementia diagnosis and treatment.

Another example of positive economic value is AAI's work developing more qualified home caregivers through cooperation with the Schmieding Center for Senior Health and Education. This cooperative alliance with Schmieding is enhancing the workforce with timely skills training in the emerging market of senior care. The Schmieding alliance is also making it feasible for

many older adults to continue living in their own homes instead of moving prematurely to costlier nursing or assisted-living facilities. AAI is currently working to produce more precise estimates of the annual savings represented by these initiatives.

Overall, AAI's programming enhances the quality of life for older adults in Arkansas by prioritizing geriatric healthcare and by providing opportunities for seniors to continue being active. Quality of senior healthcare is an important determinant in retirement decision-making. AAI is positioned to help Arkansas enhance senior health and advance its current low position in national rankings of desirable states to retire (Bernard, 2017). The ability to attract and retain retirees is likely to become a more pressing economic concern in future years as larger cohorts of baby boomers reach retirement age.

CHALLENGES: Staffing continues to be the most critical challenge faced by AAI. The Centers on Aging are often located in regions of the state where it is difficult to find qualified specialized healthcare workers. The challenge is further exacerbated by the fact that the demand for healthcare workers nationwide is growing relative to the capacity to supply such personnel (Supiano & Alessi, 2014). In addition, the leadership of AAI will be in transition during 2017 as AAI's founding director (Dr. Claudia Beverly) is expected to step down.

Dr. Claudia Beverly is the outgoing Director of AAI. Thank you for many years of service towards improving the health and well-being of older Arkansans.

Another fundamental challenge faced by AAI is funding. Most AAI activities depend heavily on foundation grants and awards from other external agencies. While these large multi-year grants have been instrumental in supporting AAI programming, many of them will expire in coming years. AAI must continue to cultivate external funding in a highly competitive environment.

OPPORTUNITIES: AAI's founding director Dr. Claudia Beverly is stepping down in 2017. Transitions in leadership are challenging but such changes can also provide opportunities to revisit the mission and objectives of the agency and to explore new organizational structures and

service delivery models. The core personnel of AAI appear to be energetic and capable enough to manage this transition and continue advancing positive health options for older Arkansans.

EVALUATOR COMMENTS
AAI appears to be meeting core objectives and surpassing expectations on several key indicators. The change in executive leadership at AAI presents an opportunity to re-evaluate all objectives and to update performance indicators in ways that better reflect the comprehensive services being provided for senior adults in Arkansas. At present, there are two indicators that need most attention. First, the indicator related to the staffing of Senior Health Clinics requires revision. Externalities including changes in the structure of the nation's healthcare delivery system have altered AAI's influence over Senior Health Clinics. AAI should not be held accountable for clinic staffing decisions. A second concern is related to the evaluation of external funding. The current external funding indicator is outdated and needs to be revised to better monitor AAI's ability to leverage ATSC funds into expanded opportunities for Arkansas seniors. To address these concerns, indicator changes have been proposed to the ATSC.

AAI Performance Indicators and Progress

Overall Program Goal: To improve the health of older Arkansans through interdisciplinary geriatric care and innovative education programs, and to influence health policy affecting older adults.

Long-term Objective:
Improve the health status and decrease death rates of elderly Arkansans as well as obtain federal and philanthropic grant funding.

- **Indicator:** Provide multiple exercise activities to maximize the number of exercise encounters for older adults throughout the state.
    - **Activity:** AAI averages more than 1,500 exercise encounters per quarter with older adults in Arkansas. Each exercise activity provided through AAI is evidence-based and customized to meet the needs of older Arkansans.

Tai Chi class at St. Michael's Senior Center

- **Indicator:** Implement at least two educational offerings for evidence-based disease management programs.
    - **Activity:** AAI has offered numerous evidence-based educational modules throughout the state this year. Some of the educational activities offered include the Virtual Dementia Experience, Healthy Eating and Tasting (HEAT), Older Wiser, and Livelier Seniors (OWLS), and Diabetic Empowerment Education Program (DEEP).

- **Indicator:** Increase the amount of external funding to support AAI programs by the end of fiscal year 2015.
    - **Activity:** External funding supplies more than $800,000 each quarter and volunteer hour contributions are valued at more than $5,000 per quarter. As a consequence, AAI leverages more than $2 in external funding for every $1 supplied by ATSC.

AAI leverages more than $2 for every $1 of ATSC funding.

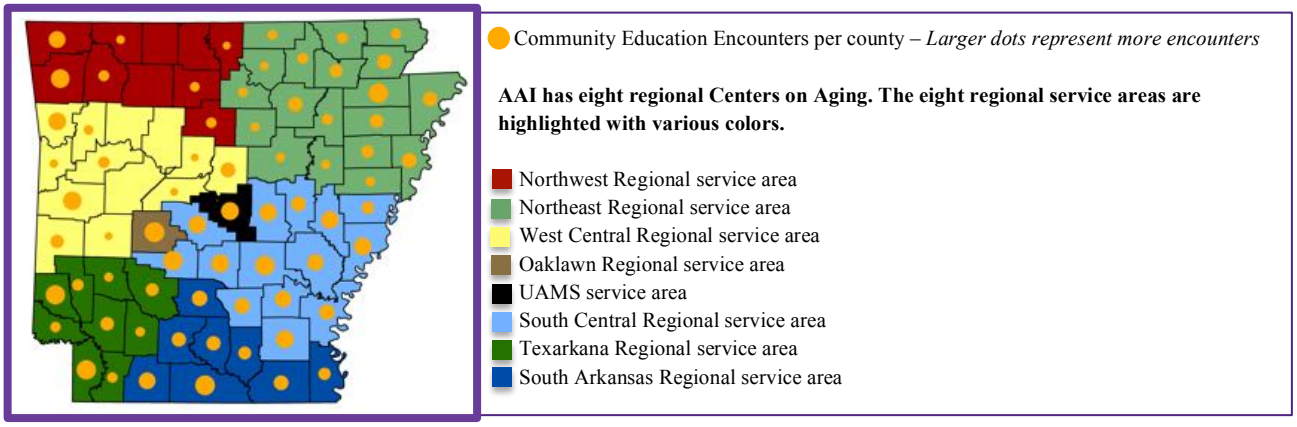
Short-term Objective:
Prioritize the list of health problems and planned interventions for elderly Arkansans and increase the number of Arkansans participating in health improvement programs.

- **Indicator:** Assist partner hospitals in maintaining the maximum number of Senior Health Clinic encounters through a continued positive relationship.
    - **Activity:** AAI assisted in an average of 6,800 Senior Health Clinic encounters per quarter during this calendar year. The capacity for encounters varies depending on the cooperation with partner hospitals in different areas of the state. AAI appears to be fulfilling its mandate to maintain the maximum number of encounters within the capacity constraints.

- **Indicator:** Partner hospitals will maintain a minimum of three provider Full Time Employees (FTEs) for Senior Health Centers including a geriatrician, advanced practice nurse, and social worker.
    - **Activity:** AAI has worked diligently to ensure that all Senior Health Clinics are staffed sufficiently. However, the goal of three FTEs per clinic has not been maintained this year. There are a number of external contingencies that prevent AAI from meeting this goal, the most important being that AAI has no direct involvement in hiring or paying Senior Health Clinic personnel.

- **<u>Indicator</u>:** Provide education programming to healthcare practitioners and students of the healthcare disciplines to provide specialized training in geriatrics.
    - **<u>Activity</u>:** AAI created more than 11,700 educational contacts with healthcare professionals, paraprofessionals, and students during the calendar year.

- **<u>Indicator</u>:** Provide educational opportunities for the community annually.
    - Activity: This year AAI conducted a variety of community education events throughout Arkansas resulting in over 37,000 contacts. Further, as the map associated with this section indicates, community education has been made available to nearly every Arkansas county.



AAI Testimonial

Edward Ellis is a social worker and hospice caregiver who routinely provides education to older adults around the state. Today, Ellis visits a senior citizen center in Van Buren as part of an AAI outreach program.

A chorus of warm welcomes meets Edward upon entering the senior center. He greets each person as an individual, recalling their first names with ease and inquiring about their family, friends, and pets. Edward's presentation is set to follow Beanbag Baseball, and he reassures the teams that he will not begin the educational presentation on "Maintaining Healthy Aging Skin" until the game is finished. Edward provides an easy-to-read handout and covers multiple topics like skin cancer awareness, pressure sores, shingles, as well as how nutrition, hydrating, and exercise support skin health. Edward completes his presentation in time for the next scheduled Bingo game.

Edward reflects on his experience in Van Buren, "It's an honor for me to be able to share health education information about topics that matter to our senior community members. Our seniors have so much to offer to each other and the community that it is a truly rewarding joy for me to serve them as a resource through the AAI Center On Aging programs. These programs assist our seniors in maintaining an improved quality of life through their later years."

ARKANSAS BIOSCIENCES INSTITUTE (ABI)

Robert McGehee, Jr., PhD, Director of ABI

Leslie Humphries, Program Coordinator

UCA ATSC Evaluator: Tucker Staley, PhD

"The Knowledge Capitalists"

Arkansas Biosciences Institute (ABI)

Arkansas Biosciences Institute

The Pursuit of Knowledge

Arkansas Children's Hospital Research Institute · Arkansas State University · University of Arkansas Division of Agriculture · University of Arkansas · UAMS for a better state of health

ABI's five member institutions focus in five research areas.

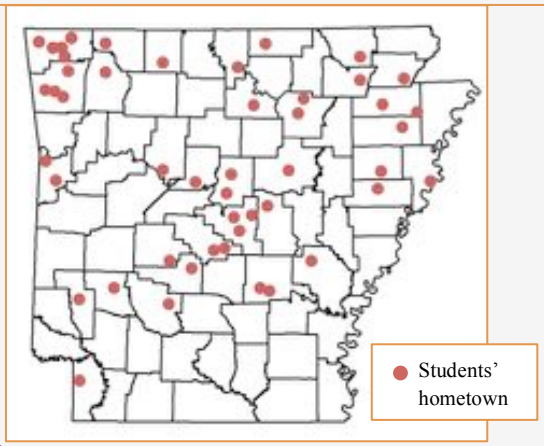
- **Area 1:** Agricultural Research
- **Area 2:** Bioengineering Research
- **Area 3:** Tobacco-Related Research
- **Area 4:** Nutritional Research
- **Area 5:** Other related areas of Research

For FY2016, there were **174** new and ongoing **research projects**.

689 Publications

Five patents and 28 filings and provisional patents were awarded to ABI researchers.

Each year, college students from around the state work on ABI-related research projects. In FY2016, **181 college students worked on ABI-related research**. This map indicates where these students call home.



Economic Impact

$40 Million Leveraged

ABI leveraged $40 million in extramural funds, which translates to $3.99 for every $1 in ABI funding. With ATSC and external funds, ABI also supported **309 full-time employees**.

ABI Evaluator Summary & Comments

Program Description: Arkansas Biosciences Institute, the agricultural and biomedical research program of the Tobacco Settlement Proceeds Act, is a partnership of scientists from Arkansas Children's Hospital Research Institute, Arkansas State University, the University of Arkansas-Division of Agriculture, the University of Arkansas, Fayetteville, and the University of Arkansas for Medical Sciences. ABI supports long-term agricultural and biomedical research at its five member institutions and focuses on fostering collaborative research that connects investigators from various disciplines across institutions. ABI uses this operational approach to directly address the goals as outlined in the Tobacco Settlement Proceeds Act, which is to conduct:

- **Agricultural research** with medical implications;
- **Bioengineering research** that expands genetic knowledge and creates new potential applications in the agricultural-medical fields;
- **Tobacco-related research** that identifies and applies behavioral, diagnostic, and therapeutic knowledge to address the high level of tobacco-related illnesses in Arkansas;
- **Nutritional and other research** that is aimed at preventing and treating cancer, congenital and hereditary conditions, or other related conditions;
- **Other areas of developing research** that are related or complementary to primary ABI-supported programs.

