The Arkansas Cancer Plan 2001-2005

A Framework for Action

November, 2001
The Arkansas Cancer Control Taskforce

The Arkansas Cancer Plan

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I. Introduction

The purposes of the Arkansas Cancer Plan (ARCP) are to (1) provide an overview of the current status of cancer control in the state; (2) provide a plan to develop strategies to reduce overall cancer incidence and mortality; (3) provide an improved quality of life for those affected by cancer in Arkansas. It is the vision of the ARCP that the human suffering and economic burden from cancer can be greatly reduced for Arkansas' citizens. [1]

II. Background

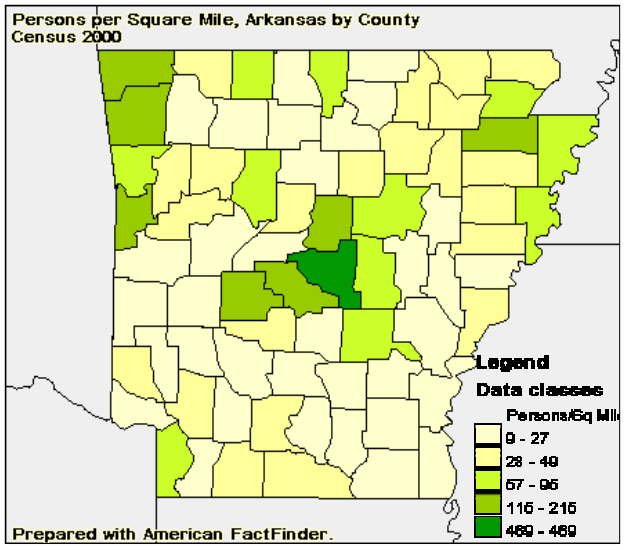
A. The Cancer Burden in Arkansas

Cancer is the second leading cause of death in Arkansas, with approximately 6,000 deaths per year from the disease. While the death rate from heart disease, the number one cause of death, has been steadily decreasing, the death rate from cancer has changed little over the last 25 years.[2] According to the National Cancer Institute in its budget proposal for 2002 called, "The Nation's Investment in Cancer Research," overall incidence and mortality rates for cancer over the past few years has declined nationally. This statement is somewhat true for Arkansas regarding incidence rates. However Arkansas' cancer mortality rates continue to far outreach the national rates.

1. Arkansas Demographics

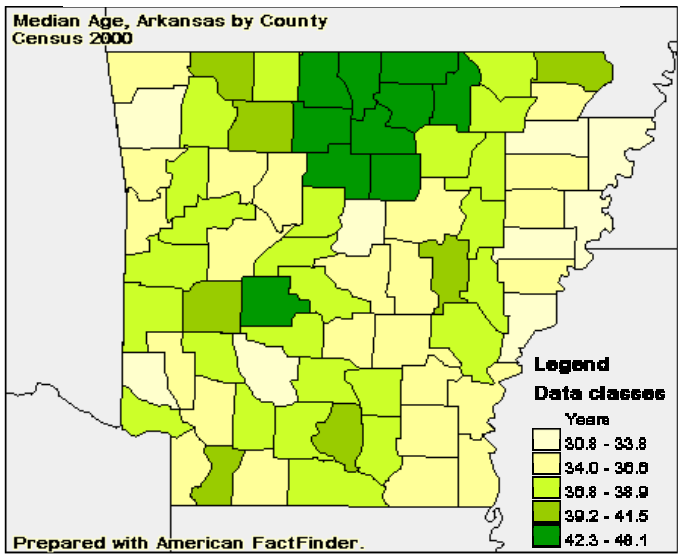
Arkansas' population has grown 13.7 percent over the past ten years, putting Arkansas 33rd in the nation with a population of 2,673,400 residents. The racial make-up of the state is 82 percent white, 16 percent black, and 4 percent other. Ethnically, Arkansas is 3 percent Hispanic and 97 percent Non-Hispanic. There are 75 counties in the state, and the majority of Arkansans live in the central and northwest region, with a few counties in eastern Arkansas and south central supporting populations of over 25,060 (see Figure 1). The largest growth has occurred in the north to northwest regions. Sixty percent of the state is considered rural.

Figure 1. Persons per Square Mile by County



[1] The Arkansas Cancer Plan Taskforce - 2000
[2] The Arkansas Central Cancer Registry. Cancer in Arkansas, Cancer Incidence & Mortality, 1996-1998

Figure 2. Median Age by County

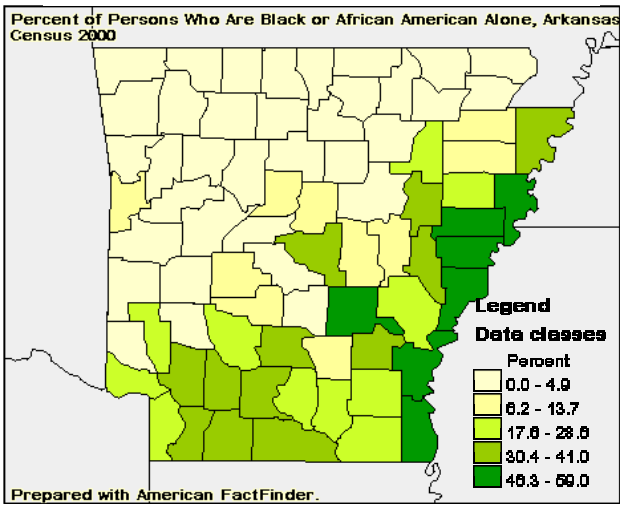


The median age of Arkansas residents is 36 years (see Figure 2). Arkansas also has a significant proportion of elderly citizens, as 13.9 percent of the population are 65 years or older.

Nationally the trend has been for the average size of households to be shrinking, and Arkansas is no exception. In 1950, there were 3.57 persons per household in the state. In 2000, there are only 2.49 persons per household.

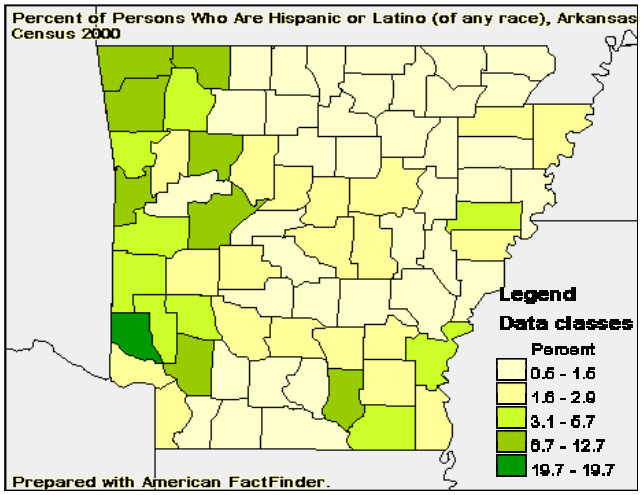
The estimated median household income in Arkansas is $27,875, which is 25 percent lower than the national average. That median income puts 17.5 percent of Arkansans at or below the national poverty level compared with 13.3 percent nationally. Twenty-five percent of Arkansas' children live below the poverty level, compared with 19.9 percent nationally.

Figure 3. Percent of Persons Who Are Black or African American Alone



There are approximately 430,000 black Arkansans living in the state. The majority of these Arkansans live in the south to southeast, particularly along the Mississippi River in the delta region of Arkansas (see Figure 3). This area of the state is highly agricultural and predominately rural.

Figure 4. Percent of Persons Who Are Hispanic or Latino (of any race).



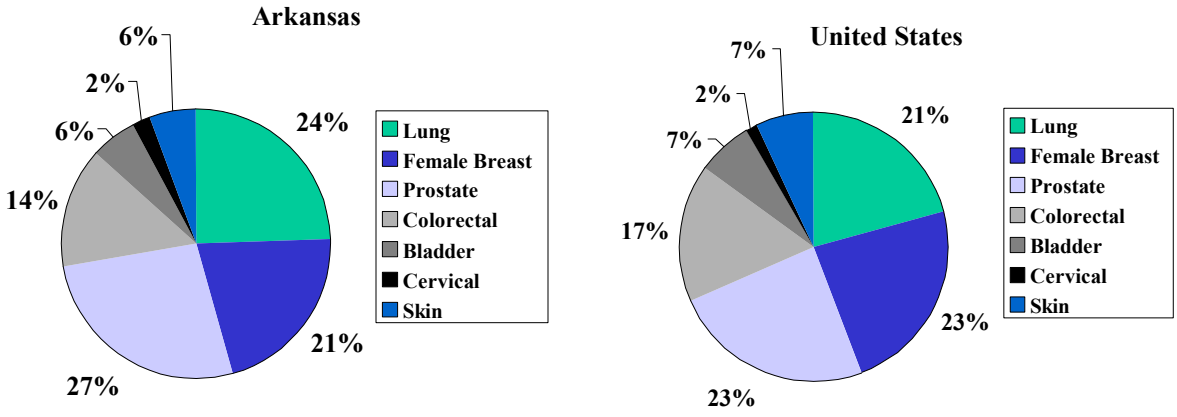
The Hispanic population in Arkansas is one of the fastest growing and is primarily concentrated in the central to northwest counties (see Figure 4).

