



**ARKANSAS TOBACCO SETTLEMENT
COMMISSION (ATSC)**
BIENNIAL EVALUATION REPORT
2013-2014

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ARKANSAS TOBACCO SETTLEMENT COMMISSION (ATSC) BIENNIAL EVALUATION REPORT

Summary:

The Master Settlement Agreement (MSA) is one of the most important legal decisions made, which created an opportunity to improve public health and address the enormous public health problems related to tobacco use. Arkansas dedicates a large portion of its MSA dollars to support key state-wide public health programs. Given the important public health needs in Arkansas these funds address it is critical that the Commission and Arkansas lawmakers are aware of how the funds are spent and what health outcomes result from the funded programs.

An essential consideration in conducting this evaluation was the development of an approach that enables the Commission to monitor activities and assess progress towards achieving the goals specified in the Tobacco Settlement Proceeds Act. This process was accomplished with a great deal of care and consideration for the original language of the Act and the current status of program accomplishments. In this brief we highlight key evaluation findings, including outcome accomplishments and challenges, and provide recommendations for future implementation.

Introduction:

Tobacco use is the leading preventable cause of death, disease, and disability in the US. Smoking kills more people than alcohol, AIDS, car crashes, illegal drugs, murder, and suicide combined¹. It is estimated that annual health care costs in Arkansas directly caused by smoking are \$1.21 billion, with Medicaid paying for \$242 million of these costs². In addition to health care costs, smoking further harms Arkansas' economy by reducing worker productivity, contributing to estimated losses of \$1.40 billion annually².

In 1999, the state attorneys general collectively launched the largest class action lawsuit in U.S. history and sued the tobacco industry to recover and offset the costs of caring for smokers in what became known as the Master Settlement Agreement (MSA). Through the MSA, states were awarded billions of

dollars. Seven key public health programs are being supported by Arkansas' portion of these funds. These programs improve the health of Arkansans in a variety of ways, and by leveraging MSA funding, several programs have even been able to further their impact.

This "Arkansas Tobacco Settlement Commission Biennial Evaluation Report" includes the latest information received from ATSC funded programs. The report details the implementation and progress of programs towards achieving the short- and long-term goals outlined in the Act and examines how these efforts are impacting the health of Arkansans.

There are three main components to the Biennial Report for each program. The first component is the Summary narrative that captures the following information:

- Program Description
- Progress and Highlights
- Key Accomplishments
- Challenges and Opportunities
- Plans for Next Biennium

This second component, Performance Indicators and Progress, details program progress toward achieving the goals specified in the Act. Performance Indicators were developed for each program to assess performance in a meaningful and measureable way.

Finally, a one-page highlight of a program activity is presented to illustrate program progress, impact, and value. These highlights provide a glimpse of the kind of impact programs are having in the state.

Key Evaluation Findings/Key Impacts:

Progress on many of the goals outlined in the Act has been made, thanks to the efforts of the program staff as well as the funders who invest in them. Opportunities remain, however, to increase the impact of these programs.

ARKANSAS AGING INITIATIVE (AAI):

Improve the Health of Older Arkansans

Major Accomplishments

- Successfully leveraged tobacco settlement monies to receive more than \$12M additional indirect and direct funds.
- Increased the number of people qualified to provide home care in Arkansas to address the growing demand for home caregivers in the state with 4 additional Schmieding Home Caregiver Training sites opened this biennium.
- Partnered with Wadley Regional Medical Center in Texarkana to start an 8th Senior Health Clinic devoted exclusively to meeting the needs of older adults.

Ongoing Challenges

- The percent of Arkansas population age 60 years and older is growing rapidly; this population has many health needs related to chronic diseases such as diabetes, heart disease and stroke, and Alzheimer's.
- The demand for health services and home based services will continue to grow.

- Funding uncertainties and cuts make it difficult to execute a comprehensive plan to address the growing needs of seniors.

ARKANSAS BIOSCIENCES INSTITUTE (ABI):

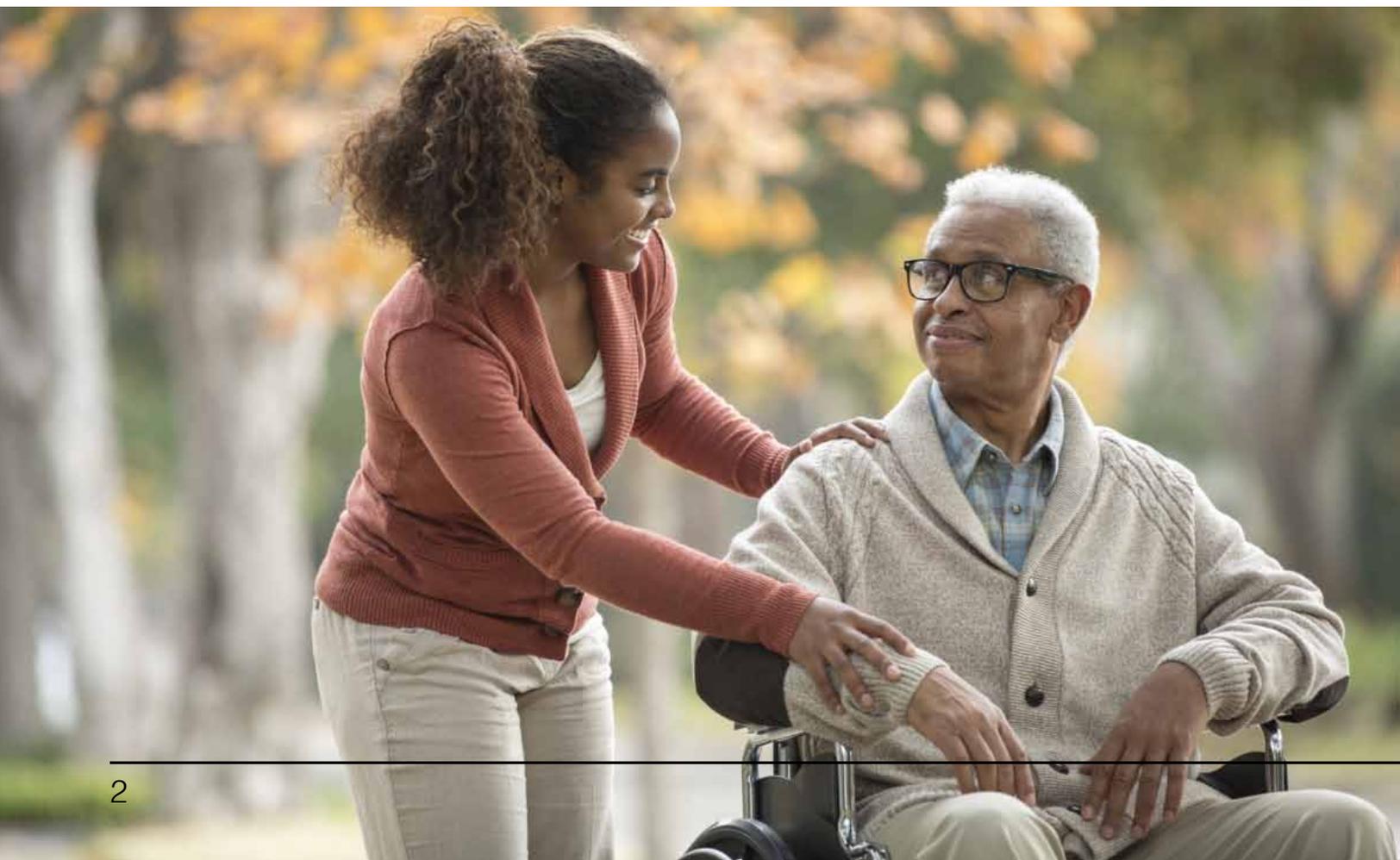
Develop research initiatives to improve access to new technologies, improve the health of Arkansans, and stabilize the State's economic security.

Major Accomplishments

- Knowledge gained from ABI research has improved understanding of key health issues and has been used to inform clinical care recommendations.
- Leveraged \$3.63 in outside funding for every one dollar of tobacco settlement funding monies received.
- Conducted cutting edge research that led to 8 patent awards in FY 2013.

Ongoing Challenges

- Federal funding for research continues to decrease, making it more difficult for scientist to secure funds.



COLLEGE OF PUBLIC HEALTH (COPH):

Improve the health and promote the well-being of individuals, families and communities in Arkansas through education, research and service.

Major Accomplishments

- Most graduates report seeking public health employment in Arkansas after graduation.
- Secured ongoing funding to operate the Arkansas Prevention Research Center which will use multiple strategies to reduce disparities in hypertension control.
- Created an advisory board to direct philanthropic fundraising development efforts. This will help COPH overcome challenges resulting from reductions in federal public health spending.

Ongoing Challenges

- Reduction in funding creates challenges in recruiting and retaining both students and faculty.

MINORITY HEALTH INITIATIVE:

Reduce disparities critical to minority groups in Arkansas by 1) increasing awareness, 2) providing screening or access to screening, and 3) developing intervention strategies (including educational programs) and developing/maintaining a database.

Major Accomplishments

- Community outreach conducted with more than 65,000 Arkansans to increase knowledge and awareness about diseases that disproportionately impact minorities.
- Provided preventive screenings to more than 23,000 Arkansans for high blood pressure, diabetes, cholesterol, HIV/AIDS, prostate cancer and other diseases impacting minorities.
- Increased knowledge and skills to make healthier food choices and better decisions regarding physical activity of youth participating in the Camp iRock program.

Ongoing Challenges

- Many racial and ethnic minorities, people with disabilities, residents of rural areas and other vulnerable groups in Arkansas continue to face barriers to good health. As a result, these Arkansans are more likely to suffer from disease.
- The increased incidence of conditions such as heart disease, diabetes, cancer, and obesity among these groups is associated with higher health costs, increased number of missed work days due to illness and lower household earnings.



UAMS EAST:

Recruit and retain health care professionals and provide community based health care and education to improve the health of the Delta's people.

Major Accomplishments

- Served more communities and citizens in the Delta region through UAMS East's health and wellness programs. Total encounters for FY July 2012 to July 2013 were 144,700 and FY 2013 to May 2014 are 139,392.
- Decreased obesity rate in Phillips County, home to the UAMS fitness center where center membership has increased over the past two years.
- Held Continuing Medical Education courses for more than 200 health professionals in the Delta region.

Ongoing Challenges

- Sustaining outreach and other program activities at current levels is challenging when funding is declining.
- Limited resources will make it challenging to host a 1–2 year rural residency training program. Implementing this program will be a major undertaking utilizing a great deal of UAMS East resources in the future.

TOBACCO SETTLEMENT MEDICAID EXPANSION PROGRAM (TS-MEP):

Expand access to health care through targeted Medicaid expansions, thereby improving the health of eligible Arkansans.

Major Accomplishments

- Developed a new Eligibility and Enrollment system that improves and streamlines the screening and enrollment process.
- Continued leverage of federal funds; Tobacco Settlement Funds are used to pay the state share required to leverage approximately 70% in federal Medicaid matching funds.
- TS-MEP was able to eliminate the ARHealthNetworks program freeing additional Tobacco Settlement Funds to be directed toward paying Medicaid's budget deficit. This program served low-income adults, age 19–64, who are now eligible for an expanded range of health benefits covered by federal funding.

Ongoing Challenges

- There has been a great deal of change as a result of the Affordable Care Act (ACA) and the Arkansas Health Care Independence Program/Private Option (HCIP/PO).
- Uncertainty remains about the fate of HCIP/PO, which will directly impact TS-MEP.

TOBACCO PREVENTION AND CESSATION PROGRAM:

Reduce the initiation of tobacco use and the resulting negative health and economic impact.

Major Accomplishments

- Quit rate for FY 2013 was 27.3%.
- Four laws were passed to protect youth and other underserved populations.
- CDC is featuring STOP on its website as a supplement to the Best Practices Guidelines.
- Arkansas ranked second in the nation for the number of substance abuse treatment facilities offering any tobacco cessation service by the National Survey of Substance Abuse Treatment Services Report.

Ongoing Challenges

- Reductions in smoking rates nationally and in Arkansas have stalled over the past 5 years.
- Smokeless tobacco use rates among youth in Arkansas remain high, with 1 in 4 high school males reporting use. Nearly 10% of males in Arkansas report using smokeless tobacco by the 9th grade.
- Arkansas' tobacco control program is currently only funded at 54% of the level recommended by CDC; meanwhile the tobacco industry continues to

pour money into aggressive marketing strategies to promote its products to minors and adults.

- Since smokeless tobacco products (SLTs), such as e-cigarettes, remain unregulated and therefore not subject to the same federal laws and regulations as cigarettes, the tobacco industry markets these products in ways it cannot advertise cigarettes. The tobacco industry has taken advantage of this regulation gap to market SLTs in a manner designed to renormalizing indoor smoking and appeal to youth.
- The tobacco industry has increased its focus on SLT products, doubling their SLT marketing budgets from \$250.8 million in 2005 to \$547.9 million in 2008, and expanding to include women as a target market. Advertisements promote SLT products as safer than conventional cigarettes and some urge smokers to use SLT products in lieu of quitting.

Conclusion

This report provides a comprehensive overview of program progress toward achieving the goals outlined in the Act and improving the well-being of Arkansans. While the success of these programs is undeniable, much work remains to improve the health of citizens of the great state of Arkansas.

In this next biennium, programs will need to continue to work innovatively and collaboratively. To achieve measureable public health improvement in Arkansas, we encourage program leaders to consistently focus their programs' activities on achieving specific performance indicators and measurable public health outcomes. In this period of decreasing state and federal funding, it is also important that programs continue to build and leverage public-private partnerships. The strength of the Arkansas Tobacco Settlement Commission and the programs supported by the MSA provide a solid foundation for continuing to improve the health of Arkansans.

Acknowledgements

Special thanks to the numerous people that 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, Arkansas Department of Health, UAMS College of Public Health, Minority Health Initiative, UAMS East, and the Tobacco Settlement Medicaid Expansion Program.



Ongoing Needs

In the previous section we discussed progress toward achieving the program goals outlined in the Act and improving the health status of citizens. There remains work to be done, however, and opportunities remain to further improve the quality of life and health outcomes of Arkansans. Arkansas continues to rank lower than many other states in key health outcomes and health lifestyle factors.³ In this section we provide a high level summary of some of the ongoing challenges that need to be addressed to fulfill the vision of the Act.

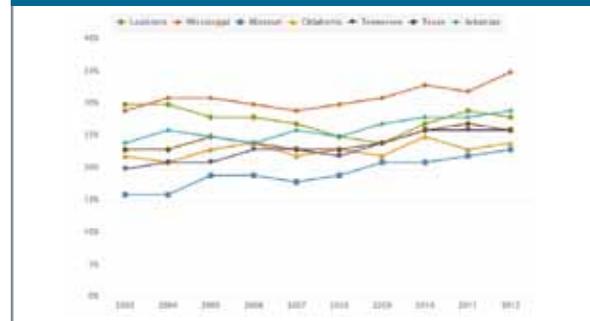
Poverty and Economic Conditions

The effect of poverty on health has been clearly documented with higher rates of many chronic diseases and shorter life expectancy. Arkansas has one of the highest poverty rates in the nation, and it is estimated that in 2013, 29.6% of children in Arkansas lived in poverty.^{4,5} This can be compared to 23% nationwide.⁴ Of neighboring states, only Mississippi had higher child poverty rates in 2012⁶ (see Figure 1-1). Nearly half of African American and Hispanic children in Arkansas live in poverty. African Americans make up 15.6% of Arkansas' population, but 35.1% of those experience poverty.⁷ Poverty in the Rural Delta and Coastal Plains is consistently higher than in the urban counties (see Figure 1-2). Some rural counties (see Figure 1-3) experience a child poverty rate of 40–50%.⁷

Poverty has been shown to impact health outcomes from birth through adulthood.^{8,9} Babies born in poverty are more likely to have a low birth weight and more likely to die within a month of birth.^{10,11} Those living in poverty are more likely to engage in unhealthy behaviors, and are at greater risk for a variety of diseases in adulthood.^{12,13}

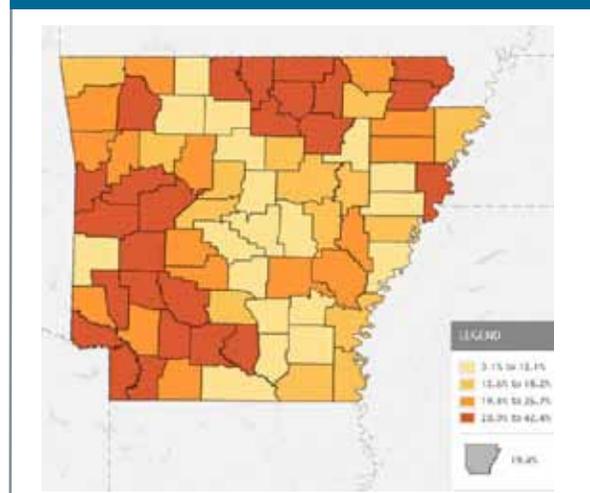
*Children in poverty is defined as the percentage of related persons younger than 18 years living in a household that is below the poverty threshold. The 2013 poverty threshold established by the U.S. Census Bureau for a household of 4 people in the lower 48 states is \$23,550 in household income.¹⁴

Figure 1-1. Children in Poverty in Arkansas and Adjacent States, 2003–2013



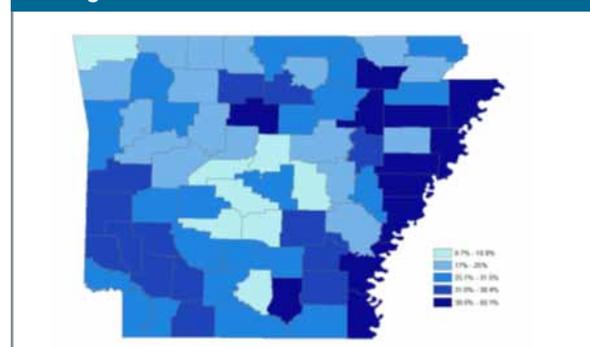
Source: The Annie E. Casey Foundation, KIDS COUNT Data Center

Figure 1-2. Median Household Income by County, 2010



Source: Kids Count Data Center, Annie E. Casey Foundation

Figure 1.3. Child Poverty by County, 5-year Rolling Average Data



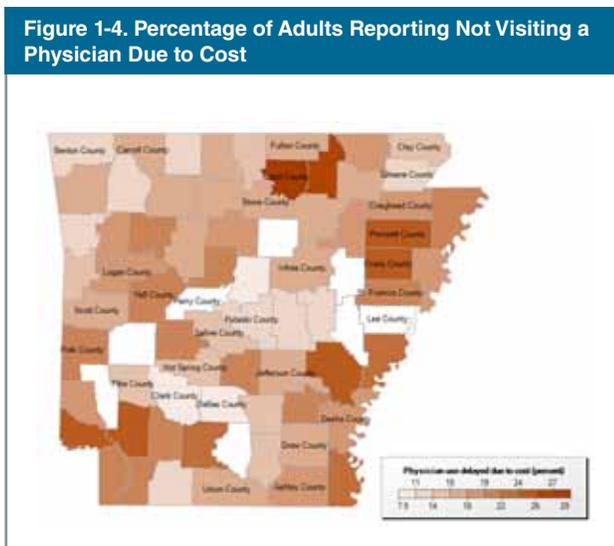
Source: U.S. Census Bureau, American Community Survey, 5-year rolling average (Table B17001)

Access to Care

This report covers the period of significant change to health care access as a direct result of the implementation of the Affordable Care Act (ACA) and the Arkansas Health Care Independence Program/Private Option (HCIP/PO). Before these laws were implemented, one in four adults in Arkansas did not have health insurance,¹⁵ and in some counties (see Figure 1-4) more than one in four persons reported they did not see a physician due to costs.¹⁶ Sixteen percent of adult Arkansans report not having a personal doctor.¹⁷ Disparities in access exist, particularly for African Americans, a growing Hispanic population, and a large Marshallese immigrant population in Northwest Arkansas.

