

SMALL STEPS,
GREAT STRIDES
TOWARD
A HEALTHIER
ARKANSAS

A comprehensive plan
for cardiovascular health
(heart disease and stroke)
in Arkansas

SUMMER 2004



Arkansas Department of Health
Keeping Your Hometown Healthy



Healthy Arkansas

For a Better State of Health

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FOREWORD

letter letter letter

Acknowledgements

The Arkansas Department of Health's Cardiovascular Health Program, Chronic Disease Service Unit, is pleased to present "Small Steps, Great Strides to a Healthier Arkansas" a comprehensive plan to reduce the burden of heart disease and stroke in Arkansas 2001-2010, 1st Edition. This plan is the synergistic efforts of the Cardiovascular Health Program's Task Force. Without the tireless efforts of the partners within the membership, this plan would not be completed. Cardiovascular disease, including heart disease and stroke, is the nation's leading cause of death and a major cause of disability, costing the Arkansas economy over \$1 billion in hospital charges in 2000. The intent of the State Plan is to provide the framework for moving forward in a new era of addressing heart disease and stroke in Arkansas.

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ARKANSAS STATE HEART AND STROKE HEALTH COALITION MEMBERS

American Cancer Society
Jonesboro Tobacco Free Coalition

American Lung Association

Arkansas Advocates for Children & Families

American Heart & Stroke Associations

Arkansas Association for Health
Physical Education, Recreation, and Dance

Arkansas Association of Retired Persons

Arkansas Blue Cross & Blue Shield

Arkansas Center for Health Improvement

Arkansas Chapter, National Association
of Nurse Practitioners

Arkansas Chapter, National Association
of Pediatric Nurses

Arkansas Department of Education
Child Nutrition Program
Coordinated School Health Program

Arkansas Department of Health
Directors Office
Senior Staff
External Communication
Healthy Arkansas

Statewide Services
Arthritis Program
Governor's Council on Fitness
Diabetes Prevention and Control Program
5-A Day Program
Physical Activity and Nutrition Obesity
Grant
Women's, Infants, and Children Program
Breast & Cervical Cancer Control Program
Tobacco Prevention and Education
Oral Health
Rural Health and Primary Care

Public Health Improvement
Minority Health
Hometown Health Initiative

Arkansas Department of Human Services
Division of Aging and Adult Services
Division of Child Services

Arkansas Foundation for Medical Care
Office of Projects & Analysis

Arkansas Health Care Access Foundation, Inc.

Arkansas Heart Hospital

Arkansas Hospital Association

Arkansas Hunger Coalition

Arkansas Medical, Dental, & Pharmaceutical
Association

Arkansas Minority Health Commission

Arkansas Municipal League

Arkansas School Boards Association

Arkansas State Chamber of Commerce

Arkansas Highway & Transportation Department
Human Resources
Planning & Research

Arkansas State Parks & Tourism

Arkansas State University

Arkansas River Trails Headwaters Partnership

Arkansas Trails Council

Associated Industries of Arkansas

Association of Arkansas Counties

Black Community Developers, Inc.

Baptist Health Cardiovascular Services

City of Little Rock
War Memorial Fitness Center
Mayor's Office
City Manager's Office

City of North Little Rock
Mayor's Office

Clinton School for Public Service

Community Health Centers of Arkansas, Inc.

Delta Access Program

Department of Environmental Quality

Eastin Outdoors

Jones Center
Community Health & Wellness Department

LaCasa Health Network

Little Rock Parks and Recreation

Lower Mississippi Delta NIRI

MetroPlan

Office of the Governor

Philander Smith College

QualChoice

Sparks Medical Foundation

St. Vincent Hospital
Cardiac Rehabilitation Center

Subway Development Corporation

University of Arkansas at Little Rock
Cooperative Extension Service
Health Sciences Department

University of Arkansas for Medical Sciences
Academic Senate
University Hospital
Jackson T. Stephens Spinal & Neurosciences
Institute
Office of Education Development
College of Health Related Professions
Department of Dietetics & Nutrition
Regional Programs
Arkansas Health Education Centers
Rural Hospital Program
Delta Health Education Center

College of Medicine
Department of Family
& Preventive Medicine
Department of Pediatrics
Partners for Inclusive Communities
Department of Psychiatry
& Behavioral Sciences
Division of Health Services Research
Donald W. Reynolds Center on Aging
Department of Geriatrics

College of Nursing

College of Pharmacy
Department of Pharmaceutics

College of Public Health
Office of Community-based Public Health
Dean's Office
Epidemiology

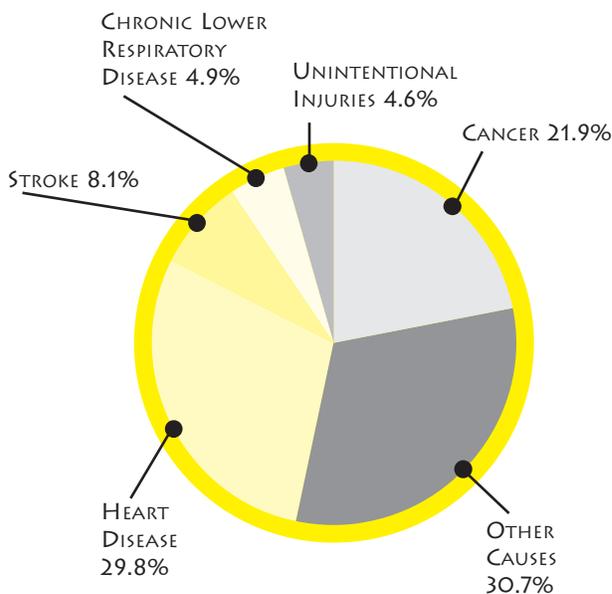
BURDEN OF HEART DISEASE AND STROKE IN ARKANSAS

Heart Disease and Stroke

Diseases of the heart and stroke are among the leading causes of death in Arkansas (see Figure 1). Together they accounted for more than a third (38%) of all deaths in the state in the year 2001, as many as the next five causes of death combined — cancer (22%), chronic lower respiratory disease (5%), unintentional injuries (5%), influenza/pneumonia (3%), and diabetes (3%).

Figure 1.

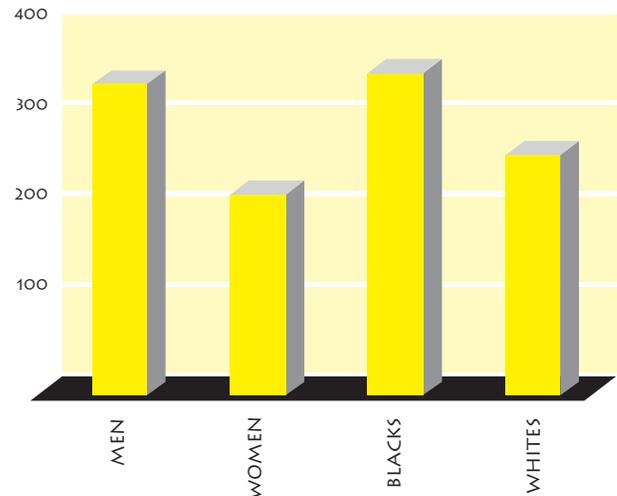
Leading Causes of Death in Arkansas 2001



While heart disease is the leading cause of death for both men and women and for blacks and whites, the risk is not equally distributed among the groups. The rate of heart disease mortality (deaths per 100,000 persons, adjusting for age differences in the groups) is greater among men than women and among blacks than whites (see Figure 2).

Figure 2.

Heart Disease Mortality Rates by Gender and Race 2002



There are no data to tell us with certainty how many Arkansans are living in the aftermath of a stroke or heart attack. However, estimates are that between 3 and 5 percent of living adult Arkansans have had a heart attack or stroke. These individuals face an increased risk of having another event in the near future.