2. Comparison of Arkansas Cancer Figures to National Figures

Although Arkansas is in line proportionally with cancer incidence rates nationally (see Figure 5), it is ranked with the 12th highest cancer mortality rate nationwide. An estimated 180.9 individuals out of every 100,000 Arkansans will die from cancer, compared to the national average of 170.1 (ACS Facts and Figures, 2001). Cancer remains the second leading cause of death in Arkansas. It has been discussed that the reasons for the disparity more than likely include late stage of diagnosis and low socioeconomic status. However these factors do not fully explain the disparity in mortality. The agenda for the public health and medical community is to understand and address the underlying causes of health disparities. The relative roles and interplay of health behaviors, environmental and social conditions, cultural factors, and treatment variables are being studied intensely. Also critical is knowledge of the types of interventions that will be most effective for eliminating socioeconomic, racial and ethnic disparities in cancer control.[3]

[3] The North Carolina Cancer Control Plan – 2001-2006

Figure 5. Percentage of New Cancer Cases in 2001 at Major Cancer Sites (Arkansas compared to the U.S.)



3. Inhibiting and Facilitating Factors in Cancer Control in Arkansas

Many cancers are related to personal, lifestyle or environmental factors and, therefore, are preventable. For example, modifiable risk factors contributing to cancer include smoking, using spit tobacco, inadequate diet, physical inactivity, alcohol consumption, sexual activity, and exposure to ultraviolet light and cancer-causing chemicals in the environment.[4] The earlier in the disease cycle the cancer is detected, the greater the chance of successful treatment. Controlling this group of diseases means to reduce cancer mortality and morbidity. Through prevention, early detection, and access to state-of-the-art treatment a reduction in mortality and morbidity can occur. Therefore, by influencing behaviors, lifestyles and certain environmental factors, by screening earlier when possible, and by eliminating barriers to treatment, cancer can be controlled.

a. Inhibiting Factors in Cancer Control

Due to varying health beliefs among Arkansans, it is difficult to design a uniform message about cancer prevention that will be effective throughout all rural as well as urban communities in the state. Many people believe that cancer will not happen to them, that cancer screenings are painful or embarrassing, or that cancer is a death sentence. Some individuals hold cultural beliefs that discourage active participation in the health care system.[5] Even misconceptions about treatments can impact an individual's willingness to be screened or to get treatment.

[4] An Illinois Framework for Action – Moving Forward With Cancer Prevention and Control - 1999
[5] National Institutes of Health, National Cancer Institute, National Advisory Board. Cancer at the Crossroads: A Report to Congress for the Nation, 19.

Economic factors also make it difficult for many Arkansans to access cancer prevention programs. Over 17% of Arkansans do not have health insurance. For those with medical care coverage, insurance restrictions and availability of medical care may be barriers to access. In addition, many Arkansans do not visit their physicians for preventive care.

The higher cost of delivering services in rural areas is a deterrent for physicians to practice there. Due to this lack of resources, Arkansans in rural areas are more likely to select radical cancer treatment options such as mastectomy, rather than to travel to Little Rock or Memphis for a six-week course of radiotherapy that is necessary for breast-conserving surgery.

b. Facilitating Factors in Cancer Control

The Arkansas General Assembly passed the Breast Cancer Act of 1997. This public health program known as BreastCare was created to provide screening, diagnosis, treatment, surveillance activities, and public education. There are auxiliary, private, non-profit organizations that assist women in obtaining this free medical cancer care and provide education; Stephen's YWCA Encore Plus is one such program.

The CDC funded the Breast and Cervical Cancer Control (BCCCP) Program that began in 1995 and provides breast and cervical cancer screening services to low–income, under-insured women; last year, 4,013 women were screened. BCCCP and BreastCare co-exist to serve a wider range of patients. The procedures are similar, however the ages served are different. BreastCare also provides more treatment options where BCCCP is predominately about screening. Encore Plus has worked in concert with both programs in an effort to reduce barriers to access.

Likewise, the state legislature passed the Prostate Cancer Act in 1999, although the act was not funded. In 2001, the Arkansas Prostate Cancer Foundation successfully advocated the legislative appropriation of $500,000 for amended Act 1455. An oversight committee will establish a program to raise awareness about prostate and testicular cancer. Services are to include large population screening and educational services to men throughout Arkansas. At least 50 percent of all funding is to be used for the early detection, diagnosis, or treatment of prostate and testicular cancer.

One of the most valuable resources available to Arkansans is the Arkansas Cancer Research Center (ACRC) at the University of Arkansas for Medical Sciences in Little Rock. It is the only academic cancer center in Arkansas. As part of its outreach to the community, ACRC promotes many cancer education and prevention programs around the state. The Witness Project, an education program utilizing African-American breast and cervical cancer survivors to teach rural underserved women about screening is one such program. The ACRC also provides the only cancer genetic counseling in the state, as well as access to prevention clinical trials for individuals at risk for developing some cancers.

Central Arkansas Radiation Therapy Institute (CARTI) is a member of a network of non-profit radiation therapy centers founded in 1989 that provides a link for information, education, cancer screenings, and therapy. CARTI has six Arkansas facilities in four different communities. All six facilities serve as a focus for advocacy groups and help to fulfill education and awareness needs in the communities in which they are located.

The Arkansas Department of Health's (ADH) Office of Tobacco Prevention and Education is patterned after the CDC's "Best Practices" for comprehensive tobacco control. These are components proven to work in California, Arizona, Maine, and Florida. The ADH Office of Tobacco will manage the funds from the landmark tobacco settlement from 1999. The tobacco settlement dollars will be put to good use in Arkansas to better the future of all Arkansans. In November 2000, the public voted and passed Initiated Act I, the bill that set up where and how the settlement dollars would be spent. The legislature approved the appropriation bills to the settlement plan for the next two years, with only minor alterations.

The largest portion of the settlement dollars, almost 30 percent, will be spent on prevention and cessation. With a primary goal on prevention, the ADH Office of Tobacco Prevention and Education will handle the money. These dollars will establish youth prevention programs, provide school nurses in rural schools, run an anti-tobacco media campaign, provide grants to local communities, and hire the appropriate staff.

Some of the other uses for the settlement funds are to target specific health-related needs in the state, including adequate Medicaid coverage, minority health, underserved populations in the Delta region, and the elderly. The settlement dollars will also be used to establish a School of Public Health and the Arkansas Bioscience Institute, thus enabling expanded opportunities for research among the state's universities.

There are to be three requests for proposals released by late summer 2001.

- Community programs
- Surveillance and evaluation
- Marketing

All contracts and sub-recipient agreements will be submitted for review/approval as required by law.

Cancer is a complex disease requiring a variety of interventions. Many cases of cancer can be prevented. Others can be detected early and diminished, controlled, or cured. It is our duty to provide Arkansans with the information and supportive communities and workplaces they need to reduce their risk of developing cancer. We need to make Arkansans aware that cancer services are available and accessible, and let them know how to find them. We need to provide Arkansans with information about cancers that can be controlled or cured. Access to high-quality screening and state-of-the-art treatment must be made available. Even for cancers for which there is currently no cure, there are life-prolonging, life-enhancing, and pain-controlling measures to which Arkansans deserve access. This Plan provides specific objectives and strategies that once achieved, will reduce the burden of cancer in Arkansas.