The Affordable Care Act has offered new and unique opportunities in Arkansas to expand health care coverage. The state is piloting a “private option” that allows low-income families to access health insurance on the private market through the state healthcare exchange. It is critical that the state of Arkansas develop a set of indicators to track expansion of health care coverage and collect relevant data to determine if efforts in this area are having the desired impact.

Previously, Arkansas was a leader in covering uninsured children with the creation in 1997 of the ARKids First health insurance program for working families. That program provided two coverage options—ARKids A for children eligible for Medicaid and ARKids B for children in families with slightly higher incomes. Creation of the ARKids First program reduced the number of uninsured children statewide by half. The Private Option now moves some families covered by ARKids B off that program and into the private insurance market. According to some reports, this has already resulted in an increase in the number of children covered by health insurance. When ARKids First began, 22% of children were uninsured compared to 6% currently. Children’s access to a primary care physician is a major concern in some counties, but varies greatly across the state (see Table 1-1). For example, in Northwest Arkansas, an estimated 6,900 children who were enrolled in ARKids First in 2009 did not have access to a primary care physician.¹⁸ Arkansas children enrolled in Medicaid are behind the national average in receiving well-child screens. In 2011, 62 percent of the expected check-ups for Arkansas children were given versus 87 percent nationally.¹⁹ This is related to the number of primary care physicians available across the state as well as to the Medicaid reimbursement rates.



Data Source: CDC, BRFSS data, 2012

	County	Percent
Highest 5%	Izard	18.20%
	Pulaski	11.30%
	Miller	10.90%
	Jefferson	8.90%
Lowest 5%	Montgomery	3.70%
	Hot Spring	3.60%
	Newton	2.90%
	Stone	2.80%

Table 1-1. Children Without a Primary Care Physician by County (top five percent and lowest five percent)

Data Source: Special request to Arkansas Department of Human Services by AACF

Providing access to insurance coverage will help reduce financial barriers to care; however, access to care is also dependent upon the availability and accessibility of qualified health care providers. In 2013, it was estimated that in most parts of the state, there is a shortage of primary care providers to meet the demands for care.²⁰ In 61 of 75 counties, demand for primary care exceeds the supply of care providers. These shortages are greatest in rural counties, and in some cases demand outpaces supply by 75 to 85 percent. Shortages were not present in more metropolitan areas of the state,

where provider supply exceeded demand for services. In order to improve access to care, it will be necessary to address the disparities in distribution of primary care providers in the state.

Aging Population

The current growth in the number and proportion of older adults in Arkansas is unprecedented in the state's history. The aging of the state's population has many implications, and will impact the health care system and economy. The U.S. Census Bureau estimates that 26 percent of Arkansas' population will be over age 60 by the year 2030, an increase of more than 25 percent from 2012 (See Figure 1-5).²¹

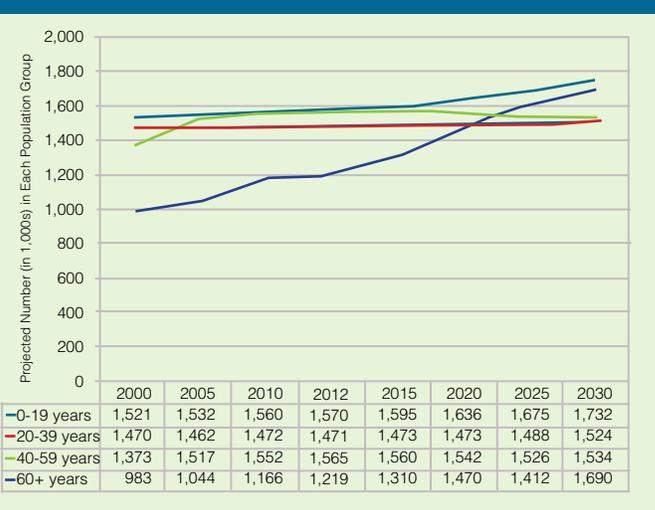
Many of these older adults will suffer from chronic diseases and conditions that require medical attention. According to the AARP Public Policy Institute, there are approximately 330,000 senior Arkansans with a chronic disease, and most of these (77%) have two or more chronic diseases. These conditions include heart disease, cancer, stroke, Alzheimer's disease, diabetes, and chronic respiratory diseases.²²

Health outcomes and rates for many of these diseases are worse in Arkansas than other parts of the country.³ Death rates in Arkansas for cancer, diabetes, heart disease and stroke are higher than the national rates.²³ The state also has a greater proportion of persons living with diabetes and high blood pressure compared to national rates.¹⁶ More than 44,000 persons age 65 and older smoke in Arkansas, and there are more than 112,000 obese seniors in the state.¹⁶

Another challenge facing many of Arkansas' older adults is food insecurity. Nearly one in four adults age 60 and older are marginally food insecure.²⁴

Given the health needs of many older adults in Arkansas, there will be increased demands on the health care system. Many older adults in Arkansas live in rural areas; and as noted earlier, there is a shortage of primary care providers in many rural areas of the state.

Figure 1-5. Proportion of Older Adults is Growing in Arkansas

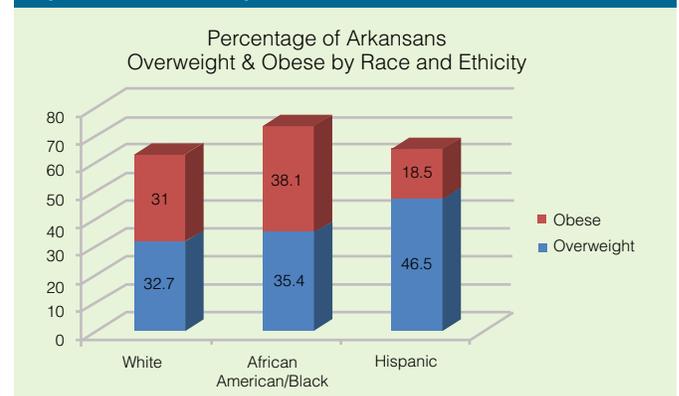


Source: U.S. Administration on Aging²⁵

Health Disparities

Many racial and ethnic minorities, people with disabilities, residents of rural areas and other vulnerable groups in Arkansas continue to face barriers to good health. As a result, these Arkansans are more likely to suffer from disease. Racial and ethnic minorities in Arkansas are more likely to suffer from chronic conditions such as asthma, heart disease, stroke, and diabetes compared to non-Hispanic whites. Racial and ethnic minorities in Arkansas are also more likely to be obese, increasing their risk for many chronic diseases and conditions. See Figure 1-6 below.

Figure 1-6: Percentage of Arkansans with Weight Problems, by Race and Ethnicity

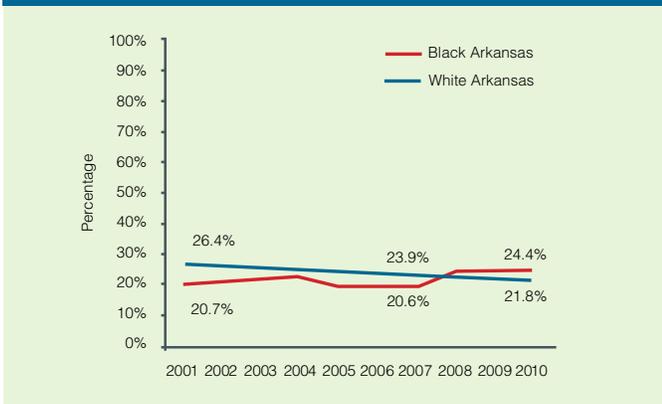


Data Source: CDC, BRFSS, 2012

The increased incidence of conditions such as heart disease, diabetes, cancer, and obesity among these groups is associated with higher health costs, increased number of missed work days due to illness, and lower household earnings. This can lead to a cycle where poor health leads to less income, which in turn may lead to more health problems.²⁶⁻²⁷

In the past decade, the disparity gap in smoking rates has also widened in Arkansas.²⁹ When the MSA went into place, smoking rates were highest amongst white non-Hispanics. Over the past decade smoking among white non-Hispanics in Arkansas has declined. However, smoking rates for African Americans has increased, reversing historical trends. See Figure 1-7 below

Figure 1-7. Percentage of Adults Who are Current Cigarette Smokers, 1999-2010, 3-year Moving Average Rates



Source: UAMS Trends In Health Disparities Report

Since the MSA, tobacco companies have targeted racial and ethnic minorities with merchandising and advertising.³⁰ These strategies include increasing marketing for products popular with African Americans, such as mentholated cigarettes, which increased from 13 percent of total ad expenditures in 1998 to 49 percent in 2005.³¹ There was also a cigarette campaign targeting black youth in 2006 that featured hip-hop DJ competitions and theme packs conducted under the guise of a “celebration” of hip hop culture.³²

Smoking and Tobacco Use

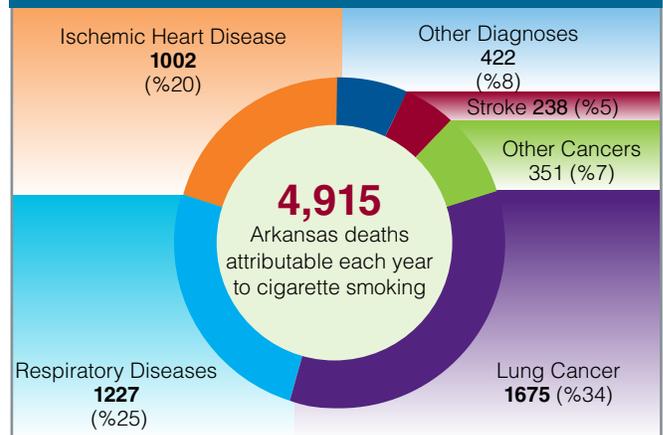
Tobacco use is the leading preventable cause of death, disease, and disability in Arkansas.¹ One in four adults in Arkansas smoke, meaning there are 559,500 adult smokers in the state. In 2013, Arkansas ranked 48th

for its high smoking rate compared to other states,¹⁶ with only Kentucky (28.3%) and West Virginia (28.2%) reporting higher levels of adult smoking.³

Reductions in smoking rates nationally and in Arkansas have stalled over the past 5 years.^{16,33} Trends in Arkansas are similar to neighboring states, with the exception of Texas.¹⁶ Texas has more closely matched national trends compared to other neighboring states. It is important to note that due to the 2011 change in BRFSS methodology, smoking prevalence from 2012 and onward cannot be directly compared to estimates from previous years.

The detrimental health consequences of smoking are very well documented.³⁴ Tobacco causes nearly 5000 deaths in the state per year.³⁶ See Figure 1-8 for more details. For each death, it is estimated that 20 more suffer tobacco-related illnesses.³⁶ Smoking damages nearly every organ in the body and causes heart disease, stroke, cancer, respiratory disease, preterm birth, and low birthweight.³⁵ Annual health care costs in Arkansas directly caused by smoking are estimated to be \$1.21 billion, with Medicaid paying for \$242 million of these costs.² In addition to health care costs, smoking further harms the state economy by reducing worker productivity, contributing to estimated losses of \$1.40 billion annually.²

Figure 1-8. Tobacco Causes Nearly 5,000 Deaths in Arkansas Every Year



Source: CDC Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)

The harmful health effects of smoking are not limited to just the smoker; others are harmed through exposure to secondhand smoke.³⁷ Arkansas has made a lot of progress in the past decade enacting legislation to

protect the rights and health of nonsmokers. Arkansas has a smoke-free law prohibiting smoking in indoor areas of workplaces which helps protect many citizens. However, this law does not apply to restaurants or bars. This leaves many Arkansans, especially service industry workers, unprotected from secondhand smoke.

In addition to smoking, smokeless tobacco products (SLTs) present challenges for the state as well. The youth smokeless tobacco use rate in Arkansas remains high, with nearly 1 in 4 high school males reporting use.³⁸ SLTs, such as e-cigarettes, remain unregulated and therefore are not subject to the same federal laws and regulations as cigarettes. This allows the tobacco industry to market these products in ways it cannot advertise cigarettes. The tobacco industry has taken advantage of this regulation gap to market SLTs in a manner designed to renormalizing indoor smoking and appeal to youth.

The tobacco industry has increased its focus on SLT products, doubling their SLT marketing budgets from \$250.8 million in 2005 to \$547.9 million in 2008, and expanding to include women as a target market.³⁹ Advertisements promote SLT products as safer than conventional cigarettes, and some urge smokers to use SLT products in lieu of quitting.

Earlier this year, the U.S. Food and Drug Administration (FDA) proposed a new rule that would extend the agency's tobacco authority to cover additional tobacco products.⁴⁰ If approved, the rule will allow the FDA to use regulatory tools, such as age restrictions and rigorous scientific review of new tobacco products and claims. Health warnings would also be required and the sale of the products in vending machines would be prohibited. Companies would also no longer be allowed to give out free samples.



ARKANSAS AGING INITIATIVE

Program Description: The Arkansas Aging Initiative (AAI) is an infrastructure of nine regional centers focused on improving the health and quality of life of older adults living throughout the state. This program is designed to address one of the most pressing policy issues facing this country: how to care for the burgeoning number of older adults in rural settings. The vision is to improve the quality of life for older adults and their families and is fulfilled through two primary missions: building an infrastructure that provides quality interdisciplinary clinical care and innovative education programs; and influencing health policy at the state and national levels with emphasis on care for rural older adults.

Progress and Highlights: Over the past decade, the AAI has been able to make health care and education more accessible for rural Arkansans. When the Act was initiated, specialized geriatric care was only available to older adults in central and northwest Arkansas. Because of the network of AAI Centers on Aging (COAs) and AAI's partnerships with local and regional hospitals, eight additional senior health clinics now provide critical interprofessional healthcare across all of Arkansas. As a result, more than 90% of older Arkansans now have access to specialized geriatric health care within a 60 mile radius of their home. The educational component has also been critical in meeting the overall goals of the AAI. Programs and interventions to meet the identified needs were developed and have been ongoing now for almost 13 years. Based on the data from FY 2013 and through the 3rd quarter of FY 2014, there have been almost 60,000 visits to AAI partnered hospitals' senior health clinics and over 102,000 encounters at AAI's COAs.

Key Accomplishments this Past Biennium: The AAI acquired telehealth equipment for each of the Centers on Aging from the UAMS Broadband Technologies Opportunities Program funded by the Department of Commerce's National Telecommunications Information Administration. All sites use their equipment for regular healthcare professional continuing education events in

partnership with the Arkansas Geriatric Center and also for community education presentations. This allows for the program to be initiated at one site and broadcasted to all of the COAs plus others who are connected to the Arkansas Rural Health Network. AAI also conducts meetings via the telehealth network which saves on time and travel. The University of Arkansas for Medical Sciences Translational Research Institute held its first Community Partner Celebration October 15, 2013 and honored 120 individuals and community groups for their contribution and leadership in community development. The Arkansas Aging Initiative's West Central Center on Aging Community Advisory Committee was chosen for the award in the category of Advisory Boards and Committees.

Key Accomplishments This Biennium

- Received telehealth equipment at the COAs via the UAMS BTOP grant to expand availability of community and continuing education events
- Partnered with Wadley Regional Medical Center in Texarkana to start an 8th Senior Health Clinic
- Leveraged more than \$12M in direct and indirect funding
- Opened 4 additional Schmieding Home Caregiver Training sites with an \$8M grant from the Donald W. Reynolds Foundation
- Partnered with University of Oklahoma to replicate the AAI in their state with a grant from the Donald W. Reynolds Foundation
- More than 102,000* community education/exercise encounters
- Almost 60,000* visits to AAI partner hospitals' senior health clinics

*These numbers do not include data for Q4 FY2014.

The AAI worked with the University of Oklahoma to obtain a grant from the Donald W. Reynolds Foundation to replicate the AAI in their state where they have successfully opened two sites and are planning for a third. AAI also partnered with them to write a grant to replicate the Schmieding Home Caregiver Training at their sites. The grant was awarded in the spring of 2014. The AAI successfully opened four additional Schmieding Caregiving Training sites in Arkansas and now has this training at eight of its centers plus a site in Little Rock, all from a nearly \$8M grant from the Donald W. Reynolds Foundation. In total, the AAI has received over \$12M in leveraged funds over the past two years including a CMS Innovations grant of \$3.6M from the CMS Innovations Center to add a 40-hour course module to the Schmieding Home Caregiver Training curriculum, fund the conversion of the curriculum to an online format, and establish micro-credit loans for the trainees.

The Centers on Aging have focused the last two years on implementing the Chronic Care Model in their education and clinical programs. The clinical programs have implemented decision support, health information technology and continued interprofessional teams. The educational component is focused on using evidence-based practice in all of their programs. They have several exercise related programs such as Tai Chi, Strong Women and Men, and Zumba and many community educational programs such as the Stanford Chronic Disease Self-Management Program, the Stanford Diabetes Self-Management Program and the A Matter of Balance program. The health care professional programs have expanded their reach with the telehealth programs and the Arkansas Geriatric Center (from a HRSA federal grant) partners with the AAI to obtain continuing education credit from the many healthcare professional entities.

Challenges and Opportunities: Developing realistic regional and statewide strategic plans and operational budgets with unknown and frequently reduced funds is an ongoing challenge. Staff members at the Centers have been successful in identifying funding sources including grants, contracts, partnerships, and donations to ease the financial burden. It remains a challenge and an opportunity to maintain and grow the advisory committees in each region. The Centers on Aging advisory members are advocates for the COAs and partner hospitals in their daily activities such as attending events and meetings for the Chambers of Commerce, Rotary Club and other community groups. The members provide continuous and effective marketing for the Senior Health Clinics' and the Centers on Aging's education programs by inviting and hosting guests to tour the facilities and attend the programs. They also keep new and returning legislators informed about the activities, successes, and needs of the Centers and seek opportunities to inform them about what AAI is doing in their region.

Future Plans. During the next two years the AAI will continue to work on implementation of the Chronic Care Model in both educational and clinical activities, strive to strengthen community advisory committees and expand education programs offered through the telehealth network. AAI will also keep up-to-date with Medicare regulations which might allow future reimbursable use of equipment for clinical activities.

AAI Performance Indicators and Progress

Goals Specified by the Act: To improve the health of older Arkansans through interdisciplinary geriatric care and innovative education programs, and to influence health policy affecting older adults. The following short-term and long-term goals were established for AAI in the Act:

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

Long-term Goal: To improve the health status and decrease death rates of elderly Arkansans, as well as obtain federal and philanthropic grant funding.