Economic Impact: ABI receives 23% of ATSC funds annually which translates to about $10.2 million over the last year (FY2016). Using these funds, ABI was successfully able to leverage an additional $3.99 in extramural funding, or about an additional $40 million. Over the past year these funds have supported 174 active research projects, 309 FTE jobs, 689 publications, five newly awarded patents, and one new start-up enterprise. Additionally, this funding has fostered numerous collaborative activities and conferences.

ABI leveraged $3.99 for every $1 of ATSC funding.

CHALLENGES: The biggest challenge faced by ABI includes continued federal funding cuts, which reduce the possible leveraged support for Arkansas research. This includes a reduction in technical support personnel as well.

"Our ability to invest in keeping and bringing the best and brightest research talent to Arkansas through ABI provides an incredible opportunity to receive unlimited benefits through the leveraging of pilot projects and innovative research that positively impacts the health of not just Arkansas, but the entire nation." – Robert McGehee, Jr., PhD, Executive Director of ABI

OPPORTUNITIES: Preliminary funding levels for ABI are announced in April; the five member institutions use these estimates for planning purposes for future and ongoing research projects. ABI-supported research investigators continue to leverage their ABI funding to apply for outside funding from agencies such as the National Institutes of Health, the National Science Foundation, and the US Department of Agriculture. Additionally, ABI plans to continue support (partial) for conferences and symposia, which foster collaboration among researchers, scientists, faculty, and students from various disciplines, institutions, and organizations. ABI's continued work toward collaboration is a key asset to the state of Arkansas. Before the creation of ABI, very little communications existed among researchers at the five partner institutions. These collaborative activities promote research production, funding opportunities, public-private partnerships, and opportunities for patent filings.

EVALUATOR COMMENTS

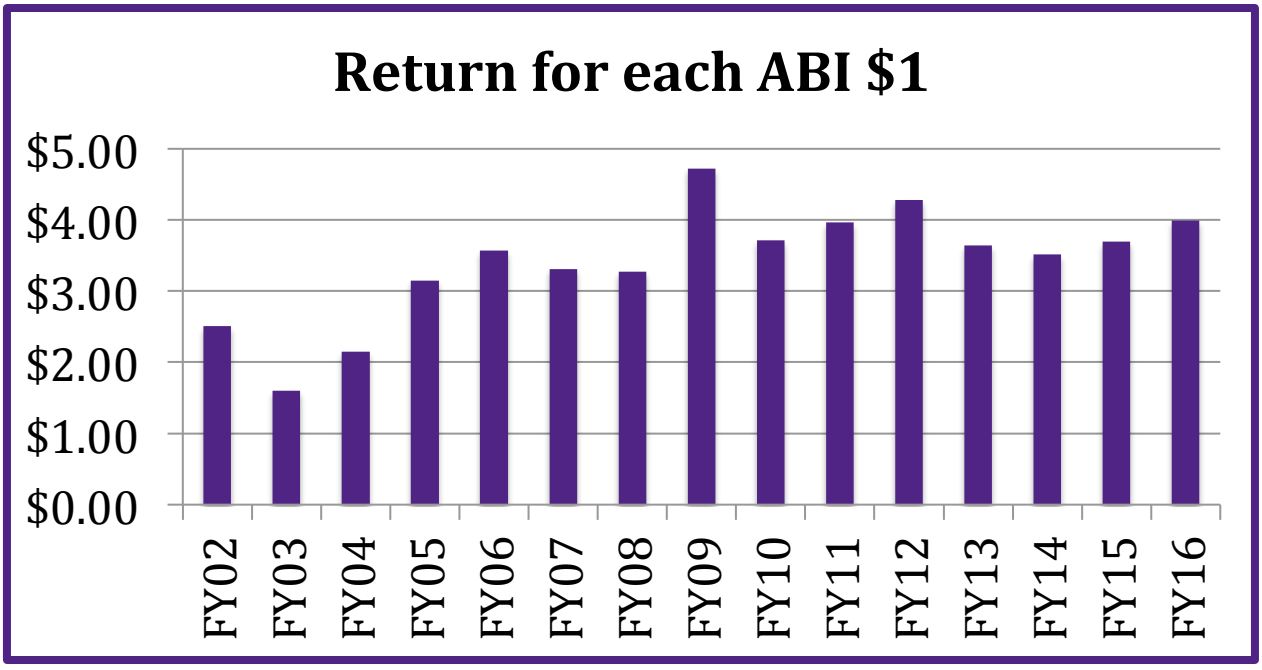
ABI continues to perform above benchmarks for all key indicators. However, the decline in government funding has caused significant hurdles for the overall growth of ABI initiatives. Over the past fiscal year, the majority of ABI activities have remained relatively stable. While there have been no major declines, there have been a few instances of significant growth. However, during FY2016 ABI did see growth in leveraged funds ($3.99), research production (689 publications), and support of full time employees (309 FTE). Given the decline in available government money, increasing collaborative activities (including public-private partnerships) is crucial in aiding in the ability of ABI and partner institutions to leverage their resources and market their research capabilities. ABI activities towards these ends over the past year have lead to a number of patents filed, significant public-private partnerships, and an increase in media recognition of ABI supported activities. As such ABI should continue these efforts to ensure stability, and ideally growth. Despite the funding challenges, ABI has been very successful in attracting outside money to the state of Arkansas and supporting a large number of high-quality jobs.

ABI Performance Indicators and Progress

Overall Program Goal: To develop new tobacco-related medical and agricultural research initiatives to improve the access to new technologies, improve the health of Arkansans, and stabilize the economic security of Arkansas.

Long-term Objective:
The institute's research results should translate into commercial, alternate technological, and other applications wherever appropriate in order that the research results may be applied to the planning, implementation and evaluation of any health related programs in the state. The institute is also to obtain federal and philanthropic grant funding.

- **Indicator:** The five member institutions will continue to rely on funding from extramural sources with the goal of increasing leverage funding from a baseline of $3.15 for every $1.00 in ABI funding.
    - **Activity:** For FY2016, ABI leveraged about $40M in extramural funds, which translates to $3.99 for every $1.00 in ABI funding.



- **Indicator:** ABI-funded research will lead to the development of intellectual property, as measured by the number of patents filed and received.
    - **Activity:** For FY2016, ABI researchers were awarded 5 patents and had 28 filings and provisional patents.

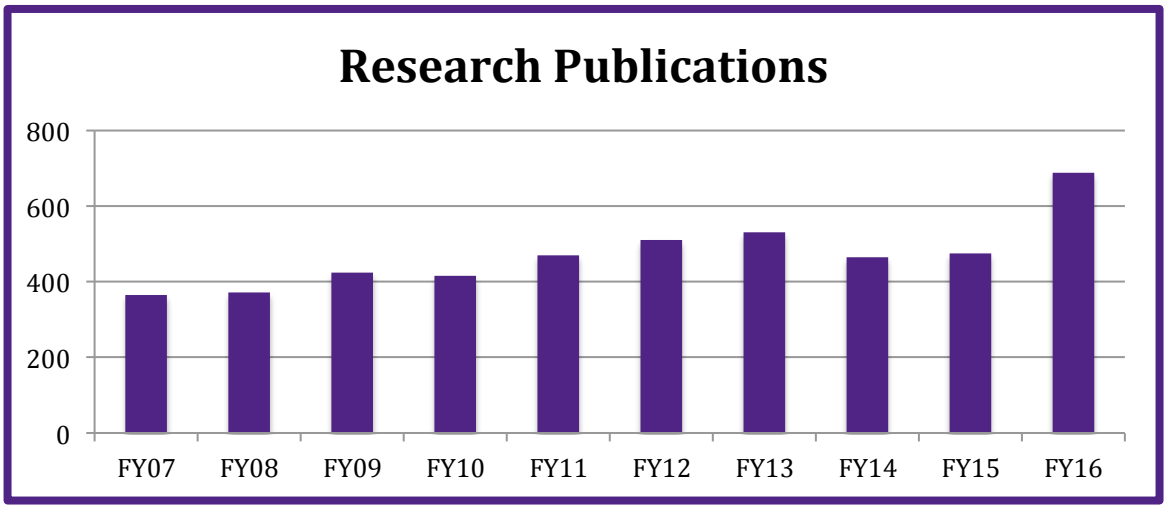
- **Indicator:** ABI-funded research will result in new technologies that generate business opportunities, as measured by the number of start-up enterprises and public-private partnerships with ABI and member institutions to conduct research.
    - **Activity:** For FY2016, ABI helped foster one new start-up enterprise.

- **Indicator:** ABI will promote its activities through various media outlets to broaden the scope of impact of its research.
    - **Activity**: ABI made 96 distinct media contacts in FY2016.

Short-term Objective:
The Arkansas Biosciences Institute shall initiate new research programs for the purpose of conducting, as specified in § 19-12-115, agricultural research with medical implications, bioengineering research, tobacco-related research, nutritional research focusing on cancer prevention or treatment, and other research approved by the board.

- **Indicator:** ABI will allocate funding to its five member institutions to support research, while also monitoring that funded research activities are conducted on time, within scope, and with no overruns.
    - **Activity:** For FY2016, there were 174 new and ongoing research projects across all five research areas.

- **Indicator:** ABI and its member institutions will systematically disseminate research results, and ensure that at least 290 publications and 370 presentations are delivered each year. These include presentations and publications of results, curricula, and interventions developed using the grant funding, symposia held by investigators, and the creation of new research tools and methodologies that will advance science in the future.
    - **Activity:** ABI researchers reported 689 publications and 692 presentations during FY2016.



- **Indicator:** Employment supported by ABI and extramural funding will increase from a baseline of 300 FTE.
    - **Activity:** For FY2016, there were 309 FTE jobs supported by ABI and extramural funding.

- **Indicator:** ABI will facilitate and increase research collaboration among member institutions, as measured by both ABI and extramural funding of research projects that involve researchers at more than one member institution.
    - **Activity:** Of the 174 new and ongoing ABI supported research projects, 32% are collaborative research with other ABI institutions.

ABI Testimonial

Agricultural Research Support by ABI:

Argelia Lorence, PhD, Professor of Metabolic Engineering, Chemistry, and Physics at Arkansas State University, knows first-hand that agricultural research is more than just improving growing conditions for plants. Dr. Lorence is a leading expert on how vitamin C is synthesized within a plant, which is important because vitamin C is an antioxidant. Plants produce vitamin C to deal with stress, so developing plants with more vitamin C will help those plants stay healthier and better able to deal with changing environments. Her work with both graduate-level and undergraduate students at ASU gives students the opportunity to work in the state-of-the-art ASU Phenomics Core Laboratory. Under Dr. Lorence's direction, and with funding support from ABI, students analyze plant physical and biochemical traits with the lab's Lamnatech High Throughput Screening Scanner–one of only four operating in academic institutions in the United States. Dr. Lorence reports that this sophisticated level of plant research would simply not be possible without the direct ABI funding and related extramural funding.