Risk Factors

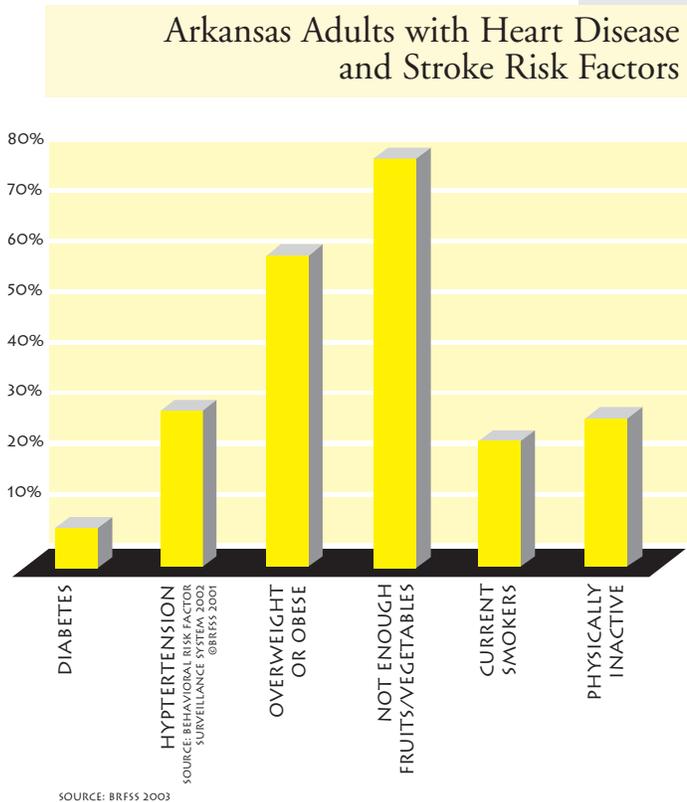
A number of risk factors for heart disease and stroke have been identified, and they fall into two groups: those that cannot be easily modified and those that can be changed with lifestyle modifications and/or medication. Among the non-modifiable risk factors are: being male, having a family history of heart disease or stroke, being African American, and having had an earlier heart attack or stroke. The majority of risk factors, however, are

modifiable: being overweight; engaging in insufficient physical activity; eating a diet high in fat and low in fiber (fruits, vegetables, whole grains); having uncontrolled diabetes; smoking; and having uncontrolled hypertension. The risk associated with these factors can be prevented, reduced, or eliminated if individuals eat well, exercise regularly, stop smoking, and follow appropriate medication regimens carefully.

Unfortunately, a large number of Arkansans are at risk for heart disease or stroke based on their modifiable risk factors (see Figure 3). For example, nearly a third (30%) of Arkansas adults have reported that they've been told by a doctor that they have high blood pressure, a fourth are current smokers (25%), or are physically inactive (29%).

An even higher proportion of adults (55%) do not meet recommended guidelines for moderate physical activity. The majority (61%) of our adult citizens are overweight or obese. Approximately 8 out of every 10 adults (79%) report that they do not eat the recommended five servings of fruits and/or vegetables per day. Eating a healthy diet and getting regular physical activity can help Arkansas citizens of all ages achieve and maintain a healthy weight and reduce their risk of heart disease, stroke, high blood pressure and diabetes. It is also important for individuals to stop smoking and take all medications as prescribed.

Figure 3.



To address these issues, a coalition of concerned partners was convened and charged with the task of identifying key goals, objectives, and action steps for reducing the burden of cardiovascular disease in the state. Coalition members divided themselves into four working groups: Tobacco, Physical Activity, Nutrition, and Health Care. A fifth group – Advocacy – was identified to serve as a key resource group for each of the four working groups as they devised their action plans.

The working groups met on a regular basis during 2002 and 2003. Tasks included: identifying needs within the state, as well as ongoing activities within the group's focus area; specifying goals and objectives; devising action steps to achieve goals; identifying agencies and individuals that might take a leadership role in completing action steps; and identifying partners that would play essential roles in the completion of action steps and achieving goals. In addition, as the goals and action plans were developed, each group established priorities and began to consider implementation strategies.

The resulting product, summarized in the pages to follow, was a set of goals and objectives, with accompanying recommended activities. These goals and objectives can be organized into several basic categories of focus:

- Increase public awareness and knowledge of risks and preventive strategies
- Promote healthier environments in Arkansas communities, particularly in schools, work-sites, and restaurants
- Improve the health-promoting behavior of Arkansans to reduce heart disease and stroke risk
- Improve primary and secondary treatment of heart disease and stroke
- Address heart and stroke health among the most at-risk Arkansans to eliminate disparities based on geography, gender, race or ethnicity and income



INCREASE PUBLIC AWARENESS AND KNOWLEDGE

Objectives

- To improve knowledge of symptoms of heart attack and stroke among Arkansas residents
- To increase public awareness of the necessity of and options for rapid response in the case of a heart attack or stroke
- To increase awareness of the links between tobacco use and heart disease and stroke
- To increase awareness of healthy eating strategies among Arkansans of all ages
- To identify culturally appropriate approaches to promote cardiovascular awareness and knowledge in at-risk priority populations based on geography, gender, race or ethnicity and income

Recommended Activities

Develop and disseminate educational materials/tools to:

- promote recognition of the symptoms of heart attack and stroke and emphasize the importance of calling 911 for such symptoms
- increase awareness of 5 A Day Program guidelines for eating at least 5 servings of fruits and/or vegetables per day, targeting school personnel, students, families; employers and employees; health care professionals; and policy-makers

Develop and disseminate media campaigns to:

- promote knowledge of heart and stroke warning signs and symptoms, which are medical emergencies necessitating a call to 9-1-1
- increase awareness of the risks associated with secondhand smoke
- increase awareness of 5-A-Day Program guidelines for eating at least five daily servings of fruits and/or vegetables per day, targeting school personnel, students, families; employers and employees; health care professionals; and policy-makers
- improve knowledge of symptoms of heart attack and stroke and the importance of calling 911

PROMOTE HEALTHIER ENVIRONMENTS IN ARKANSAS COMMUNITIES

Objectives

- Increase the number of employers providing worksite wellness programs
- Increase the number of community-based physical activity programs/options available to Arkansas adults and youth
- Eliminate exposure to secondhand tobacco smoke
- Develop environments that are supportive of healthy eating

Recommended Activities

Develop and disseminate materials/tools to:

- educate employers about the benefits of worksite wellness programs and provide model programs for consideration and adaptation
- inform residents about existing physical activity opportunities, programs and facilities
- encourage municipalities to utilize transportation and community-planning approaches designed to increase physical activity options (e.g., bike lanes, sidewalks), including maintenance and code enforcement
- encourage Arkansans to prohibit smoking in their homes
- increase awareness of recommendations to eat at least five daily servings of fruits and vegetables, among school personnel, students, and families; employers and employees; health care professionals; and policy-makers

Promote:

- the development of worksite policies that prohibit smoking in buildings, along with outdoor venues open to the general public
- the utilization of school resource officers and other authorities to enforce school smoke-free policies
- the formation of state-level partnerships with the food industry

Promote:

policies to assure that:

- fat-free and low-fat dairy products are available in child nutrition programs throughout the state
- calcium-enriched fruit juices are available within child nutrition programs for children with documented lactose intolerance or milk allergies
- healthy and low-fat dairy options are available to participants in state-guided programs (e.g., day-care centers, WIC programs)
- worksites provide healthy food and beverage options on site and at company-sponsored functions
- all food service contracts entered into by government agencies require healthy options
- the availability of healthy options and low-fat dairy products in retail outlets throughout the state
- in collaboration with principals and other school officials, the provision of adequate lunch periods for students

Develop programs to:

- Promote the use of farmers' markets and the development of new ones throughout the state
- Support community/school gardens and encourage development of new ones
- Increase the percentage of workplace vending machines (including those in schools and health care institutions) that include healthy food and beverage options, as well as low-fat dairy products
- Create enhanced access to places for physical activity (e.g., shopping malls, school facilities, workplaces). Provide community-based physical activity options (e.g., biking and walking clubs, activity programs sponsored by faith-based organizations)
- Increase the total number and miles of trails in Arkansas that are appropriate for walking and/or biking
- Increase the number of city parks in Arkansas
- Decrease disparities in access to healthy environments based on geography, gender, race or ethnicity and income

IMPROVE THE HEALTH-PROMOTING BEHAVIOR OF ARKANSANS

Objectives

- Increase the proportion of Arkansans who engage in regular, preferably daily, physical activity
- Promote lifelong healthy eating habits among adults and children in Arkansas
- Increase the proportion of Arkansans who report a healthy weight
- Increase the frequency with which providers recommend behavioral changes that will positively impact cardiovascular health



Recommended Activities

Develop and disseminate:

- A resource directory documenting heart and stroke health resources by county
- Educational materials:
 - For the general public concerning healthy food preparation
 - For health care providers concerning:
 - The importance of physician recommendations and follow-up regarding patient behavior change
 - Physical activity, nutrition, and smoking guidelines and best practices
 - For use with patients in health care settings promoting:
 - Personalized physical activity recommendations
 - Tobacco cessation strategies
 - Culturally and educationally appropriate materials
- A statewide needs assessment of health care providers and provider organizations in the area of tobacco-related services and training

Provide training:

- For health professional students on tobacco cessation counseling and treatment
- For practicing health care providers on:
 - Tobacco cessation counseling
 - Treating tobacco use and dependence, using the US Public Health Services guidelines

Provide training:

- For dentists and dental hygienists on counseling patients on the role of interrelationship between cardiovascular health, tobacco use and oral health.