Evaluation of Progress toward Achieving Key Performance Indicators

We have identified seven key performance indicators for this program. These indicators will be monitored over time to determine the extent to which AAI is achieving the goals outlined in the Act. The subsections below present the current status by indicator and provide recommendations for improving programs as appropriate to achieve each goal in the future

Indicators for Short-Term Goal

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 Senior Health Clinic (SHC) encounters through a continued positive relationship.

Status: In 2014, partner hospitals continued to serve the elderly of Arkansas by generating an extensive number of SHC encounters. Through the 2nd quarter of FY 2014, there were 6,764 visits to AAI partner hospital senior health clinics reported and an additional 890 nursing home, inpatient, and home visits. Although these numbers have stabilized over the past few years, this total remains well above the 12-year norm of just over 5,000 per year.

Discussion: AAI is meeting the objective of maximizing the number of SHC encounters, despite ongoing funding challenges.

Indicator: Partnered hospitals will maintain a minimum of three provider FTEs for SHCs, including a geriatrician, advanced practice nurse, and social worker .

Status: The number of FTEs at partner hospitals has remained stable over the past few years. Three AAI partners currently maintain at least three provider FTEs in FY 2014, while four other partners maintain at least two FTEs.

Discussion: Partner hospital fiscal limitations and provider shortages in some regions continue to make it difficult to increase the number of FTEs for SHCs.

Indicator: Provide educational programming to healthcare practitioners and students of the healthcare disciplines to provide specialized training in geriatrics.

Status: AAI continued to provide educational programming to healthcare practitioners and students throughout the state. Details on the number of encounters for FY 2013 and FY 2014 are provided in Table 2-1 below.

Discussion: AAI continues to provide critical geriatric education throughout the state. In this biennium, AAI acquired telehealth equipment for each of the Centers on Aging. This has enhanced its capacity to provide continuing education events for healthcare professionals. Programming can now be initiated at one site and broadcasted to all of the Centers of Aging plus others who are connected to the Arkansas Rural Health Network.

Indicator: Provide educational opportunities for the community annually.

Status: AAI continued to provide evidence-based community education programming throughout the state. Details on the number of encounters for FY 2013 and FY 2014 are provided in Table 2-1 below.

Discussion: The Centers of Aging offer evidence-based educational programs for the community including the Stanford Chronic Disease Self-Management Program, the Stanford Diabetes Self-Management Program and the A Matter of Balance program. Subjects covered include: (1) techniques to deal with problems such as frustration, fatigue, pain and isolation; (2) appropriate exercise for maintaining and improving strength, flexibility, and endurance; (3) appropriate use of medications; (4) communicating effectively with family, friends, and health professionals; (5) nutrition; (6) decision making; and (7) how to evaluate new treatments. Research has demonstrated that participants in these evidence-based programs have improved outcomes including improvements in exercise, cognitive symptom management, communication with physicians, self-reported general health, health distress, fatigue, disability, and social/role activities limitations. Available data on these programs also indicate that participants spend fewer days in the hospital and have fewer outpatient visits than those who do not. Although these programs cost money to implement, they have been shown to yield cost savings as a result of decreased medical expenses.

Table 2-1. Arkansas Aging Initiative Educational Encounters in This Biennium

Target Population	FY 2013	FY 2014*
Community	38,207	32,203
Health Professionals	4,280	3,485
Para Professionals	2,657	2,177
Students	1,407	2,117
In-Services	3,735	3,693

*Fourth quarter encounter data for FY2014 were projected based on Q1-3 data

Indicators for Long-Term Goal

To 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.

Status: AAI partners had 12,242 exercise encounters in FY 2013 and 10,615 in FY 2014. Approximately half of those exercise encounters were conducted in the SCSHE – Mt. Home partner region, which reported no minority participation.

Discussion: Of all the educational encounter categories, exercise sessions were reported as having the lowest percentage of minority encounters. This may be an area where minority outreach can be increased by, for example, expanding exercise activities at other centers, such as South Central Center of Aging, which interacts generally with high numbers of minorities compared to other centers.

Encounter data does not distinguish between unique users or frequency of a single user. It would be helpful moving forward if ID or names were recorded as part of the encounter. This would improve understanding and knowledge of fitness center use at the Centers of Aging. To further understand the impact of these programs on health, we recommend either conducting basic biometric screening and follow up with participants, measuring changes in vital signs, flexibility, range of motion, and strength over time or, as an alternative, using general health surveys such as the SF-12 or SF-36.

Table 2-2. AAI Exercise Encounters in This Biennium

Exercise Encounters	FY 2013	FY 2014*
Total Number	12,242	10,615
% Minorities	11.9%	10.7%

*Fourth quarter encounter data for FY2014 were projected based on Q1-3 data

Indicator: Implement at least two educational offerings for evidence-based disease management programs.

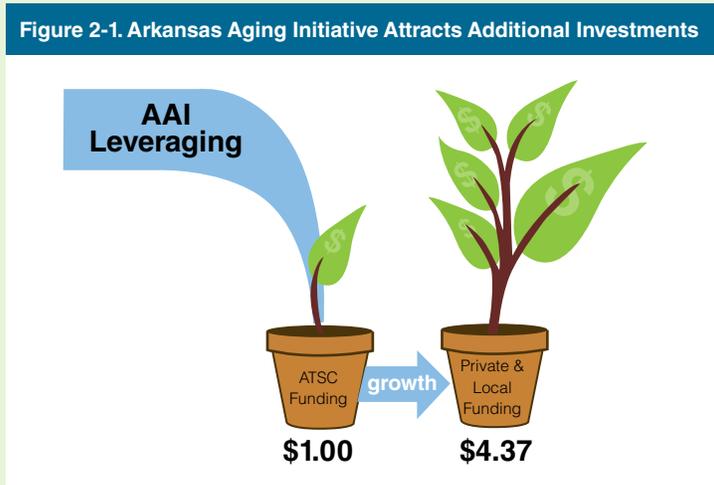
Status: AAI offered three evidence-based community educational programs state-wide, exceeding the objective of implementing two evidence-based programs this biennium. Programs implemented were the Stanford Chronic Disease Self-Management Program, the Stanford Diabetes Self-Management Program, and A Matter of Balance.

Discussion: AAI implemented the Stanford Chronic Disease Self-Management Program, the Stanford Diabetes Self-Management Program and A Matter of Balance through the Centers of Aging. As noted in the discussion (page 16), these programs have been shown to significantly improve health and reduce medical costs of participants.

Indicator: The amount of external funding (leveraging) to support AAI programs will be increased by 2% by end of FY 2015.

Status: AAI partners have successfully leveraged funding. For every \$1.00 of Tobacco Settlement Funds that AAI programs receive, they leverage \$4.37.

Discussion: Currently, AAI partners have maintained a significant level of leveraged funding to support implementation of AAI's programs. It may be advisable to attempt to obtain funding for the purpose of evaluating the effectiveness of programs in place, including the implementation of evidence-based disease management programs, to ensure these programs are implemented with fidelity.



Arkansas Aging Initiative: Expanding the Capacity to Provide Quality Homecare Statewide



Challenge: The availability of well-trained home caregivers is critical to Arkansas' capacity to address the needs of the growing number of older adults across the state requiring quality long term home-based care services. Training and availability of this workforce has long been linked to quality of care and life outcomes and the shortage of this workforce is well documented. Current occupational growth projections made by the Paraprofessional Healthcare Institute based on data from the Department of Labor and published by the Eldercare Workforce Alliance call for a nearly 30% rise in the need for personal care aides and a 24% increase in the need for home health aides in Arkansas alone. Looking ahead, paraprofessional caregivers as a whole are expected to provide up to 80% of all hands on care for those living with disabilities and other chronic conditions.

Solution: Arkansas Aging Initiative (AAI) secured funding from the Donald W. Reynolds Foundation and used the AAI's Centers on Aging as the infrastructure to expand the Schmieding Home Caregiver Program to create a statewide home caregiver training program. This program serves paraprofessional home care providers, as well as family members caring for older adults in their home. Previously this program had only one site in Northwest Arkansas, making it difficult for those living in other regions to receive

training. AAI worked closely with local community advisory committees in planning and implementing this expansion to ensure that local needs were met. Training is now more accessible throughout the state to individuals with an interest in providing homecare.

Results: To date, more than 1600 persons have received training and gained the skills and knowledge needed to provide quality home-based care. Those trained are providing care to older Arkansans throughout the state, enabling more Arkansans to receive care in their home.

Summary: The Schmieding Home Caregiver Training Program operates at 8 locations throughout the state and provides critically needed training to address the growing demand for trained home caregivers in Arkansas.

"The Schmieding Center program provided my mom's caregiver, Eva, and me with valuable knowledge and skills that has made a significant difference in caring for my mom. We are both better prepared to understand Mom's condition and respond in the best ways to assist her with the tasks of daily living and her emotional turmoil." Linda Young, Student, Schmieding Home Caregiver Training Program



ARKANSAS BIOSCIENCES INSTITUTE

Program Description: Arkansas Biosciences Institute (ABI), 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, University of Arkansas-Division of Agriculture, University of Arkansas, Fayetteville, and 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 research scientists 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: **1 Agricultural research** with medical implications; **2 Bioengineering research** that expands genetic knowledge and creates new potential applications in the agricultural-medical fields; **3 Tobacco-related research** that identifies and applies behavioral, diagnostic, and therapeutic knowledge to address the high level of tobacco-related illnesses in Arkansas; **4 Nutritional and other research** that is aimed at preventing and treating cancer, congenital and hereditary conditions, or other related conditions; and **5 Other areas of developing research** that are related or complementary to primary ABI-supported programs.

Progress and Highlights: ABI-supported research scientists leverage their ABI resources to attract competitive extramural federal grants and contracts from agencies such as the National Institutes of Health, the National Science Foundation, and the US Department of Agriculture. In FY 2013, ABI scientists were able to generate \$37.4 million in ABI-related extramural funding; this represented a return on investment of \$3.63 gained in new extramural funding for every ABI dollar received. This extramural funding is used to support knowledge-based jobs in Arkansas, such as laboratory and other specialized technical support personnel. For FY 2013, extramural funding supported 225 full-time equivalent (FTE) jobs at the five member institutions. For the biennium, ABI member institutions were able to recruit 19 experienced research

scientists to Arkansas, bringing to our state specialized skills in agricultural and biomedical research, further expanding our state's research base.

Key Accomplishments this Past Biennium: A benefit of working on the cutting edge of technology and science is that research scientists often develop highly innovative ideas, devices, and methods that are able to be protected as intellectual property. Patent filings and awards are key indicators of entrepreneurship and moving discovery from the laboratory to workplace, practice, and commercial opportunities. In FY 2013, ABI research scientists produced a record amount of patent activity with 23 filings and provisional awards, and the awarding of 8 full US and/or European patents. Historically, ABI patent activity has averaged approximately 7 filings and provisional awards with 1–2 patents each year. Patent activity is expected to be active for FY 2014 as well. Recent patent awards for ABI-supported research scientists include:

- Collagen-binding Domain and Parathyroid Hormone
- Monoclonal Antibodies that Selectively Recognize Methamphetamine and Like Compounds
- Near-infrared Responsive Carbon Nanostructures
- Bioseparator/Bioreactor with an Optical/Electrochemical Detector for Detection of Microbial Pathogens

Key Accomplishments This Biennium

- ABI-supported research scientists awarded 8 patents in FY 2013
- ABI-supported research scientists brought in \$3.63 in outside funding for every one dollar of tobacco funding
- ABI member institutions recruited 19 experienced research scientists to Arkansas in FY 2013 and FY 2014

New for FY 2013, ABI established two research awards to better highlight on-going ABI research. The New Investigator of the Year Award and the Established Investigator of the Year Award honor two ABI-funded research scientists by choosing ABI-supported research that strongly impacts the field. New investigators were ABI-supported research scientists with four or fewer years of ABI support; the established investigator category was for those with five or more years of ABI support for their research. For the inaugural year, there were twenty submissions for consideration, with research covering areas such as adolescent nutrition, brain injury and congenital heart disease, and changes in vitamins in rice varieties.

Dr. Richard Frye, with Arkansas Children's Hospital Research Institute and Associate Professor in the UAMS Department of Pediatrics, was chosen for the 2013 ABI New Investigator of the Year Award for his novel, safe treatment for a subset of children with autism spectrum disorders (ASD). Dr. Frye and his colleagues reported that they can successfully treat some children with ASD with folinic acid, a special type of folic acid.

Dr. Malathi Srivatsan, Professor of Biological Sciences at Arkansas State University, was given the Established Investigator of the Year Award for her work on oxidative stress and its connection to neurodegenerative diseases like Parkinson's disease. Dr. Srivatsan and her research team at ASU have found that antioxidants

isolated from plants can exhibit a neuroprotective effect that may be useful in fighting neurodegenerative diseases. The inaugural awards were presented at the ABI Fall Research Symposium in October and will be continued for FY 2014.

Challenges and Opportunities: Federal funding cuts have created a number of challenges to long-term agricultural and biomedical research in Arkansas. Nationally, this has resulted in a reduction in the amount of individual awards and the number of awards for research. This is important to the Arkansas Biosciences Institute because our research scientists leverage their ABI dollars to attract competitive extramural federal grants and contracts from agencies such as the US Department of Agriculture, the National Science Foundation, and the National Institutes of Health. Reduced funding also results in fewer jobs for laboratory and technical support personnel.

Future Plans: ABI will continue its focus on expanding Arkansas' agricultural and biomedical research infrastructure by supporting research scientists at the five member institutions and by recruiting experienced scientists to Arkansas. Since inception, ABI support has been used to recruit more than 125 research scientists to our state. As federal funding declines, ABI will continue to foster collaborative research partnerships, bringing together research scientists from different disciplines and institutions to better compete for funding opportunities.

ABI Performance Indicators and Progress

Goals Specified by the Act: The goal of the ABI Program is 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. The following short-term and long-term goals were established for the ABI Program in the Act:

Short-term Goal: 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.

Long-term Goal: 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.

Evaluation of Progress Toward Achieving Key Performance Indicators

We have identified eight key performance indicators for this program. These indicators will be monitored over time to determine the extent to which ABI is achieving the goals outlined in the Act. The subsections below present the current status by indicator and provide recommendations for improving programs as appropriate to achieve each goal in the future.

Indicators for Short-term goals

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 institutes for the conduct of research aligned with the purposes set forth in § 19-12-115, ensuring that funded research activities are conducted on time, within scope, and with no overruns.

Status: In FY 2013 a total of 186 new and ongoing research studies were being conducted across the five institutions in the research areas specified by the Act. These studies were funded by ABI (\$9,996,603) and extramural research funds (\$37,471,639) secured by leveraged Tobacco Settlement Funds.

Discussion: ABI continues to conduct research aligned with the purposes set forth in § 19-12-115. Please see Table 3-1 for details on the number of research projects conducted in each research area by institution.

Table 3-1. Number of Research Projects Conducted by Topic Area and Institution

	Agri/Biomed. Research Area 1	Bioengineer. Research Area 2	Tobacco-Rel. Research Area 3	Nutri./Cancer Research Area 4	Other Related Research Area 5
AR Children's Hospital Research Institute	2	0	3	3	20
Arkansas State University	17	8	5	10	22
University of Arkansas - Division of Agriculture	14	10	1	6	7
University of Arkansas, Fayetteville	0	14	1	17	31
University of Arkansas for Medical Sciences	0	2	16	23	59
All Institutions	33	34	26	59	139

Indicator: The five member institutions will continue to rely on funding from extramural sources with the goal of increasing leverage funding from a baseline (Year 2005) of \$3.15 for every \$1.00 in ABI funding.

Status: For every dollar of Tobacco Settlement Funds ABI received in FY 2013, the agency was able to leverage \$3.61 in extramural funding. Extramural research funding was approximately \$37.5 million in FY 2013. Although this represents a decline, the decrease in federal monies available to fund R&D in the past year must be taken into consideration in evaluating this metric.

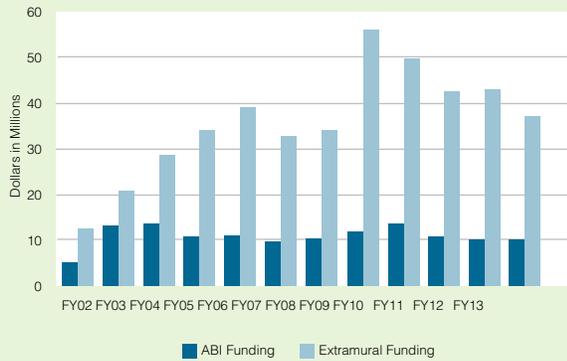
Discussion: Ratios have declined from 2009 peaks of \$4.72 per \$1. The decline in 2013 follows an increase in 2012, however, and ratios remain well above the 2005 baseline.

ABI extramural research funding levels have followed federal R&D investment trends. Unfortunately, federal R&D investments have fluctuated over the past decade, creating a boom-bust environment. For example, the National Institutes of Health (NIH) budget doubled from 1998 to 2003. After the doubling, however, the agency's budget fell each year in real terms from FY 2004 to FY 2009. A similar increase, followed by a decline in overall federal R&D spending occurred from 2006–2013. Overall, R&D spending increased 28% from FY 2006 to FY 2010 (or approximately 6.4% per year), but fell 3.6% between FY 2010 and FY 2013 (<http://www.fas.org/sgp/crs/misc/R42410.pdf>). Understanding these changes in federal R&D spending levels provides a good context to interpreting Figure 3-1, illustrating ABI's research funding levels over time.

To counter these reductions in federal monies available for research, we recommend that ABI investigate and develop a business development plan based on trends and projections for research investment. This may include exploring options such as:

- Pursuing funding from other federal agencies where research spending is not declining, or actually increasing. We strongly recommend exploring FDA-funded tobacco research. This research area is aligned with the goals outlined in the Act, and federal funding has been increasing in this area in recent years.
- Pursuing more applied research funded by private industry (i.e., pharmaceuticals).
- Forming strategic public-private partnerships. Such relationships may help ABI and its institutions leverage resources and market its research capabilities.

Figure 3-1. ABI and Extramural Funding for Arkansas from 2002–2013

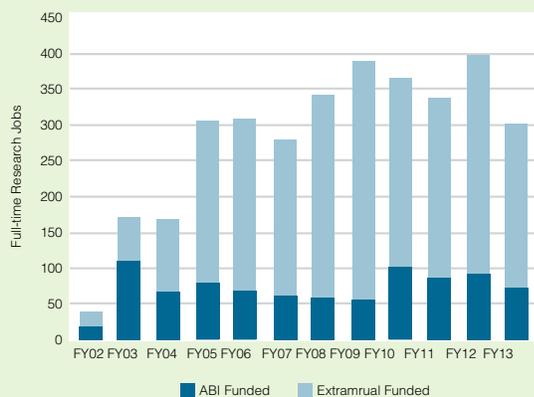


Indicator: Employment supported by ABI and extramural funding will increase from a baseline (2005) of 303 FTE.

Status: For FY 2013, combined ABI funding and related extramural funding provided 298 full-time equivalent (FTE) jobs, a decrease of 25.7% over the previous year (Figure 3-2).

Discussion: The number of FTEs employed by ABI and associated extramural funding declined in 2013. This is largely attributed to the decrease in federal monies available for research as discussed above. Please see the discussion on page 24 regarding ABI pursuit of funding.