B. Development of the Cancer Plan

In 1992, Arkansas began its program focusing on breast cancer. In 1993, a coalition for cancer control was developed to serve as a coordinating body necessary to develop and monitor a state cancer control plan. This coalition, working with the Arkansas Breast and Cervical Cancer Control Program (ARBCCCP) of the Arkansas Department of Health (ADH) led ADH to a five-year agreement with the Centers for Disease Control and Prevention (CDC), in accordance with Public Law 101-354, to provide comprehensive breast and cervical cancer control services for early detection in 1995. Four key partners for outreach were YWCA EncorePlus, the American Cancer Society (ACS), The Witness Project, and the Arkansas Chapter of the Susan G. Komen Breast Cancer Foundation.

In 1997, the Arkansas Cancer Control Coalition led the way for successful legislation, The Breast Cancer Act of 1997. This act appropriated $4 million in state general revenue with backup funding from a tobacco tax to provide breast cancer screening, diagnosis, treatment, and research. This state funding complemented the CDC funds to ensure a timely diagnosis and treatment for eligible Arkansas women.

During April-August 1998, Arkansas participated in a case study of cancer prevention and control conducted by Battelle Centers for Health Research and Evaluation. Arkansas was selected to take part in the Battelle study based on a range of characteristics that the Division of Cancer Prevention and Control (DCPC) of CDC believed influenced the planning process including: previous experience with comprehensive cancer planning, the degree of centralization of public health functions, presence of a cancer registry, and resources available to support cancer planning activities. In July 1998, Arkansas submitted a CCC Grant application accompanied by a cancer control plan.

The Battelle report was released in September 1998, laying the foundation for an internal comprehensive cancer control (CCC) taskforce within ADH for comprehensive cancer planning. By January 1999, ADH engaged in a technical assistance meeting with CDC, Battelle, and the Cancer Information Service. This meeting began a series of monthly conference calls with Battelle. During the remainder of 1999, the ADH taskforce continued to meet, bringing in nationally recognized speakers such as Marion White, Executive Director of the North Carolina Plan, and Tom Tucker, Director of the Kentucky Cancer Register.

During 2000, meetings were held to plan for Arkansas Cancer Summit I, the state's first comprehensive cancer conference that was held in September 2000. Arkansas met with the evaluation contractor for BCCCP to plan for the combination of cancer control efforts to make them more comprehensive. The Taskforce continued to meet in late 2000, sketching out the framework for a statewide comprehensive cancer control plan (see Table 1).

By the end of 2000, the ARCP Taskforce and the Arkansas Cancer Coalition combined, holding their first joint meeting in May 2001.

C. Methodology for Developing the Cancer Plan

The content of Arkansas' cancer plan comes from a variety of sources. The original core team interviewed many potential partners, reviewed written materials from other states, invited guest speakers from other states, and spoke with cancer survivors, researchers, outreach workers, and administrators. Demographics regarding the cancer burden in Arkansas were gathered and analyzed to determine the focus of the Plan. The cancer control program director from the state of Maine collaborated with the Arkansas taskforce members on specific projects and provided support and direction since early 1999.

Over 40 cancer control experts in Arkansas reviewed draft versions of the ARCP. Their feedback provided essential direction for the completion of this version of the Plan. Ideally, a statewide cancer plan would be based on the choices of every Arkansan who is involved in cancer control. In reality, the Taskforce had to choose a limited selection of materials to review and people to contact. Based on this approach, the original core team felt that the ARCP represented a consensus of facts and feelings about cancer in the state.

D. Intended Audiences for the Cancer Plan

This plan is written to raise public awareness regarding the burden of cancer in the community and to lead to public discussion of causes and possible solutions to the problem. Our governor, state legislators, and health care providers must collaborate to develop and enforce policies that will reduce the rates of disease and death due to cancer. The success of the ARCP is dependent upon this coordinated action by the public and private sectors of the state.

The governor and the state legislature can work together to create and enforce policies such as a clear indoor air act, or as in the case of the Arkansas Legislature, the Breast Cancer Treatment Act of 1997, that will reduce the rates of disease and death due to cancer. State agencies, such as the Department of Health, the Department of Human Services, the Department of Environmental Quality, the Department of Education/Higher Education, and the Office of the Medical Examiner, can help by providing data to assess the cancer policy needs in the state. Counties and communities can encourage and enforce cancer control policies and ordinances, such as a smoke free restaurant ordinance, to help reduce lung cancer incidence due to second-hand cigarette smoke.

In combination with policy, cancer control can be achieved through the services offered by health care professionals. Providers offer cancer control in the way of prevention, screening, and treatment. Service provider personnel, such as nurses, physicians, technicians, counselors, and educators, offer prevention, detection, and treatment in hospitals and clinics through health maintenance organizations and state agencies. Non-profit organizations offer services, referrals to services, and networking opportunities for those involved with cancer control. It is these groups of individuals, organizations, and government entities at which this plan is directed.

III. Cancer Control Approaches and Unmet Needs in Arkansas

A. Cancer Surveillance

Decisions surrounding the allocation of dollars should be focused on outcomes and system performance measures and must be driven by the best information available; this requires quality data. It is a difficult decision to spend scarce resources on sophisticated data surveillance systems when many individuals continue to go without basic services. However, the collection and analysis of data to improve decision-making is essential for health planning. Recognition and measurement of the behaviors and conditions that contribute to high-risk behaviors enhance public health professionals' ability to address these critical issues. The study of these indicators can provide fundamental clues to improving the health of Arkansans.

Staffing increases and new funding has resulted in statewide data for the first time. Even though this is a big step in the right direction, timeliness of these data needs additional improvement. In Arkansas, as in other states, the Central Cancer Registry experiences delays in the reporting of complete and accurate data, which in turn delays the availability of summary cancer data for extensive planning and evaluation of cancer prevention and control programs and policies. Information about the stage of diagnosis, treatment, and survival rates of Arkansans with cancer is also limited by the number of years these data have been reported. Mortality data are available, but it can take months to obtain. Often, the data are not in a format that lends itself to meaningful analysis or comparison with national cancer studies. Without complete, timely, and accurate data on stage of diagnosis, treatment protocols, survival, and incidence and mortality, it is impossible to track accurately the outcomes of prevention and early intervention efforts.

A comprehensive data system should be designed to meet the needs of its potential users. Therefore, a representation of those potential users, such as health services planners, health educators, health care providers, patients and their families, and policymakers, should have input as to the design and accessibility of the system. A comprehensive data system would enable better identification of prevention and control gaps and needs. Once in place, the system could be the basis for the equitable allocation of resources for new or expanded prevention and control efforts.

B. Public Education and Prevention

Prevention is an urgent priority in Arkansas. We know that conservatively, 60% of cancers are preventable and linked to behaviors begun in childhood.[6] Scientific research has established clear links between environment, lifestyle, and cancer risks. Smoking accounts for at least 30% of all cancer deaths and is a major cause of a number of other chronic diseases.[7] Nutrition also plays an important role in the prevention of cancer.

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[6] Waters, Mary. American Cancer Society. "Cancer Prevention Begins in School: Presentation to 1999 Cancer Conference. September 1999.

[7] American Cancer Society. Cancer Facts & Figures - 2001

Scientific evidence suggests that about one-third of the cancer deaths that occur in the US each year are due to nutrition factors, including obesity.[8] Over 30% of Arkansans are overweight.[9] Most experts agree that merely providing that information on health risks and benefits is ineffective in reducing behaviors that place people at risk for cancer.

The term "cancer prevention" makes up a broad array of activities designed to reduce the risk of developing cancer and minimizing the effects of the disease. Up to two-thirds of all cancers could be prevented if appropriate behavior changes took place, underscoring the key role prevention plays in the fight against cancer.[10]

There are generally three types of prevention activities according to the extent to which a person is affected by a disease:

- Primary
- Secondary
- Tertiary

Primary prevention seeks to keep a disease from occurring, such as eating a diet high in fiber to lower the risk of colon cancer. Secondary prevention identifies and treats those individuals who are at risk for cancer but are without symptoms. An example of secondary prevention would be getting a pap smear to detect cervical dysplasia before it develops into cervical cancer. Tertiary prevention includes treating and supporting people diagnosed with cancer in an effort to minimize complications and recurrence, limit disability, and promote rehabilitation. The focus of Goal I of the Arkansas Cancer Plan is on primary prevention, and Goal II focuses on secondary and tertiary prevention.

C. Professional Education and Practice

Through professional education, health care professionals can become the vital link between the health care community and the private community to encourage quality prevention, education, screenings, treatment, and rehabilitation services. These professionals are often the primary source of information Arkansans have about cancer risks and screenings. Health professionals must be properly trained, motivated, and capable to put screening guidelines into practice. Despite the availability of national guidelines for the early detection of cancer, health care professionals do not routinely incorporate the guidelines into their daily practices. Adherence to cancer prevention and screening guidelines is not routine, especially for individuals at high risk for cancer.