**Promote:**

- the development of School Health Councils within all schools
- the implementation of daily quality physical activity programs statewide (30 minutes daily, with certified physical educator) in all grades, kindergarten through 12th grade
- fitness testing twice a year for all students, with incentives for improvement and/or achievement of target levels
- integration of physical activity and core curriculum instruction by both physical education and regular classroom teachers
- development of school policies allowing community access to school facilities for physical activity
- increasing the state and/or local sales taxes on tobacco
- the use by health care providers of the National Lung Health Education Program's criteria for spirometry screening/testing
- the completion of thorough tobacco assessments with all patients, including assessment of current tobacco use, desire to quit, anticipated time frame for quitting, and supports for individuals who are ready to quit as well as for those who are not yet ready
- the screening, staging, treatment, management, and education of patients identified with tobacco-related disease, using appropriate national guidelines by health care professionals

Develop programs to:

- Establish new or expand existing physical activity programs oriented toward families
- Provide Comprehensive School Health Education programming for all school-aged youth, pre-kindergarten through 12th grade
- Coordinate prevention and education activities of school nurses within educational cooperative regions
- Link school-based efforts with local community coalitions and statewide programs
- Publish in local newspapers the names of retailers identified as selling tobacco to minors
- Train youth to become advocates for tobacco control and prevention activities
- Increase the proportion of worksites that provide reimbursement for tobacco cessation programs and pharmaceutical aids
- Provide employee incentives to quit tobacco use (e.g., reduced insurance costs, paid leave time for cessation classes, incentives for reaching wellness goals)
- Eliminate disparities in access to health promotion programs based on geography, race or ethnicity, gender, and income

Develop programs to:

- Increase the number and awareness of tobacco cessation programs throughout the state
- Establish and maintain a statewide tobacco quit line

Objectives

- Increase awareness of and compliance with national treatment guidelines among health care practitioners
- Increase the number of professional health care students and health care providers in Arkansas who receive education on American Heart Association/American College of Cardiology primary and secondary prevention guidelines and JNC7 guidelines for treatment of high blood pressure
- Decrease disparities in compliance with national treatment guidelines by geography, gender, race or ethnicity and income
- Increase the proportion of health insurance companies (those that have 25,000 or more Arkansas members) that participate in the promotion and distribution of nationally accredited cardiovascular guidelines or principles and member tracking tools to their network providers and members
- Increase the number of professional health care students and health care providers in Arkansas who receive education on the chronic care model
- Increase the proportion of clinics in Arkansas using components of the chronic care model for cardiovascular disease
- Target health care providers with large proportions of minority and disadvantaged clients for education and assistance in implementing the chronic care model
- Increase the number of health care providers who document in medical records the patient's body mass index, blood pressure, lipid profiles, smoking status, and lifestyle counseling (tobacco cessation, physical activity, nutrition)
- Increase proportion of persons with diabetes who have documented: glycosolated hemoglobin test (HbA1c) < 7.0%; blood pressure < 130/80; Non-smoking status; Physical activity counseling; Nutrition counseling; low-density lipoprotein < 100; body mass index < 25.
- Increase proportion of persons with existing cardiovascular disease who have documented: blood pressure < 140/90; non-smoking status; physical activity counseling; nutrition counseling; screening for hyperlipidemia; low density lipoprotein < 100; body mass index < 25; use of aspirin or anti-platelet medication (unless contraindicated or clinically inappropriate); use of beta-blocker (unless contraindicated or clinically inappropriate)(HC)

-
- Increase the proportion of patients who are hospitalized for acute myocardial infarction (heart attack):
 - Given smoking cessation advice or counseling during the hospital stay (among those with a tobacco use history)
 - Given aspirin within 24 hours before or after hospital arrival (assuming no contraindication)
 - Prescribed aspirin at discharge (assuming no contraindication)
 - Decrease the proportion of deaths among Arkansans which are due to stroke

Recommended Activities

Develop and disseminate educational materials/tools:

- To ensure that all health care providers are aware of nationally accredited cardiovascular guidelines/principles

Promote:

- Inclusion of body mass index on medical records
- The use of the chronic care model to improve cardiovascular health
- Use of chart flow sheets and member monitoring tools by practicing providers



Develop programs to:

- Survey health plans to determine current status in member education regarding cardiovascular disease risk principles and member monitoring tools
- Offer health professionals, education regarding management and prevention of cardiovascular disease and diabetes and of the chronic care model
- Actively recruit clinics (Area Health Education Centers, Community Health Centers, private clinics) to participate in the Arkansas Chronic Care Collaborative
- Train practicing health care professional and administrators on the American Heart Association/American College of Cardiology and JNC7 guidelines, lifestyle counseling, and the chronic care model, under the auspices of continuing education sessions, professional association meetings, and other avenues
- Determine areas of need and action steps to ensure full 911 coverage throughout the state (in collaboration with Arkansas Department of Health's Office of Emergency Management Systems and Trauma Services or State Office of Emergency Management)

ADDRESS HEART & STROKE HEALTH AMONG AT-RISK ARKANSANS

Objectives

- Eliminate racial/ethnic disparities among Arkansas citizens in heart and stroke health, health behaviors, and treatment



Recommended Activities

Develop and disseminate targeted, culturally-, age-, and literacy-appropriate materials to:

- Prevent initiation and promote cessation of tobacco use
- Promote and support the cessation of tobacco use by pregnant women
- Support the patient self-management component of the chronic care model
- Promote healthy nutrition and physical activity behaviors
- Promote prevention and control of high blood pressure

Develop and disseminate targeted, culturally appropriate media campaigns to:

- Increase awareness of heart attack and stroke warning signs and promote rapid response when such warning signs occur
- Promote tobacco prevention and cessation
- Promote and support the cessation of tobacco use by pregnant women
- Promote healthy nutrition and physical activity behaviors
- Promote prevention and control of high blood pressure

Provide targeted, culturally- and age-appropriate programs to:

- Evaluate racial/ethnic and educational disparities in:
 - awareness of warning signs for heart attack and stroke
 - health behaviors related to dietary consumption of high fat/high cholesterol foods, fruits and vegetables, salt consumption and extent of daily physical activity and healthy weight. Ensure outreach in areas of the state in which minority populations are more prevalent
- Provide funding opportunities to diverse populations for innovative projects to promote tobacco prevention and cessation
- Provide tobacco cessation programs accessible by insured and uninsured individuals
- Develop an archive to promote the use of culturally-appropriate tobacco cessation materials for minority populations
- Promote and support the cessation of tobacco use by pregnant women



Provide targeted, culturally- and age-appropriate programs to:

- Target health care providers with large proportions of minority and disadvantaged clients for education and assistance in implementing the chronic care model with special emphasis on the following:
- Increase proportion of persons with diabetes who have documented: glycosolated hemoglobin test (HbA1c) < 7.0%; blood pressure < 130/80; Non-smoking status; Physical activity counseling; Nutrition counseling; low-density lipoprotein < 100; body mass index < 25.
- Increase proportion of persons with existing cardiovascular disease who have documented: blood pressure < 140/90; non-smoking status; physical activity counseling; nutrition counseling; screening for hyperlipidemia; low density lipoprotein < 100; body mass index < 25; use of aspirin or anti-platelet medication (unless contraindicated or clinically inappropriate); use of beta-blocker (unless contraindicated or clinically inappropriate)

FUTURE WORK

The work of the coalition continues, with updates being made to goals, objectives, and action plans as progress is achieved. Each working group continues to meet regularly to discuss ongoing activities, assess progress, evaluate achievements, and revise plans as necessary. New partners are being added to the working groups and the coalition overall as collaborations emerge and grow. Resources are being sought to assist in the completion of activities that are not currently funded.

SURVEILLANCE & EVALUATION

Surveillance of heart disease and stroke is ongoing, using two primary data sources: 1) the Behavioral Risk Factor Surveillance Survey (BRFSS), and 2) the Vital Statistics System. The BRFSS provides self-reported information concerning health behaviors, health conditions, disease self-management behaviors, and awareness of the signs and symptoms of heart attack and stroke. The Vital Statistics System provides mortality data that is essential to the tracking of disease burden and outcome.

An evaluation plan is being developed to address in a very specific manner the goals and objectives that have been set within this comprehensive plan. Indicators are being identified for each goal and objective so that progress toward achievement can be tracked over time. To the extent possible, existing data sources will be used to minimize new data collection and maximize the resources that can be allocated to program implementation. Once detailed and approved, this evaluation plan will become a routine part of the ongoing process of activity to improve heart and stroke health in Arkansas.