Figure 3-2. Number of FTEs Funded by ABI and Extramural Funding 2002–2013



Indicator: ABI will facilitate and increase research collaboration amongst member institutes, as measured by both ABI and extramural funding of research projects that involve researchers at more than one member institute.

Status: For FY 2013, 18.2% of ABI funding and 50.8% of extramural funding supported collaborative research projects. When compared to 2005 baseline, ABI collaborative funding is down slightly from 21.1%, but extramural funding for collaborative projects increased from 13.7%.

Discussion: Partners are working collaboratively to secure extramural funding. In 2005 only 13.7% of extramural funding went toward collaborative research across partner agencies; in FY 2013 more than half (50.8%) of funding supported collaborative research.

Indicators for Long-Term Goal

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: ABI and its member institutions will systematically disseminate research results, and ensure that at least 290 publications and 370 presentations are delivered each year. This includes 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.

Status: For FY 2013, the number of scientific presentations decreased slightly from 891 in FY 2012 to 820 in FY 2013; but overall totals were in line with the 4-year trend of 838 per year, and well above the baseline of 432 in 2005. Staff and grantee presentations totaled 632, maintaining historically high levels compared to baseline (310). However, the total number of public releases of results declined to 52 in 2013, from 122 in 2012. This is well below the 4-year average of 130.5 from 2009 until 2012.

Discussion: Generation of technical presentations and abstracts remained consistent with the multi-year trends, and well above the baseline totals from 2005. Publications represent the knowledge and products resulting from funded research. Replication and related new research, along with information drawn from other sources, contribute to the accumulation of knowledge and understanding. It is the total wealth of evidence that drives changes in behavior and health, as well as changes in research funding priorities.

Indicator: Research findings from ABI-funded studies are utilized toward the compilation of evidence to advance science and healthcare as measured by the citation of ABI-funded research in the literature. This was a new indicator for FY 2013.

Status: For FY 2013, one investigator reported clinical guidelines citing ABI research; one investigator reported citation in professional society recommendations.

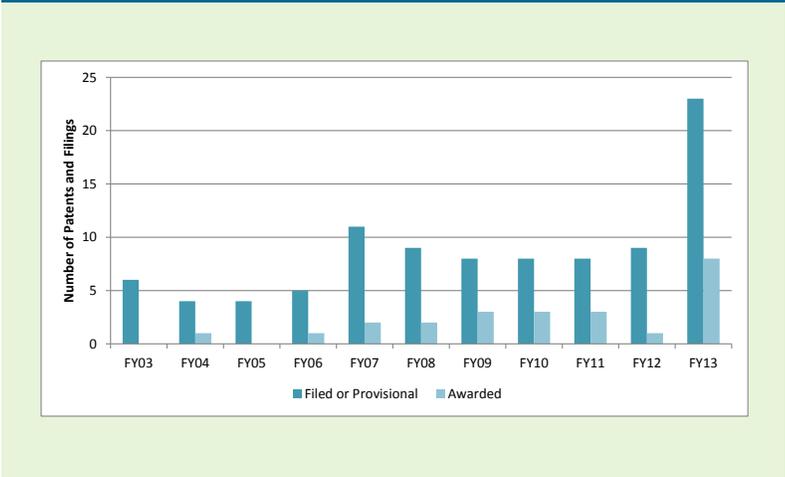
Discussion: Citation in clinical guidelines and professional society recommendations indicate that ABI research is not only contributing knowledge to the field of science, but is going further and contributing to advancements in healthcare practice. Health institutes and professional societies publish clinical guidelines and recommendations related to practice, treatments, and drug usage. These are developed based on research and clinical trials that may be conducted by ABI funded investigators.

Indicator: ABI-funded research will lead to the development of intellectual property, as measured by the number of patents filed and received.

Status: For FY 2013, the record shows 23 patent filings and provisional patent awards, and 8 full U.S. and/or European patents awarded.

Discussion: ABI grantees increased the number of patent filings significantly over previous years; for past years, patent awards averaged 2 per year. Patent filings and awards are key indicators of entrepreneurship and moving discovery from the laboratory to workplace, practice, and commercial opportunities. In FY 2013, ABI investigators produced a record amount of patent activity: 23 filings and provisional awards, and 8 full U.S. and/or European patents awarded. Historical activity of ABI patent activity is provided in Figure 3-3.

Figure 3-3: ABI Research Leads to the Development of Intellectual Property and Patent Activity



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.

Status: There were no new start-up enterprises in FY13.

Discussion: This is a new program indicator that ABI began tracking in FY 2013. It is not expected that new enterprises will start up every year. While new enterprises may not be established frequently, it is a very important accomplishment to track and document to ensure successes are captured.

RESEARCH TELLS A STORY

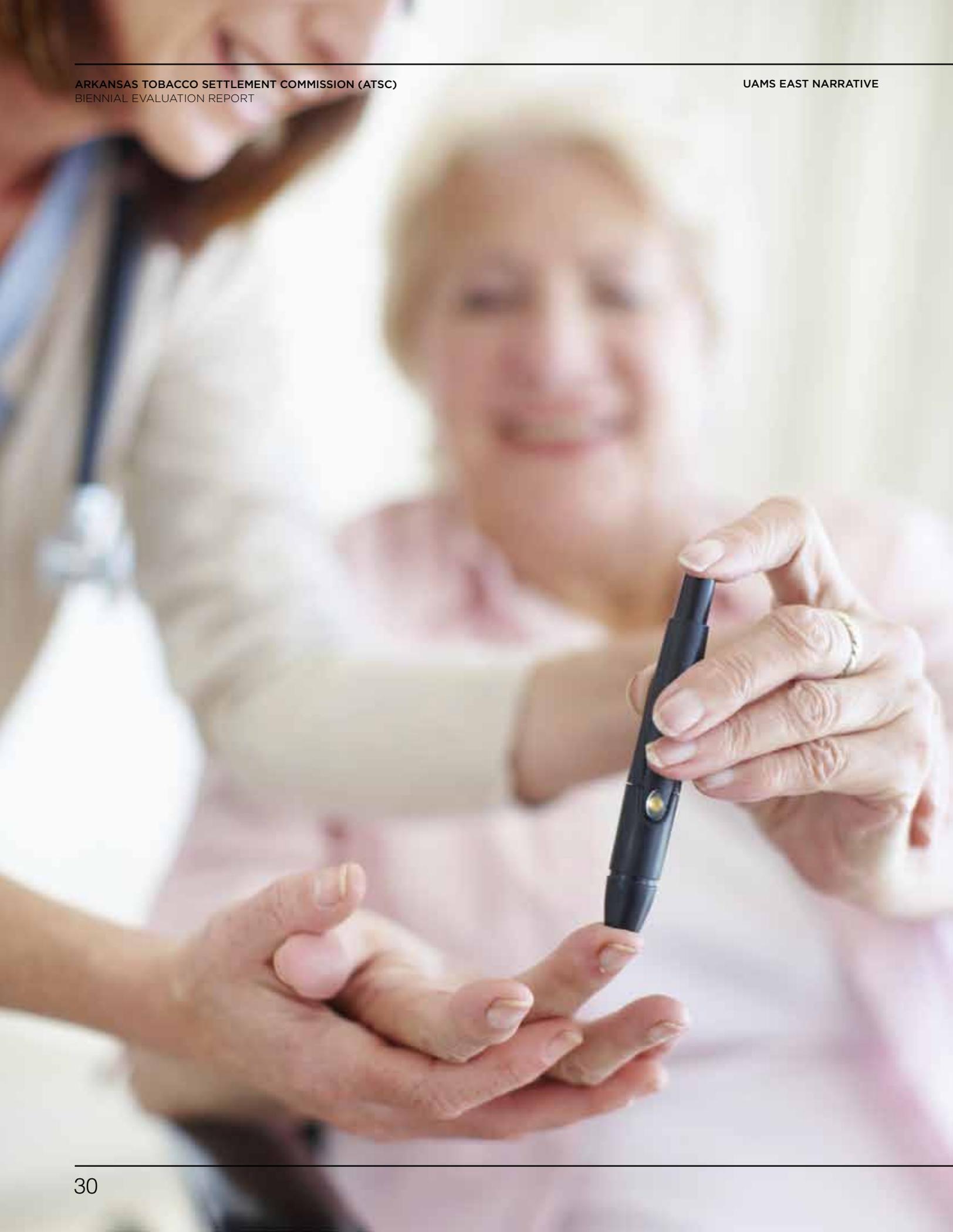
Two ABI 2013 Success Stories

ATSC-Supported Arkansas Biosciences Institute (ABI) Researchers Make Major Contributions to Improving Health Care.

1 Focus on Autism. A particular chemical called folate is critical for normal brain functioning. Autoantibodies are known to interfere with the transfer of folate, stopping it from going across the blood-brain barrier. For children with autism this interference with folate has been the subject of investigation by ABI-funded researchers in 2013. In their study, children were treated with an agent to stop the interference occurring with the transfer of folate. Using this agent with children and comparing functioning with controls that did not get the agent, significantly higher improvement ratings were observed in treated children over a mean period of 4 months. These improvements occurred in verbal communication, receptive and expressive language, and attention and stereotypical behaviors. Given these results, treatment with an available agent “leucovorin calcium” may be a reasonable and non-invasive approach in helping children who demonstrate autism disorders.

2 Focus on Parkinson’s Disease. ABI-supported researchers have investigated the protective effect of an extract derived from the root structure of peanuts. This work was performed at ABI-supported laboratories. It is known that neurodegeneration, that is the breakdown of specific cells in areas of the brain, leads to disorders such as Parkinson’s disease (PD). Researchers found that pretreatment of neurons with the peanut root extract had a significant positive level of protection compared with other solutions without the extract. The finding of a stronger and more protective extract from this research holds a potential breakthrough in the understanding, treatment and prevention of cell death in those with PD, thus improving treatment outcomes in patients who have this disease.

For complete documentation and publication reference, please contact Dr. Bobby McGehee, Director, Arkansas Biosciences Institute.



UAMS EAST (DELTA AHEC)

Program Description: University of Arkansas Medical Sciences East (UAMS East), formerly known as the Delta Area Health Education Center (AHEC) started in 1990 with the purpose of providing health education to underserved populations in the Arkansas Delta region. It now provides health care outreach services to seven counties including St. Francis, Lee, Phillips, Chicot, Desha, Monroe, and Crittenden. The counties and populations served by UAMS East have some of the worst health outcomes in the state and have limited access to health care services. As a result of these challenges, UAMS East has become a full service health education center, focusing on wellness and prevention for this region. Programs to address local health needs of residents are being implemented in partnership with more than 100 different agencies. Their efforts show an increase in encounters with the resident population and program outcomes have been impactful. The overall mission has evolved into a broad one of improving 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.

Progress and Highlights: UAMS East has progressed tremendously in its effort to improve the health of the Delta's population by offering a variety of programs and services since Act initiation. It began as DHEC (Delta Health Education Center) in November of 1990, providing health promotion and education programs and services to seven counties in the Mississippi Delta region and serving over 19,000 residents annually. In 2001, with funding from the Arkansas Tobacco Settlement, UAMS East became the 7th Arkansas AHEC. Since then UAMS East, with support from the Tobacco Settlement, has been able to expand its programs and services tremendously. From 2012–2014 UAMS East provided programs and services through 389,961 encounters.

Service and capacity improvements can be illustrated using diabetes care as an example. In 2003, UAMS East received American Diabetes Association recognition for its Diabetes Education Clinic. In 2007, the Clinic received a \$553,000 grant from the Delta Regional Authority to expand its diabetes education program. Because of this success, in 2009 other programs across the region began utilizing the same

model and became Diabetes Education Clinics under the direction of the Delta's Diabetes Education Clinic. Now there are 4 multi-site clinics in operation. Also, UAMS East recently completed a diabetes pilot study in which patients completed diabetes care with a combination of group education and telemedicine. Efforts such as these points to how the organization continually strives to improve their services and expand their reach.

UAMS East has always focused on increasing access to primary care providers. One way this is done is through recruiting and training health students and professionals. UAMS East coordinates rural rotations for UAMS medical students as well as provides support and facilitation to the UAMS RN to BSN and the BSN to MSN programs. The UAMS East's Family Nurse Practitioner is a faculty member with the UAMS College of Nursing further enhancing the organization's ability to connect health students to the region. UAMS East also works to increase veteran's access to primary care providers. In 2009, UAMS East opened the Veterans Affairs Community Based Outpatient Clinic (VA CBOC) in Helena which now has a patient enrollment of over 800.

Key Accomplishments this Past Biennium: UAMS East continues to concentrate effort on reaching more people in more communities across its seven county service area with health and wellness programs. By tracking total number of encounters, UAMS East has seen an increase in service over the past two years. Total encounters from July 2012 to July 2013 were

Key Accomplishments This Biennium

- Completed a diabetes pilot study that utilized group education and telemedicine
- Connected 60% of the region's veterans with services through the VA CBOC
- Increased access through the Fitness Center with fitness, exercise and weight management classes held for 2,601 adults and 10,562 youth with a total number of encounters up to 36,946

144,700 and from July 2013 to May, 2014 were 139,392 putting them on track to increase services again this year.

UAMS East's key accomplishments this biennium include: receiving a grant from the Arkansas Hunger Alliance to conduct "Cooking Matters" classes for adults and children which have been held for more than 100 participants to date; collaborating with Arkansas Minority Health Commission on a stroke prevention and education program, "Beards to Beauty"; increasing fitness center memberships and the number of exercise programs for youth and adults; and continuing efforts with Helena Health Foundation and Arkansas Children's Hospital/Injury Prevention Center towards child home and passenger safety.

UAMS East has also continued its work this biennium towards its goal of increasing access to primary care. Key accomplishments in this area over the past two years include: holding Continuing Medical Education courses for over 200 health professionals; helping Phillips County secure a Federally Qualified Health Clinic in collaboration with the East Arkansas Family Health Center in West Memphis; coordinating the return of the "IRT Medical Mission" in collaboration with the Army, Air Force and Naval Reserve where more than 800 patients were seen on site in Helena during the Mission; and completing the diabetes pilot study with Dr. Peter Goulden, a UAMS endocrinologist. Through this pilot study, twenty-one patients completed diabetes care with a combination of group education and telemedicine. Certified diabetes education classes were also started at the VA CBOC. Currently 838 of the 1,446 veterans residing in Phillips County are enrolled with Helena's VA-CBOC. UAMS East has provided prescription assistance over the past two years, but has seen a decline in the number of clients reaching out for help with prescription assistance in the last six months which is thought to be a result of the Affordable Care Act.

Challenges and Opportunities: While UAMS East has seen a reduction in funding over the past two years they have been resourceful in seeking additional funds and as a result have leveraged thousands of dollars from various sources. The overall reduction in funding has not limited the programs and services being provided at this time. Their ability to weather these cuts is also a result of extensive local support and collaborative partnerships forged over the past 13 years. Moving forward, the UAMS East will need to be cognizant of the impact the Affordable Care Act and the Arkansas Private Option have on their services and programs, particularly in regard to their effort to connect people to primary care physicians. They will need to be agile in order to meet the changing needs of the populations they serve as a result of these policies. Staffing has also been a challenge for UAMS East. Due to resignations at the VA CBOC and difficulty filling the positions, one Family Nurse Practitioner staff person is over-extended covering the VA CBOC as well as the Diabetes Education Center and other responsibilities. Yet new opportunities for expansion arise as well. UAMS East has been dedicated for years to sickle cell screening and education and has now received funding to re-start its Sickle Cell program.

Future Plans: In addition to continuing current programming efforts, UAMS East has several plans for expansion to better serve the region. They are currently assessing the feasibility of beginning a 1–2 year rural residency training track for the UAMS East service area. This is highly prioritized and a major undertaking which will utilize a great deal of UAMS East resources in the future. Also, the Sexual Abuse Network (SANE) has contracted with UAMS East for oversight of a new Rape Crisis Center being brought to Helena. UAMS East's Health Educators have identified a need in local middle and high schools for education on sexual abuse and domestic violence so bringing them this service will be a future goal as well. UAMS East has also been in conversation with the local hospital administrator about plans for a rural health clinic in one of the medically underserved areas in the region. Finally, due to local community interest, UAMS East is already engaged in a fundraising effort to replace the UAMS East outdoor track with a new surface and is discussing a future matching grant with the Helena Health Foundation.

UAMS East Performance Indicators and Progress

Goals Specified by the Act: The goal of the UAMS East program is 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. The following goals were established for UAMS East in the Act:

Short-term Goal: Increase the number of communities and clients served through the expanded AHEC/DHEC offices.

Long-term Goal: Increase access to a primary care provider in underserved communities.

Evaluation of Progress Toward Achieving Key Performance Indicators

We have identified nine key performance indicators for this program. These performance indicators will be monitored over time to determine the extent to which UAMS East is achieving the goals outlined in the Act. The subsections below present the current status by indicator and provide recommendations for improving programs as appropriate to achieve each goal in the future.

Indicators for Short-Term Goal

Increase the number of communities and clients served through the expanded AHEC/DHEC offices.

Indicator: Maintain the number of clients served by UAMS East programs and services.

Status: Total encounters from January 1, 2012 to December 31, 2012 were 178,264. Total encounters from January 1, 2013 to December 31, 2013 were 138,540.

Discussion: UAMS East continues to serve a large number of residents in the Delta Region. UAMS East has been collecting and entering all data into the AHEC Framework Database since 2012. In earlier years, UAMS East entered data into a different database entitled Legacy. It has been determined the Legacy database could not be imported into the AHEC Framework Database, and the only data available is that for outreach programs beginning in January of 2012. Consequently, trend data is not available.

UAMS East uses number of participants by program as a process measure to evaluate results under this performance indicator. This measure shows a decrease in the number of encounters. It is recommended that UAMS East make a modification in data collection to identify the number of clients served, rather than the number of encounters, to better match the intent of the indicator.

Indicators for Long-Term Goal

Increase access to a primary care provider in underserved communities.

Indicator: Increase the percentage of veterans in Phillips County who have a regular health care provider by June 2014.

Status: Currently 838 of the 1,446 veterans residing in Phillips County are enrolled with the Veterans Affairs Community Based Outpatient Clinic (VA CBOC) in Helena.

Discussion: In 2009, UAMS East opened the Veterans Affairs Community Based Outpatient Clinic (VA CBOC) in Helena, which now has a patient enrollment of more than 800. UAMS East has been instrumental in facilitating services to these area veterans.

Indicator: Increase/maintain the number of clients in Chicot and Phillips Counties receiving Prescription Assistance.

Status: See table below.

Table 4-1. Prescription Assistance Encounters and Savings

Time Period	Patient Encounters	Prescriptions	Savings
January 1, 2012- December 31, 2012	2,739	4,127	\$2,284,565.59
January 1, 2013- December 31, 2013	2,480	4,420	\$2,185,825.54

Discussion: UAMS East in Helena uses the website www.goodrx.com to calculate dollars saved for prescriptions, rounding up to the nearest whole dollar amount. This website bases its calculations on name brand drugs. UAMS East in Lake Village uses PAPrx (The Patient Assistance Program Rx), a purchased software program that stores data on each patient entered into the software. While UAMS East reports fewer patient encounters, it is unclear whether this actually means fewer people were served by the program. Though there were fewer encounters, more prescriptions were filled due to program involvement.