The communication that takes place between health care professionals and patients is important in that it affects the degree to which patients are active partners in their treatment. Taking the time to discuss a patient's concerns may influence whether or not the patient accepts the physician's recommendations.

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[8] Ibid.
[9] Behavioral Risk Factor Surveillance Survey – 2000.
[10] Waters, Mary. American Cancer Society. Cancer Prevention Begins in School: Presentation to 1999 Cancer Conference. September 1999.

D. Early Detection, Treatment, and Support

Current cancer data in Arkansas indicate that priority areas for early detection and support should follow six cancer sites: lung, female breast, prostate, colorectal, bladder, and cervical. Other cancer sites should be moved to priority status as data become available.

a. Lung Cancer

Lung cancer is the leading cause of death from cancer in both men and women in the U.S.[11] It is also the most commonly diagnosed cancer among Arkansans (see Figure 5). An estimated 169,500 new cases of lung cancer will be detected in 2001; 2,200 cases will be in Arkansas[12]

Smoking is the greatest risk factor in the development of lung cancer. Other risk factors include exposure to certain industrial chemicals, pollution, tuberculosis, and radiation exposure from occupational, medical, and environmental sources. Adult tobacco usage has slowed, but tobacco use among youth increased considerably during the 1990's.[13] Currently, there are no early detection screening tests for lung cancer.

b. Female Breast Cancer

An estimated 192,200 new cases of breast cancer are expected to occur among women in the U.S. during 2001.[14] Arkansas' estimated new cases for female breast cancer are 1,900 for 2001 (see Figure 5).

Excluding cancers of the skin, breast cancer is the most common cancer found in women in the U.S. Like the U.S., breast cancer is also the most commonly diagnosed cancer in women in Arkansas. Age is the primary risk factor. Other risk factors include: familial history, early menarche, late menopause, ocp use, estrogen replacement therapy, no children, benign breast disease, and first pregnancy after age 30.[15]

c. Prostate Cancer

Prostate cancer is one of the most common cancers among American men, excluding skin cancer.[16] In Arkansas, it is the most commonly diagnosed cancer in men. After lung cancer, prostate cancer is the second leading cause of cancer death among men in the United States and Arkansas. Prostate cancer incidence rates remain higher in black men than in white men, and, in Arkansas, the same is true for mortality rates.[17] Age is the

[11] American Cancer Society. Cancer Facts & Figures - 2001
[12] Ibid.
[13] Ibid.
[14] American Cancer Society. Breast Cancer Facts & Figures – 1999-2000
[15] Ibid.
[16] American Cancer Society. Cancer Facts & Figures - 2001
[17] Arkansas Central Cancer Registry. Cancer In Arkansas, 1996-1998

primary risk factor. There will be an estimated 198,100 new cases in the U.S. during 2001; in Arkansas, there will be an estimated 2,400 cases during 2001 (see Figure 5). In the U.S., an estimated 31,500 deaths will occur; 400 will occur in Arkansas.[18]

d. Colorectal Cancer

Colorectal cancer is the fourth most commonly diagnosed cancer among Arkansans, and the third most common cancer in men and women nationally.[19] Family history and diet are associated risk factors that increase with age. It is estimated that there will be 135,400 new cases in the U.S. in 2001 with 1,300 new cases occurring in Arkansas (see figure 5). In the U.S., it is estimated that 56,700 deaths will occur; 600 Arkansans will be among that number.

Colonoscopy is the best screening method to detect colorectal cancer at an early stage, and most physicians in Arkansas recommend a yearly fecal occult blood test, this at age 50 or before if indicated.

e. Bladder Cancer

Bladder cancer is the fifth most common cancer in the U.S. and Arkansas with higher incidence and mortality rates seen in males.[20] The U.S. estimate is 54,300 new cases for bladder cancer in 2001; Arkansas will see 500 of those new cases (see figure 5). Smoking is the greatest risk factor because many carcinogens in tobacco are excreted in the urine. A urinalysis that is positive for blood and increased frequency of urination can be early indicators.

f. Cervical Cancer

Cervical cancer incidence and mortality rates have declined over the past few decades, but it is still one of the leading causes of death in women worldwide.[21] An estimated 12,900 new cases will be diagnosed in the U.S. in 2001; 200 of those new cases will be diagnosed in Arkansas (see Figure 5).

A regular Pap test is recommended for women who have reached the age of 18 or have become sexually active. Approximately 60,000 pap tests are performed yearly in local health department clinics.

g. Skin Cancer

Skin cancer is the most common form of cancer in the U.S. The American Cancer Society estimates that in 2001, 56,400 new cases of skin cancer

[18] American Cancer Society. Cancer Facts & Figures - 2001
[19] Arkansas Central Cancer Registry, Cancer In Arkansas, 1996-1998
[20] Ibid.
[21] Ibid.

(excluding basal and squamous cell skin cancers) will be diagnosed, and 9,800 will die.[22]

Malignant melanoma, the most rapidly increasing form of cancer in the U.S., causes more than 75 percent of all deaths from skin cancer. This disease can spread to other organs, most commonly the lungs and liver. Like most cancers, melanoma diagnosed at an early stage is usually treatable.

Due to the following barriers to implementation, the goals and objectives for a skin cancer prevention program included in the ARCP are limited for the following reasons:

- Funding is limited
- No immediate implementing organizations for a skin cancer prevention plan
- Available data are not complete

Hopefully, these and other barriers can be addressed in the near future and eliminated so as to move forward with more specific plans for skin cancer.

IV. Strategic Goals

The section below contains the objectives and strategies for each of the first year priorities. In many cases, the proposed work and timelines are included. These priorities are based on the work of numerous partners and serve to create additional infrastructure for comprehensive cancer control. Other strategies are included as a part of the overall plan. However, the strategies actually completed will be determined by funding amounts and resources.

Arkansas was designated a Planning State by CDC in 1998, but at that time, no funding was available. Planning activities have continued without funding during the past two years and indications of planning activities have been labeled in terms of relevant Building Blocks from the Building Block Model designed by CDC from information provided by Arkansas and five other states.

Arkansas is beginning its first year of implementation of *The Arkansas Cancer Control Plan 2001 – 2005*. The Plan includes six major categories with seventeen goals. The categories are as follows:

A. Public Education and Prevention
B. Early Detection, Treatment and Support
C. Professional Education and Practice
D. Cancer Surveillance
E. Implementation
F. Evaluation

[22] American Cancer Society. Cancer Facts & Figures - 2001

A. Public Education and Prevention: Promote and increase public awareness of cancer prevention and control.

GOAL 1 (Public Education/Prevention). Increase availability and effectiveness of materials and programs.

Objective 1.1. Coordinate speakers' bureaus and facilitate dissemination of up-to-date information to speakers by 2002.

Baseline. There are currently 72 members on the BreastCare Speaker's Bureau.

Data Source. BreastCare Speakers' Bureau List

Strategies.

- Expand the BreastCare Speakers' Bureau and/or copy it as a model for other cancers by Spring 2002.
- Involve cancer survivors in the distribution of prevention education materials and messages within communities.

GOAL 2 (Public Education/Prevention). Design and implement a comprehensive media campaign.

Objective 2.1. Design and implement a comprehensive media campaign to increase awareness of cancer risks and risk reduction for the general public.

Baseline. Current ongoing media campaigns include those sponsored by BreastCare and the Arkansas Foundation for Medical Care (AFMC). The Arkansas Tobacco Master Settlement media plan is in the Request for Proposal stage at this time.

Data Source. BreastCare, AFMC, and The Arkansas Tobacco Control Plan

Strategies.

- Maintain a central resource center and directory to provide the public and the media with the latest most accurate cancer information. Include a media resource guide that includes the names of contact persons and experts on cancer issues.
- Stimulate community-based ownership in planning and sponsoring programs for cancer prevention.
- Use innovative and effective approaches to market and provide public education and information on cancer prevention and risk factors, such as coordinated multimedia events around current news or cancer promotions, such as breast cancer awareness month or minority cancer awareness week.

Objective 2.2. Ensure the availability and quality of cancer education materials for minorities and medically underserved populations.

Strategies.