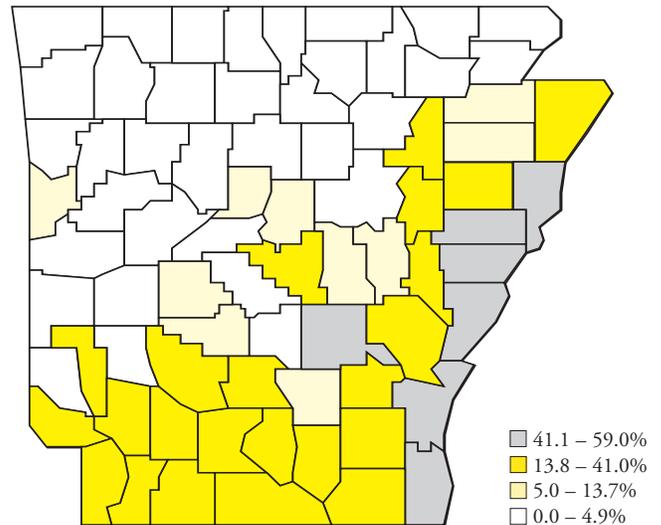
APPENDIX A: ARKANSAS DEMOGRAPHICS

Table 1. Arkansas Demographic Characteristics

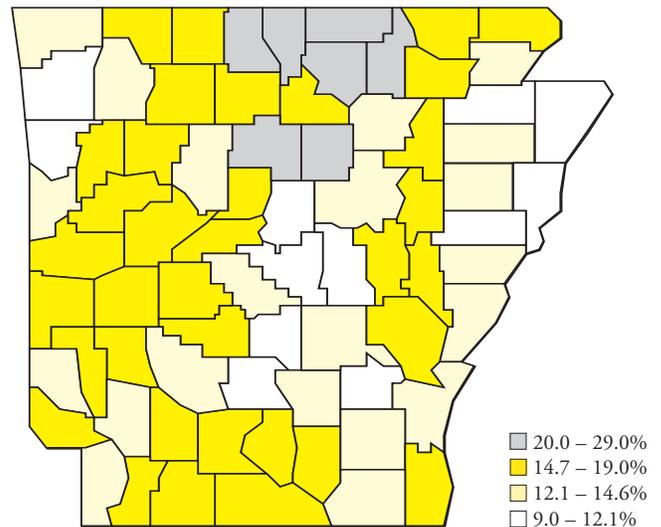
SOURCE: US CENSUS BUREAU, CENSUS 2000

	Arkansas	United States
Population, Year 2000	2,673,400	284,421,906
Persons 65 and older	14.0%	12.4%
Females	51.2%	50.9%
Minority populations		
White	80.0%	75.1%
Black or African Americans	15.7% ?	12.3%
American Indians or Alaska Natives	0.7%	0.9%
Asians	0.8%	3.6%
Hispanic/Latino population	3.2%	12.5%
Foreign-born persons	2.8%	11.1%
Language other than English spoken at home	5.0%	17.9%
High school graduates	75.3%	80.4%
Median household income	\$32,182	\$41,994
Per capita income	\$16,904	\$21,587
Persons below poverty	15.8%	12.4%
Children (0-17) living in poverty	23.5%	NA
Persons per square mile	51.3	79.6
Population living in urban areas (10,000+ population)	39.1%	
Uninsured (1998-2000)	17.0%	
Unemployment rate (2001)	5.1%	
Medicaid eligible	20.0%	
Medicaid eligible children	41.4%	
Population living in medically under-served areas	29.0%	
Population living in health professions shortage areas	20.6%	
Total physicians	5,057	
Primary care physicians	2,436	
Total licensed dentists living in Arkansas	1,091	
Total optometrists	303	

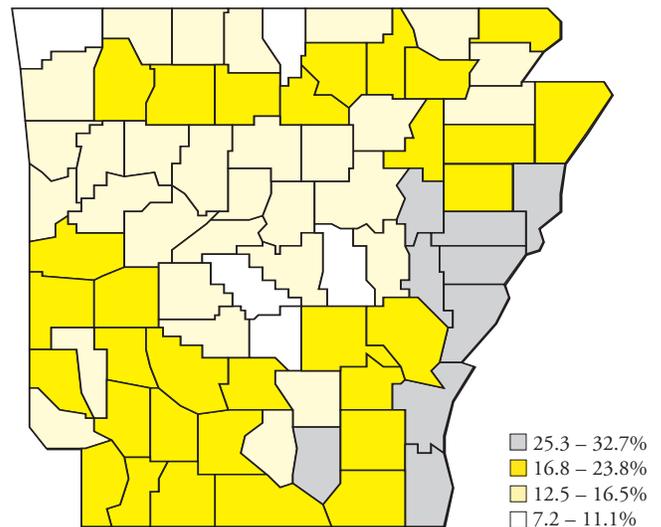
The counties with the greatest proportions of minority population are generally in the eastern region of the state, within the Mississippi Delta region. These counties include large proportions of African-American residents. In the northwestern counties of the state, the Hispanic population is growing significantly, even though overall persons of Hispanic/Latino heritage represent a relatively small percentage of the state's population.



The counties with the largest representation of older citizens are generally located in the north central and western portion of the state.



The counties with higher proportions of persons living in poverty are generally located in the Delta (eastern) and southern portions of the state, although there is a band of counties in the north central part of the state as well.



APPENDIX B: DEFINITIONS

The following brief definitions or explanations apply to technical or common terms used specifically in the plan.¹

Age-adjusted mortality rate: the number of deaths occurring per 100,000 population per year, calculated in accordance with a standard age structure to minimize the effect of age differences when rates are compared between populations or over time.

Behavioral change: an intervention approach that uses public information and education to promote behavioral patterns favorable to health for the population as a whole; also includes interventions (e.g., counseling) at the group or individual level for the same purpose.

Behavioral patterns: habits of living (e.g., diet, physical activity, smoking) that influence health.

Blood cholesterol: the blood concentration of a family of lipid or “fatty” molecular compounds obtained directly from the diet or produced in the body from fatty dietary components; a necessary factor in development of atherosclerosis; total cholesterol concentration is classified as “high” if it is ≥ 200 mg/dl. Subtypes of cholesterol differ in their relation to cardiovascular disease risk, with high-density lipoprotein (HDL) cholesterol considered “good,” and low-density lipoprotein (LDL) cholesterol considered “bad.”

Blood pressure: see *high blood pressure*.

Cardiovascular disease prevention: a set of interventions designed to prevent first and recurrent cardiovascular disease events (e.g., heart attack, heart failure, stroke). For cardiovascular disease, *primary prevention* refers to detection and control of risk factors, whereas *secondary prevention* includes long-term case management for survivors of cardiovascular disease events. Cardiovascular disease prevention complements cardiovascular health (CVH) promotion.

Cardiovascular disease(s): may refer to any of the disorders that can affect the circulatory system, but often means coronary heart disease (CHD), heart failure, and stroke, taken together.

Cardiovascular health: a combination of favorable health habits and conditions that protects against development of cardiovascular diseases.

Cardiovascular health promotion: a set of interventions designed to reduce a population’s risk for cardiovascular disease through policy, environmental, and behavioral changes; also supports other approaches that apply to peo-

ple who have suffered recognized cardiovascular disease events (e.g., by facilitating public access to emergency care or by fostering social/environmental and behavioral changes that reinforce *secondary cardiovascular disease prevention*); sometimes identified with *primordial cardiovascular disease prevention*; complements cardiovascular disease prevention.

Cholesterol: see *blood cholesterol*.

Circulatory system: the network of arteries, veins, capillaries, and lymphatic vessels throughout the body, including the heart that pumps blood to the lung and peripheral tissues.

Comprehensive public health strategy: an approach to a major health problem in the population that identifies and employs the full array of potential public health interventions, including health promotion and disease prevention.

CVD prevention: see *cardiovascular disease prevention*.

CVH promotion: see *cardiovascular health promotion*.

Diabetes (or diabetes mellitus): a metabolic disorder resulting from insufficient production or utilization of insulin, commonly leading to cardiovascular complications.

Disparities: see *health disparities*.

Emergency care: treatment for people who have experienced a first or recurrent acute cardiovascular disease event (e.g., heart attack, heart failure, stroke) designed to increase their probability of survival and to minimize associated damage or disability.

Health disparities: difference in the burden and impact of disease among different populations, defined, for example, by sex, race or ethnicity, education or income, disability, or place of residence.

Healthy People 2010: a document that presents health-related goals and objectives for the United States to be achieved by the year 2010.

Heart attack: an acute event in which the heart muscle is damaged because of a lack of blood flow from the coronary arteries, typically accompanied by chest pain and other warning signs but sometimes occurring with no recognized symptoms (i.e., “silent heart attack”).

Heart disease: any affliction that impairs the structure or function of the heart (e.g., atherosclerotic and hyperten-

sive diseases, congenital heart disease, rheumatic heart disease, and cardiomyopathies).

Heart Disease and Stroke Prevention Program: Centers for Disease Control and Prevention program initiated in 1998 that supports states in their efforts to prevent heart disease and stroke; for more information see www.cdc.gov/cvh/stateprogram.htm.

High blood pressure: a condition in which the pressure in the arterial circulation is greater than desired; associated with increased risk for heart disease, stroke, chronic kidney disease, and other conditions. Blood pressure is considered “high” if systolic pressure (measured at the peak of contraction of the heart) is ≥ 140 mm Hg or if diastolic pressure (measured at the fullest relaxation of the heart) is ≥ 90 mm Hg.

Hypertension: see *high blood pressure*.

Incidence: the number of new cases of disease occurring in a population of given size within a specified time interval (e.g., the average annual incidence of stroke for women in Rochester, Minnesota, during 1985-1989 was approximately 120/100,000 population).