Fay W. Boozman College of Public Health (COPH)

Jim Raczynski, PhD, FAHA, COPH Dean

Liz Gates, JD, MPH, Assistant Dean for Special Projects

UCA ATSC Evaluator: Betty Hubbard, EdD, MCHES; Jacquie Rainey, DrPH, MCHES

"Cultivating Homegrown Public Health Practitioners"

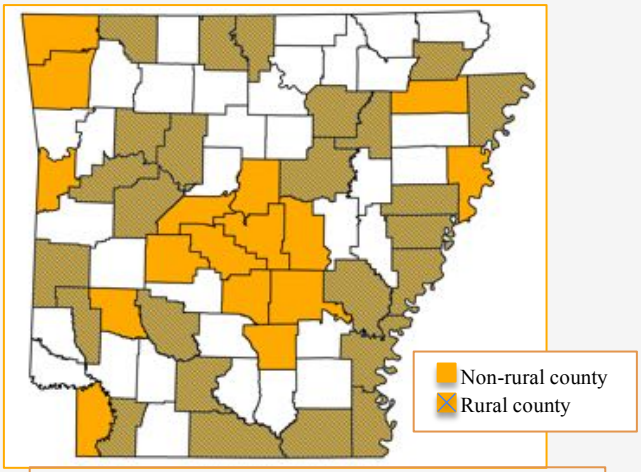
College of Public Health (COPH)

UAMS Fay W. Boozman College of Public Health

Cultivating Practitioners

2016 Honor Graduates

Congratulations to the COPH's 2016 Honor Graduates. In all, COPH had 66 total graduates, and a **majority of them (79%) plan to stay in Arkansas** and work in public health.



COPH draws students from across the state. In 2016, students represented 41 of 75 counties, 25 of these counties are rural. In all, 23% of COPH students came from a rural county.

Faculty Research

$2.5 Million

Two of the grants awarded total over $2.5 million and **will allow researchers to explore** the relationship between **genetic variants and arterial blood pressure**, which has not been tested before in any population in the United States, and to study **faith-based interventions for depression** among a rural population in Arkansas.

Fifty of 51 (98%) faculty contracts/grants had an Arkansas focus.

The COPH faculty reported 135 publications in 2016.

Economic Impact

In FY2016, the **ratio** of gross **extramural research funding** to Tobacco Settlement Program funds was **2.32:1**.

COPH Evaluator Summary & Comments

Program Description: The Fay W. Boozman College of Public Health (COPH) educates a public health workforce and advances the health of the public by investigating the causes, treatments, and prevention of human health problems. Preventing chronic disease and promoting positive health behavior is the most effective way to improve the health of all people. The College's mission of improving the health of all Arkansans is realized through teaching and research as well as service to elected officials, agencies, organizations, and communities. Examples of the complex health issues addressed include: improving the multiple dimensions of access to healthcare; reducing the preventable causes of chronic disease; controlling infectious diseases; reducing environmental hazards, violence, substance abuse, and injury; and promoting preparedness for health issues resulting from terrorist acts, natural disasters, and newly emerging infectious diseases.

Economic Impact: The College of Public Health received 5.2% of the Tobacco Settlement Program funds, totaling $2,328,532 million in FY 2016. The College leverages these monies to generate funding in the form of grants and contracts, and other funding in the forms of tuition and fees, investment revenue, and gifts. In FY 2016, the ratio of gross extramural research funding to Tobacco Settlement Program funds was 2.32:1. The Tobacco Settlement Funds are coupled with the extramural and other funding to improve public health through the following activities: conducting research that involves students from all areas of the state; providing courses and presentations to deliver current information; and serving as consultants and partners within the state to positively affect the health of Arkansans.

The ratio of leveraged funds to ATSC funds was 2.32:1.

Challenges: Several full-time faculty positions are available at the COPH including the Director for the Center for Obesity Prevention and Governor Sydney S. McMath Endowed Chair for Obesity Prevention. Several of the faculty positions were filled during this year and several

promising candidates were interested in the Director/Endowed Chair position; however, the search for that position is ongoing.

OPPORTUNITIES: Funding commitments were obtained from the Provost and Chancellor of UAMS to hire the Governor Sidney S. McMath Endowed Chair and Director of the Center for the Study of Obesity. A full professor was hired in the department of Health and Behavior and Health Education who will also serve as the Director of the Center for the Study of Tobacco. Three proposals for graduate certificate programs were developed during 2016: Healthcare Management, in partnership with the University of Arkansas Walton School of Business; Healthcare Analytics; and Global Health. Approval by the Arkansas Department of Higher Education was expected in March 2017.

Two of the grants awarded total over $2.5 million and will allow researchers to explore the relationship between genetic variants and arterial blood pressure, which has not been tested before in any population in the United States, and to study faith-based interventions for depression among a rural population in Arkansas.

More than $2.5 Million in Research Grants

The College of Public Health at UAMS

EVALUATOR COMMENTS

The Fay W. Boozman College of Public Health continues activities that work toward its long-term objective: elevate the overall ranking of the health status of Arkansans. The faculty of the COPH serve the citizens of the state by providing teaching, research and service. The students enrolled in the programs offered by the College also contribute to the well-being of Arkansans through various preceptorships, culminating and capstone experiences.

Data for the short-term objective, obtain federal and philanthropic grant funding, were unavailable to the evaluation team this year. The program directors report that the indicator, as currently written, is difficult to quantify due to the amount of data required to show the comparison between the COPH and comparable schools of public health. The COPH has proposed an updated indicator that will require the College to maintain a specific ratio of total annual extramural funding to tobacco settlement dollars for each fiscal year.

COPH Performance Indicators and Progress

Overall Program Goal: To improve the health and promote the well-being of individuals, families and communities in Arkansas through education, research and service.

Long-term Objective:
To elevate the overall ranking of the health status of Arkansans.

- **Indicator**: Through consultations, partnerships and dissemination of knowledge, the COPH serves as an educational resource for Arkansans (e.g., general public, public health practitioners and researchers, and policymakers) with the potential to affect public health practice and policy – and population health.
    - **Activity**: COPH faculty engaged in a variety of activities which included the following: presenting to professional or lay audiences; consulting or serving on an expert panel, task force, committee or board of directors; and partnering with public health practitioners or a community organization that has a health-related mission. During 2016, faculty participated in 26 activities during each of the first two quarters and 31 activities during each of the last two quarters: an average of 28.5 activities per quarter. Eighty-six percent of these activities were classified as ongoing, seven percent met monthly, and seven percent met quarterly.

- **Indicator**: Faculty productivity is maintained at a level of 2 publications in peer-reviewed journals to 1 FTE for primary research faculty.
    - **Activity**: During 2016, 51 faculty members reported 135 publications, a ratio of 2.65:1.

The COPH faculty reported 135 publications in 2016.

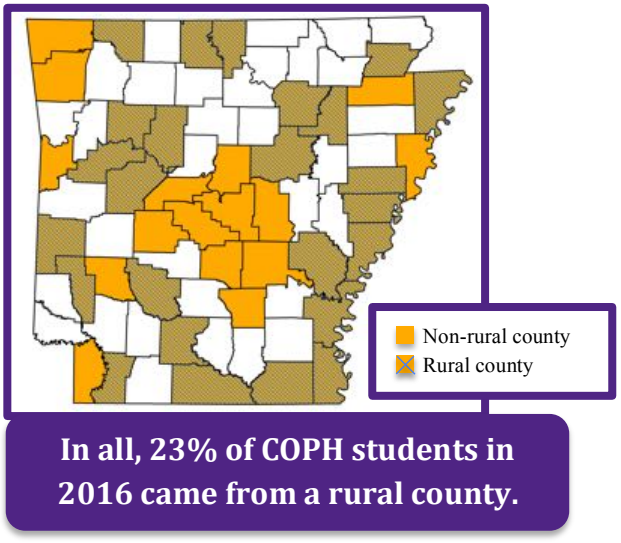
- **Indicator**: Research conducted by COPH faculty and students contributes to public health practice, public health research, and the health and well-being of Arkansans.

- **Activity**: Thirty-one faculty members participated as the principal investigator, co-principal investigator or consultant for 51 grants and contracts during 2016. Twenty-six preceptorships were conducted by students enrolled in the Masters in Public Health (MPH) program. Thirty-four students in the MPH program participated in culminating experiences and two students in the Doctor of Public Health program conducted a capstone experience.

- **Indicator**: COPH faculty, staff and students are engaged in research that is based in Arkansas.
  - **Activity**: Fifty of the 51 (98%) faculty grants/contracts and 24 of the 26 (92%) preceptorships conducted by MPH students were conducted in Arkansas or had an Arkansas focus.

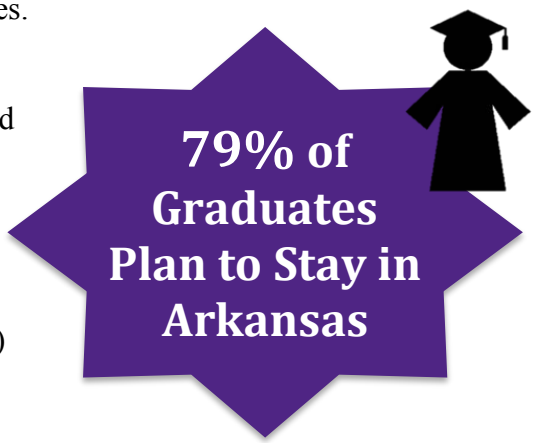
- **Indicator**: The COPH makes courses and presentations available statewide.
  - **Activity**: Twenty-four distance-accessible courses were offered by the COPH during 2016: nine in the spring semester, six in the summer semester, and nine in the fall semester. Additionally, the COPH which is a co-sponsor of the Arkansas Department of Health Grand Rounds, provided 30 presentations in 2016: thirteen during the first quarter, nine during the second quarter, and eight during the last quarter.

- **Indicator**: Twenty percent of enrolled students come from rural areas of Arkansas.
  - **Activity**: During the spring 2016 semester, 32 (26%) of the 122 students who enrolled were from rural areas. Thirty-four (25%) of 137 students enrolled during the summer 2016 semester were rural and 34 (20%) of 168 students enrolled for the fall 2016 semester were from rural areas. The rural designation is determined by the Federal Office of Management and Budget based upon the 2010 census.



- **Indicator**: Graduates' race/ethnicity demographics for Whites, African American and Hispanic/Latinos are reflective of Arkansas race/ethnicity demographics.
    - **Activity**: Sixty-six students received degrees or certificates from COPH during 2016. Twenty-nine students (44%) were White, 17 students (26%) were African-American, 10 students (15%) were Asian, two students (3%) were Hispanic, two students (3%) were of more than one race/ethnic group, and six students (9%) did not report race/ethnicity. The percentages for White and Hispanic students were lower than the demographics in the state; however, the percentage of Asian and African-American students exceeded the state demographic profiles.

- **Indicator**: The majority of alumni stay in Arkansas and work in public health.
    - **Activity**: Of the 66 students who graduated during 2016, 52 (79%) planned to stay in the state and work in public health. Fourteen (21%) of the students' future plans were unknown.



Short-term Objective:
To obtain federal and philanthropic grant funding.

- **Indicator**: The COPH maintains a level of leveraged (extramural) funding in relation to unrestricted funding that exceeds that of comparable accredited schools of public health.
    - **Activity**: The data for the previous fiscal year required to evaluate this indicator were unavailable. Therefore, no conclusions can be drawn regarding progress toward the achievement of this short-term objective. The financial information that was provided by COPH indicated a 2.32:1 ratio of external funds to tobacco funds, a slight decrease between FY15 and FY16. This decrease was attributed to the completion of several contracts.