Indicator: Increase/maintain the number of clients receiving health screenings, referrals to Primary Care Physicians (PCP), and education on chronic disease prevention and management.

Status: UAMS East met their objective of increasing the number of health screenings this reporting period. See table below.

Table 4-2. UAMS East Increases Health Screenings

	Calendar Year 2012	Calendar Year 2013
Total Health Screenings	3336	3805
Abnormal A1C results	11	42
Abnormal blood pressures	692	706
Abnormal BMI	480	318
Abnormal cholesterol	518	588
Abnormal glucose	189	238
Abnormal HIV	6	21

Discussion: While the data indicate that UAMS East increased the number of health screenings it conducted in 2013 compared to 2012, it is not possible to evaluate the impact these screenings had on health. It would be better to measure the effect of receiving health screenings, referrals to PCP, and education on chronic disease prevention and management to determine if these interventions actually lead to the individual accessing a PCP. This would be more directly in line with meeting the overall long-term goal.

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

Status: In 2012, UAMS East provided 8 medical students with clinical rotations including: preceptorships, acting internships and senior selectives. Also, UAMS East provided 6 nursing students with clinical rotations and didactic training opportunities.

In 2013, UAMS East provided 4 medical students with clinical rotations including: preceptorships, acting internships and senior selectives. Also, UAMS East provided 1 nursing student with clinical rotations and didactic training opportunities. During the reported timeframe UAMS East provided 4 health professions students with internships. Those interns included 2 students from Washington Lee with the Shepherd Poverty Alliance Internship, 1 Health Education student, and 1 Medical Professions/Medical Terminology student.

Discussion: UAMS East continues to act as a resource for those interested in healthcare professions. This is a critical role to encourage more students to enter the healthcare field and for more professionals to remain in service to the Delta region.

Indicator: Increase the number of patients in the ADA diabetes clinic. By the end of 6 months education, lower A1C to below 7.

Status: Because of changes in the Diabetes Education Clinic staff and protocol, UAMS East has been unable to measure the 6-month effects of the program on A1C levels. In 2012, the clinic served 1,159 people with Diabetes Education/Self Management. Outcomes included 11 A1C abnormal results and 189 abnormal glucose results. In 2013, the clinic served 831 people with Diabetes Education/Self Management. Outcomes included 42 A1C abnormal results and 238 abnormal glucose results.

Discussion: The Diabetes Education Clinic began in 2003 with the support of Arkansas Tobacco Settlement as well as State funds. In 2007 it received a 3-year grant that allowed expansion of staff and programming to provide Diabetes Self-Management Education through group and individual counseling. When that grant ended, the clinic began billing to recover cost of services. Over half of the clinic's clients receive Medicare and most of the rest are uninsured. A sliding scale fee was offered to uninsured clients. This, along with staffing changes and moves toward utilizing electronic medical records, has been a challenge to providing diabetes education services. As a result, the clinic has seen a decline in the number of individuals served. Patient encounters decreased 75% after billing began. The Helena Health Foundation began providing funding to the clinic in late 2011 to help address these challenges. However, departure of key staff in December 2012 left the diabetes clinic inoperable. In March 2013 a new coordinator was hired; however, that coordinator has a dual role with the VA, which has limited available time and therefore ability to return the Diabetes Education Center to full capacity.

Given limited resources, it is important for UAMS East to re-evaluate this measure to determine if it is working toward meeting the long-term goal, given the limited number of individuals served by this strategy. UAMS East should examine (1) other possible ways to increase the number of people served by the diabetes clinic, and (2) how those served at the clinic are being linked with a primary care physician for ongoing treatment.

Indicator: Decrease the percent of adults in Phillips County who are obese.

Status: Data from the BRFSS survey suggest that obesity rates in Phillips county may be declining. Historically, Phillips county has had a higher obesity rate than the state of Arkansas. In 2010, the obesity rate in Phillips county decreased from 73.7% (2009) to 65.9%, and was lower than the state obesity rate of 67.1%. While these data are promising, they are not conclusive. BRFSS sample sizes for rural counties, such as Phillips, are small; as a result, the confidence interval for these data is wide, making it impossible to determine if the change is significant.

Discussion: The UAMS East Fitness Center serves Phillips County with exercise facilities and programming for adults and youth. In 2012, there were 37,833 encounters at the Fitness Center and total exercise encounters outside of the fitness center were 46,612. In 2013, there were 13,890 Fitness Center encounters and total exercise encounters outside of the fitness center were 59,307. If possible, it would be better to track BMI for the individuals served to determine if the UAMS East interventions described are affecting obesity rates of program participants. If the interventions are seen to be effective, UAMS East could begin to examine how to increase the number of people in the county served to better affect overall community obesity rates. This kind of measurement was conducted last quarter in the Healthy Lifestyle/Weight Management program for adults, recording 8 encounters yielding 31 total pounds lost. This is a step in the right direction for measuring program effect. Measuring BMI and recording the number of people served (rather than encounters) would also improve the ability to evaluate the program's impact.

Indicator: Maintain the number of students participating in UAMS East pre health professions recruitment activities by the end of June 2014.

Status: UAMS East continues to provide programming to high school and middle school students across their service area. In 2012, UAMS East held 19 training or recruitment events for 268 pre-health profession students in 7 different cities. In 2013, UAMS East held 47 training or recruitment events for 376 pre-health profession students in 13 different cities.

Discussion: Some evaluation has been conducted on the MASH program, one of the services provided by UAMS East as well as by other Regional Centers. This evaluation was last completed state-wide in 2011 and showed that 51% of those students who responded to the survey indicated health care/science as a college major and that 70% of those students said that MASH encouraged them to consider a health career. UAMS is considering another state-wide survey after 2014. Such follow up requires resources that UAMS East does not deem available at this time. Using the limited resources available, UAMS East should consider ways to focus their school outreach efforts specifically on increasing the number of students who enter the healthcare field.

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

Status: UAMS East continues to provide programming to high school and middle school students across their service area. Activities include provision of several evidence-based programs (Kids for Health, Reducing the Risk, Making a Difference, and Making Proud Choices). In 2012, these programs served 909 students; in 2013, the count rose to 3,722 students.

Discussion: UAMS East has been able to increase the number of students served by their health education programs. For some programming they also conduct an evaluation that includes a self-report of changes in health behavior. The Kids for Health program was evaluated for many years and consistently showed an increase in knowledge between pretesting and posttesting.

Citizens Shed Pounds at UAMS East's Fitness Center



Challenge: Obesity has become a serious health concern in Arkansas. According to the Arkansas Health Department, 34.5 percent of adults in the state are obese, ranking it third in the nation in level of severity of this epidemic. Even though people may be motivated to exercise and may understand the importance of physical activities for maintaining good health and fitness levels, lack of access to nearby, affordable gyms may be a determining factor in their failure to exercise regularly. This is typically the case for many residents of the Delta region. Information provided by the Community Guide indicates that by creating new places for physical activities or increasing access to existing facilities can result in up to 25% more people becoming physically active.

Solution: In June 2006, UAMS East responded to concerns raised in the community about the lack of places for working out, and opened a fitness center with equipment and services similar to those offered by private, for-profit facilities. UAMS East provided the familiar suite of strength training equipment, aerobic training equipment, group exercise courses, and nutrition and diet programs. However, to ensure broader accessibility, the fitness center kept membership fees at around \$25 per month, lower than customary at traditional for-profit facilities.

Results: The fitness center, located in Helena-West Helena (population 11,748), has become a popular workout spot with 2,461 active members. The activities and programs offered have demonstrably helped members change their lives and improve their health. Fitness center members who elected to participate in the screening program have lost more than 4,000 pounds! Total weight loss for all fitness center members is quite likely higher, since less than 10 percent of the membership participated in the screening program. The fitness center has continued to generate sufficient revenue through membership fees to keep its equipment updated and to offer classes, such as yoga and tai chi, contributing to the sustainability of the program.

Results: The fitness center operated by UAMS East can demonstrate a solid record of success in improving access to equipment and facilities for physical activities and in promoting weight loss for residents in the Helena-West Helena region of the Delta.



FAY W. BOOZMAN COLLEGE OF PUBLIC HEALTH UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

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. The COPH takes a multipronged, collaborative approach towards elevating Arkansas' overall health status rankings, a long-term goal set by the Tobacco Settlement Proceeds Act. Their mission is realized through teaching and research, as well as service to elected officials, public entities and communities. They are committed to partnerships and collaborations with health organizations, health care providers and public health practitioners throughout Arkansas. Examples of the complex health issues addressed include: improving the multiple dimensions of access to health care; 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.

Progress and Highlights. *Short-term goal:* Obtain federal and philanthropic funding. During the past biennium, reductions in federal spending, as well as the departure of several heavily funded senior faculty researchers, resulted in declining COPH revenues from grants and contracts. Despite that, COPH has made significant progress toward meeting their goals and efforts are currently in progress to re-build funded research programs with newly recruited faculty.

Funding for the Arkansas Prevention Research Center (APRC) at the COPH has been re-authorized by the CDC for another five years. The APRC's mission has been to improve the health and well-being of Arkansas' racial and ethnic minorities through community-based, participatory research. The focus for the next funding period will be control of hypertension among Arkansas' racial and ethnic minorities through cost-effective self-management strategies using community health workers. In addition, in

March 2014, the Arkansas Center for Health Disparities (ARCHD) entered its third year of its second round of five-year funding. The ARCHD mission is to conduct research to improve access to quality prevention and health care services for racial and ethnic minorities in order to reduce health disparities.

Last year, the COPH created an advisory board to direct philanthropic fundraising efforts to supplement funding from foundations. The COPH is currently in the process of hiring staff for this effort. In addition, two new endowed scholarships were created, and funds are being raised to establish another. With this additional scholarship, a total of seven scholarship opportunities will be available in academic year 2014–2015.

With funding from an individual donor, the Robert C. Walls Endowed Professorship in Biostatistics was created this spring. The Department of Biostatistics is a joint department of the colleges of Public Health and Medicine.

Key Accomplishments This Biennium

- APRC funding re-authorization
- COPH Advisory Board created to assist in fund raising
- Biostatistics endowed professorship established
- New scholarship opportunities resulting in 7 scholarships available for 2014–2015
- Created additional community opportunities for students
- Began new programs of study
- Enacted a Competency Tracking System to ensure quality

In the past biennium, faculty vacancies have been filled in all departments with 12 highly qualified faculty hires, including two chairs, despite the limited pool nationally of well-qualified candidates. In addition, COPH filled positions of three retiring administrators (assistant dean for administration and finance, assistant dean for communications and external affairs, associate dean for academic affairs).

The process for the COPH's re-accreditation by the Council on Education for Public Health (CEPH) began in fall 2012. The final self-study document was submitted to CEPH this May, and all preparations were complete for the CEPH site visit in mid-June 2014.

Long-term goal: Elevate the overall ranking of the health status of Arkansans. This long-term goal requires effort by the COPH and its partners over decades. Faculty, students and alumni contribute directly to the health and well-being of Arkansans. According to current (2013–2014) data, more than 75% of all student final projects and faculty research projects focus on Arkansans' health and well-being. Since its founding, the COPH has developed partnerships with health agencies and community-based organizations. These entities partner on research with COPH faculty, and at least half engage students mainly serving as sites for students' final projects. One of the strongest partners is the Arkansas Department of Health (ADH), which is within walking distance of the College. Recently, the COPH and ADH have renewed efforts to create more student learning opportunities at the ADH. As a result, an array of projects are now open to students to gain "real-world" public health experience. The addition of a Public Health Practice Coordinator to the COPH Office of Student Affairs has strengthened efforts to place students in communities to obtain practical experience. Last year, more than 75 percent of the preceptorships were outside the College. Of those, 13 were at ADH, and 23 were at a health care facility, community organization, or another agency that has health as its mission. Due to these changes, even more students will be placed outside the College and with community organizations and agencies in the future.

A diverse and competent public health workforce that serves the entire state is critical for the improved health of Arkansans. As part of its commitment to diversity, particularly of underrepresented minorities, the COPH has initiated an incentive program for department chairs to hire minority doctoral students, post-doctoral fellows and junior faculty. In addition, the COPH has strengthened partnerships with Arkansas' three historically black colleges and universities (UA Pine Bluff, Arkansas Baptist College, and Philander Smith College) for the 4+1 programs by which qualified undergraduates may enter the MPH program, take courses that count toward both the MPH and their undergraduate degree, and save time and money in earning the MPH. There are efforts to establish additional 4+1 programs at Williams College and UA

Fayetteville. The COPH has also expanded its distance-learning opportunities to better serve students in rural areas, diversify the student body and encourage students to stay where they live after graduation to work in public health. COPH African American student enrollment (29% in fall 2013) continues to be well above the proportion of African Americans in Arkansas' general population at last census.

In the past biennium, COPH created three new programs – PhD in Epidemiology, Master's in Rural Public Health Practice, and Certificate in Regulatory Science. In addition, discussions have begun with UA Fayetteville about developing two combined degree programs – MBA/MPH and MBA/MHA (master in health administration) through COPH and the UA Sam Walton School of Business.

To further meet this mission of producing public health graduates who are fully prepared to enter the public health workforce and help improve the health of all Arkansans, the College has developed the electronic Competency Tracking System (CTS) over the past two years. The competencies, based on input from public health practitioners in Arkansas and national standards for education in public health, summarize the areas in which students should be competent when they graduate. The CTS enables faculty, administrators and students to monitor a student's progress on competencies across the core public health disciplines (biostatistics, environmental and occupational health, epidemiology, health behavior and health education, and health policy and management). The College is also able through the system to monitor how well the courses and educational programs offered by the College address those competencies.

Key Accomplishments: APRC funding re-authorization, creation of the COPH Advisory Board, new financial scholarships, quality faculty and administrator hires, progress towards re-accreditation, increased practice opportunities for students in the community, new programs of study, and the launch of the electronic Competency Tracking System are milestones of the past biennium.

Challenges and Opportunities: Reduced funding (federal, state and other extramural sources) will continue to be a challenge, affecting the College's ability to offer student scholarships, stipends, and financial aid as well as funding for endowed chairs/professorships to attract and retain strong faculty. Challenges are being addressed by enhancing philanthropic fundraising and increasing faculty grant applications.

Plans for Next Quarter/Biennium: The COPH will focus on continuing collaboration with UAMS Institutional Advancement on philanthropic fundraising for endowed faculty chairs/professorships and student scholarships.

COPH Performance Indicators and Progress

Goals Specified by the Act: The goal of the COPH program is to improve the health and promote the well-being of individuals, families and communities in Arkansas through education, research and service. The following short and long term goals were established for COPH in the Act:

Short-term Goal: Obtain federal and philanthropic grant funding. (Based on 19-12-118 (A)-Monitoring and evaluation of programs.)

Long-term Goal: Elevate the overall ranking of the health status of Arkansas.

Evaluation of Progress Toward Achieving Key Performance Indicators

We have identified seven key performance indicators for this program. These indicators will be monitored over time to determine the extent to which COPH is achieving the goals outlined in the Act. The subsections below present the status by indicator and recommendations for improving programs as appropriate to achieve each goal in the future.

Indicators for Short-Term Goal

Obtain federal and philanthropic grant funding. (Based on 19-12-118 (A)-Monitoring and evaluation of programs).

Indicator: Maintain annual extramural research funding in FY 2013 and FY 2014 consistent with funding levels in the past three years (3-year average).

Status: In FY 2013, \$6,016,472 of extramural research funding was brought into the school. The three year average is \$7,329,225.

Discussion: Several factors contributed to the shortfall from the goal in FY 2013. The overall reduction in Federal funding greatly affected the University overall and in turn the COPH. Also, the departure of several faculty members who were heavily funded researchers affected the college's bottom line. Already, COPH has added seven new faculty members, several of whom bring funded research to the department. Continuing to have large numbers of publications in high impact journals by COPH faculty will promote the expertise and credibility of the college and thus also assist in addressing this fundraising goal in the future.

Indicator: Leveraged funding: The ratio of gross extramural research funding to Tobacco Settlement Fund monies will be maintained at least at 2.7:1 in FY 2013 and FY 2014.

Status: In the last fiscal year, the ratio of gross extramural research funding to Tobacco Settlement Fund (TSF) monies was 2.53:1. Extramural funding including direct and indirect grants and contracts totaled \$6,016,472. Tobacco Settlement Fund monies was \$2,371,926.

Discussion: Sources of funding include grants and contract direct costs, grant and contract indirects, tuition and fees, investment revenue and expendable gifts. Despite an overall decline in funding in 2013, CPH has been able to leverage more than \$2.50 to \$1 of TSF money. However, CPH fell short of meeting the goal of 2.7:1 in FY2013. CPH received a \$20,000 commitment toward student scholarships contingent on matching funds being secured. It is recommended that CPH continue to build relationships and utilize those relationships to leverage program funds. Given the effects on universities of the ongoing budget cuts to federally funded research, CPH will need to continue pursuing other non-government funding sources. The advisory board developed this past year is another good step in this direction.

Indicator: Maintain a 2:1 ratio of number of publications in peer-reviewed journals annually to faculty FTEs.

Status: In 2013, this objective was exceeded with a publication to faculty ratio of 3.05:1.

Discussion: There were 135 total publications produced by 44.3 FTE faculty members with an average of 3.05 publications per FTE faculty. The breakout is 37 faculty members with one or more publications, and 15 faculty members without any publications. Several research faculty members left UAMS this year, yet the CPH was able to maintain a high rate of publications by existing and new faculty. Article topics were varied; content addressed telemedicine and various health conditions, focusing on women, children, and seniors, minority health issues, and environmental health concerns. CPH should highlight this success in order to encourage new faculty and those who are not currently publishing to publish at high rates in well established, high impact journals. This success may also be used to assist in recruiting new faculty with a strong track record of publishing in highly visible publications.

Indicators for Long-Term Goal

Elevate the overall ranking of the health status of Arkansas.

Indicator: Serve as an educational resource on policy initiatives to improve the health and well-being of Arkansas.

Status: Over the past two years, COPH has engaged in 36 policy-related activities.

Discussion: The Tobacco Settlement Proceeds Act describes the roles and responsibilities of the school of public health to be established in Arkansas with Tobacco Settlement Funds. In relation to state government and legislators, the Act states that the school would “serve as a resource for the General Assembly, the Governor, state agencies, and communities ... services ... should include, but not be limited to the following: consultation and analysis, developing and dissemination programs, obtaining federal and philanthropic grants, conducting research, and other scholarly activities in support of improving the health and healthcare of the citizens of Arkansas.”

Per state law, the College does not engage directly in advocating for a position on any policy initiative. However, since its founding in 2001, the Fay W. Boozman College of Public Health has fulfilled its mandate through various means, with the ultimate goal being evidence-based public policies and practices that contribute to the improved health of the Arkansas population.

These efforts, on the part of the College, have included participation in state law-mandated and other task forces, coalitions and committees, primarily in an advisory role. In the past two years, this has included participation in the Tobacco Coalition and the Coalition for Tobacco Free Arkansas. COPH does not have direct knowledge of what information or expertise from the College ultimately contributed to formation of public policy or specific policy initiatives that were affected. It is recommended that COPH begin to measure changes toward evidence-based public policies that contribute to improved health in the State in which they are involved to better understand their impact on policy.