Modifiable characteristics: factors related to cardiovascular disease risks that are amenable to change (e.g., diet, physical activity, smoking), in contrast to those that are intrinsic to the individual (e.g., age, sex, race, genetic traits).

Mortality: rate of death expressed as the number of deaths occurring in a population of given size within a specified time interval (e.g., 265 annual deaths from heart disease per 100,000 U.S. Hispanic women, 1991-1995).

Obesity: usually defined in terms of body mass index (BMI), which is calculated as body weight in kilograms (1 kg=2.2 lbs) divided by height in meters (1 m=39.37 in) squared; adults with a BMI of ≥ 30.0 kg/m² are considered “obese,” and those with a BMI of 25-29.9 kg/m² are considered “overweight.” In children, overweight is defined as BMI greater than the 95th percentile value for the same age and sex group.

Overweight: see *obesity*.

Physical Inactivity: lack of habitual activity sufficient to maintain good health, resulting in an unfavorable balance between energy intake and expenditure and fostering the development of overweight or obesity and other risk factors for heart disease and stroke.

Policy and environmental change: an intervention

approach to reducing the burden of chronic disease that focuses on enacting effective policies (e.g., laws, regulations, formal and informal rules) or promoting environmental change (e.g., changes to economic, social, or physical environments).

Prevalence: the frequency of a particular condition within a defined population at a designated time (e.g., 12.6 million Americans living with heart disease in 1999 or 36.4% of African American men aged 20-74 years found to have hypertension in a survey conducted in 1988-1994).

Primary cardiovascular disease prevention: a set of interventions, including the detection and control of risk factors, designed to prevent the first occurrence of heart attack, heart failure, or stroke among people with identifiable risk factors.

Priority populations: groups at especially high risk for cardiovascular disease (e.g., those identified by sex, race or ethnicity, education, income, disability, place of residence, or sexual orientation).

Risk behavior: a behavioral pattern associated with increased frequency of specified health problems; for example, high salt intake, smoking, and binge drinking are all associated with cardiovascular disease.

Risk factor: an individual characteristic associated with increased frequency of specified health problems; for example, high low-density lipoprotein (LDL) cholesterol, high blood pressure, and diabetes are all associated with cardiovascular disease.

Risk factor detection and control: an intervention approach that targets people with identifiable risk factors: includes both screening and other methods of detection and long-term disease management through changes in lifestyle, behavior, medication (when necessary).

Secondary cardiovascular disease prevention: a set of interventions aimed at survivors of acute cardiovascular disease events (e.g., heart attack, heart failure, stroke) or others with known cardiovascular disease in which long-term case management is used to reduce disability and risk for subsequent cardiovascular disease events.

Stroke: sudden interruption of blood supply to the brain caused by an obstruction or the rupture of a blood vessel.

¹ Adapted from: US Department of Health and Human Services. *A Public Health Action Plan to Prevent Heart Disease and Stroke*. 2003

This *Comprehensive Plan for Cardiovascular (Heart Disease and Stroke) Health in Arkansas* is the collaborative effort of the many members of the Arkansas Cardiovascular Health Program's Task Force Workgroups and its "champions". This document is considered to be a "work in progress," setting out a map for forward movement but being modified with every discussion and activity of the Task Force, its workgroups and its individual members.

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APPENDIX D: GOALS & OBJECTIVES BY TOPIC AREA & SETTING

This table provides a cross-referencing of objectives by content area (Tobacco, Nutrition, Physical Activity, or health care), special groups most likely to benefit (youth, women, social/ethnic group, or persons with diabetes), and intervention setting (schools, communities, worksites, healthcare settings).

GOALS & OBJECTIVES	TOBACCO	NUTRITION	PHYSICAL ACTIVITY	YOUTH	WOMEN	RACIAL/ETHNIC GROUP	DIABETES	SCHOOLS	COMMUNITIES	WORKSITES	HEALTHCARE SETTINGS
Increase public awareness and knowledge											
To improve knowledge of symptoms of heart attack and stroke among Arkansas residents (HC)				●	●	●	●	●	●	●	
To increase public awareness of the necessity of and options for rapid response in the case of a heart attack or stroke (HC)				●	●	●	●	●	●	●	
To increase awareness of the links between tobacco use and heart disease and stroke (T)	●			●	●	●	●	●	●	●	
To increase awareness of healthy eating strategies among Arkansans of all ages (N)		●		●	●	●	●	●	●	●	
Promote healthier environments in Arkansas communities											
Increase the number of employers providing worksite wellness programs (PA)	●	●	●	●	●	●	●			●	
Increase the number of community-based physical activity programs/options available to Arkansas adults and youth (PA)		●	●	●	●	●	●		●		
Eliminate exposure to secondhand tobacco smoke (T)	●			●	●	●		●	●	●	
Develop environments that are supportive of healthy eating (N)	●	●	●								●
Improve the health-promoting behavior of Arkansans											
Increase the proportion of Arkansans who engage in regular, preferably daily, physical activity (PA)		●	●	●	●	●	●	●	●	●	●
Promote lifelong healthy eating habits among adults and youth in Arkansas (N)		●		●	●	●	●	●		●	
Increase the proportion of Arkansans who report a healthy weight (N)		●	●	●	●	●	●	●	●	●	
Increase the frequency with which providers recommend behavioral changes that will positively impact CVH (HC)	●	●	●								●

GOALS & OBJECTIVES, CONTINUED

	TOBACCO	NUTRITION	PHYSICAL ACTIVITY	YOUTH	WOMEN	RACIAL/ETHNIC GROUP	DIABETES	SCHOOLS	COMMUNITIES	WORKSITES	HEALTHCARE SETTINGS
Improve primary and secondary treatment of heart disease and stroke											
Increase awareness of and compliance with national treatment guidelines among health care practitioners (HC)		●	●				●				●
Increase the number of professional health care students and health care providers in AR who receive education on AHA/ACC primary and secondary prevention guidelines (HC)	●	●	●				●				●
Increase the number of health care providers who document on medical records the patients BMI, blood pressure, lipid profiles, smoking status, and lifestyle counseling (smoking cessation, physical activity, nutrition) (HC)	●	●	●								●
Increase the number of professional health care students and health care providers in AR who receive education on the chronic care model (HC)	●	●	●				●				●
Increase the proportion of the health insurance companies (those that have 25,000 or more Arkansas members) that participate in the promotion and distribution of nationally accredited CV guidelines or principles and member tracking tools to their network providers and members (HC)	●	●	●				●				●
Increase the proportion of clinics in Arkansas using components of the chronic care model of CVD (HC)	●	●	●				●				●
Among patients who are hospitalized for AMI (HC), increase the proportion who are: <ul style="list-style-type: none"> Given smoking cessation advice or counseling during the hospital stay (among those with a smoking history) Given aspirin within 24 hours before or after hospital arrival (assuming no contraindication) Prescribed aspirin at discharge (assuming no contraindication) 	●										●
Decrease the proportion of deaths among Arkansans which are due to stroke	●	●	●		●	●	●		●		●
Address heart and stroke health among the most at-risk Arkansans											
Eliminate racial/ethnic disparities among Arkansas citizens in heart and stroke health, health behaviors, and treatment (HC/T/N/PA)	●	●	●			●	●		●		●

APPENDIX E: HEALTHY PEOPLE 2010 NATIONAL OBJECTIVES

Goal:

Improve cardiovascular health and quality of life through the prevention, detection and treatment of risk factors; early identification and treatment of heart attacks and strokes; and prevention of recurrent cardiovascular events.

Selected objectives – heart disease and stroke

- 12-1 Reduce coronary heart disease deaths
Target: 166 deaths per 100,000 population
- 12-2 Increase the proportion of adults aged 20 years and older who are aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911
- 12-3 Increase the proportion of eligible patients with heart attacks who receive artery-opening therapy within an hour of symptom onset
- 12-4 Increase the proportion of adults aged 20 years and older who call 911 and administer cardiopulmonary resuscitation (CPR) when they witness an out-of-hospital cardiac arrest
- 12-5 Increase the proportion of eligible persons with witnessed out-of-hospital cardiac arrest who receive their first therapeutic electrical shock within 6 minutes after collapse recognition
- 12-6 Reduce hospitalizations of older adults with congestive heart failure as the principal diagnosis
- 12-7 Reduce stroke deaths
Target: 48 deaths per 100,000 population
- 12-8 Increase the proportion of adults who are aware of the early warning symptoms and signs of a stroke
- 12-9 Reduce the proportion of adults with high blood pressure
Target: 16 percent
- 12-10 Increase the proportion of adults with high blood pressure whose blood pressure is under control
Target: 50 percent of adults aged 18 and older
- 12-11 Increase the proportion of adults with high blood pressure who are taking action (for example, losing weight, increasing physical activity, or reducing sodium intake) to help control their blood pressure
Target: 95 percent
- 12-12 Increase the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high
Target: 95 percent
- 12-13 Reduce the mean total blood cholesterol levels among adults
Target: 199 mg/dL (mean)
- 12-14 Reduce the proportion of adults with high total blood cholesterol levels
Target: 17 percent
- 12-15 Increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years
Target: 80 percent
- 12-16 Increase the proportion of persons with coronary heart disease who have their LDL-cholesterol level treated to a goal of less than or equal to 100 mg/dL