COPH Testimonial

Austin Porter, III, DrPH, MPH

COPH Graduate

"As the trauma registry administrator at the Arkansas Department of Health, it is my job to oversee the data management process and reporting of the Arkansas Trauma Registry. The trauma registry is critical to measuring the overall performance of Arkansas Trauma System whose primary purpose is to provide quality and timely trauma care for all Arkansans. The training that I have received while a student at the Fay W. Boozman College of Public Health has provided me with the leadership and communication skills to successfully carry out my job duties. Specifically, the education and training has provided me with the skills to actively engage in meaningful dialogue about data and public health to various stakeholders. The data reports provide community and statewide stakeholders with understanding on the leading causes of injury-related morbidity and mortality and how trauma centers are performing when providing medical care for these patients. Through discussions and reports that are produced, public health practitioners are able to tailor interventions to fit the needs of the community and reduce the burden of injury and trauma for all Arkansans."

Minority Health Initiative (MHI)

ShaRhonda Love, MPH, Director of MHI

Louise Scott, Senior Grant Coordinator

UCA ATSC Evaluator: Denise Demers, PhD

"Health Equity As Our Charge"

Minority Health Initiative (MHI)

Arkansas Minority Health Commission

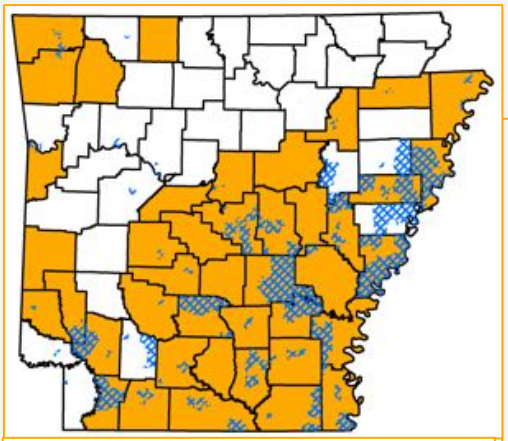
Targeting Health Disparities

30,000 People Educated

22,000 Health Screenings

The MHI **addresses existing disparities in minority communities** by educating these communities on diseases that disproportionately impact them, **encouraging healthier lifestyles**, promoting **awareness** of services and **accessibility** within the current healthcare system, and collaborating with **community partners**.

The **MHI partnered** with more than **60** grassroots/nonprofit and faith-based **organizations** in 2016.



Counties reached by MHI screenings & events
Census Block Groups in the 4th quartile for % minority population

Each year, MHI and their partners provide **educational events and health screenings** throughout the state. This map illustrates the 42 counties where events were held in 2016, highlighted in orange. The areas shaded in blue represent Census Block Groups (CBGs) in the fourth quartile for percent minority population. These CBGs have a minority population of 43% or higher. In all, MHI events reached counties that cover 93% of the CBGs with the **highest minority populations**.

Youth Development

MHI continues to follow-up with the young women who participated in Camp iRock. Many campers (78%) stated that they now have a **positive body image**.

Economic Impact

The Economic Cost of Health Inequities in Arkansas report (2015), commissioned by the Arkansas Minority Health Commission showed that **eliminating health disparities** for Arkansas minorities would result in **a reduction of direct medical care expenditures** of $518.6 million.

$518.6 Million

MHI Evaluator Summary & Comments

Program Description: The Arkansas Minority Health Initiative (MHI) was established in 2001 through *Initiated Act I* to administer the Targeted State Needs for screening, monitoring, and treating hypertension, strokes, and other disorders disproportionately critical to minority groups in Arkansas by 1) increasing awareness, 2) providing screening or access to screening, 3) developing intervention strategies (including educational programs) and 4) developing/maintaining a database. To achieve this goal, the Arkansas Minority Health Commission's focus addresses existing disparities in minority communities, educating these communities on diseases that disproportionately impact them, encouraging healthier lifestyles, promoting awareness of services and accessibility within our current healthcare system, and collaborating with community partners.

MHI targets disorders, like hypertension, that disproportionately affect minority populations in the state.

Economic Impact: Every five years, MHI commissions an economic impact study that estimates the direct medical care savings to the state if minority health disparities were to be eliminated. The most recent report was released in April of 2014, and it was estimated that $518.6 million could be saved in direct medical care expenditures if disparities were eliminated. Conversations with the new Arkansas Surgeon General and the Stephens Group regarding medical savings resulted in a desire to decrease health care inequalities by just 10%. If these health care inequalities for Arkansas minorities were reduced by 10% it would yield a $51.8 million savings. If the prevention of premature death were taken into account, it would increase that figure to $220 million. Because more than 79% of the medical care expenditures for minorities is attributable to African Americans and 20% to Hispanics, the direct effect the MHI can produce for Arkansas is great. Their involvement is crucial to impacting the health disparities and the direct medical care expenditures in Arkansas.

CHALLENGES: Heart disease remains the number one cause of death in Arkansas. Cardiovascular disease rates, likewise, are in the top five of the nation. Risk factors include poor nutritional choices, a lack of physical activity, smoking, and hypertension, all of which are prevalent in Arkansas.

OPPORTUNITIES: MHI makes great use of partnerships throughout the state to provide programs, community forums, and health summits all in attempts to increase awareness and screenings, and thus reduce death/disability due to tobacco, chronic, and other lifestyle-related illnesses in Arkansas.

EVALUATOR COMMENTS
Each quarter in 2016, MHI added more events, distributed more educational packets, and partnered with more faith-based or grassroots/nonprofit organizations. Thus, the amount of awareness increased, as well as the number of screenings offered. MHI increased the number of screenings offered between 2014 and 2015 by 30%. They will compare 2016 data to the biennial report in 2017. MHI continues to be a leader in offering education and screenings to the underprivileged, low-income, and diverse populations that may not otherwise have the opportunity to access vital health information and services. For instance, partnering with the Little Rock Chapter of the Links, four doctors and nurses from primary health clinic provided 146 BMI assessments to youth and 59 to adults. Health education information was presented on the impact of obesity and the importance of increasing family physical activity.

MHI Performance Indicators and Progress

Overall Program Goal: To improve the health care systems in Arkansas and access to healthcare delivery systems, thereby resolving critical deficiencies that negatively impact the health of the citizens of the state.

Long-term Objective:
Reduce death / disability due to tobacco, chronic, and other lifestyle related illnesses of Arkansans.

When reviewing MHI's activities, refer to the following table of health screening numbers.

Table 2. Total MHI Health Screenings

Screening	Number Provided
Cholesterol	1,564
Blood Pressure	5,853
Glucose	2,877
Heart Rate/Pulse	2,902
BMI	1,589
Ht/Wt	2,399
Tobacco: CO	825
Other Screenings	1,991

- **Indicator:** To increase stroke awareness by 1% annually among minority Arkansans as measured by previous comparison beginning in FY2015.

- **Activity:** Throughout 2016, MHI provided 22,000 health screenings and educated more than 30,000 individuals throughout all four congressional districts. Additionally, they continue to partner with more than 60 grassroots/nonprofit and faith-based organizations to provide screenings, educational information, and events to increase the health of Arkansans, specifically regarding stroke awareness. MHI provided over 5,853 blood pressure screenings, 1,134 of which were abnormal, at which time they provided information and advised the individuals for follow-up with their primary care physician. Data from the Behavioral Risk Factor Surveillance System (BRFSS) will be available annually, and reported in 2019.

- **Indicator:** To increase hypertension awareness by 1% annually among minority Arkansans as measured by previous comparison beginning in FY2015.
  - **Activity:** As noted in Table 2, during 2016, MHI provided numerous screenings. Those affecting hypertension include Blood Pressure (5,853), Ht/Wt (2,399), BMI (1,589), Cholesterol (1,564), and Glucose (2,877); and these screenings, consequently, raise awareness for hypertension and its associated risk factors.

- **Indicator:** To increase heart disease awareness by 1% annually among minority Arkansans as measured by previous comparison beginning in FY2015.
  - **Activity:** Admirably, MHI continues to partner with several grassroots/nonprofit or faith-based organizations providing screenings, awareness, and educational packets and information. Table 2 provides the number of screenings MHI conducted in relation to heart disease. Those most connected to heart disease include Ht/Wt, BMI, Cholesterol, Glucose, and Blood Pressure. Moreover, MHI distributed over 3,740 educational packets containing heart disease and healthy lifestyle information.

- **Indicator:** To increase diabetes awareness by 1% annually among minority Arkansans as measured by previous comparison beginning in FY2015.

- **Activity:** MHI provided many educational and health screening events throughout the year. See Table 2 for the exact number of Glucose screenings. Further, the educational and information packets mentioned above contained information in regard to healthy lifestyle, specifically heart disease and smoking cessation, which are two strong risk factors for diabetes.

Short-term Objective:
Prioritize the list of health problems and planned interventions for minority populations and increase the number of Arkansans screened and treated for tobacco, chronic, and lifestyle-related illnesses.

- **Indicator:** MHI will conduct ongoing needs assessments to determine the most critical minority health needs to target, including implementation of a comprehensive survey of racial and ethnic minority disparities in health and health care every five years.
  - **Activity:** Every five years, data are collected through survey methods to inform MHI concerning the health of the nation, and in particular, the state of Arkansas (CDC and BRFSS). The next survey will be completed in FY2019. To date, MHI works off current data, which show that if the MHI continues to commission the Economic Cost of Health Inequalities in Arkansas report, we can better understand and estimate the economic impact of racial and ethnic disparities in Arkansas. The most recent report found that eliminating health disparities for Arkansas minorities would result in a reduction of direct medical care expenditures of $518.6 million.

- **Indicator:** MHI will increase awareness and provide access to screenings for disorders disproportionately critical to minorities as well as to any citizen within the state regardless of racial/ethnic group.
  - **Activity:** Throughout 2016, MHI did a great job increasing awareness and providing access to screenings as they collaborated with over 60 grassroots nonprofit and faith-

based organizations. Over 30,000 people were given the opportunity to attend activities and be screened for specific health risk factors (refer to Table 2 above for a complete list of screenings related to increasing awareness and providing access). Additionally, if the individuals received an abnormal reading, they were given information to contact their primary care physician, as well as educational information.

- **Indicator:** MHI will develop and implement at least one pilot project every five years to identify effective strategies to reduce health disparities among Arkansans.
    - **Activity:** Camp iRock, the most recent pilot project, concluded in 2015. Since that time MHI continues to hold follow-up activities with the young women who participated in the camp, many of which can now state that they have a positive body image (78%). Noteworthy accomplishments include, but are not limited to, 56% of participants reporting they were quite a bit or very much ready to change how they eat and 67% reporting being ready to change what they do to be active. Seventy-eight percent were confident in their ability to make changes to be healthier. Most participants reported healthy eating behaviors such as not eating when bored (89%), not eating when sad or worried (100%), not hiding food (89%), not sneaking food (78%), and eating out once a week or less (89%). Collectively, there was a loss of 12 pounds during the week-long camp. Adding those accomplishments together, MHI has succeeded in creating an effective strategy to reduce health disparities among young women in Arkansas.