- Identify and inventory existing culturally appropriate cancer prevention information materials and programs for special populations.
- Involve health and education professionals and community members with expertise in specific populations groups in the assessment of cancer prevention materials.
- Provide training and materials to cancer prevention educators on how to communicate effectively with specific audiences.

Objective 2.3. Increase the availability and access of credible cancer information by developing websites using the Internet by 2005.

Strategies.

- Develop and maintain a website with appropriate links to provide accurate and up-to-date cancer information.
- Develop a resource list that contains the location of computers available for use by the public.
- Publish resource information on the website on effective cancer prevention activities, materials and workshops.

GOAL 3: (Public Education/Prevention): Increase the availability and effectiveness of cancer prevention and risk reduction materials for the public by 2005.

Objective 3.1. Assess the availability, accuracy, and cultural relevance of cancer prevention materials for Arkansans.

Strategies.

- Develop a database of available materials by December 2002.
- Develop community-based programs for cancer prevention through Hometown Health Improvement (HHI) by 2005.
- Provide information to Boone, Madison, Scott, Baxter, Washington, Nevada, Cross, and Drew counties (counties who have begun HHI projects or are moving into years two and three to be designated pilot) beginning in the Spring of 2002.

GOAL 4: (Public Education/Prevention): Encourage children and adults to adopt risk reduction habits.

Objective 4.1. Increase the proportion of school age children who eat five or more servings of fruits and vegetables 25% by 2005.

Baseline. In Arkansas, 18.8% of school children eat five or more servings of vegetables, 63.1% participate in vigorous exercise, and 39.6% use tobacco products.

Data Source. Youth Risk Behavioral Survey, 1999

Strategies

- Work with the schools to strengthen the nutrition and physical activity components of Comprehensive School Health Education and Coordinated School Health Programs statewide.
- Implement effective community-based programs statewide that address one or more of the Dietary Guidelines for Americans.
- Promote governmental and voluntary policies that support the recommendations of the Food Guide Pyramid.
- Advocate for reimbursement of preventive nutrition counseling by public and private health insurance providers.

Objective 4.2. Increase the proportion of school age children who get regular exercise to 75% by 2005.

Baseline. In Arkansas, 63.1% of school age children participate in vigorous exercise.

Data Source. YRBS 1999

Strategies.

- Initiate the adoption of daily physical education in schools statewide (K-12).
- Implement community-based programs for young people statewide to engage in vigorous physical activity.
- Promote governmental, state, voluntary, and local policies that promote daily physical activity.

Objective 4.3. Increase the proportion of adults who eat five or more servings of fruits and vegetables 30% by 2005.

Baseline. In Arkansas, 22.5% of adults eat five or more servings of vegetables.

Data Source. Behavioral Risk Factor Surveillance System, 2000

Strategies.

- Implement effective community-based programs statewide that address one or more of the Dietary Guidelines for Americans.
- Promote governmental and voluntary policies that support the recommendations of the Food Guide Pyramid.
- Advocate for reimbursement of preventive nutrition counseling by public and private health insurance providers.

Objective 4.4. Increase the proportion of adults who get regular exercise to 30% by 2005.

Baseline. In Arkansas, only 10% of adults participate in regular and vigorous exercise.

Data Source: Behavioral Risk Factor Surveillance System, 2000

Strategies.

- Implement successful work-site model programs statewide to promote physical activity (e.g., the March Into May Program).
- Implement effective community-based programs statewide that promote daily physical activity.
- Promote governmental, state, voluntary, and local policies that promote daily physical activity.
- Ensure that adequate opportunities for safe physical activity are available (e.g., green spaces, community recreation facilities, waling trails, and safe sidewalks).
- Implement the Great Strides Program as part of the tobacco prevention and cessation program (grant program to build walking trails in rural communities).

Objective 4.5. Decrease the proportion of adults who are overweight to 50% by 2005.

Baseline. In Arkansas, 58.01% of adults are overweight.

Data Source. Behavioral Risk Factor Surveillance System, 2000

Strategies.

- Implement successful work-site model programs statewide to promote physical activity (e.g., the March Into May Program).
- Implement effective community-based programs statewide that promote daily physical activity.
- Promote governmental, state, voluntary, and local policies that promote daily physical activity.
- Ensure that adequate opportunities for safe physical activity are available (e.g., green spaces, community recreation facilities, waling trails, and safe sidewalks).
- Implement the Great Strides Program as part of the tobacco prevention and cessation program (grant program to build walking trails in rural communities).

GOAL 5: (Public Education/Prevention). Reduce the proportion of Arkansans who use tobacco products.

Objective 5.1. Reduce the proportion of young people who have used tobacco products to 32% by 2005.

Baseline. 39.6% of Arkansas youth reported that they used tobacco products.

Data Sources. Youth Risk Behavioral Survey, 1999.

Objective 5.2. Reduce cigarette smoking among pregnant women to 20 % by 2005.

Baseline: 30.5% of pregnant women in Arkansas smoke cigarettes.

Data Sources. PRAMS, 1998.

Objective 5.3. Reduce the proportion of Arkansas adults aged 18 and older who smoke cigarettes to 20 % by 2005.

Baseline. 25.17% of Arkansas adults smoke cigarettes.

Data Sources: Behavioral Risk Factor Surveillance System, 2000.

Strategies.

- Implement effective community based programs (such as SWAT and Students Working Against Tobacco) statewide that engage youth in developing and implementing tobacco control interventions and that include teacher training and parental involvement.
- Implement evidenced based curricula identified through CDC's Research to Classroom Project and promote comprehensive school health education.
- Promote and assist schools in adopting and enforcing tobacco-free policies.
- Provide accessible, affordable and proven cessation programs for youth, adults, and pregnant women.
- Continue to implement a statewide media campaign to counter pro-tobacco influences and increase pro-health messages.
- Enforce laws that restrict minors' access to tobacco products.
- Implement health care provider-based education and patient counseling programs for pregnant women.
- Promote governmental and voluntary policies to promote clean indoor air, restrict access to tobacco products, provide insurance coverage for treatment, and other policy objectives.
- Establish a statewide telephone cessation help line, increase availability of effective cessation programs, and promote policies that cover treatment of tobacco use under public and private insurance.
- Encourage businesses to prohibit the use of tobacco products on their premises.
- Encourage employers to offer no-cost tobacco use cessation programs to their employees.
- Encourage health and life insurance companies to reduce the cost of premiums for Arkansans who do not use tobacco products.
- Provide training to health care professionals on effective tobacco use cessation and control methods and materials.

GOAL 6 (Public Education). Encourage adoption and enforcement of clean indoor air laws, ordinances, and policies.

Objective 6.1. Increase city/county ordinances and make reports available by December, 2002.

Baseline. Currently the only city ordinances exist in Arkansas. (See Appendix B)

Strategies.

- Implement community-based tobacco prevention and control programs statewide that engage local organizations, schools, youth, parents, enforcement officials, community and business leaders, and healthcare providers.
- Promote governmental and voluntary policies to promote clean indoor air, restrict access to tobacco products, provide insurance coverage for treatment, and other policy objectives.

Objective 6.2. Eliminate involuntary public exposure to environmental tobacco smoke (ETS) for all Arkansas citizens.

Strategies.

- Promote state and local policies, including voluntary policies that restrict smoking in all public places.
- Increase awareness of the harmful effects of ETS to children exposed in schools, daycares, homes, automobiles, and public places.
- Increase enforcement and monitor compliance with existing indoor air laws.

B. Early Detection, Treatment, and Support.

TYPE OF CANCER	POPULATION		
Test	**Sex**	**Age**	**Frequency**
Breast			
Self-examination	F	20 and over	Every month
Clinical Examination		20-40	Every 3 years
		Over 40	Every year
Mammography 1,2		40 and over	Every year
Cervix Uteri 1,3			
Pap Test	F	All women that are or have been sexually active or are 18 years or older.	Annually, after 3 or more consecutive satisfactory normal annual examinations, the Pap test may be performed less frequently--this should be at the discretion of the woman's physician.
Pelvic Examination			
Colorectal 1,4			
Flexible Sigmoidoscopy	M & F	50 and over	Every 5 years
Fecal Occult Blood Test	M & F	50 and over	Every year
Digital Rectal Examination	M & F	50 and over	Every 5 years
Colonoscopy	M & F	50 and over	Every 10 years
Digital Rectal Examination	M & F	50 and over	Every 10 years
Double Contrast Barium Enema	M & F	50 and over	Every 5-10 years
Digital Rectal Examination	M & F	50 and over	Every 5-10 years
Prostate 1,5			
Digital Rectal Examination	M	50 and over (for men with at least 10-year life expectancy)	Every Year
Prostate-specific antigen (PSA)			
Lung			No recommended screening guidelines
Chest x-ray	M & F		
CT scans			
Molecular markers in sputum			
Bladder			No recommended screening guidelines
cystoscope	M & F		

Goal 7 (Detection, Treatment and Support). Increase Knowledge of Screening and Detection Services, as listed above.