Selected objectives – risk factors

Weight Control

- 19-1 Increase the proportion of adults who are at a healthy weight
Target: 60 percent
- 19-2 Reduce the proportion of adults who are obese
Target: 15 percent
- 19-15 Increase the proportion of children and adolescents aged 6 to 19 years of age whose intake of meals and snacks at school contributes to good overall dietary quality
- 19-16 Increase the proportion of worksites that offer nutrition or weight management classes or counseling
Target: 85 percent
- 19-17 Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition
Target: 75 percent

Tobacco Use

- 27-1 Reduce tobacco use by adults
*Target: Cigarette use – 12 percent
Spit tobacco – 0.4 percent
Cigars – 1.2 percent*
- 27-2 Reduce tobacco use by adolescents
*Target:
Tobacco products, past month – 21 percent
Cigarettes, past month – 16 percent
Spit tobacco, past month – 1 percent
Cigars, past month – 8 percent*
- 27-3 Reduce the initiation of tobacco use among children and adolescents
- 27-4 Increase the average age of first use of tobacco products by adolescents and young adults
*Target:
Adolescents aged 12 to 17 years – 14
Adolescents aged 18 to 25 years – 17*
- 27-5 Increase smoking cessation attempts by adult smokers
Target: 75 percent
- 27-7 Increase tobacco use cessation attempts by adolescent smokers
Target: 84 percent

Diabetes

- 5-1 Increase the proportion of persons with diabetes who receive formal diabetes education
Target: 60 percent
- 5-2 Prevent diabetes
Target: 2.5 new cases per 1,000 persons per year
- 5-3 Reduce the overall rate of diabetes that is clinical diagnosed
Target: 25 overall cases per 1,000 population
- 5-4 Increase the proportion of adults with diabetes whose condition has been diagnosed
Target: 80 percent
- 5-5 Reduce the diabetes death rate
Target: 45 deaths per 100,000 persons
- 5-6 Reduce diabetes-related deaths among persons with diabetes
Target: 7.8 deaths per 1,000 persons with diabetes
- 5-7 Reduce deaths from cardiovascular disease in persons with diabetes
Target: 309 deaths per 100,000 persons with diabetes
- 5-11 Increase the proportion of persons with diabetes who obtain an annual microalbumin measurement
- 5-12 Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year
Target: 50 percent
- 5-16 Increase the proportion of adults with diabetes who take aspirin at least 15 times per month
Target: 30 percent
- 5-17 Increase the proportion of adults with diabetes who perform self-blood glucose monitoring at least once daily
Target: 60 percent

Physical Activity

- 22-1 Reduce the proportion of adults who engage in no leisure-time physical activity
Target: 20 percent
- 22-2 Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day
Target: 30 percent
- 22-3 Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion
Target: 30 percent
- 22-6 Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days
Target: 35 percent
- 22-7 Increase the percentage of adolescents who engage in vigorous physical activity that promote cardio-respiratory fitness 3 or more days per week for 20 or more minutes per occasion
Target: 85 percent
- 22-8 Increase the proportion of the Nation's public and private schools that require daily physical education for all students
Target:
Middle and junior high schools – 25 percent
Senior high schools – 5 percent
- 22-9 Increase the proportion of adolescents who participate in daily school physical education
Target: 50 percent
- 22-12 Increase the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends, and during summer and other vacations)
- 22-13 Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs
Target: 75 percent

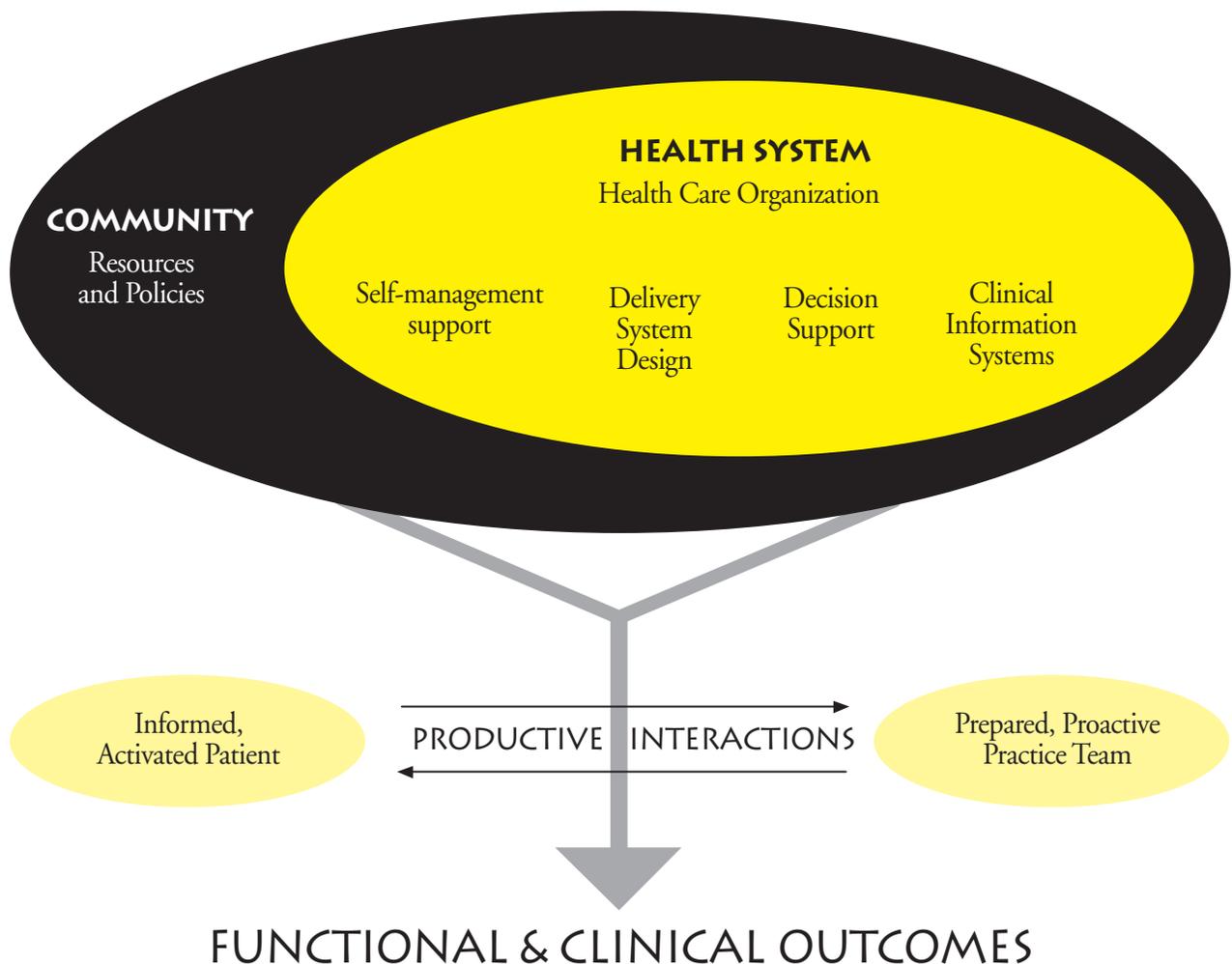
A Model for Quality Care

The National Health Disparities Collaborative uses systems approaches to improve quality of care and utilize evidence-based strategies including the Chronic Care Model, learning sessions, and a rapid improvement process. The model below envisions communities having supportive resources and policies, which are linked to health systems organized to provide good chronic illness care. These health system components include:

- Self-management support (e.g., patients acquire the skills necessary to be active participants in managing their own care);
- Delivery system design (e.g., staffing, appointments, etc. are organized to support quality care);

- Decision support (i.e., evidence-based guidelines are integrated into practice); and
- Clinical information systems (i.e., patient care is proactively managed using computerized systems that include a patient database, a reminder system for implementing guidelines, and provider feedback on compliance with guidelines).

The Chronic Care Model is a population-based model that relies on knowing that patients have the disease, assuring that they receive evidence-based care, and actively aiding them in participating in their own care. The implementation of this comprehensive system leads to informed, activated patients, and prepared, proactive practice teams, and produces improved outcomes. Specific quality measures are tracked using the clinical information systems mentioned above.



Current Collaboratives

State Heart Disease and Stroke Prevention programs generally work with two major types of collaboratives:

The National Health Disparities Collaborative

The Health Resources and Services Administration's Bureau of Primary Health Care (BPHC), in partnership with the Institute for Healthcare Improvement (IHI), the Centers for Disease Control and Prevention (CDC) and other professional networks, supports the implementation of the Health Disparities Collaborative in federally-funded health centers throughout the country. The Health Disparities Collaborative initially addressed diabetes, asthma, and depression. In 2001, this Collaborative was expanded to address cardiovascular disease.