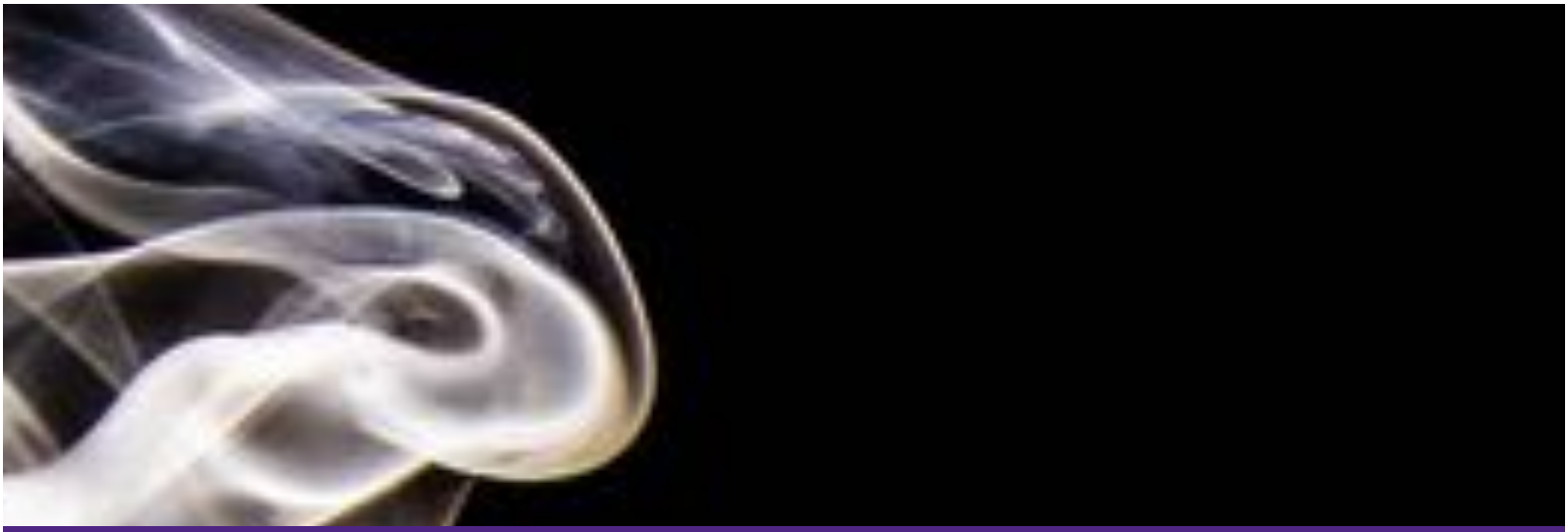
    - Camp iRock Reunion was April 29, 2017. The reunion was a culmination of the camp, and all participants were invited. A focus group was conducted to determine ideas for development of future camps. There were 19 campers in attendance, with data collection of Height, Weight, BMI, and Blood Pressure. Furthermore, June of 2017 begins the next phase of pilot studies. Research will be conducted for an

evidence based adolescent nutrition and fitness program for a young male version of Camp iRock, which will mirror that of the young women with goal areas in self-confidence, healthy eating behaviors, nutrition knowledge and physical activity. The research will include: evidence based adolescent curricula, program development, training development, data collection, and evaluation development. The male version Camp iRock will be implemented in the summer of 2018.

MHI Testimonial

The Arkansas Minority Health Initiative partners with several organizations throughout the state to improve health outcomes. Recently, one of MHI's outreach initiatives celebrated the impact of partnership. The Delta Community Based Services organization offers community services, character building, education enrichment, as well as girl empowerment programming. The 6th annual "At-Promise" Girls conference exposed girls to peer-to-peer networking opportunities as well as mentors through experience sharing and relationship-building. Breakout sessions consisted of mental health, tobacco prevention, drug addiction, body mass index screenings, and living a healthy lifestyle. The conference is for girls age 12 to 18 years, and this year, 244 girls participated. Many young girls who participate in this conference do so each year until they reach age 18.

One of the most impactful parts of this initiative was a testimonial given by a parent who graciously thanked the organization for the initiative. The parent revealed that, through the conference, her daughter had been reunited with her sister after nearly 10 years of separation. Unbeknownst to them, they reunited at an event designed to increase awareness and knowledge of various community resources for optimal wellness and health.



TOBACCO PREVENTION AND CESSATION PROGRAM (TPCP)

Debbie Rushing, Branch Chief

UCA ATSC Evaluator: Ron Bramlett, PhD

"Fighting the Good Fight"

Tobacco Prevention and Control Program (TPCP)

STAMP OUT SMOKING
1-800-QUIT-NOW

Policies to Protect Health

Since 2015, TPCP had implemented **445** new **smoke-free/tobacco-free policies** in workplaces, schools, and residential buildings across the state, and surpassed their annual goal of 96 policies. Between July and December of 2016, TPCP implemented an additional 39 policies that **help protect Arkansans from the harmful effects of tobacco**.

Wooster City Park

Moving the Needle

Smoking prevalence among youth decreased to 15.7%
(YRBS, 2015)

The proportion of youth and young adults who engage in tobacco control activities increased by 25%
(Youth Prevention Program Participation, 2016)

Smoking prevalence for pregnant women decreased by 3.4%
(Vital Statistics, 2014)

The quit rate for the Arkansas Tobacco Quitline was 28.8%, a slight increase from the previous year.
(ATQ, 2014)

Training Providers

TPCP offers ongoing **training for healthcare providers on tobacco-related issues**. Their new goal to train 410 additional providers by June 2017 is on track, as **176 providers** have been trained since March of 2016.

Economic Impact

In FY2016, TPCP received $14.1 million in ATSC funds, which is a decrease of 6.3% from FY2014. This decrease is a result of a realignment of percentages of ATSC funding to programs and a reduction in the overall ATSC payment. Even with the decrease in funding, TPCP's services continue to serve Arkansans well as can be evidenced by the return on investment for the **Arkansas Tobacco Quitline**. For every dollar invested in the Quitline, the people of Arkansas save $28 in future healthcare costs.

$28 Saved for Every $1 Invested

TPCP Evaluator Summary & Comments

Program Description: The Arkansas Department of Health (ADH) Tobacco Prevention and Cessation Program (TPCP) includes community and school education prevention programs, enforcement of youth tobacco control laws, tobacco cessation programs, health communications, and awareness campaigns. The TPCP also sponsors statewide tobacco control programs that involve youth to increase local coalition activities, tobacco-related disease prevention programs, minority initiatives and monitoring, and evaluation. TPCP follows the Centers for Disease Control and Prevention (CDC) *Best Practices for Tobacco Control 2014* as a guide for program development. Outcomes achieved by Arkansas's TPCP include a reduction in disease, disability, and death related to tobacco use by preventing initial use of tobacco by young people, promoting quitting, eliminating exposure to secondhand smoke, and educating Arkansans about the deleterious health effects of tobacco use.

Economic Impact: TPCP received $15,093,048 in FY2014, $14,259,367 in FY2015, and $14,147,306 in FY2016. This represented a decrease of 5.5% from 2014 to 2015 and a .79% decrease from 2015 to 2016. Of those annual budgets, 15% went to Minority Programs ($2,122,096 for FY2016) (mandated in ACA 19-12-113).

The financial and health benefits from tobacco prevention and cessation to the people of Arkansas accrue from decreased on tobacco-related disease. The American Cancer Society estimates that $133 billion was spent between 2000-2012 in the U.S. on tobacco-related illnesses. The Center for Disease Control estimates that approximately 16 million Americans are living with a disease caused by smoking and 480,000 deaths per year can be attributed to smoking. Also, individual smokers pay exorbitant amounts in their lifetimes on tobacco-related products, which could be used in more healthy ways; thus, reducing many of our overall healthcare challenges.

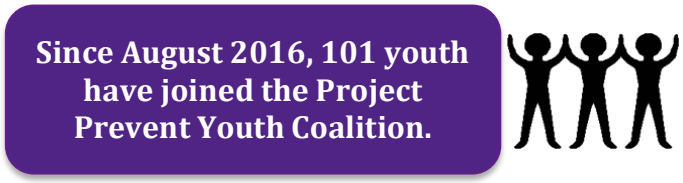
480,000 deaths per year in the U.S. attributed to smoking

It has been estimated that for every dollar invested in the Arkansas Tobacco Quitline, the people of Arkansas save $28 in future healthcare costs. Based on these figures, the amount allotted to TPCP appears to be a wise investment in the health of Arkansans and its economy.

CHALLENGES: Although the state's hiring freeze was lifted, recruiting and maintaining staff continues to be an issue. The uncertainty of MSA and CDC funding for FY18 has impacted retention of staff.

OPPORTUNITIES:

- Earned Media: The Arkansas Community Foundation published a magazine called Engage in August 2016. The magazine contained information regarding tobacco control, from cover to cover. The articles in the magazine demonstrated the support and need for comprehensive smoke free clean indoor air.
- Project Prevent Youth Coalition started a recruitment campaign in August 2016. As of this reporting period, 101 members have joined.



- While the quitline is reaching a specific group of smokers and providing effective support for their cessation, other groups are not accessing this service. Following the analysis of the Arkansas Adult Tobacco Survey, it was determined that a proportion of tobacco users in Arkansas are quitting using other cessation methods. This has prompted TPCP to review research and begin to design supplemental avenues for promoting quitting tobacco.
- TPCP has engaged the regional HUD office along with Local Public Housing Authorities (PHAs) to assist in the adoption of smoke-free multi-unit housing policies (SFMUH) in support of the pending federal rule.
- TPCP is participating in the Association of State and Territorial Health Officials Smoke-Free Housing Virtual Learning Community webinar series. The six-month Smoke-Free Housing Virtual Learning Community series is intended to increase participating states' capacity to

effectively coordinate statewide smoke-free housing initiatives in order to reduce secondhand smoke exposure. The Smoke-Free Housing Virtual Learning Community Kick-Off Call took place on October 28, 2016.

- Arkansas Cancer Coalition conducted a survey at the State Fair of participants regarding support for the Clean Indoor Air Act and Tobacco 21. The total number surveyed were 819 and of those, 64% supported including bars, restaurants, and all workplaces to be smoke-free. In addition, 76% supported raising the age to purchase tobacco to 21 years old.
- Article, "Electronic Nicotine Delivery Systems and Smoking Cessation in Arkansas, 2014" published in Public Health Reports volume XXI-10 was authored by Victor Cardenas, MD, MPH, PhD, Wanda Simon, MSc, Robert R. Delongchamp, PhD, MPH, J. Gary Wheeler, MD, MPS, et al. and conferred that Electronic Nicotine Delivery Systems reduced the success of adult smokers' ability to quit in Arkansas.

EVALUATOR COMMENTS

The TPCP has met or is making progress on most of its indicators for 2016 and 2017. Two data sources underwent a methodology revision at CDC, which affected two of the indicators for this year. Because of these changes, there was an increase in the baselines for these two indicators (one was youth tobacco use rates [which includes smoking prevalence, smokeless tobacco use, and electronic nicotine delivery systems] and the other was pregnant women's tobacco use). As a result, the evaluation will need to consider this in future progress monitoring.

As a promising sign, Arkansas became the first southern state to implement a T-21 policy in Helena-West Helena. In addition, Wooster, implemented comprehensive smoke-free policies in accordance with the Americans for Nonsmokers' Rights (all public places are smoke-free). This is encouraging from a health perspective because it reflects a cultural shift in social norms regarding the rights of nonsmokers in Arkansas. Hopefully, other municipalities will follow this model. Nationally, according to the CDC, the number of states with comprehensive smoking bans (statutes that prohibit smoking in indoor areas of worksites, restaurants, and bars) went from zero in 2000 to 27 in 2015. Importantly, this translates from 2.7% of Americans protected from secondhand smoke in 2000 to 49.6% in 2015 (Tynan et al., 2015). Arkansas has very few comprehensive local smoke-free laws compared to surrounding states. Also, these states' smoking prevalences are also lower than Arkansas.

Also, of critical importance is the rise in e-tobacco products. According to the CDC, "sales of e-cigarettes grew considerably during 2012–2013, including about 320% for disposable e-cigarettes, 72% for starter kits, and 82% for cartridges." This will represent a huge challenge for prevention efforts in years to come.

TPCP Performance Indicators and Progress

Overall Program Goal: To reduce the initiation of tobacco use and the resulting negative health and economic impact.

Long-term Objective:
Survey data will demonstrate a reduction in numbers of Arkansans who smoke and/or use tobacco.