Objective 7.1. Increase knowledge and awareness of screening and detection services.

Strategies.

- Monitor and evaluate cancer screening and early detection tests.
- Evaluate screening guidelines and ensure all are evidence based.
- Evaluate and reduce the confusion regarding insurance coverage of cancer screening procedures.
- Monitor access to cancer screening and diagnostic services by county.
- Evaluate if all physicians are consistently recommending screening tests.
- Assess the knowledge Arkansans have regarding the risk factors of cancer.
- Confirm and clarify screening recommendations for the public.
- Implement plan of breast and cervical cancer by Community Health Centers in Arkansas.
- Ensure use of and notification of health educators that are located within each Community Health Center.
- Work with organizations such as the health departments and Community Health Centers to increase access to health care in rural areas.
- Evaluate the effectiveness of strategies utilized to encourage people to use screening and diagnostic services.
- Collaborate with health care providers, community and civic organizations regarding public awareness campaigns for education.
- Collaborate with health care providers, community and civic organizations to distribute information regarding cancer education.
- Inform the public about available cancer risk assessment services through health care professionals and organizations.
- Inform the public about available health services within the community.
- Publish reference information, resource sites within each community on websites.
- Encourage churches, civic groups, schools, organizations and businesses to utilize available resources and screening services during community events.

Discussion. The controversies associated with screening broad sections of the population should be taken into account when planning for public education activities related to early detection, treatment and support. Some health care providers question long-term benefits, and some studies would seem to refute accepted practices. Another important question is that of the age of the recommendation of screening. There are sometimes confusing health messages. Insurance coverage is not consistent with regard to age recommendation and frequency for preventive screening. Most of us are familiar with the concern of generalized screening for prostate cancers that will lead to men being advised to undergo unnecessary and potentially harmful surgical procedures.

The first step to helping health care providers make correct decisions is providing information. Increased knowledge to detect and diagnose cancer in its earliest stage

enables increased survival rates begin to occur. In addition, an increased variety of treatment methods and outcomes can become available when family history, age, poor nutrition, lack of physical activities & other lifestyle factors are considered.

Early detection in children is particularly difficult because cancer is difficult to recognize in children.[4, 5] Aside from the recommended regular medical checkups,[5] a female child or teenager that has had any type of cancer should perform routine breast self exams due to possible occurrence of secondary malignancy. Teenage males should have testicular screenings due to increase risk of testicular rhabdomysarcoma. Any child or teenager with family history of cancer should be more alert to any unusual symptoms that persist such as dark or unusual moles, large lymph nodes, excessive rapid weight loss, headache with vomiting, and sudden vision loss.[4] Parents should ensure that children wear sunscreen with at least a 30 or greater protection.

Utilization of Screening. Many residents do not take advantage of local services. Lack of access to health care specifically in rural areas and for increased risk populations is far too common. Many have screening tests based solely on the recommendation of a physician. Therein lies a demonstration of the important role played by the primary health care provider.

Follow-Up Care. Follow-up care must be in place prior to screening services to ensure patients are adequately counseled and referred for further tests. These services enable those providing these screening services to determine the impact of the programs, document need for services and forecast future patient needs. False reassurance to patients due to non-call back from health care providers sometimes causes needless stress as well as delayed diagnoses.[12]

Public Awareness of Services. In order to make the public aware of services, health care offices, churches, civic organizations, libraries and governmental agencies should be utilized to help communicate the health messages. Efforts should be made to ensure that all information is consistent, accurate, and culturally appropriate. Health fairs, media events and community programs are always good vehicles to reach those in the neighborhood as well as utilization of computers and websites.

GOAL 8 (Detection, Treatment, Support): Increase the appropriate utilization of breast cancer screening and follow-up services.

Objective 8.1. Increase access to and use of quality breast cancer screening tests and exams.

Strategies.

- Identify data gaps and needs.
- Develop a plan to address identified data gaps.
- Evaluate the availability and use of cancer screening and supportive services.

- Partner with the Susan G. Komen Breast Cancer Foundation, as they complete bi-annual community assessments, to facilitate community access to funding and services.
- Develop networks of cancer specialists who can provide diagnostic and treatment consultation to primary care physicians in medically underserved areas.
- Expand the availability of culturally specific support groups, information, and counseling services to assist cancer patients and their families.
- Assist cancer patients in identifying and using cancer care and support services.
- Provide periodic continuing education programs on mammography technique and clinical breast exam technique.
- Work with health professional training programs to teach state-of-the-art techniques for breast cancer screening exams and tests.
- Support the activities of the Arkansas BreastCare Program.

Objective 8.2. Increase the proportion of Arkansas women aged 50 and older who have received a mammogram within the past two years to 90 % by 2005.

Baseline: 74.8% of Arkansas women aged 50 and older have received a mammogram within the past two years.

Data Sources: Breast Risk Factor Surveillance System, 2000

Strategies.
- Support ongoing implementation of Breast Care and Arkansas Breast and Cervical Cancer Control Programs.
- Support the American Cancer Society (ACS) "Tell-A-Friend" program.
- Support the Susan G. Komen Race for the Cure program.
- Develop a model community-based intervention to promote breast cancer screening.

Objective 8.3. Increase the proportion of Arkansas women aged 18 and older with a uterine cervix that received a Pap test within the proceeding 1 to 3 years to 90 percent, 2005.

Baseline. 83.1% of Arkansas women aged 18 and older with a uterine cervix have received a Pap test within the proceeding 1 to 3 years.

Data Sources. Behavioral Risk Factor Surveillance System, 2000

Strategies.
- Support ongoing implementation of the Arkansas Breast and Cervical Cancer Control Programs. [See Appendix A for a description of this program]
- Support ongoing funding of Title X (family planning) activities [see Appendix A for a description of this program].

GOAL 9 (Detection, Treatment, Support): Promote and increase the appropriate utilization of high-quality colorectal cancer screening and follow-up services.

Objective 9.1. Increase the proportion of people aged 50 and older who have received fecal occult blood testing (FOBT) within the preceding two years to 24 % by 2005.

Baseline. Nineteen percent of Arkansans aged 50 and older have received fecal occult blood testing within the last two years.

Data Sources. Behavioral Risk Factor Surveillance System,1999.

Strategies.

- Promote colorectal screening through public awareness campaigns.
- Develop professional education for primary care providers to support patient education and regular screening.
- Evaluate the geographic distribution of cancer screening and diagnostic services.
- Evaluate the effectiveness of strategies that encourage people to use screening and diagnostic services, with an emphasis on high-risk, underserved populations and Arkansans residing in rural areas.

Objective 9.2. Increase the proportion of adults aged 50 and older who have received a flexible sigmoidoscopy every five years or colonoscopy every ten years or double contrast barium enema every five to ten years to 28% by 2005.

Baseline. 22.7% of Arkansans aged 50 and older receive a flexible sigmoidoscopy every five years.

Data Sources. Behavioral Risk Factor Surveillance System, 1999.

Strategies.

- Inventory the number and location of providers who can perform the recommended services.
- Develop professional education to increase the number of providers who can perform recommended screening services in geographic areas with limited access.

Objective 9.3. Enhance the ability of health care providers to provide colorectal cancer screening tests and exams of the highest quality.

Strategies.

- Provide periodic continuing education programs about colorectal screening guidelines and procedures.
- Work with health professional training programs to teach students state-of-the-art techniques for cancer screening exams and tests.

Objective 9.4. Ensure that patients with abnormal colorectal cancer screening results receive timely and appropriate follow-up.

Strategies.

- Identify data gaps and needs.
- Develop a plan to address identified data gaps.
- Use new data used to assess, strategize, and prioritize future activities.
- Disseminate guidelines and protocols for screening and follow-up to health care providers through a variety of continuing education mechanisms.
- Support improvement of primary care office systems through implementation of reminder/recall systems, tracking systems, tickler systems, among others.

GOAL 10 (Detection, Treatment, Support): Increase Access to and Use of Treatment and Services.