The mission of the Health Disparities Collaborative is to achieve excellence in practice through the following goals: 1) to generate and document improved health outcomes for underserved populations; 2) to transform clinical practice through models of care, improvement, and learning; 3) to develop infrastructure, expertise, and multi-disciplinary leadership to support and drive improved health status; and 4) to build strategic partnerships. This mission is highly complementary to the Heart Disease and Stroke Prevention Program aims of promoting the primary and secondary prevention of heart disease and stroke and eliminating health disparities.

The state Bureau of Primary Health Care (BPHC) associations are key partners in supporting the Health Disparities Collaborative. These associations represent several types of health centers including those, which are federally funded. The health centers serve as primary care safety net providers, dedicated to assuring access to comprehensive primary care for underserved populations and eliminating health disparities. Primary care associations form a core part of the Health Disparities Collaborative infrastructure, with staff serving as Cluster (i.e., multi-state region) directors and coordinators for the Collaborative.

Each health center that participates in the Health Disparities Collaborative forms a team, usually consisting of 3-5 staff (with a provider champion, other practitioners, and office staff), that attends a series of national learning sessions over 13 months. The sessions are

designed to teach center teams how to implement the concepts of the Care Model, conduct rapid quality improvement, and utilize a clinical information system.

The clinical information software called the Patient Electronic Care System (PECS) performs the following major functions:

- Gives providers a comprehensive picture of a patient's health status and documents medications, lab results, and screening tests;
- Makes the latest evidence-based guidelines conveniently available and prompts the provider to implement the standard of care for all patients;
- Generates lists of patients who are in need of care such as a follow-up visit, lab test, or referral
- Generates summary statistics on cardiovascular patients in the health center. This includes the ability to assess health disparities according to gender, race/ethnicity, and insurance coverage.

More information, including a training manual on the Health Disparities Collaborative, can be obtained from <http://www.healthdisparities.net>.

State Collaboratives

State departments of health have partnered with quality improvement organizations (QIOs), primary care associations, and others to develop collaboratives, which either help spread the BPHC's efforts (e.g., among smaller clinics affiliated with larger health centers that have participated in national training) or reach a broader population such as privately-funded health centers and clinics. The state collaborative uses essentially the same methods as those used in the national effort. Learning sessions are conducted within states, and clinical information tools similar to PECS are used.

Public Health Role

State cardiovascular health programs make significant public health contributions to both BPHC- and state-supported collaboratives. The major opportunity for such programs in these efforts is to assist with building capacity and spreading utilization of the Collaboratives. Specific strategies include:

- **Clinical Information System Support:** providing technical assistance and/or financial support to establish cardiovascular patient management systems (e.g., one-time assistance for computer software, initial data entry)
- **Training:** providing technical assistance and/or financial support for learning sessions on the Care Model, the quality improvement process, and related strategies.
- **Community Linkage:** providing technical assistance on community resources and policies.
- **Sustainability and Spread:** providing technical assistance and/or financial support to maintain and expand center staff understanding of the collaborative process. As health centers experience staff turnover, it is important that new staffs are trained in collaborative processes. This is also needed as centers, which were trained in other topics, expand their focus to include cardiovascular issues. Finally, larger health centers, which participate in the national learning sessions often, are affiliated with smaller satellite health centers; these satellite centers need the opportunity to be trained in collaborative methods.

The Arkansas Cardiovascular Health Program has participated in a number of activities designed to support the BPHC- and Arkansas Chronic Illness Collaborative. For example:

- The program partnered with the state's CDC-funded Diabetes Prevention and Control Program, as well as the Community Health Centers, Inc. and Arkansas Foundation for Medical Care, to form the Arkansas Chronic Illness Collaborative for people with diabetes and cardiovascular disease.
- The program partnered with Community Health Centers of Arkansas, Inc. and Area Health Education Centers to develop patient management databases among select health centers. One-time funds were used to conduct chart reviews and support initial patient data entry in order to

develop these patient management databases. Once established, the health centers maintained the system. The establishment of the databases helped qualify the centers to participate in either a BPHC Health Disparities or the Arkansas Chronic Illness Collaborative.

- The program supports training of new staff in health centers, which have already been through the National Health Disparities Collaborative training and of satellite centers affiliated with previously trained primary center sites.

Benefits of the Collaborative for State Cardiovascular Health Improvement Efforts

The Collaborative benefits state cardiovascular health improvement efforts in a number of ways. First, data may be shared on how systems changes have improved quality of care (e.g., increases in hypertensive patients with blood pressure control). Second, health centers become champions for community resources, policies, and environmental changes, which reinforce patients' ability to manage their own care. Additionally, and particularly for the Collaboratives implemented among community health centers and health education centers, they constitute a specific strategy for addressing health disparities among vulnerable populations.

APPENDIX G: EVALUATION PLAN

The evaluation plan for the Arkansas Heart Disease and Stroke Health Coalition's comprehensive plan will be comprised of two portions: 1) Developing specific evaluation protocols for individual activities or programs, to assess the specific outcomes or impacts of those programmatic activities; and 2) an overall assessment of the impact of coalition activities overall, at the population level. The evaluation plan outlined below addresses the second component – the assessment of the population-level impact of coalition activities.

The table below summarizes the established indicators, current data sources available to address those indicators at the state level, and the current status of each indicator. Since many of the working groups did not establish a specific goal for their recommended objectives, we have chosen instead to document the baseline value (2000-2001 data, as available) and to document progress against that baseline. Graphs are provided when follow-up data are available, with national Healthy People 2010 or HEDIS targets identified when state goals and objectives are consistent with national goals and objectives. Additional data points will be added to each graph as the information becomes available, so that graphic representations of progress can be maintained and shared with partners over time.

To the extent possible, the state-level evaluation plan utilizes existing sources of data, to minimize expense and maximize the resources available to address activity-level evaluations. When data sources are not currently available to address an indicator, that gap is noted in the table. The evaluation team will be working with the Arkansas Cardiovascular Health Program's Task Force to devise appropriate methods for assessing goal achievement in those cases.

It should be noted that the evaluation team and the Task Force conceptualize this evaluation plan as a working document, much in the same manner as the Comprehensive Plan itself is conceptualized as a work-in-progress, subject to modification as goals are met or new opportunities become apparent.

GOAL/OBJECTIVE	INDICATOR	DATA SOURCE	CURRENT STATUS
Increase public awareness and knowledge			
To improve knowledge of symptoms of heart attack and stroke among Arkansas residents (HC)	Percentage of adult Arkansans correctly identifying all signs/symptoms of heart attack	BRFSS, Heart Attack and Stroke Module (administered in odd years)	2003 11.17% correctly recognized all symptoms of heart attack
Healthy People 2010 Objectives 12.2, 12.8	Percentage of adult Arkansans correctly identifying signs/symptoms of stroke		2003 16.69% correctly recognized all symptoms of stroke
To increase public awareness of the necessity of and options for rapid response in the case of a heart attack or stroke (HC)	Percentage of adult Arkansans indicating that their first response to signs of a heart attack or stroke would be to call 911 or get a friend to drive them to the hospital	BRFSS, Heart Attack and Stroke Module (administered in odd years)	2003: 80.9% said that they will call 9-1-1 as the first response
Healthy People 2010 Objectives 12.2, 12.8			
To increase awareness of the links between tobacco use and heart disease and stroke (T)	Percentage of adult Arkansans correctly identifying second hand smoke as a risk factor for heart disease and stroke without over generalizing	Arkansas Adult Tobacco Survey	2002 88% (did not know)
To increase attempts at healthy eating strategies among Arkansans of all ages (N)	Percentage of Arkansans 18 and over who state they are eating more fruits and vegetables and eating less fat to reduce their risk of heart disease and stroke	BRFSS Cardiovascular Disease module	2003: 62.6% (eating fewer fatty foods) 2003: 68.8% (eating more fruits/vegetables)
Promote healthier environments in Arkansas communities			
Increase the number of employers providing worksite wellness programs (PA)	Percentage of Arkansas work-sites providing programs to address: (1) nutrition or weight management; (2) exercise or physical activity; or (3) fitness or wellness overall	2003 Survey of Employer Cardiovascular Health Policies and Programs; survey of worksites needed every 5 th year	2003 18% offered nutrition or weight control program 2003 16% (outdoor exercise facility) 2003 20% (indoor exercise facility) 2003 40% (any health event)?
Healthy People 2010 Objectives 7-5, 19-16, 22-13			
Increase the number of community-based physical activity programs/options available to Arkansas adults and youth (PA)	Number of community-based physical activity programs/options available to Arkansas adults and youth through schools and parks/recreation departments	July 2004 survey of 4 of ADH 5 Regions (Central, NW, NE, SE) with at least 50% of counties reporting	July 2004 Schools - 13 Parks/Recreation - 26 Community Centers - 98 Fitness Centers - 124
Healthy People 2010 Objectives 7-10, 7-11			