Indicator: Provide public health training to students throughout the state.

Status: The distribution of COPH students by AHEC region is described in Table 5-1 below.

Table 5-1. COPH student distribution by region

	Central	Delta	North Central	Northeast	Northwest	South Central	South	Southwest	% of Counties
Fall 2012-2013	80	8	8	12	6	22	4	5	51
Spring 2012-2013	72	9	7	13	4	17	2	6	49
Summer 2012-2013	68	8	7	11	6	16	1	6	47
Fall 2013-2014	80	9	12	15	8	19	1	6	51
Spring 2013-2014	75	7	13	12	8	18	2	6	45

COPH also offers distance learning courses. Table 5-2 below details how many distance-accessible courses were available each semester.

Table 5-2. Count of distance-accessible courses.

Fall 2012	9
Spring 2013	6
Summer 2013	0
Fall 2013	3
Spring 2014	5

Indicator: Provide public health training to students throughout the state.

Discussion: COPH attracts students from across the state. Around half the counties in the state are represented in the student body. One challenge is employing enough healthcare professionals to work in the pipeline programs who are demographically reflective of the students COPH would like to recruit into their programs. The UAMS Regional Centers (formerly AHEC) has to have the infrastructure and capacity to prepare students across the state to work in rural healthcare. There is great potential for COPH to partner more fully with the Regional Centers to increase participation in COPH programs including through coordinated outreach and recruitment efforts. Student financial concerns are another ongoing challenge. Efforts, including the one related to the \$20,000 matching challenge for scholarships obtained this year, are sure to continue to meet this challenge. COPH has been working to ensure continuing accreditation by the Council on Education for Public Health (CEPH). Maintaining this accreditation is crucial to their ability to attract students from across the state as well.

Indicator: Increase workforce diversity in public health, particularly under-represented minorities, so that they mirror population demographics.

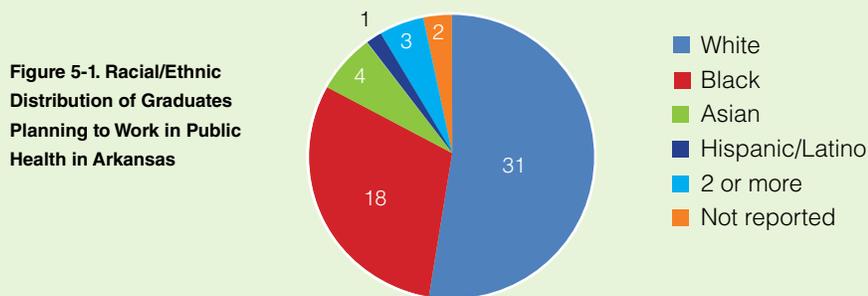
Status: During this biennium, COPH graduated 120 students. This count includes:

- 11 Post-baccalaureate Certification in Public Health
- 19 Regulatory Science Certificate
- 1 Occupational & Environmental Health Certificate
- 1 Occupational & Environmental Health Master of Science
- 68 Master of Public Health or Joint MPH
- 14 Master of Health Services and Administration
- 1 Doctor of Public Health in PH Leadership (DrPH)
- 5 PhD (formally awarded through the UAMS Graduate School)

Of these, 60 were minority student graduates. (Nine students did not report race/ethnicity.)

COPH African American student graduates (26%) continue to be well above the proportion of African Americans in Arkansas' general population at last census.

Of the graduates, 59 plan to work in public health in Arkansas post-graduation. 44% of those students are minority graduates as reflected in Figure 5-1 below.



Discussion: COPH has a diversity plan in place to support the establishment of a diverse environment inclusive of faculty, staff, and students by engaging with diverse communities in its research, education and service components of its mission. COPH currently partners with HBCUs in Arkansas on the 4+1 program and is engaged in discussions to add another University partner. COPH is also exploring the possibility of beginning a combined MBA/MPH degree program with another Arkansas university. Further, COPH currently works with AHEC coordinators to conduct outreach activities to underrepresented student populations. Continuing to build partnerships such as these will increase COPH's ability to recruit diverse students from across the state. Focusing effort and resources on these activities will assist with obtaining success on this objective.

Indicator: Pursue Arkansas-based research focused on improving the health of Arkansans: (1) ensure that no fewer than 50% of faculty are involved in research activities that focus on the improvement of the health and wellbeing of Arkansans; (2) ensure that no fewer than 75% of the MPH student preceptorships and integration projects have as their focus the improvement of the health and wellbeing of Arkansans.

Status: COPH consistently has more than 50% of faculty involved in research that focuses on the improvement of health in Arkansas. Table 5-3 tabulates the number of faculty projects that meet the criterion for the reporting periods in the biennium.

Table 5-3. Faculty Involvement in Arkansas-based Health Improvement Research

Reporting Period	Faculty Projects that Meet Indicator Criteria
Fall 2012	27/47=57.4%
January – March 2013	30/38=79%
April – June 2013	35/42=83.3%
July – September 2013	41/45=91.1%
October – December 2013	41/51=80.4%

Similarly, COPH ensures that no fewer than 75% of the MPH student preceptorships and integration projects focus on improving health in Arkansas. Table 5-4 tabulates the number of student projects that meet the criterion for the reporting periods in the biennium.

Table 5-4. Student Projects Associated with Arkansas-based Health Improvement.

Reporting Period	Student Projects that Meet Indicator Criteria
Fall 2012	14/18=77.8%
Spring 2013	25/27=93%
Fall 2013	30/36=83.3%
Spring 2014	23/29=79.3%

Discussion: COPH exceeded this goal this biennium. Faculty and students base their research and projects in geographic areas across Arkansas. Projects focus on areas including health disparities, rural health development, prevention promotion, environmental health research and obesity treatment and prevention. Having more faculty involved in state-wide projects will in turn create more opportunities for students to complete preceptorships and integration projects in the state. A challenge of several research faculty leaving the college was met this biennium with the hiring of several new faculty members who will contribute to this goal as well.

Public Health Collaborative Takes on Uncontrolled Hypertension in the Delta



Challenge: The burden of chronic disease is high throughout the state of Arkansas, but especially so in the Delta region. The average life expectancy in some counties in the Delta region is 10 years lower than in Benton County, where it is the highest in the state. High rates of hypertension, cholesterol, and cardiovascular disease contribute to lower life expectancy in the Delta region.

Solution: The Arkansas Prevention Research Center (ARPRC) at the Fay W. Boozman College of Public Health (COPH) at the University of Arkansas for Medical Sciences was established in 2009 with funding from the CDC to address this burden. Its mission is to develop research and educational programs to enhance public health practice to reduce risks for chronic diseases among those who bear the greatest risk in the state, Arkansas' racial and ethnic minorities. In spring 2014, the ARPRC received re-authorization of funding from the CDC for five years, which will enable the Center to further its work and complete projects developed in the first funding period.

Results: In collaboration with community leaders in a 19-county region in southeast Arkansas, ARPRC established an organizational infrastructure to bring residents, local organizations, and UAMS researchers together. Stakeholders worked together to identify needs, develop strategies, raise funds, and implement plans. Key accomplishments to date include:

- A 19-county food systems assessment was completed in partnership with residents. A food availability audit was conducted, sampling 25% of area food vendors. Based on findings, vendors identified ways to increase availability of fresh and frozen fruits and vegetables.
- An Evaluation Service Unit was established to assist officials responsible for state and local programs in conducting evaluations of the impact of programs they operate and develop the capacity to conduct their own evaluations.
- A website at UAMS (<http://www.uams.edu/phacs>) was developed for access to data on disease rates at the county and state level. PHACS is the short form for Public Health in Arkansas' Communities Search, with options for searching, viewing, and downloading data as well as viewing profile

reports. Expansion plans include provision of information on health disparities and health resources.

- An exercise track was constructed for the Hamburg, Arkansas, community. It includes a playground on property of the Hamburg School District.
- The Building a Toy Box project was developed to promote physical activity in preschool children and their families. Through a partnership with residents of Dumas, Arkansas, this project addresses the knowledge and materials that parents need to be more physically active with their young children.
- Training was extended to more than 75 researchers to enable them to work more effectively with community partners.
- Applications were submitted to the CDC for funding Special Interest Projects in partnerships with the Arkansas Department of Health, UAMS Institute on Aging, Eastern Arkansas Enterprise Community, and others. The three proposed projects focus on: (1) helping seniors manage chronic health conditions and evaluate program impacts on employment outcomes; (2) working with Latino and Marshallese communities to reduce tobacco use among youth; and (3) evaluating new federal regulations for Supplemental Nutrition Assistance Program vendors.

As a result of ARPRC's outstanding performance to date, continued funding was granted by the CDC to (1) develop a cost-effective program to identify individuals with hypertension and help them be adherent to medical recommendations; (2) develop a statewide training unit for high quality public health research and practice; and (3) translate cost-effective practices into models for the state and the nation.

Summary: Programs of the ARPRC work toward decreasing occurrence of chronic disease by working with local communities to address risk factors throughout the lifecycle. This allows the COPH to address public health needs in the Delta region of Arkansas to improve health outcomes and reduce health disparities.



ARKANSAS MINORITY HEALTH INITIATIVE

The Arkansas Minority Health Initiative (MHI) was established in 2001 through the Act to administer the Targeted State Needs for screening, monitoring, and treating hypertension, strokes, and other health issues that disproportionately affect minorities in Arkansas. The Act mandates that the MHI program be designed to: 1) increase awareness, 2) provide screenings, and 3) develop intervention strategies towards decreasing disparities. MHI addresses these disparities and meets these mandates by providing education, encouraging healthier lifestyles, promoting awareness of services and accessibility within our current health care system, and collaborating with community partners, public health leaders and key policy decision-makers towards reaching shared goals.

Progress and Highlights: MHI collaborated with community partners in identifying critical deficiencies that negatively impact the health of the minority populations with a focus on assessment, prevention, education and screenings. MHI, through collaborations and partnerships, provided 23,082 health screenings and documented 65,439 citizen encounters from activities held in 51 counties that represented all four congressional districts. MHI collaborated on initiatives in 13/14 counties designated as “Red Counties.” Red Counties are defined as counties where the life expectancy (LE) at birth ranges from 6 to 10 years less than the LE in the county with the highest LE.

Key Accomplishments this Past Biennium:

Outreach & Education: Community based health promotion such as health fairs, public forums and community events were utilized to increase health awareness and provide preventive screenings for high blood pressure, diabetes, cholesterol, HIV/AIDS, prostate cancer and other diseases that disproportionately impact minorities. Sponsorships/partnerships (197) with faith based, community, non-profit, state agencies and grants (2) were utilized as an intervention strategy to engage the community. The **Ask The Doctor Radio Talk Show** provided health information on diabetes, obesity, nutrition, mental

health, heart disease, stroke, HIV/AIDS, colon and breast cancer, and pediatric and women’s health to an estimated 24,500 central Arkansas listeners. Print, tv and social media outreach focused on diabetes, sickle cell and outreach activities.

Pilot Projects: Camp iRock is a seven day residential fitness and nutrition camp for girls in grades 6 through 8 with a Body Mass Index (BMI) at least in the 85 percentile. Two fitness camps were held to address four areas: self-confidence, healthy eating behaviors, nutrition knowledge and physical activity. Seventy-six out of eighty campers completed the camp. Ninety-one percent of the campers were able to differentiate healthy from less healthy snacks by the end of the camp. In all years reported, more than 85% of girls felt confident that they would be successful in changing and how they ate, what they ate, and how and what they would do to be active. **Southern Ain’t Fried Sundays** is a program designed to educate African American and Hispanic communities on healthier alternatives to preparing and cooking traditional family meals. A 21-Day Meal Replacement Plan was launched to gradually introduce individuals to healthier food alternatives and physical activity; 276 participants enrolled in the program and received the toolkit. Of the participants who completed the evaluation survey, 100% strongly agreed that they would implement the information learned while participating in the program. All of the participants agreed that the program was very beneficial.

Key Accomplishments This Biennium

- 23,082 – Health Screenings
- 197 - Partnerships
- 65,439 - Citizen Encounters
- 6 – Research Publications
- UAMS Adult Sickle Cell Clinic

The Public Health Leader's Roundtable H.O.P.E. Club project focused on two schools within the Central Little Rock Promise Neighborhood area and through collaboration with community partners work to provide resources to the underserved schools to improve students' interest, exposure and motivation in health related careers and STEM education. Over 300 students and mentors participated.

Research/Publications: Health Status of African Americans and Latinos in Arkansas: In partnership with the UAMS College of Public Health, this report provided data on demographic and socioeconomic characteristics, health status, morbidity and mortality, maternal and child health, health protecting and behavioral risk factors, and access to health care among African American Arkansans and Latinos in comparison with white, non-Hispanic Arkansans.

Policy: HB2100 of 2013 Routine HIV Screening Interim Study - was presented to the Public Health, Welfare and Labor Committee (PHWL). The study used information collected from public forums, focus groups, and patient and provider surveys to assess participants' perceptions and attitudes related to HIV screening.

Act 909 – UAMS Adult Sickle Cell Clinic – 24 hour call center that provides standards of care to the PCP to treat the patients. The clinic will initially be staffed with a physician, APN, RN, and social worker. The clinic received \$300,000 in startup funds from AMHC. In addition to this, the clinic received legislative appropriations of \$840,000 in Medicaid matching funds and \$339,950 in reserve funds for the second year of operation.

ACT 790 and 798 - defined counties with the lowest life expectancy as “red counties” and encouraged state agencies, boards, and commissions to form a planning committee and make appropriate services and programs available to improve public health in these counties.

Economic Impact of Health Disparities in Arkansas-2014: In partnership with the UAMS Dept. of Health Policy and

Management this report details the economic impact of racial and ethnic disparities in the state. Findings demonstrated that the economic consequences of health disparities in Arkansas are significant, with a price tag of more than \$500 million annually.

Acts 1490 and 1498 Arkansas Health Workforce Diversity Report: An Act to require state agencies, boards, and commissions that license or otherwise regulate health professions to procure and report demographic data regarding the health care workforce in the state of Arkansas. This report highlights important issues in workforce diversity in Arkansas.

Challenges and Opportunities: According to the CDC, heart disease is the number one cause of death in the United States and Arkansas, and African Americans are 30% more likely to die from heart disease compared to non-Hispanic whites. Achieving the long-term goal outlined in the Act to reduce death/disability due to tobacco, chronic, and other lifestyle related illnesses of Arkansans will take years to achieve due to the nature and burden of these diseases. Changes in knowledge, attitudes, and intentions will be detectable before changes in disease rates. Therefore, MHI recently collaborated with Arkansas Department of Health to add 13 state questions to the Behavioral Risk Factor Surveillance Survey (BRFSS). These data will allow MHI to assess impact by measuring changes in knowledge and awareness as well as to prioritize outreach needs.

Future Plans: MHI will continue to work toward decreasing health disparities that exist in Arkansas through outreach, intervention strategies and health screening efforts. MHI will expand its research on the economic impact of health disparities in Arkansas in the next biennium and remain a navigation resource for minority citizens impacted by the changing and complex issues surrounding the private option insurance marketplace in Arkansas.

MHI Performance Indicators and Progress

Goals Specified by the Act: The goal is to improve the healthcare systems in Arkansas and the access to healthcare delivery systems, thereby resolving critical deficiencies that negatively impact the health of the citizens of the state.

Short-term Goal: 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.

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

Evaluation of Progress Toward Achieving Key Performance Indicators

We have identified four key performance indicators for this program. These performance indicators will be monitored over time to determine the extent to which MHI is achieving the goals outlined in the Act. The subsections below present the current status by indicator and provide recommendations for improving programs as appropriate to achieve each goal in the future.

Indicators for Short-Term Goal

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 5 years.

Status: This past biennium, in partnership with the UAMS College of Public Health, MHI produced the Health Status of African Americans and Latinos in Arkansas Report. This report provided data on demographic and socioeconomic characteristics, health status, morbidity and mortality, maternal and child health, health protecting and behavioral risk factors, and access to health care among African American/Black Arkansans and Latinos in comparison with white, non-Hispanic Arkansans.

Discussion: MHI successfully completed the short-term goal by conducting a needs assessment regarding health disparities in minority populations in Arkansas and producing a report.

Indicator: MHI will increase awareness and provide access to screening for disorders disproportionately critical to minorities as well as to any citizen within the state regardless of racial/ethnic group.

Status: Through collaborations and partnerships MHI provided 23,082 health screenings and documented 65,439 citizen encounters from activities held in 51 counties.

Discussion: MHI provides a very efficient level of service to individuals in Arkansas for the ATSC/AID funding available (approximate cost of \$24 per attendee; \$75 per screening). With the passage of ACA and HCIP/PO, more citizens will have access to health insurance coverage and access to care. MHI will want to evaluate whether continuation of screening services is still a priority or if funds could be directed towards other activities to reduce disparities.

Indicator: MHI will develop and implement at least 1 pilot project by 6/30/13 to identify effective strategies to reduce health disparities amongst Arkansans.

Status: Activities such as Camp iRock (which served 45 girls, 26 of whom participated in the follow up), SAFS (125 individuals screened), and the HOPE Club projects (425 participants), were designed to increase awareness in health education, and interests in health related careers and STEM education.

Discussion: For each of these projects, MHI is collecting information from respondents regarding their health, vitals, and perceptions/interests. To understand the impact of these projects, it is also advisable that MHI continue to assess changes over the long term that may result from these interventions. For example, Camp iRock participants are invited to quarterly meetings held at the ACH Fitness Center. The meetings help reinforce the lessons learned at the camp, and also provide an opportunity to collect additional data, such as BMI. This continuous tracking over time is providing MHI with a more comprehensive understanding of the program's impact over time.

Indicator for Long-Term Goal

Reduce death/disability due to tobacco, chronic, and other lifestyle related illnesses of Arkansans.

Indicator: To increase awareness by 1% annually among minority Arkansans for stroke, hypertension, heart disease, and diabetes as measured by previous comparison beginning in FY 2014.

Status: The State of Arkansas has submitted recommended questions to be asked as part of 2014 Behavioral Risk Factor Surveillance System Survey. Comparison data from the 2015 annual survey should be available by 2016.

Discussion: Achieving the long-term goal outlined in the Act to reduce death/disability due to tobacco, chronic, and other lifestyle related illnesses of Arkansans will take years to achieve due to the nature and burden of these diseases. Changes in knowledge, attitudes, and intentions will be detectable before changes in disease rates. Therefore, MHI recently collaborated with Arkansas Department of Health to add 13 state questions to the Behavioral Risk Factor Surveillance Survey (BRFSS). These data will allow MHI to assess impact by measuring changes in knowledge and awareness, as well as prioritize outreach needs.

Girls Gain Self-Confidence and Skills to Adopt a Healthy Lifestyle



Challenge: Arkansas ranks 12th in the U.S. in childhood obesity according to the Alliance for a Healthier Generation. Currently 33.9% of youth in Arkansas are overweight or obese. Childhood obesity is accompanied by a broad range of health problems that previously weren't seen until adulthood. These include high blood pressure, type 2 diabetes, and elevated blood cholesterol levels. According to the CDC, overweight and obese children are more likely to become obese adults.