Objective 10.1. Evaluate the availability and use of cancer treatment and supportive services.

Strategies.

- Evaluate the geographic distribution of cancer treatment and supportive services to identify areas of the state lacking services.
- Document by specific demographic groups the extent to which Arkansans are using available cancer treatment and supportive services.
- Evaluate the extent to which cancer patients are denied inclusion into NCI-approved clinical trials by public or private insurers.

Objective 10.2. Increase access to cancer treatment and support services.

Strategies.

- Identify data gaps and needs.
- Develop a plan to address identified data gaps.
- Develop networks of cancer specialists who can provide diagnostic and treatment consultation to primary care physicians in medically underserved areas.
- Ensure that health insurance and managed care plans facilitate prompt access to appropriate cancer treatment and supportive services and to clinical trials.
- Expand the availability of culturally specific support groups, information, and counseling services to assist cancer patients and their families.
- Ensure that home care and hospice services for cancer patients are locally available.

Objective 10.3. Assist cancer patients in identifying and using cancer care and support services.

Strategies.

- Publicize the availability of free cancer information services such as those operated by the American Cancer Society, the National Cancer Institute, and the Arkansas Cancer Resource Center.

- Maintain an up-to-date, computerized inventory that is easily accessible to the public and contains information about providers, services, and facilities.
- Support information distribution to cancer patients and their families through telephone hotlines, information centers, and medical facilities concerning locally available treatment resources and clinical trial options that may be available for their type and state of cancer.

GOAL 11 (Detection, Treatment, Support): Assure that palliative care and hospice services are integrated into the health care system, that all Arkansas residents have financial and geographic access to high-quality palliative and hospice care, and that Arkansans are more aware of, better prepared for, and more willing to seek hospice care.

Objective 11.1. Increase the proportion of health care providers caring for cancer patients who have additional certifications in hospice and palliative care.

Strategies.

- Gather baseline data of current training levels.
- Support education curriculum and conferences covering palliative and Hospice care.
- Develop undergraduate curriculum for health care students.
- Develop continuing education classes for health care professionals.
- Palliative and Hospice care education programs will address cultural and ethnic diversity issues

Discussion: Public education efforts on the importance of screening do not eliminate all the reasons why Arkansans don't get screened. Barriers to getting the information and then following through with screening and early detection activities include the lack of knowledge about preventive screening exams, risk factors, and family health history, lack of knowledge about screening guidelines, and fear of pain or discomfort of screening exams. Beliefs, especially in older women and minorities, that examination is ineffective and not necessary control the actions of many Arkansans.

Attitudes about doctors, preventive care, and screening effectiveness, as well as the sheer perception of cost is limiting, and the lack of physician recommendation, many people just don't get the cancer screenings that would help lower their risk of developing cancer, and then surviving cancer should it develop.

In a state where the face of the population is changing, cultural beliefs can still work against the science that is made available. Financial barriers to cancer services are usually the first ones that cancer control experts try to alleviate, usually because it is probably the easiest to document. However, a financial barrier is only one of many others, including lack of insurance or high deductible, limited coverage, and non-coverage of preventive screenings. Loss of insurance because of absenteeism due to a

medical condition can sometimes be caused by poor communication about a patient's condition to his or her employer.

Another type of barrier is the financial barrier to clinical trials. Things are changing as policy makers and health care providers come to understand the importance – and availability – of clinical trials. However, insurance still does not cover experimental treatments/trials. Some state cancer control plans have designated as a priority area, clinical trial participation by minority populations. The cost of medication is another barrier in which there is a growing public outcry. Sometimes the treatment/pain medication is just not covered by insurance, and the heartbreaking result is cancer patients suffer in silence. Before too long, they come to believe that no relief for their pain exists.

The barrier that has become an almost classic one is the lack of transportation or ability to pay for transportation to treatment facilities, or to facilities that are participating in clinical trial studies. It is difficult for many patients to get the attention of agencies that have solutions to these barriers because in many places, especially in a state such as Arkansas, there are no support groups or networks that hold that patient in its information loop, while trying to fulfill individual needs.

Our power to influence legislation not only lies in our numbers and organizational strength, but also in our ability to constantly build a network of organizations. There is definitely strength in numbers. Through our numbers we can influence policy at the state as well as the Federal level. It is very important to develop a statewide network of interested organizations, civic groups and businesses to be involved in educating our Federal, State and local public officials about the cancer issues in our state.

Needed in Arkansas are the following: 1) Legislative reform - state and federal, 2) Strong education efforts, 3) A strong network of organizations to influence legislation, 4) A coordinated effort for information gathering and sharing, 5) More transportation service providers, and 6) Insurance coverage for screening and treatment for all citizens.

GOAL 12 (Detection, Treatment, Support): Reduce societal barriers to cancer screening, diagnostic, treatment, and supportive services.

Objective 12.1. Reduce barriers to cancer services

Strategies.

- Evaluate the impact of societal barriers, such as clinic hours, childcare, transportation, language and cultural differences, on Arkansans' ability to obtain timely cancer services.
- Support development of strategic plans for overcoming societal barriers with input from community groups, health care providers, policy makers, and cancer patients.
- Evaluate transportation needs of cancer patients, with a priority focus on low-income patients.

- Publicize transportation services that are available for people seeking access to cancer services.
- Educate the public and media on benefits and advantages of new technological advances for the diagnosis and treatment of cancer.

Objective 12.2. Expand funding sources for cancer screening, diagnostic, treatment, and supportive services by fostering collaboration among governmental agencies and community organizations.

Strategies.
- Identify providers of detection and screening tests, including information about cancer, age, and gender specific services, type of equipment used, treatment offered, length of service, and follow-up.
- Identify location and hours of operation of all diagnostic, screening, treatment and support services.
- Identify statistics: census data, minorities, age, and special populations.
- Identify funding sources for additional detection and screening tests.
- Identify support services by site, type, length of service, referrals, follow up.

List of possible organizations to help implement above list of activities:
ADH, CDC, ACS, AHEC, Community Health Centers of Arkansas, Hospitals, Hospital Association, NARTI/CARTI/SARTI, ARC, AFMC, Arkansas Medical Society, Rural Health, DHS, Churches, AR Prostate Cancer Foundation, Legislature, Nurses' Association, Home Health, AAA, AARP, State Division on Aging, Center on Aging, UAMS, Hospice Association, Lung Association, Tobacco Companies, Arkansas Health Care Association, Arkansas Minority Health Commission, Home Care Association.

Objective 12.3. Facilitate community involvement in planning for funding for early detection, treatment and support services.

Strategies. Maintain and publicize an inventory of private and public sources for financial assistance with cancer screening, diagnostic, and treatment services.
Increase private sector donations of medical equipment and supplies.
- Disseminate information on funding sources for expanding cancer services in local communities.
- Provide technical assistance on grant writing and fundraising to community organizations seeking to develop cancer services.

C. Professional Education and Practice: Enhance Health Care Professionals' Knowledge, Skills and Practices

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GOAL 13 (Professional Education): Enhance health care professionals' knowledge, skills, and practices regarding cancer treatment and supportive services.

Objective 13.1. Enhance health care professionals' knowledge, skills, and practices.

Strategies.

- Determine, by discipline, health care professionals' knowledge and skills pertaining to the American Cancer Society's prevention and early detection guidelines.
- Assess the distribution of health care professionals with advanced training in prevention and early detection.
- Assess the availability of advanced training in cancer prevention education, screening, and diagnosis for health care professionals.
- Evaluate the factors that enhance health care professionals' participation in cancer prevention, screening, and diagnostic training programs.
- Develop strategies to keep health care professionals up-to-date on cancer prevention and early detection guidelines.
- Stimulate the development and use of innovative approaches to cancer education, such as the Internet, teleconferencing, and interactive educational software.
- Document and promote ways in which telemedicine can be an effective approach to cancer diagnosis and treatment.

Objective 13.2. Encourage health care professionals to routinely offer cancer prevention and early detection services to patients and families during health care visits.

Strategies.

- Determine, by discipline, health care professionals' adherence to the American Cancer Society prevention and early detection guidelines.
- Ensure that health care professionals have sufficient training and resources to provide timely cancer risk assessment, prevention education, screening, and diagnostic services.
- Provide training opportunities for health care professionals on effective cancer prevention counseling methods and educational materials for their patients.
- Ensure that health care professionals have ready access to cancer prevention materials that are appropriate for their patient populations.
- Promote the use of office management systems to remind health care professionals and their patients of the need for routine cancer risk assessment, counseling, and screening services.