- **Indicator**: By March 2020, decrease the tobacco use prevalence (cigarette, smokeless, and cigar) in youth by 7.5% (a decrease from 32% to 29.6%) and tobacco use prevalence (cigarette and smokeless) in young adults (18-24) by 7% (a decrease from 27.7% to 25.7%). [Data Source: Youth Risk Behavior Surveillance System (YRBSS) 2015 & Behavioral Risk Factor Surveillance System (BRFSS) 2015].
    - **Activity**: BRFSS 2015 data indicated the rate for ages 18-24 increased to 32.3%. National and local community partners are actively working on initiatives that will impact this age group.

- **Indicator**: By March 2020, decrease tobacco use among disparate populations (LGBT, Hispanics, African American, and Pregnant Women) by 2 percentage point change (Data Source: LGBT Survey, BRFSS, Vital Statistics Data).
    - **Activity**: Survey is scheduled later in 2017.

- **Indicator**: By March 2020, decrease smoking prevalence among youth by 10.5% (a decrease from 19.1% to 17.1%) and among adults (18 to 24 year olds) by 7.7% (a decrease from 23.9% to 22.1%) (Data Source: 2015 YRBSS, 2015 BRFSS).
    - **Activity**: Youth portion of the indicator has been met (15.7% in 2015) as previously reported.

Smoking prevalence among youth decreased to 15.7%.
(YRBS, 2015)

The 2015 BRFSS data indicated that the smoking prevalence for 18-24 year olds has unfortunately increased from 23.9% in 2014 to 29.6% in 2015.

Short-term Objective:
Communities shall establish local tobacco prevention initiatives.

This annual report covers the period from January 1, 2016 to December 31, 2016. However, TPCP indicators overlap the years 2016 and 2017. As a result, there are indicators that targeted March 2016 and indicators that targeted June 2017. For the most part, they are the same indicators with slightly different benchmarks for success. Listed below are the indicators for the period ending March 2016, marked as (a) and the indicators for the period ending June 2017 marked as (b). For clarification purposes, the activities are reported under (b).

- **Indicator (a):** By March 2016, 96 new smoke-free/tobacco-free policies will be implemented across Arkansas (Data Source: TPCP Policy Tracker).
    - **Activity (a):** This indicator was met with 445 policies being implemented.
- **Indicator (b):** By June 2017, 100 new smoke-free/tobacco-free policies will be implemented across Arkansas (Data Source: TPCP Policy Tracker).
    - **Activity (b):** From July 2016 through December 2016, 39 new smoke-free policies were implemented. The program is on-track to meet this indicator.

- **Indicator (a):** By March 2016, decrease sales to minor violations from 11% to 9% (Data Source: FY2014 Arkansas Tobacco Control).
    - **Activity (a):** Met indicator. Although the indicator goal of 9% was achieved, TPCP recommends continued monitoring of sales to minor violations as ACT 1235 rules and regulations are implemented throughout the state.
- **Indicator (b):** By June 2017, decrease sales to minor violations from 11% to 9% (Data Source: FY2014 Arkansas Tobacco Control).
    - **Activity (b):** The current non-compliance rate is 5% and well below the targeted 9%.

- **Indicator (a):** By March 2016, increase by 20% the proportion of youth and young adults up to age 24 who engage in tobacco control activities to include point of sale, counter marketing efforts, and other advocacy activities to increase tobacco free social norms (Data Source: Youth Prevention Program Participation FY2014).
    - **Activity (a):** The program successfully met this indicator.
- **Indicator (b):** By June 2017, increase by 25% the proportion of youth and young adults up to age 24 who engage in tobacco control activities to include point of sale, counter marketing efforts, and other advocacy activities to increase tobacco free social norms (Data Source: Youth Prevention Program Participation FY2014).
    - **Activity (b):** The program successfully met this indicator.

Youth engagement in tobacco control activities increased by 25%.
(Youth Prevention Program Participation, 2016)

- **Indicator (a):** By March 2016, increase Arkansas' quit rates for the Arkansas Tobacco Quitline from 27.7% to 29.7% (Data Source: ATQ FY2014 Evaluation Report, 7-month follow-up of multiple calls with NRT quit rate).
    - **Activity (a):** The quit rate was 28.8%, which was slightly below the projected indicator.
- **Indicator (b):** By June 2017, increase Arkansas' quit rates for the Arkansas Tobacco Quitline from 28.8% to 29.7% (Data Source: ATQ FY2014 Evaluation Report, 7-month follow-up of multiple calls with NRT quit rate).
    - **Activity (b):** The next quit rate will be updated in the fall, 2017.

- **Indicator (a):** By March 2016, increase the number of callers to the Arkansas Tobacco Quitline from 245 to 294 for Hispanics; 2,596 to 3,115 for African-American; 476 to 571 for LGBT (Data Source: ATQ Yearly Demographic Report, 2014).
    - **Activity (a):** Calls to the quitline overall were down as they are throughout the country so the indicator was not met.
- **Indicator (b):** By June 2017, increase the number of callers to the Arkansas Tobacco Quitline to 300 for Hispanics; 3200 for African-American; and 500 for LGBT (Data Source: ATQ Yearly Demographic Report, 2014).

- **Activity (b):** There have been 88 Hispanic, 785 African American, 172 LGBT, and 58 pregnant women who have called the quitline as of December 2016. The program is making progress toward this indicator.

- **Indicator (a):** By March 2016, decrease the overall rate of pregnant women reporting tobacco use during pregnancy from 13.1% to 12.1% (Data Source: 2013 Vital Statistics Data).
  - **Activity (a):** TPCP recommended adjusting the baseline to 14.9% due to the methodological changes at CDC. Interviews were changed from self-report to physician-report.
- **Indicator (b):** By June 2017, decrease the overall rate of pregnant women reporting tobacco use during pregnancy from 14.9% to 13.9% (Data Source: 2013 Vital Statistics Data).
  - **Activity (b):** The 2015 Vital Statistics indicated the smoking prevalence for pregnant women has decreased from 14.9% to 14.4%. There is a promising downward trend in this area.

- **Indicator (a):** By March 2016, increase number of healthcare providers, traditional and nontraditional, from 3,116 to 3,500 who have been reached by the STOP program (Data Source: FY2014 End of Year Summary Report for STOP from Alere).
  - **Activity (a):** There has been steady progress in this area.
- **Indicator (b):** By June 2017, increase number of healthcare providers, traditional and nontraditional, by 410 who have been reached by the TPCP trainings.
  - **Activity (b):** There have been 176 healthcare providers trained. Although the program has been curtailed, there has been steady progress in this area.

TPCP is on track to train 410 new healthcare providers by June 2017, as 176 providers have been trained since March of 2016.

TPCP Testimonial

Members of the Roadrunner's Extension Homemakers Club (EHC) fulfill their mission through a commitment to Leadership Development, Community Service and Education. Many of EHC's meetings and events take place at Wooster City Park. The park provides a delightful outdoor atmosphere for community events and a Farmer's and Crafter's Market. In an effort to support a culture of health in the community, tobacco use was discouraged in the park, but there was no city ordinance to enforce a tobacco-free policy. Market Board member Jerry Boyer introduced Mary Krisell, a TCPC program coordinator, to the group. Ms. Krisell provided a presentation, and everyone present agreed that smoke-free was the way to be. Stamp Out Smoking (SOS) provided a document template for EHC Board members to customize and personally sign, declaring their desire for a tobacco-free environment for their outdoor Farmer's Market. SOS funding provided custom-designed and professionally-prepared signage displaying the SOS logo and the Farmer's market commitment to declaring the area tobacco-free.

Wooster Mayor, Terry Robinson, shares, "Losing my mom to lung cancer left a lasting impression on me. I have never wanted to try smoking, not even a single cigarette. Our City Council agrees that it's important for all public places to be clean and healthy. No one should have to breathe secondhand smoke or have cigarette butts on their playground. We were happy to support the Farmer's and Crafter's Market request to be tobacco-free, but we knew we would need a city ordinance. Having the template provided by Mary Krisell and SOS helped guide us to create the specific language we needed for the Wooster ordinance. Folks can still smoke in their own homes and cars if they want to, but now in any public space in Wooster tobacco use is prohibited."

Wooster Mayor poses with EHC President, Xandra Sharpe, at Wooster City Park.

TOBACCO SETTLEMENT MEDICAID EXPANSION PROGRAM (TS-MEP)

Mary Franklin, Director, DHS Division of County Operations

UCA ATSC Evaluator: Joe Howard, PhD

"Vital Support Services"

Tobacco Settlement Medicaid Expansion Program (TS-MEP)

Arkansas Department of Human Services
Tobacco Settlement Medicaid Expansion

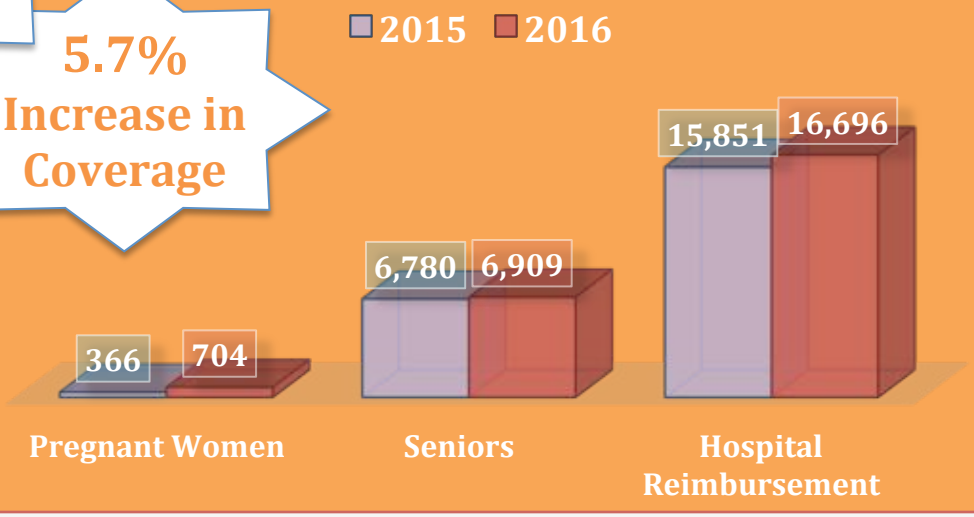
Serving Vulnerable Populations

TS-MEP provided **expanded access to health benefits and services** for 24,309 eligible pregnant women, seniors, and qualified adults. This is an increase of 5.7% from the number of Arkansans served by TS-MEP in 2015 (22.997).

24,309 Arkansans Covered

5.7% Increase in Coverage

Number of Arkansans Benefitting from TS-MEP Services



Opportunities

The discontinuation of TS-MEP initiative ARHealthNetworks provides the opportunity to support the other three TS-MEP populations as well as the state's overall Medicaid efforts. In 2016, DHS proposed to add the Division of **Developmental Disabilities Alternative Community Services Waiver Waiting list** as a new group. The legislation passed in early 2017. It is expected that this new funding will allow these **services to be extended to 500-900 individuals** currently waiting for these services.

Economic Impact

Total claims paid for the TS-MEP populations for 2016 was nearly $15.9 million. These funds were used to leverage 70% **federal Medicaid matching dollars** of nearly **$9.9 million**.

TS-MEP Evaluator Summary & Comments

Program Description: The Tobacco Settlement Medicaid Expansion Program (TS-MEP) is a separate component of the Arkansas Medicaid Program that improves the health of Arkansans by expanding healthcare coverage and benefits to targeted populations. The program works to expand Medicaid coverage and benefits in four populations:

- Population one expands Medicaid coverage and benefits to pregnant women with incomes ranging from 138–200% of the Federal Poverty Level (FPL);
- Population two expands inpatient and outpatient hospital reimbursements and benefits to adults age 19-64;
- Population three expands non-institutional coverage and benefits to seniors age 65 and over;
- Population four provides a limited benefits package to low-income employed adults age 19-64.