Solution: Arkansas implemented a pilot program called Camp iRock as a statewide intervention strategy to address childhood obesity. Camp iRock is a free, seven day residential camp with a focus on fitness and nutrition that was developed specifically for girls in grades 6 through 8 with a Body Mass Index (BMI) at the 85 percentile or higher. Campers are selected based on application scores and their BMI. The camp program addresses four areas: self-confidence, healthy eating behaviors, nutrition knowledge, and physical activity. At the end of the week-long camp session, parents and campers receive monthly e-newsletters that provide tips on maintaining physical activity and proper nutrition. Campers, mentors, and parents also attend quarterly meetings held at the Arkansas Children's Hospital Fitness Center.

Results: Most participants (91%) were able to differentiate healthy from less healthy snacks by the end of the camp session. In all years reported, more than 85% of girls expressed confidence that they would be successful in changing how they ate; what they ate; and how and what they would do to be active. On average, 48% of campers eligible to attend participated in follow-up meetings. Of the campers who attended the follow-up meetings, 42% either maintained or decreased their BMI.

Summary: Camp iRock is helping girls gain the knowledge, skills, and self-confidence to make healthier food choices and engage in physical activity.

A program designed to build their self-esteem was a great experience for my daughter Kyra and our whole family. Because of Kyra's experience with Camp iRock, the whole family began to eat better and became more physically active. Since Camp iRock Kyra has taken on basketball and volleyball. She has continued to maintain a healthy BMI and we are just so blessed to have been a part of Camp iRock.

(Quote from Camper and Mentor Parent Karen Ellison)



TOBACCO SETTLEMENT MEDICAID EXPANSION PROGRAM

Program Description: The Tobacco Settlement - Medicaid Expansion Program (TS-MEP) creates a separate and distinct component of the Arkansas Medicaid Program that improves the health of Arkansans by expanding health care coverage and benefits to the four targeted populations listed below as established by Initiated Act 1 of 2000.

- Population 1: Expands Medicaid coverage and benefits to pregnant women with incomes ranging from 133–200% of the Federal Poverty Level
- Population 2: Expands inpatient and outpatient hospital reimbursements and benefits to adults age 19–64
- Population 3: Expands non-institutional coverage and benefits to seniors age 65 and over
- Population 4: Expands to provide a limited benefits package to low-income employed adults age 19–64

The Tobacco Settlement Funds are used to pay the state share required to leverage approximately 70% in federal Medicaid matching funds.

Progress and Highlights: The past biennium the TS-MEP transitioned from a period of general stability for the Pregnant Women, Hospital Reimbursement and ARSeniors programs combined with steady growth in the ARHealthNetworks program, to a period of significant change as a direct result of the implementation of the Affordable Care Act (ACA) and the Arkansas Health Care Independence Program/Private Option (HCIP/PO). These health care laws had an immediate impact on the ARHealthNetworks program. During this time of significant change, the agency has initiated the development of a new, state-of-the-art, eligibility and enrollment computer system to support all of the core public assistance programs, including Medicaid and the TS-MEP.

Key Accomplishments this Past Biennium: By providing medical services to specific populations, the TS-MEP is by design an expansion of traditional Medicaid. Thus, any changes and expansions in the traditional Medicaid program impact the TS-MEP. Key accomplishments this past biennium have been the passage of the HCIP/PO and the design and development of a new computer system to replace a thirty year old legacy system. Staff had to be trained on how the ACA has changed many of the current Medicaid eligibility categories, including the TS-MEP initiatives. Voters passed the Tobacco Settlement Initiated Act in 2000 with the intent to expand health care coverage to pregnant women, seniors and persons age 19–64. The HCIP/PO takes this concept further by incorporating the provisions of the ACA and the enhanced federal match available to pay for newly eligible Medicaid recipients.

Challenges and Opportunities: There have been several challenges facing the TS-MEP. One issue that has persisted throughout the last biennium has been the difficulty in establishing performance indicators. Since program implementation, performance has generally been measured by tracking caseload trends.

Key Accomplishments This Biennium

- Continued growth in the ARHealthNetworks program
- Development of a new Eligibility and Enrollment Framework
- Passage of the Health Care Independence Program/Private Option
- Continued leverage of Federal Funds

The impact of the ACA and the Private Option will, for the first time, create an environment in which the State can obtain critical analytical data to begin to determine the long-term impact of health insurance on the TS-MEP populations. The program is striving to develop a set of indicators that will allow the program to move beyond reporting enrollment numbers, and instead measure the program's impact on health and health care costs. Another challenge has been the development of a new Eligibility and Enrollment Framework to support the Medicaid, Private Option and Supplemental Nutrition Assistance programs. Because the TS-MEP is supported by the same computer system as the regular Medicaid program, the agency's priority the past two years has been to design, develop, test and implement a new eligibility system that will provide multiple access portals and enhanced program integrity through rules engines and data verification hubs. The advantage to the TS-MEP is that eligibility for the initiatives will be determined on a system using the newest computer technology instead of a legacy system that is over 30 years old, making the processes more efficient.

The challenge this biennium is also the program's greatest opportunity—the elimination of the ARHealthNetworks program on December 31, 2013. ARHealthNetworks provided a limited benefit package to low-income adults, age 19–64, who worked for small employers earning less than 200% of the Federal Poverty Level. Between the Private Option and the subsidies available through the federal marketplace, these individuals are now eligible for an expanded range of health benefits. Tobacco Settlement Funds that previously went toward the ARHealthNetworks program, will be used to support the funding deficit in the traditional Medicaid program. This is consistent with how the department has used Tobacco Settlement Funds in the past, as for more than ten years the Department of Human Services has had the legislative authority to move unspent Tobacco Settlement Funds from the MEP to regular Medicaid, contingent upon approval of the State's Chief Fiscal Officer.

Future Plans. Beyond the changes in the program that are directly related to the impact of the ACA and the Private Option, the agency does not envision any programmatic changes in the three remaining tobacco settlement funded Medicaid expansion initiatives. Over the next biennium, the agency will collect and track data closely to measure the impact of ACA and HCIP/PO on the utilization rates of the TS-MEP. A decline in the number of pregnant women needing coverage through the tobacco settlement funded program is expected as more women have a private insurance plan when they become pregnant. TS-MEP is also interested in the long-term impact HCIP/PO will have on the ARSeniors program. As a result of having access to preventive care and early diagnosis and treatment of illnesses while they are younger, it is anticipated that those 65 and older may have reduced claims, saving money in the long-term and allowing program funds to be shifted to meet the needs of other populations.

TS-MEP Performance Indicators and Progress

Goals Specified by the Act: The overall goal of the TS-MEP program is to expand access to healthcare through targeted Medicaid expansion, thereby improving the health of eligible Arkansans. The following short and long term goals were established for TS-MEP in the Act:

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

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

Evaluation of Progress Toward Achieving Key Performance Indicators

This past biennium the TS-MEP transitioned from a period of general stability, to a period of significant change as a direct result of the implementation of the Affordable Care Act (ACA) and the Arkansas Health Care Independence Program/Private Option (HCIP/PO). These health care laws had an immediate impact on the ARHealthNetworks program operated by TS-MEP. For this biennium it was determined that program enrollment would continue to be monitored to measure performance, recognizing that the ARHealthNetworks program would be ending at the end of 2013. Since funds that were previously directed to the ARHealthNetworks program are now used to support the funding deficit in the traditional Medicaid program, we are also tracking and reporting on the amount of TS-MEP funding that is directed to traditional Medicaid. Given that demand for some TS-MEP programs will be reduced as a result of HCIP/PO, we expect this amount of money to increase in the years ahead.

Indicators for Short-Term Goal

The Arkansas Department of Human Services demonstrates an increase in the number of new Medicaid eligible persons participating in the expanded programs.

Indicator: Number of pregnant women with incomes ranging from 133 – 200% of the Federal Poverty Level enrolled in TS-MEP.

Status: On average, 1,100 women were enrolled in TS-MEP during FYs 2013 and 2014. See Table 6-1 and Table 6-2.

Discussion: The number of pregnant women served by TS-MEP remained steady this biennium. Moving forward it is expected that enrollment will decrease, as more women will have health insurance as a result of HCIP/PO.

Indicator: The average number of adults 19-64 receiving inpatient and outpatient hospital reimbursements and benefits.

Status: Enrollment in this program remained steady, serving an average of 2,259 participants in FY 2013 and 2,202 in FY 2014. See Table 6-1.

Discussion: Enrollment in this program was steady this biennium. This program will continue as before, and will not change as a result of HCIP/PO.

Indicator: The average number of persons enrolled in the ARSeniors program which expands non-institutional coverage and benefits to seniors age 65 and over.

Status: Enrollment in this program increased slightly, serving an average of 4,916 seniors in FY 2013 and 5,318 in FY 2014. See Table 6-1

Discussion: Enrollment in this program increased this biennium. This program will continue as before, and will not change as a result of HCIP/PO.

Indicator: The average number of persons enrolled in the ARHealthNetworks program, which provides a limited benefits package to low-income employed adults in the age range 19–64.

Status: Enrollment in this program increased from 17,437 in July 2012 to 18,253 by June 2013. The program ended December 31, 2013, as this population is now offered more comprehensive health care coverage options through the state and federal insurance exchanges. See Table 6-1 and Table 6-2.

Discussion: The population served by the ARHealthNetworks program can now access more comprehensive health care coverage as a result of HCIP/PO. This program was terminated at the end of 2013, and this population is now directed to either the state or federal enrollment portal depending on income level.

The ARHealthNetworks program was designed to expand Medicaid coverage to low-income adults, age ranging from 19 to 64, who were working in small businesses. The benefit package was limited, offering only the following services every 12 months:

- 7 Inpatient Days
- 2 Major Outpatient Services, including emergency room and major services performed in the office
- 6 Provider Visits
- 2 Prescriptions Per Month
- \$100,000 Maximum Annual Benefit

With the passage of the Health Care Independence Program, more commonly known as the Private Option (HCIP/PO), the state was able to discontinue the ARHealthNetworks program and direct individuals with incomes equal to or less than 138% of the FPL to the new program where they would qualify for a more robust range of health services. Those ARHealthNetworks recipients with incomes over 138% of the FPL were directed to Healthcare.gov where, because of their lower income level (139%–200% FPL), they would qualify for tax credits to assist with the payment of the premiums for private insurance offered by the Federal Marketplace.

Indicators for Long-Term Goal

Demonstrate improved health and reduced long-term health costs of Medicaid eligible persons participating in the expanded programs.

As a result of HCIP/PO more individuals will be insured outside of TS-MEP moving forward. Therefore, TS-MEP's impact on health outcomes and long-term health costs will become negligible compared to those from outside influences. It will be important for Arkansas to evaluate changes in health outcomes and expenditures resulting from HCIP/PO; however, evaluating HCIP/PO is outside of the scope of this evaluation.

Table 6-1. Aspects of Coverage of Medicaid Expansion Programs Under the Tobacco Settlement Act

Program	Coverage Needs Addressed	Impact of Private Option on Program
Pregnant Women's Expansion	Expands Medicaid coverage and benefits to pregnant women with incomes ranging from 133% to 200% of the Federal Poverty Level	Although no program changes, the number of enrollees is expected to decline as more women have health insurance coverage
Medicaid-Reimbursed Hospital Care	Expands inpatient and outpatient hospital reimbursements and benefits to adults age 19-64	None Program will continue as before
ArSeniors	Expands Non-Institutional coverage and benefits to seniors age 65 and over	None Program will continue as before
ARHealthNetworks	Expands to provide a limited benefits package to low-income employed adults age 19-64	This population now directed to either the state or federal enrollment portal depending on their income level.

Table 6-2. Enrollment and Costs of Coverage for Medicaid Expansion Programs Under the Tobacco Settlement Act

Program	Enrollment Numbers		Costs Covered by Tobacco Settlement Funds		Costs Covered by Federal Dollars Leveraged	
	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014
Pregnant Women's Expansion	1,100	1,100	\$1,279,976	\$982,637	\$3,029,659	\$2,306,224
Medicaid-Reimbursed Hospital Care	2,259	2,202	\$2,484,550	\$1,782,682	\$5,882,070	\$4,183,706
ArSeniors	4,916	5,318	\$4,921,187	\$4,109,617	\$3,759,350	\$3,293,427
ARHealthNetworks	17,437 ⁽¹⁾ 18,253 ⁽²⁾	18,020 ⁽³⁾ 0 ⁽⁴⁾	\$14,772,809	\$12,324,255	\$31,751,140	\$24,089,972

(1) July 2012 report; (2) June 2013 report; (3) July 2013 report; (4) March 2014 report.



TOBACCO PREVENTION AND CESSATION PROGRAM (TPCP)

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, and 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 activities. The TPCP follows the Centers for Disease Control and Prevention (CDC) Best Practices for Tobacco Control as a guide for program development. Outcomes achieved by Arkansas' TPCP includes 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.

Progress and Highlights: A total of 14,130 unique tobacco users registered for tobacco cessation intervention services during FY 2013 through the Arkansas Tobacco Quitline (ATQ). This was a 7% increase in the number of registrants compared to FY 2011 (13,144). The FY 2013 7-month quit rate for all tobacco users was 27.3%; smokeless tobacco users was 30.5%; Hispanic tobacco users was 36.7%; and pregnant tobacco users was 38%.

TPCP received 11 Bronze Quill awards and four National Public Health Information Coalition Awards (NPHIC) for various public health educational campaigns.

The Systems Training and Outreach Program (STOP) is being featured as an example of academic detailing as a supplement to the Best Practices Guidelines.

Key Accomplishments this Past Biennium: In 2012, the "Let's Clear the Air" statewide media and educational campaign launched to raise awareness about the impact of secondhand smoke on workers' and customers' health.

During the 89th Arkansas state legislative session, youth members had the opportunity to speak before the Senate Education Committee and the House Rules Committee regarding a bill on the use of e-cigarettes on school campuses and the sale of e-cigarettes to minors. In both committees, based on testimony from youth attendees, legislators voted in favor of these groundbreaking tobacco restrictions.

Four laws were passed in 2013 to protect youth and other underserved populations. These included: Act 1451 which makes Arkansas one of three states to prohibit the transfer of e-cigarettes and other nicotine products to minors and to prohibit minors from possessing or buying e-cigarettes; Act 1188 which

Key Accomplishments This Biennium

- Quit rate for FY 2013 was 27.3%.
- Four laws were passed to protect youth and other underserved populations.
- CDC is featuring STOP on its website as a supplement to the Best Practices Guidelines.
- Arkansas ranked second in the nation for the number of substance abuse treatment facilities offering any tobacco cessation service by the National Survey of Substance Abuse Treatment Services Report.

prohibits the distribution of alternative nicotine products to minors; and Act 975 which removes an exemption, now making smoking tobacco on all medical facility grounds prohibited.

To date, TPCP community-based coalitions have secured 119 tobacco/smoke-free park policies, 44 tobacco/smoke-free workplace policies (including at private and public businesses such as county buildings and libraries), 3 tobacco-free hiring policies, 1 tobacco-free multi-unit housing facility policy that included e-cigarettes, 10 tobacco/smoke-free private college and universities policies (two of those included e-cigarettes), 17 public school 24/7 comprehensive tobacco free campus policies; and 3 tobacco/smoke-free festival policies.

Additional efforts to address prevention included the development of two educational initiatives: Project CLERK (Community Leaders Evaluating Retailer's Knowledge) to decrease sales to minor violations, and the CANVAS Project designed to evaluate how tobacco related art and vintage advertising reinforces tobacco as a normal and acceptable part of life. Campaign for Tobacco-Free Kids has shown interest in possibly adopting CANVAS as a nationwide project.

TPCP conducted the Arkansas Adult Smokers Survey, the first of its kind in Arkansas. Its purpose was to obtain an in-depth understanding of the attitudes, behaviors and beliefs of smokers in Arkansas. This study followed the practices of the International Tobacco Control and Policy Evaluation Project by evaluating policies at the level of the individual smoker and identifying the determinants of effective state tobacco control policies. A major finding shows that the majority (84%) of smokers surveyed have tried to quit smoking.

The Systems Training and Outreach Program (STOP) was expanded in FY 2013 to serve all 75 counties in Arkansas. During FY 2013, STOP trained 1,328 providers, generating 3,775 fax referrals to the ATQ, which is an increase of over 325 percent from fax referrals generated in FY 2012 (1,160).

In collaboration with the Department of Human Services Division of Behavioral Health Services, TPCP developed a pilot project to decrease the prevalence of tobacco use among persons with mental health and substance abuse disorders in Arkansas. Ten facilities participated in the pilot project.

Challenges and Opportunities: Electronic Nicotine Delivery Systems, such as e-cigarettes, remain one of TPCP's biggest challenges as they are unregulated products that are exuberantly advertised with focus on renormalizing indoor smoking and flavoring that is appealing to youth. The Affordable Care Act's rollout also presents challenges due to confusion about which specific cessation services will be covered; however it also presents opportunities as more people will have coverage.

Future Plans: TPCP has a strategic plan which will guide the work from 2014 to 2019. This includes development of comprehensive evaluation to determine return-on-investment for TPCP efforts. TPCP will also reorganize their internal structure to increase efficiency and its effectiveness in service delivery and work to strengthen current policies to protect youth and decrease disease and economic burden related to tobacco use for the state of Arkansas.

TPCP Performance Indicators and Progress

Goals Specified by the Act: The goal of the TPCP program is to reduce the initiation of tobacco use and the resulting negative health and economic impacts. The following short-term and long-term goals were established for TPCP in the Act:

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

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

Evaluation of Progress toward Achieving Key Performance Indicators

We have identified 14 key performance indicators for this program program. These performance indicators will be monitored over time to determine the extent to which TPCP is achieving the goals outlined in the Act. The subsections below present the current status by indicator and provide recommendations for improving programs as appropriate to achieve each goal in the future.

Indicators for Short-Term Goal

Communities shall establish local tobacco prevention initiatives.

Indicator: By June 30, 2014, all medical facilities including psychiatric hospitals as outlined in Act 975 will ban smoking tobacco.

Status: Arkansas ranked second in the nation for the number of substance abuse treatment facilities offering any tobacco cessation service by the National Survey of Substance Abuse Treatment Services Report. TPCP is currently working with Division of Behavioral Health Services on policy language.

Discussion: It is a CDC guideline to ban tobacco at all medical facilities. In line with this, the Arkansas General Assembly last year passed legislation extending the ban on smoking tobacco in and on the grounds of medical facilities to include psychiatric hospitals. TPCP is working with the State on creation and implementation of policies to abide by this new state law. TPCP should continue to act as a resource in this area and monitor implementation to ensure success.

Indicator: By June 30, 2014, two communities will pass smoke-free local ordinances more restrictive than Act 8.

Status: Ash Flat, AR adopted a smoke-free community festival; Hot Springs, AR adopted tobacco-free city parks policy; Benton County Judge adopted tobacco-free campus policies for all county owned and operated buildings and properties. Also, the cities of Ash Flat, Avoca, Bentonville, Bella Vista, Centerton, Lowell, Gentry, Maysville, Cave Springs, Springtown, and Sulphur Springs all are smoke-free including e-cigarettes which include all city used/owned buildings and vehicles. Additionally, Yellville adopted a city ordinance to prohibit the use of tobacco products including e-cigarettes in parks and recreational areas.