Note: Objectives are identified with the working group(s) that proposed them by the following notation: HC=Health Care; N=Nutrition; PA=Physical Activity; T=Tobacco

GOAL/OBJECTIVE	INDICATOR	DATA SOURCE	CURRENT STATUS
Improve the health-promoting behavior of Arkansans (continued)			
Promote lifelong healthy eating habits among adults and youth in Arkansas (N) Healthy People 2010 Objectives 19-5, -6, -7, -8, -9, -10, -15	Percentage of adults who report eating at least 5 servings of fruits or vegetables per day Percentage of youths who report eating at least 5 servings of fruits or vegetables per day	BRFSS YRBS	2003: 79.1% (do not eat at least 5 fruits/vegetables/day) 2001 80% (students do not eat at least 5/day)
Increase the proportion of Arkansans who report a healthy weight (N) Healthy People 2010 Objective 19-1, -2, -3	Percentage of Arkansas adults with BMI > 18.5 and < 25.0 Percentage of Arkansas youths with BMI < 85 th age- and gender-specific percentile	BRFSS YRBS	2003: 38.0% (not overweight or obese) 2001 14% (considered overweight based on NCHS 2000 CDC growth charts)
Increase the frequency with which providers recommend behavioral changes that will positively impact CVH (HC) Healthy People 2010 Objective 1-3, 19-17	Percentage of adults among those who report having seen a physician or other health care provider in the last 12 months who were advised to: (1) eat a healthier diet; (2) be more physically active; or (3) stop smoking	BRFSS	2003: 1) 18.7% (advised to reduce fat), 2) 28.4% advised to eat more fruits/vegetables 3) 30.1% advised to be more active 4) 68.3% advised to quit smoking
Improve primary and secondary treatment of heart disease and stroke			
Increase awareness of and compliance with national treatment guidelines among health care practitioners	Percentage of health care practitioners in compliance with national treatment guidelines (AHA, JNC 7, ACC)	Arkansas Wellness Coalition	Arkansas Wellness Coalition distributes national guidelines annually to < 3000 health care practitioners. 2002 Diabetes Principals, 2003 Primary and Secondary CVD, 2004 Adult Immunization/ ABCs of Diabetes

Note: Objectives are identified with the working group(s) that proposed them by the following notation: HC=Health Care; N=Nutrition; PA=Physical Activity; T=Tobacco

GOAL/OBJECTIVE	INDICATOR	DATA SOURCE	CURRENT STATUS
Improve primary and secondary treatment of heart disease and stroke (continued)			
Increase the number of professional health care students and health care providers in AR who receive education on AHA/ACC primary and secondary prevention guidelines and JNC7 guidelines (HC)	Number of professional health care students and providers receiving education on AHA/ACC guidelines	Partner databases/reports of training activities/ UAMS nursing programs	2004 UAMS graduated 12 family nurse practitioners (same expected for 2005); 13 acute care practitioners (24 expected in 2005); and 7 women's health practitioners (6 expected for 2005) 12/2003 UAMS graduated 7 geriatric practitioners (AHA guidelines not in curriculum) <150 Junior Medical students receive education on the JNC 7 Guidelines (AHA/ACC Guidelines not in curriculum) Current status on providers unknown
Increase the number of health care providers who document on medical records the patients BMI, blood pressure, lipid profiles, smoking status, and lifestyle counseling (smoking cessation, physical activity, nutrition) (HC)	Percentage of medical facilities in primary care practice settings with defined process or system of prompts for CVD prevention for BMI, blood pressure, lipid profiles, smoking status, and lifestyle counseling (smoking cessation, physical activity, nutrition) as appropriate	2003 CVD Prevention and Care Report, chart reviews needed every 3 - 5 years	Charts abstracted 2001-2002 for 2003 Report Physical Activity Assessment 45% Counseling 38% Nutrition Assessment 51% Counseling 38% Weight Management Assessment 53% Counseling 38% Tobacco Prevention /Cessation Assessment 51% Counseling 45% Lipid Profile Assessment 68% Counseling 60% Hypertension Assessment 72% Counseling 64% Diabetes Assessment 62% Counseling 60%

Note: Objectives are identified with the working group(s) that proposed them by the following notation: HC=Health Care; N=Nutrition; PA=Physical Activity; T=Tobacco

GOAL/OBJECTIVE	INDICATOR	DATA SOURCE	CURRENT STATUS
Improve primary and secondary treatment of heart disease and stroke (continued)			
Increase the number of professional health care students and health care providers in AR who receive education on the chronic care model (HC)	<p>Number of professional curricula in state institutions including the chronic care model</p> <p>Number of professional health care students and providers receiving training in chronic care model via curricula or CME programs</p>	<p>Data not collected; need survey of professional schools every 3 years</p> <p>Data not collected; need survey of professional schools every 3 years; data from partners documenting CME programs attendance</p>	<p>numbersThe Arkansas Health Education Centers indicate 24 of 128 residents are receiving education on the Chronic Care Model</p> <p><300 junior and senior medical students do not receive education on the chronic care model</p>
Increase the proportion of the health insurance companies (those that have 25,000 or more Arkansas members) that participate in the promotion and distribution of nationally accredited CV guidelines or principles and member tracking tools to their network providers and members (HC)	Percentage of health insurance companies operating in Arkansas that promote the use of nationally accredited CV guidelines and/or use member tracking tools with their network providers and members	Arkansas Blue Cross and Blue Shield; need survey every 3 years of health insurance companies with 25,000 or more Arkansas members	July 2004 3 out of 7 health insurance companies with 25,000 or more Arkansas members promote the use of nationally accredited CV guidelines and/or tracking tools with their network providers/members
Increase the proportion of clinics in Arkansas using components of the chronic care model of CVD (HC)	Percentage of Community Health Center clinics that use the chronic care model	Survey of CHC clinics every 2 years	All 10 of FQHC participates in a collaborative at either the state or national level. 34 of 50 satellite sites are implementing the chronic care model
<p>- Among patients who are hospitalized for AMI (HC), increase the proportion who are:</p> <p>Given smoking cessation advice or counseling during the hospital stay (among those with a smoking history)</p> <p>Given aspirin within 24 hours before or after hospital arrival (assuming no contraindication)</p> <p>Prescribed aspirin at discharge (assuming no contraindication)</p> <p>Healthy People 2010 Objective 12.1, 27-1</p>	<p>Percentage of patients who are hospitalized for AMI:</p> <p>1) With smoking cessation counseling documented in hospital records</p> <p>2) Given aspirin within 24 hours of hospital arrival</p> <p>3) Prescribed aspirin at discharge</p>	Arkansas Foundation for Medical Care Score Card Medicare surveillance available; explore availability of indicator data in Medicaid or insurance administrative databases	<p>1) 2003 45.16% (smoking cessation counseling among MI patients)</p> <p>2) 2003 79.7% (early aspirin administration for MI)</p> <p>3) 2003 83.74% (aspirin at discharge for MI patients)</p>

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APPENDIX H: WEB SITES

<i>Resource Name</i>	<i>Web Address</i>
American Heart Association	www.americanheart.org
American Heart Association Fitness News.....	www.justmove.org
American Stroke Association	www.strokeassociation.org
Arkansas Blue Cross Blue Shield	www.arkbluecross.com
Arkansas Department of Health Cardiovascular Health	www.arkansashearthealth.com
Arkansas Department of Health 5-A-Day Program Arthritis Program Breast Care Program Diabetes Program Cardiovascular Health Program Comprehensive Cancer Program Tobacco Program	www.healthyarkansas.com
Arkansas Foundation for Medical Care	www.armc.org
Arkansas Health Education Center	http://rpweb.uams.edu/ahec
Arkansas Minority Health Commission	www.arminorityhealth.com/
Community Health Centers of Arkansas, Inc.....	www.chc-ar.org/
Eating for a Healthy Heart.....	www.fda.gov/opacom/lowlit/hlyheart.pdf
Governor's Council on Fitness	www.arkansasfitness.com/
Healthy Arkansas Programs.....	www.arkansas.gov/ha/
Healthy Refrigerator.....	www.healthyfridge.org
National Diabetes Education Program	www.ndep.nih.gov
National Heart, Lung and Blood Institute (NHLBI).....	www.nhlbi.nih.gov
National Institutes of Health.....	www.health.nih.gov/
The Centers for Disease Control.....	www.cdc.gov/cvh/
The President's Council on Physical Fitness and Sports.....	www.fitness.gov
The President's Council on Physical Fitness and Sports.....	www.presidentschallenge.org
The University of Arkansas Cooperative Extension	www.uaex.edu
UAMS College of Public Health	www.uams.edu/coph/

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*This publication was supported by Grant/Cooperative
Agreement Number U50/CCU621350-03 from the
Centers for Disease Control and Prevention, its con-
tents are solely the responsibility of the authors and do
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