The Tobacco Settlement funds are also used to pay the state share required to leverage federal Medicaid matching funds.

Economic Impact: Total claims paid for the TS-MEP populations for 2016 was nearly $15.9 million. Additionally, TS-MEP funds were also used to leverage approximately 70% federal Medicaid matching funds. This amounted to nearly $9.9 million in federal matching Medicaid funds.

Funds for total claims were used to leverage $9.9 million in federal matching Medicaid dollars.

Challenges: As a result of the implementation of the Arkansas Works program, ARHealthNetworks was eliminated and Pregnant Women Expansion was expected to significantly decline as individuals are provided health coverage outside of TS-MEP. As of now, successful performance has been measured by growth in the number of participants in the TS-MEP initiatives. Arkansas DHS will need to continue to examine new performance measurements for the remaining TS-MEP initiatives.

OPPORTUNITIES: The discontinuation of TS-MEP initiative ARHealthNetworks provides the opportunity to support the other three TS-MEP populations as well as the state's overall Medicaid efforts. The Department of Human Services (DHS) has had the legislative authority for over ten years to use any savings in the TS-MEP programs to provide funding for the traditional Medicaid. These savings are not used to provide any funding for the Arkansas Works program. As the state of Arkansas continues to explore opportunities for Medicaid reform, new possibilities for using TS-MEP funds may emerge. In 2016, DHS proposed to add the Division of Developmental Disabilities Alternative Community Services Waiver Waiting list as a new group. The legislation passed in early 2017. It is expected that this new funding will allow these services to be extended to 500-900 individuals currently waiting for these services.

EVALUATOR COMMENTS

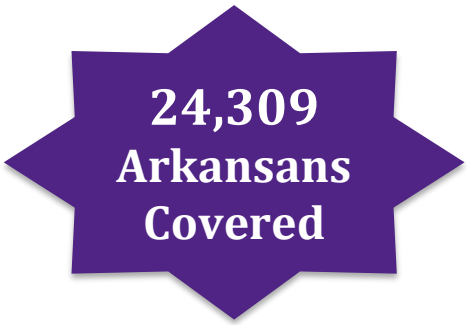
In 2016, TS-MEP has been affected by the significant changes in the healthcare system. As noted, one of the covered populations (ARHealthNewtorks) has been eliminated while another population (Pregnant Women Expansion) was expected to see a significant reduction in the number of participants. However, the PWE did see a significant increase in the number of participants. The Hospital Benefit Coverage and the ARSeniors program both have seen an increase in the number of people served. While there are no immediate plans to change the Pregnant Women Expansion, Hospital Benefit Coverage, and ARSeniors programs, there have been discussions with the new director of the TS-MEP to revisit the performance measurements to reflect current changes in the programs. However, as noted, legislation was passed to establish a new population (persons with developmental disabilities) to reduce the waiting list and provide community and home services for these individuals. A new indicator will need to be developed to measure progress with this new population group. Recently, a new indicator to address this concern has been proposed to the ATSC.

TS-MEP Performance Indicators and Progress

Overall Program Goal: To expand access to healthcare through targeted Medicaid expansions, thereby improving the health of eligible Arkansans.

Long-term Objective:
Demonstrate improved health and reduce long-term health costs of Medicaid eligible persons participating in the expanded programs.

- **Indicator**: Demonstrate improved health and reduced long-term health costs of Medicaid eligible persons participating in the expanded programs.
    - **Activity:** With the implementation of the Arkansas Works program, more individuals will have health coverage beyond the TS-MEP initiatives. Therefore, the TS-MEP long-term impact will be limited compared to the influences outside of the TS-MEP. From January 2016 to December 2016, TS-MEP provided expanded access to health benefits and services for 24,309 eligible pregnant women, seniors, and qualified adults. This is an increase from 22,997 persons served in 2015.



Short-term Objective:
The Arkansas Department of Human Services will demonstrate an increase in the number of new Medicaid eligible persons participating in the expanded programs.

- **Indicator:** Increase the number of pregnant women with incomes ranging from 138-200% of the FPL enrolled in the Pregnant Women Expansion.
    - **Activity:** Between January 2016 and December 2016, there were 704 participants in the TS-MEP initiative Pregnant Women Expansion program. This program provides prenatal health services for pregnant women with incomes ranging from 138–200% FPL. The TS-MEP funds for the Pregnant Expansion program totaled $921,706 in 2016. With the implementation of Arkansas Works and other healthcare options provided through the federally facilitated marketplace for this population, a significant decline in the number of participants in the TS-MEP Pregnant Women Expansion program was anticipated. However, there was a significant increase from the 366 women served in 2015.

In 2016, there were 704 participants in the Pregnant Women Expansion program, compared to 366 in 2015.

- **Indicator:** Increase the average number of adults 19-64 receiving inpatient and outpatient hospital reimbursements and benefits through the Hospital Benefit Coverage.
    - **Activity:** From January 2016 to December 2016, the TS-MEP initiative Hospital Benefit Coverage increased inpatient and outpatient hospital reimbursements and benefits to 16,696 adults aged 19-64 up from 15,851 in 2015, by increasing the number of benefit days from 20 to 24 and decreasing the co-pay on the first day of hospitalization from 22% to 10%. In 2016, TS-MEP funds for the Hospital Benefit Coverage totaled $5,221,348.

- **Indicator:** Increase the average number of persons enrolled in the ARSeniors program, which expands non-institutional coverage and benefits for seniors age 65 and over.
    - **Activity:** The ARSeniors program expanded Medicaid coverage to 6,909 seniors between January 2016 and December 2016. In 2015, 6,780 seniors were covered through the ARSeniors program. Qualified Medicare Beneficiary recipients below 80% FPL automatically qualify for ARSeniors coverage. Medicaid benefits that are not covered by Medicare are available to ARSeniors. Examples of these benefits are

non-emergency medical transportation and personal care services. TS-MEP funds for the ARSeniors program totaled $12,168,588 in 2016.

- **Indicator:** Increase the average number of persons enrolled in the ARHealthNetworks program, which provides a limited benefit package to low-income employed adults in the age range of 19-64.
    - **Activity:** The ARHealthNetworks program was discontinued on December 31, 2013, due to implementation of Arkansas Works, previously known as the Arkansas Health Care Independence Program/Private Option. This population is now offered more comprehensive healthcare coverage options through the Arkansas Works program. Individuals with incomes equal to or less than 138% of the FPL are eligible for Arkansas Works program and those with incomes above 138% FPL can access the federally facilitated marketplace to determine their eligibility for federally subsidized private insurance plans. Arkansas Works eligible individuals with exceptional healthcare needs and determined medically frail are enrolled in the traditional Medicaid program.

TS-MEP Testimonial

Josh Wilson, MBA, Director of Operations at Independent Case Management

"The passage of HB1033 allocating some tobacco settlement funds to serve the developmental disability waiting list is a tremendous step in the right direction for Arkansas. Currently, over 3000 individuals with intellectual and developmental disabilities are waiting to receive supports that will help them live in their community of choice. While each one of these individuals meet eligibility requirements to enter an institution such as a Human Development Center, they have been forced to wait for community supports, some upwards of ten years. Examples of these supports include supportive living assistance, training to become more self-sufficient, and job related supports aimed at gaining and maintaining competitive employment. I applaud the Governor and the legislature through the passage of this bill in their efforts to support people with intellectual and developmental disabilities. However, 2,500 people will continue waiting for the option to receive supports in their home. Therefore, we as Arkansans must continue pleading with our elected officials to end this wait list so people with disabilities, like anyone else, have the option to live and thrive in the community of their choice."

UAMS Helena, West Memphis, Lake Village

Becky Hall, EdD, Director

Stephanie Loveless, MPH, Associate Director

UCA ATSC Evaluator: Jacquie Rainey, DrPH, MCHES; Betty Hubbard, EdD, MCHES

"Developments From The Delta"

UAMS Helena, West Memphis, Lake Village

UAMS Helena, West Memphis, Lake Village

Youth Development

A total of **8,206 youth** participated in **health education programs** in 2016. Youth programs under UAMS Helena, West Memphis, Lake Village are evidence-based and interactive. Also, **2,995 students** participated in the UAMS **pre-health professions programs**, while 3,229 other students were reached through a UAMS pre-professions recruiter.

Health Matters

There were **2,764 health screenings** provided in 2016. Almost 40% of those screened were found to have abnormal results. Those with abnormal results were referred to a local physician for follow-up. In addition to providing screenings, UAMS Helena, West Memphis, Lake Village provided adult health education programs to 1,946 adults.

Working It Out

The **fitness center** had a total of 29,191 visits. There were also 42,417 adults and youth who participated in other **community-based exercise programs**, which was an **increase of 54%** from 2015.

Economic Impact

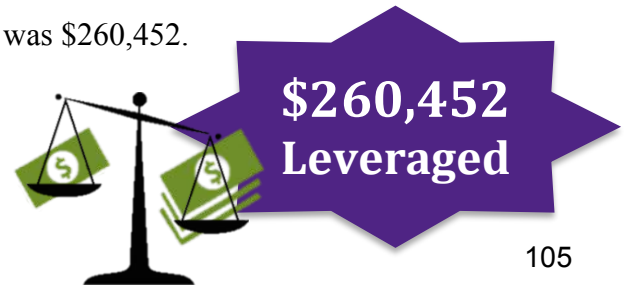
UAMS Helena, West Memphis, Lake Village provided **prescription assistance** for 814 participants for a total savings of **$687,594**.

$260,452 Leveraged

UAMS Helena, West Memphis, Lake Village Evaluator Summary & Comments

Program Description: University of Arkansas Medical Sciences Helena, West Memphis, Lake Village provides healthcare outreach services to seven counties including St. Francis, Lee, Phillips, Chicot, Desha, Monroe, and Crittenden counties. UAMS Helena, West Memphis, Lake Village, formerly known as the Delta Area Health Education Center (AHEC) and UAMS East, was established in 1990 with the purpose of providing health education to underserved populations in the Arkansas Delta region. The counties and populations served by UAMS Helena, West Memphis, Lake Village are some of the unhealthiest in the state with limited access to healthcare services being one of the challenges. As a result of limited access and health challenges, UAMS Helena, West Memphis, Lake Village has become a full service health education center with a focus on wellness and prevention for this region. The program has shown a steady increase in encounters with the resident population and produced a positive impact on the health and wellness of the region. Programs to address local health needs of residents are being implemented in partnership with more than 100 different agencies. The overall mission of UAMS Helena, West Memphis, Lake Village is to improve the health of the Delta's population. Goals include increasing the number of communities and clients served and increasing access to a primary care provider in underserved counties.

Economic Impact: UAMS Helena, West Memphis, Lake Village received 3.5% of the Tobacco Settlement Program funds, totaling $1,552,354.36 million in FY2016. UAMS Helena, West Memphis, Lake Village worked with many different partners this year to expand their reach into the communities that they serve. National and community partners provided funding for additional workout equipment at Lake Village, programs to address infant safety and injury prevention among new parents, worksite wellness in Chicot County, a healthy smiles dental program and diabetes education (a three year grant), a health careers program, and outreach health education. The total leveraged funds for 2016 was $260,452.



CHALLENGES: The planned clinic in Helena brings many opportunities but also many challenges. It will be critically important to integrate the healthcare services with the existing health education and promotion activities that the regional offices provide. Since the clinic will only serve the Helena area, there may be a need to create specific indicators for each office/region and thus programming that is designed based upon the population needs and existing resources.