Discussion: TPCP has successfully met this goal. Once communities such as Ash Flat, Hot Springs, and Benton County start adopting smoke-free local ordinances as they have done this year, they can be held up as examples to other communities across the state. TPCP can play a role of bringing awareness of these community successes to other communities in the state thereby encouraging them to follow suit. This would include working with the communities that have already passed ordinances to share the language and the process they used as models for others to follow.

Indicator: By June 30, 2014, the number of school districts implementing comprehensive evidence based interventions recommended by the CDC's Guidelines for School Health Programs to Prevent Tobacco Use and Addiction, including policies and curriculum, will increase to 10 percent of all school districts.

Status: In FY 2012 eight school districts were implementing comprehensive evidence-based interventions to reduce tobacco use. According to the Arkansas Children's Hospital who provides the curriculum and training on implementation at no cost throughout the state of Arkansas, 74 school districts have implemented tobacco control curriculum from Jan-April 2014. Additionally, the Arkansas Department of Education has incorporated tobacco-use prevention education in their instructional frame. During the 89th Legislative Session, Act 1099 was enacted to prohibit the use of e-cigarettes on school property which includes school sanctioned events. This law was effective July 1, 2013. TPCP is working with schools to incorporate language in their policies and signage through the district.

Discussion: About 31% of Arkansas school districts implemented tobacco control curriculum in 2014, showing a significant increase since 2012 and far exceeding this goal. TPCP currently engages in several other youth and school based curriculum strategies such as Banners in School, Healthy Lungs and Gums, and many other projects. However, there is not a way to report based on the indicator.

It is recommended that the TPCP program continue to work to expand the use of CDC's guidelines. In their Guidelines for School Health Programs to Prevent Tobacco Use and Addiction, the CDC makes the following seven recommendations:

1. Develop and enforce a school policy on tobacco use.
2. Provide instruction about the short- and long-term negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.
3. Provide tobacco-use prevention education in kindergarten through 12th grade; this instruction should be especially intensive in junior high or middle school and should be reinforced in high school.
4. Provide program-specific training for teachers.
5. Involve parents or families in support of school-based programs to prevent tobacco use.
6. Support cessation efforts among students and all school staff who use tobacco.
7. Assess the tobacco-use prevention program at regular intervals.

The CDC offers several resources on their web site (<http://www.cdc.gov/healthyouth/tobacco/strategies.htm>) to help schools identify evidence based programs in order to meet these goals. TPCP can play a role in assisting school districts with identifying and selecting programs to use in their districts and can provide technical assistance with obtaining the funding for such enhancements (i.e. grant writing, assisting with coalition building, etc.).

Indicator: By June 30, 2014, 15 Coordinated School Health (CSH) schools (currently funded by TPCP) will report having a comprehensive school tobacco policy.

Status: This objective was successfully achieved. School districts statewide will begin enforcing at the start of the 2013–2014 school year new legislation, Act 1099, banning the use of e-cigarettes by any individual on school campus or at any school sanctioned event. TPCP continues to provide technical assistance to school districts statewide to incorporate language addressing e-cigarettes into their policies and providing appropriate signage.

Discussion: In April 2013, the Arkansas legislature passed Act 1099 which prohibits use of e-cigarettes on public school property. This policy change greatly helps in addressing one of the major challenges identified by TPCP this biennium.

Indicator: By June 2014, all remaining private colleges and universities will have adopted a 100% tobacco free policy.

Status: Arkansas has a total of 11 private colleges and the following 10 have adopted 100% tobacco free policies: Central Baptist College, Crowley Ridge College, Harding University, John Brown University, Ouachita Baptist University, Ozarka College, College of the Ozarks, Northwest Arkansas Community College, Philander Smith College, and Williams Baptist College. In addition, one state funded college prohibits the use of e-cigarettes effective for the 2013–2014 school year. TPCP is updating its previously developed tobacco-free college toolkit, “Oxygen Project”, to include language and signage addressing the prohibition of e-cigarette use on campus.

Discussion: The Arkansas Clean Air On Campus Act of 2009 makes it illegal to smoke on any state supported college or university campus. TPCP has encouraged all colleges and universities, both public and private, to take the next step by becoming completely tobacco free campuses. TPCP should continue to implement the action steps outlined in their strategic plan to meet this goal. TPCP should monitor progress closely in order to adjust efforts as needed. Colleges that have not yet adopted such policies can learn from those who have and use their policies and strategies for implementation as models. TPCP can create opportunities for colleges to influence each other on this matter.

Indicator: By 2014, 10% of the private and charter schools will implement comprehensive evidence-based interventions recommended by the CDC’s Guidelines for School Health Programs to Prevent Tobacco Use and Addiction, including policies and curriculum.

Status: In 2012 there were 150 Private Schools and 37 Charter Schools in the state. In 2013-2014 school year, 3 schools implemented 24/7 comprehensive tobacco-free policies: Imboden Area Charter School, Viola Montessori Schools, and Riverview Baptist Christian School. TPCP has also begun to fund a community sub-grantee who is focusing on this indicator.

Discussion: Reaching the private and charter schools continues to remain a challenge for TPCP. It will be important to closely monitor the progress of the new sub-grantee who is addressing this indicator.

Indicator: By June 2014, six employers representative of large and medium sized businesses (excluding hospitals and medical clinics) will adopt a tobacco free worksite policy.

Status: A total of five employers adopted tobacco free worksites this biennium. An additional employer adopted a tobacco-free hiring policy. Three employers strengthened their policies by adding e-cigarettes.

Discussion: This objective was successfully achieved. TPCP was effective in getting five employers to adopt tobacco free worksite policies. These companies include Crosby National Swage, Tokensen Industries, CertainTeed Gypsum, Inc., Arlington Hotel, and Wabash Wood Products. Also, Arkansas Foundation for Medical Care (not a medical clinic) implemented a tobacco-free hiring policy. Fort Smith Airport strengthened their policy by now including e-cigarettes. Fort Smith and Rogers Library Systems have smoke-free policies that include e-cigarettes as well.

Indicators for long-term goal

Survey data will demonstrate a reduction in numbers of Arkansans who smoke and/or use tobacco.

Indicator: By June 30, 2014, 90% of homes and cars will be smoke-free.

Status: In 2009–2010, 75.4% of adults in Arkansas reported that their homes had smoke-free home rules (National Adult Tobacco Survey, 2009-2010).

Discussion: TPCP should consider how they will measure this indicator since the National Adult Tobacco Survey no longer provides State level information and since the Arkansas Tobacco Survey data from 2008 is not comparable to the most recent NATS data. We do know that results from the 2009–2010 National Adult Tobacco Survey, show 75.4% of homes being smoke-free. Further, 16.7% of Arkansans reported exposure to second hand smoke in their homes during the past 7 days when asked for the National Adult Tobacco Survey (2009-2010) and 20.1% reported exposure in a vehicle.

The Arkansas Prevention Needs Assessment Survey (APNA) administered in Fall 2013 to 6th, 8th, 10th, and 12th grade students, found that 71.2% of respondents indicated there is no smoking allowed in their home and 63.5% reported that smoking is not permitted in the family car.

The 2006 Arkansas Protection from Secondhand Smoke for Children Act was strengthened in 2011 by making it a primary offense to smoke in a vehicle with children under 14. The original law protected children up to age 6 and of a certain weight. The updated law in 2011 was projected to protect 78 percent of Arkansas children from second hand smoke in vehicles compared to 34% previously. If accomplished, this still falls short of the indicator goal of 90%.

Indicator: By June 30, 2014, decrease the smoking prevalence of youth from 18.2% to 17%.

Status: The 2013 Youth Risk Behavior Survey results show that 19.1% of high school students smoked on one or more of the past 30 days.

Discussion: The rate of high school student smoking has increased slightly since the baseline was recorded in 2011. The increase occurred in spite of success at curbing youth ability to purchase tobacco from retail sources (a drop from 21.9% in 2001 to 3.4% in 2011). In Arkansas, Synar only checks compliances during the third quarter, usually at a 30-day span. TPCP funds the Arkansas Tobacco Control (ATC) to conduct annual surveys throughout the year with one check per store at a minimum. Additional compliance checks are made by quarter based on a randomly generated retail listing ranging from 3-7% of all tobacco retail outlets. FY 2014 failure compliance rate is at 12%.

According to reports from the Surgeon General, almost no one starts smoking after age 25. Nearly 9 out of 10 smokers started smoking by age 18, and 99% started by age 26. Progression from occasional to daily smoking almost always occurs by age 26. Thus, it is imperative that a large portion of resources be allocated to prevention at the middle school and high school levels. Studies have found that a comprehensive effort which includes mass media marketing, creation of social-norms promoting smoke-free environments, increases in excise tax, and limits on tobacco marketing efforts can be effective in combating youth tobacco use.

The major cigarette companies largely spend their marketing dollars on discount coupons and value added promotions such as “buy one get one free offers.” This can be seen as a way around restrictions placed on them regarding advertising directly to youth. The price of cigarettes has a very significant effect on youth smoking. Every 10 percent increase in the price of cigarettes reduces youth consumption by 7 percent. Raising state taxes on cigarettes would help to counter this effect. Arkansas currently ranks 30th in the amount of state excise tax it collects for cigarettes.

Youth, who are highly susceptible to tobacco advertising, are also increasingly being targeted with ads for flavored tobacco products. According to a 2013 CDC report, more than 40% of middle and high school students who smoke use either flavored cigarettes or flavored little cigars. While flavored cigarettes are against the law because of their appeal to children, flavored cigars are not. Studies show that the younger people are when they start to use tobacco, the more likely they are to use as an adult. Marketing to young people sets up the tobacco companies with lifelong customers and so it is difficult to combat. Added to this is that the tobacco companies can largely outspend on media campaigns compared to the prevention efforts. An anti-smoking media campaign targeted to high school students needs to be extremely targeted and capitalize on digital and social media opportunities. The CDC offers resources on best practices for media campaigns targeting youth which can be adapted for use by the TPCP (see <http://www.cdc.gov/tobacco/youth/report/pdfs/youthMedia.pdf>).

According to the Surgeon General, establishment of smoke-free social norms is another method that will combat youth smoking prevalence. In addition to mass media campaigns, policy that creates smoke-free homes, cars and workplaces address this and are described more fully in other indicators.

A relatively new concern is the growing rate of e-cigarette use among high school students. Nationally from 2011–2012 e-cigarette use among middle and high school students doubled. There are no federal restrictions on use or sales to minors so states are left to craft their own laws. Two laws were passed last year related to youth and electronic cigarettes in Arkansas. One prohibits the giving, bartering or selling of e-cigarettes to minors and the other prohibits use of e-cigarettes on public school property. Arkansas is doing well to reject the harm reduction approach to tobacco prevention by passing these laws.

Indicator: By June 30, 2014 decrease the smoking prevalence of adults to 26%.

Status: BRFSS 2012 findings show the smoking prevalence of adults is 25%.

Discussion: Reductions in smoking rates nationally and in Arkansas have stalled over the past 5 years. In 2013, Arkansas ranked 48th for its high smoking rate compared to other states, with only Kentucky (28.3%) and West Virginia (28.2%) reporting higher levels of adult smoking. Trends in Arkansas are similar to neighboring states, with exception of Texas. Texas has more closely matched national trends compared to other neighboring states. It is important to note that due to the 2011 change in BRFSS methodology, smoking prevalence from 2012 and onward cannot be directly compared to estimates from previous years.

Arkansas' total FY 2014 funding for state tobacco control is 54% of the CDC recommended best practice spending level. It is critical to utilize the limited dollars in ways that will have the greatest impact. According to the CDC, strategies that have proven effective include: increasing the cost of tobacco products, implementing smoke-free policies for worksites and public places, counter-marketing campaigns, providing insurance coverage of tobacco use treatments and limiting children's access to tobacco products. Most notably, this can be accomplished through policy changes that will affect the greatest number of people.

The Affordable Care Act offers an opportunity for tobacco cessation preventive services to be covered in private health insurance plans. Leveraging this opportunity may help TPCP have a greater impact and reach.

Indicator: By June 30, 2014, reduce the smoking prevalence of racial/ethnic minorities from 25.1% to 24%.

Status: BRFSS (2012) data indicate that smoking prevalence for Hispanics and African Americans increased, with current smoking rates of 26.8% and 31.0% respectively. Smoking prevalence for other minorities combined decreased to 20.3%.

Discussion: TPCP's efforts to fight disparities related to tobacco use have largely taken place at the grassroots level. TPCP has partnered with the University of Arkansas Pine Bluff's Minority Initiative Sub-Recipient Grant Office and the Master of Science in Addiction Studies program to promote tobacco prevention and cessation in minority communities. Though efforts have been pointed in a good direction, a relatively small number of those in minority communities have been directly reached. Efforts must be brought up to scale to be effective. It is recommended that TPCP identify additional partners across the state to engage in this effort. Consideration should be given to partnering with other Tobacco Settlement Fund recipients (such as MHI) in the state. Additional resources are also required in this area to be effective.

In the past decade, the disparity gap in smoking rates has also widened in Arkansas. When the MSA went into place, smoking rates were highest amongst white non-Hispanics. Over the past decade, smoking has declined among white non-Hispanics in Arkansas. However, smoking rates for African Americans has increased, reversing historical trends. There has been an increase in marketing targeting minorities since the MSA went into place. See page 9 for more details.

Indicator: By June 30, 2014, reduce the adult male smokeless prevalence rate from 13% to 12%.

Status: BRFSS 2012 findings show smokeless prevalence among adult males has increased slightly although not statistically significantly to 13.4%. Total number of smokeless tobacco users calling the quitline has increased 4.8% (N=165 out of 3,416 total callers). The FY 2013 quit rate for smokeless tobacco users was 30.5%.

Discussion: Men are far more likely to use smokeless tobacco; those from rural areas are more than twice as likely to use these products as those from metropolitan areas. When viewed by age, smokeless tobacco use was more than twice as common in rural areas for every age group. Lowering the prevalence of smokeless tobacco presents a unique challenge. Users of smokeless tobacco who are ready to quit have to deal with the additional problem that most of the proven-effective medications for smoking cessation do not work very well for smokeless tobacco products. More attention and resources should be focused on researching effective cessation treatments for smokeless tobacco.

We do know that use is associated with community norms and education. While dollars spent on marketing of cigarettes has slightly decreased over the past decade, money spent by tobacco companies on promoting smokeless tobacco has more than doubled. An effective media campaign should include messaging specifically around smokeless tobacco use.

Indicator: Decrease high school smokeless prevalence rate from 11.6% to 10.6% by June 2014.

Status: Youth smokeless tobacco use has increased from 11.6% (2011, YRBSS) to 14.8% (2013, YRBSS).

Discussion: High school smokeless tobacco use is increasing in Arkansas. In 2013, the smokeless tobacco usage rate for high school students was 14.8% overall and 24.2% for males. These rates are much higher than the national smokeless rate of 8.8% overall, and 14.7% of males. This is an area that needs to be addressed by the state. The state should continue to follow the CDC recommendations to maximize success in lowering this rate. This includes fully funding of tobacco control programs at CDC recommended levels, implementing evidence based programming in schools, implementing effective population-based strategies (e.g., price increases and smoke-free policies), and conducting a targeted media campaign to influence changes in social norms around smokeless tobacco use among youths.

Indicator: By June 30, 2014, reduce the number of pregnant women who report tobacco use on the birth certificate from 13.7% in 2010 to 11.7% 2014.

Status: PRAMS 2011 findings shows a slight increase, although not statistically significant, to 13.8%.

Discussion: Women who call the Quitline are twice as likely to quit smoking as women who do not. The Quitline provides pregnant women with up to 10 one-on-one, personalized sessions with a QuitCoach. The FY 2013 quit rate for pregnant tobacco users who called the quitline was 38%. According to PRAMS data, 33% of mothers in Arkansas smoked 3 months before becoming pregnant, 19% smoked during the last 3 months of pregnancy and 25% of the women smoked after their delivery. Forty-five percent of women who quit smoking returned to smoking after delivery.

Pregnant women who receive brief smoking cessation counseling are more likely to quit smoking than those who do not. So, in addition to targeting efforts directly at pregnant women or women who are planning on becoming pregnant, effort should be made to increase the number of healthcare providers who offer such counseling. This should be done at the first prenatal visit and throughout the pregnancy. As identified in the 2008 PRAMS, only 69% percent of white women reported being counseled by a healthcare professional regarding the dangers of smoking during pregnancy, while 78% of Black women and 79% of Hispanic women reported receiving this information. Many women who are unable to quit smoking are suffering from depression. This underlying factor should be recognized and addressed directly by healthcare providers as well.

Smokers Get the Help They Need to Quit

Arkansas is properly using funding given to the state from the tobacco Master Settlement Agreement to fight tobacco and help Arkansans quit smoking. Here is one story that illustrates this success at an individual level. A former smoker, this Arkansan is now running marathons. Who would have thought that was possible with her having such a long-term habit? Here is her story.

"I can honestly tell you that had it not been for the program helping me get through what I got through, after 37 years of addiction, I couldn't see those medals on my wall."

Alberta Faye Hires smoked for 37 years before she quit using a 12-week cessation program paid for with the proceeds from the 13-year-old agreement resolving a lawsuit by states against tobacco companies. On Oct. 21, 2008, the Maumelle, Ark., resident called the state's quitting help line. Along with being offered nicotine patches to help replace cigarettes, Hires said, she spoke with counselors and used a computer program designed to motivate people to overcome the addiction. "It helped tremendously, just the support that you get from them. If you have a weak moment, you know you can pick up the phone and call a counselor," Hires said. "It's a hard thing to do on your own. I still have their number in my phone. I could call them if I need to." Since she quit, Hires, 57, has run two full marathons and 13 half-marathons, and in March she plans to run the Little Rock Marathon.

A report released by a coalition of public-health groups, including the American Cancer Society, the American Heart Association and the American Lung Association, ranked Arkansas seventh in the country for spending on cessation and prevention programs. The report, titled "Broken Promises to Our Children: The 1998 State Tobacco Settlement Fifteen Years Later," analyzes how states spend the millions of dollars they receive from tobacco companies each year compared with what the federal centers for Disease Control and Prevention recommends they spend.

Although Arkansas is spending closer to the recommended CDC level than most states, Arkansas health experts say there is still a lot of work to do. About 25 percent of adult Arkansans smoke, down from 30 percent in 2000, according to the report. Nationally, about 18 percent of Americans smoked in 2012, according to the report. As noted by Jason Brady, the American Cancer Society's Arkansas spokesman. Arkansas has also chosen to focus on keeping children from using tobacco. There has been marked success in this area. According to the Arkansas Department of Health, 18 percent of teenagers smoked in 2011, down from 43.2 percent in 1997.

Brady, with the Cancer Society, said there is only so much headway the state can make with resources it has. Tobacco companies spend \$6.10 marketing their products in the state for every dollar Arkansas puts toward prevention and cessation, according to the report. Dr. Gary Wheeler, the medical director for the Health Department's Tobacco Prevention and Cessation Program, said the slow drop in the number of adult smokers doesn't surprise him. "We're getting outspent. If this was a political campaign, and we were electing candidates, who do you think would win?" he said. Still, the state has learned a lot about what a cessation program needs to do to persuade tobacco users to quit, he said. "We are making progress, it is slower than we want and we want to accelerate that," Wheeler said. "We are now armed with information and knowledge that we didn't have when we started this, and I think we're wiser."

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