OPPORTUNITIES: UAMS Helena was a sub-award grantee from the Greater Delta Alliance for Health. The three year, $92,000 grant will provide additional funds to expand the diabetes education program, the 'Cooking Matters' classes and a registered dietician to work in Chicot, Desha, St. Francis, and Phillips counties.

Efforts are underway to open a family practice clinic in the Helena office. Once the clinic is operational the program can pursue one of the original mandates of the legislation, developing a Rural Residency Training Program in the Delta region of Arkansas.

EVALUATOR COMMENTS

In 2016, UAMS Helena, West Memphis, Lake Village showed a marked increase in the participation of the pre-professional programs that are designed to introduce young people in the Delta to the health professions. Likewise there was an increase in participation in the community exercise programs and the prescription assistance program. There was a slight decrease in the use of the fitness facility and in the total number of health screenings provided. However, this decrease was very small so it can be determined that the programs maintained their performance. The diabetes program more than doubled the number of participants and provided 13 more A1c tests this year. However, the percentage of the A1c tests that were at or below the recommended level was down this year compared to last year. This is an area to investigate for possible ways to improve this marker of diabetes control. It should be noted that the new grant to expand the diabetes program may offer ways to improve the participants' diabetes control. Additionally a better method of tracking changes in individual participant's A1c levels may need to be implemented. The total number of encounters in the health education and prevention programs was lower this year than last year. However, UAMS Helena, West Memphis, Lake Village continue to provide evidence-based programs that support the adoption of healthy behaviors among residents in the Delta. Disease prevention and health promotion are critical to improving the health literacy, health outcomes and life expectancy in this underserved region of Arkansas.

UAMS Helena spent a considerable amount of effort this year on planning a family practice clinic in Helena. This clinic will provide much needed primary care to local residents. As indicated previously the clinic will provide a great opportunity to integrate healthcare services, patient education and exemplary community health promotion services. However, the clinic will also require a reallocation of resources and a re-evaluation of program objectives and indicators. During the first quarter of 2016, the staff at UAMS Helena participated in a strategic planning session to discuss potential changes in goals and programming. In addition to refocusing the goals, it is recommended that the program develop a results-based strategic plan that will focus on health outcomes of the communities it serves.

This year Helena and West Helena took a major step in the area of tobacco prevention. UAMS Helena worked with the Family Youth Enrichment Network to support and guide the grassroots tobacco 21 efforts to successfully change the legal age to buy tobacco from 18 to 21 in Helena and West Helena. For 2016, UAMS Helena, West Memphis, Lake Village met the majority of their indicators, developed new partnerships and programing, and made significant strides in bringing a family practice clinic and Rural Residency Training Program to the area. In recent years several counties in the Arkansas Delta Region that are served by UAMS Helena, West Memphis, Lake Village gained in life expectancy (Chicot, Crittenden, Desha, Lee, Phillips, Poinsett and St. Francis counties) (Arkansas Department of Health, Red County Report, 2015). This is very encouraging as the population in the Delta has traditionally had the lowest life expectancy in the state.

UAMS Helena, West Memphis, Lake Village Performance Indicators and Progress

Overall Program Goal: To recruit and retain health care professionals and to provide community-based health care and education to improve the health of the people residing in the Delta region.

Long-term Objective:
Increase the number of health professionals practicing in the UAMS Helena, West Memphis, Lake Village service areas.

- **Indicator**: Increase the number of students participating in UAMS Helena, West Memphis, Lake Village pre-health professions recruitment activities.
    - **Activity**: UAMS Helena, West Memphis, Lake Village provides a number of different programs designed to expose young people to the health professions. UAMS Helena, West Memphis, Lake Village provides a "Day in the Life" for high school students from several counties. Club Scrub activities are provided for junior high school students while the "CHAMPS" program was provided for middle school students. This year 2,995 students participated in one of these pre-health profession programs or workshops. The UAMS Pre-professions recruiter also participated in 20 career fairs and presented healthcare information to 3,229 youth. In 2015, training and recruitment events were held for 4,386 pre-health profession students. For 2016, there was an increase of 42% from the previous year.

Pre-health professions students are dressed and ready to tour UAMS hospital, as part of the Medical Applications of Science for Health (MASH) program.

- **Indicator**: Continue to provide assistance to health professions students and residents, including RN to BSN and BSN to MSN students, medical students and other interns.

- **Activity**: Assistance was provided to 44 nursing students. Nine additional nurse practitioner students were provided assistance by the advanced practice nurse serving as an adjunct instructor in their program of study. Two health education students completed their internship at UAMS Helena.

Short-term Objective:
Increase the number of communities and clients served through UAMS Helena, West Memphis, Lake Village programs.

- **Indicator:** Increase or maintain the number of clients receiving health screenings, referrals to primary care physicians, and education on chronic disease prevention and management.
  - **Activity:** UAMS Helena, West Memphis, Lake Village provided over 2,764 health screenings to residents. Almost 40% of those screened (1,075) were found to have abnormal results. Those residents who had abnormal results were provided educational counseling related to their screening results, and referred to a local physician for follow-up. Additionally, UAMS Helena, West Memphis, Lake Village provided chronic disease self-management classes to residents. The total number of screenings was down by 4% from 2015.

Table 3. Abnormal Screening Results for 2016

Blood pressure	BMI	Cholesterol	Glucose
327	258	340	78

- **Indicator:** Maintain a robust health education promotion and prevention program for area youth and adults.

- **Activity:** UAMS Helena, West Memphis, Lake Village partnered with local schools, community organizations and churches to provide health education programs to youth in all seven counties in its service region. Programs included "Project Alert"—an age appropriate substance abuse prevention program; "Kids for Health", "Reducing the Risk", and "Making Proud Choices"—all evidenced-based health education programs; and "Farm to You"—an interactive program that explores the relationship between agriculture, food and health. A total of 8,206 youth participated in these programs. Through implementation of these activities, UAMS Helena, West Memphis, Lake Village continues to maintain a strong health education program for area youth.

Healthy Smiles dental project in Marvell, Arkansas

- UAMS Helena, West Memphis, Lake Village provides health education to area adults through programs such as "Cook Smart Eat Smart". Participants learn how to prepare simple, healthy and delicious food and are taught basic cooking techniques and other topics related to eating and preparing meals at home. Other programs include stroke awareness and "Strengthening Multi-Ethnic Families and Communities", a violence prevention parenting program. UAMS Helena began a partnership with Freedom for Youth and New Light Baptist Church to begin hosting health education seminars and educational presentations every other month. These informative sessions include information on healthy eating, knowing your numbers and getting proper exercise. These and other programs were taught to 1,946 adults in 2016.

- **Indicator:** Increase the number of clients participating in exercise programs offered by UAMS Helena, West Memphis, Lake Village.
  - **Activity:** UAMS Helena, West Memphis, Lake Village operates a fitness center with exercise programing for all ages and fitness levels. The UAMS Fitness Center reported

Fitness Center in Helena

29,408 encounters in 2015. This year the fitness center averaged 7,298 encounters per quarter for a total of 29,191 fitness center visits. This is a slight decrease of less than 1%. There were 27,583 adults and youth who participated in other community based exercise programs and events in 2015. In 2016, community participation was increased by 54% with 14,139 encounters per quarter or 42,417 total encounters.

- **Indicator:** Provide crisis assistance to rape victims as needed.
  - **Activity:** The Delta Crisis Center reported 124 total calls or texts and presented three programs on sexual assault prevention and awareness.

- **Indicator:** Increase or maintain the number of clients in Chicot and Phillips counties receiving prescription assistance.
  - **Activity:** During this year, the prescription assistance program provided a total 1,038 prescriptions to 814 participants. The total savings to participants was $687,594 or $171,899 per quarter. These data indicate an increase in savings and the number of prescriptions filled over the 2015 data.

- **Indicator:** Provide medical library services to consumers, students, and health professionals.
  - **Activity:** The library provided services to 352 students, 355 health professionals and 10,190 consumers.

Library services provided to 10,190 consumers in 2016.

- **Indicator:** Plan and implement a Rural Residency Training Track for Family Medicine in Helena, in partnership with UAMS South Central's residency program.
  - **Activity:** For this reporting period, UAMS Helena has been in negotiations with a local physician to staff and direct the proposed clinic. Once the clinic is operational the Rural Residency Training Track can be further explored.

- **Indicator:** Provide targeted clinical care in Helena.
    - **Activity:** This indicator is on hold awaiting the finalization of the plans for the clinic in Helena. At the end of 2016, plans had been designed for the renovation of the UAMS Helena office to accommodate the clinic and negotiations were nearing completion with a local physician to staff the clinic.

- **Indicator:** Provide diabetes education to community members and increase the proportion of patients in the diabetes clinic who maintain an A1c below seven.
    - **Activity:** Diabetes education classes were provided to 164 encounters for an average of 41 participants per quarter. Hemoglobin A1c was taken 34 times with 18 of those tests being at or above the recommended level of seven. There was a decrease in the number of participants with an Alc level below 7 from the previous year with 47% reported at the recommended level compared to 71% in 2015.

UAMS Helena, West Memphis, Lake Village Testimonial

The First Baptist Church in Brinkley provides the kitchen and classroom space necessary for a "Cooking Matters" course, which is facilitated by Stephanie Loveless—Associate Director of UAMS Helena, West Memphis, Lake Village—and her colleagues: two registered dieticians and a public health educator. The course episodes are provided once per week over a period of six weeks. Topics covered relate to planning, creating, and enjoying healthy meals on a budget. During this "Cooking Matters" course two local women were presented with handouts and a lecture concerning cost-effective and practical ways to plan, shop, and cook healthy food items. The session included multiple components. The first was "Comparing Prices" concerning how to obtain the best per unit value of healthy food items. "Stocking your Pantry" was the next topic addressed and it recommended taking an inventory of items already in stock in the pantry before going to the store and then purchasing foods that will be on hand for planned meal preparation in the future. "Spice it Up" shared recipes to create homemade mixes from flavorful blends of spices and herbs. Multiple suggestions were given for the substitutions of herbs and spices to enhance the flavor of food, versus adding extra unhealthy amounts of sodium or sugar.

Stephanie Loveless relays her view of the experience, "We are blessed to have a registered dietician on staff to assist with our community outreach programs. The nutritional information that these courses provide are so valuable in our community that suffers from extremely high rates of obesity, heart disease, and diabetes."

Conclusion

ATSC-funded programs represented a broad array of efforts to address health challenges in the state of Arkansas during 2016. Program efforts had a marked return on investment in extramural funds and generated substantial potential savings in healthcare costs (e.g., through identifying health conditions before emergency care is needed). ATSC-funded programs endeavor to continue contributing to life expectancy gains such as those experienced across Arkansas over the last several years. Given the scale of health concerns confronting Arkansans in this century, it is unrealistic to expect a few million dollars of tobacco funding to resolve all problems. Nonetheless, ATSC-funded programs appear to be able to perpetuate a culture of health by raising awareness of critical health concerns, engaging in cross-sector collaborations with entities outside of healthcare sectors, and generating health-related services that might not otherwise be affordable.

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SPECIAL THANKS

Special thanks to all individuals who participated in this evaluation, including members of the Arkansas Tobacco Settlement Commission and program directors and staff at the Arkansas Aging Initiative; Arkansas Biosciences Institute; Fay. W. Boozman College of Public Health Arkansas; Minority Health Initiative; Tobacco Prevention and Cessation Program; Tobacco Settlement Medicaid Expansion Program; and UAMS Helena, West Memphis, Lake Village.