Objective 13.3. Develop health care professional education programs that ensure students graduate with sufficient cancer prevention and early detection knowledge and skills.

Strategies.

- Support the development and voluntary adoption of minimum content standards for comprehensive cancer curricula for health care professional education programs.

- Review and modify health care professional education programs to ensure they address the principles, techniques, and skills needed in cancer prevention education, screening, and diagnosis.
- Support the development and implementation of innovative curriculum approaches to cancer education with competency-based objectives for health care professionals.
- Develop innovative strategies to ensure health care professional education programs have access to up-to-date cancer prevention and early detection materials.

Objective 13.4. Hire professional education contractor by November 1, 2001 to provide statewide continuing education programs for health care professionals.

Strategies.

- Design cancer control curricula for healthcare professionals.
- Continue and enhance statewide, multi-institutional physician oncology education, nurse oncology education, and dental oncology education programs.
- Assess the need for oncology specialists within other health care disciplines, develop training programs, and establish networks to address identified needs.

D. Cancer Surveillance: Design and Implement a Comprehensive Data System

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Discussion. To access what the cancer problem is in Arkansas we have to start with some facts. These facts can only be made by measurements. Five major sources of measurement are available to us: 1) Death certificates; 2) Hospital discharge summaries; 3) Hospital and physician office pathology reports; 4) Cancer registries; 5) Behavioral Risk Factor Surveillance System (BRFSS) reports. The denominator for this data depends on populations statistics derived from the deca-annual national census and the between year population estimates. We know that these are not perfect measurements but are the closest means of getting to the truth.

Death certificates no longer have to be signed by physicians and such problems as someone dying *with* rather that *because of* a given cancer (ex. Prostate) alters the statistics by an immeasurable amount. The Surveillance Epidemiological End Results (SEER) data is the best cancer population data we have in the U.S. and has been used with death certificate data and methods to estimate population changes to guesstimate the "expected incidence" of cancer in Arkansas each year.

In 1994, the Arkansas Board of Health mandated cancer as a reportable disease. This allowed the Arkansas Central Cancer Registry (ACCR) to have a legitimate basis for collecting cancer data from hospitals, surgical centers, and physicians' offices. In 1996, the first cancer data was collected but did not include data from hospitals with fewer than 100 beds and did not include data from Tennessee due to data sharing issues. It was

estimated that the ACCR had collected 87% of the "expected" cases. In 1997, the ACCR collected and in 2001 reported 97% of the "expected" cases of cancer in Arkansas. This completion rate was considered a reliable measure of cancer incidence in Arkansas with recognized omissions requiring further perfection. The ACCR grew from a staff of five in 1998 to a staff of nine in 2001. This growth facilitated increased support to the smaller hospitals and physicians' offices. The additional staff included a data manager who is a computer programmer, resulting in increased computer efficiency. All of this resulted in improved quality of the data collected. The computer programs are also designed to recognize replication of data and to correct the numbers for replication.

The ACCR collects core data on the demographics of cancer and on issues related to patient history, staging, diagnosis and treatment, but not on all the issues concerned with screening, prophylaxis, public and professional education. For this, the BRFSS program must be utilized. The latter is a telephone health survey program that queries a random sample of Arkansans with three sets of questions. The first and primary set is utilized nationally and provided by the CDC. The second set is made up of optional CDC modules (e.g. smokeless tobacco, firearms) that states may elect to use. The third set of questions is made by the state and are not edited or evaluated by the CDC.

To develop a Comprehensive Cancer Data System will require an integration of the information from the ACCR and the BRFSS reports. In addition, it will require the initiation of other registries to measure preventive interventions more accurately than BRFSS, such as a mammography registry. The benefits of such a cancer data system would be many. First, it would be a measurable method of understanding the extent to which cancer is affecting the lives of Arkansas citizens from the standpoint of longevity and quality of life. Second, it would allow us to focus on population subsets at highest risk to introduce prevention and early treatment remedies. Third, it would provide information that could be used for professional and public education. Fourth, it would be cost effective by indicating where the limited resources can be most productively used. Fifth, it would provide a basis for research in the treatment and prevention of cancer and its drain on the Arkansas economy.

In order to have an Arkansas Cancer Plan that is useful and up-to-date becomes a self-fulfilling prophesy by the design and implementation of a comprehensive Arkansas cancer data system. To make it work, however, will require financial support since the recognized problems will have to be solved by the private sector with public support for those who do not have the means for self health care. Coordination of existing programs for public health care will be a useful goal. Monitoring of the Arkansas Cancer Plan will be accomplished by establishing a baseline of data for the currently anticipated cancer problems, re-measuring at regular intervals and recognizing whether the changes have been accomplished or not. A small group of representative people should be appointed to advise the administration of the plan on a regular and continuing basis.

GOAL 14 (Cancer Surveillance). Design and implement a comprehensive cancer data system responsive to the needs of Arkansas health care providers, policy makers, planners, researchers, and the general public.

Objective 14.1. Establish and implement a comprehensive cancer data system that meets the information needs of its many potential users.

Strategies.

- Consult potential system users to identify their information needs, the level of detail, and the format that will be most useful to them.
- Convene a steering committee to design, implement, and evaluate a strategic plan for the comprehensive cancer data system.
- Assemble the various components of the comprehensive data system into a computerized, centralized source for cancer information that maximizes linkages with other existing data sources.
- Publicize the availability of the cancer information system to the public, health care professionals, policy makers, and researchers.

Objective 14.2. Conduct and document studies on cancer incidence and mortality, trends, risk behaviors, and cost data and integrate them into the comprehensive cancer data system.

Strategies.

- Utilize the information system to analyze cancer rates, trends, and other pertinent cancer statistics.
- Collect, analyze, and disseminate data related to behaviors that put Arkansans at risk for developing cancer.
- Collect, analyze, and make available cancer information related to expenditures for cancer prevention and control.
- Document the cost benefit of prevention and early detection of cancer.

Objective 14.3. Ensure the Arkansas Central Cancer Registry achieves timely, standardized, and complete cancer reporting, conducts analyses of demographic, incidence, staging, and survival data, and provides summary data.

Strategies.

- Convene a steering committee to design, implement, and evaluate a strategic plan to achieve timely, standardized, and complete reporting of cancer data.
- Utilize input from health care facilities, tumor registries, and health care professionals to improve cancer data reporting and utilization.
- Facilitate health care facilities' acquisition of the equipment and trained personnel necessary for electronic reporting.
- Provide technical assistance and training to facilities and health care professionals to increase complete and timely reporting of cancer data.

Objective 14.4. Expand the number of trained cancer registration professionals.

Strategies.

- Document the number of certified tumor registrars and other professionals performing cancer registration.
- Assess the training and experience of professionals performing cancer registration in Arkansas.
- Assess barriers that health care facilities and the Arkansas Central Cancer Registry face in hiring and retaining skilled cancer registry staff.
- Develop innovative training and professional placement programs to encourage people to enter and remain in the field of cancer registration.

E. Implementation.

Arkansas has successfully completed a comprehensive cancer control planning process with participation from a diverse group of stakeholders. There is strong commitment from people and organizations in Arkansas to begin the implementation of this Plan immediately. Implementation of the Plan, though ambitious, will be made possible through partnerships and shared resources with all of the numerous organizations and individuals who have collaborated to make the Plan a reality. The following are objectives and strategies for implementing the Plan:

GOAL 15 (Implementation): Build a comprehensive cancer prevention, control, and care program or coalition that is based on best practices.

Objective 15.1. Establish, support, or become part of, a public/private collaboration that focuses on comprehensive cancer prevention, control, and care.

Strategies

- Determine what changes, if any, are required in the management/administration of the ARCP Taskforce to move forward with implementation of the Plan and to best suit the needs of comprehensive cancer control.
- Seek funding sources to support the collaboration.
- Identify and catalogue cancer prevention, control, and care programs, resources, and best practices in the state of Arkansas.
- Share programs, resources, and best practices through such means as a newsletter or website.
- Continue to hold an annual Arkansas Cancer Summit to share best practices, and to identify current and emerging initiatives and activities across Arkansas.
- Evaluate cancer prevention, control and care strategies through a review of current literature.
- Inform or make available information about new strategies via listserves and connections with partner websites.
- Initiate listserve management and quality control measures.
- Establish core cancer indicators for communities to gauge their effort and conduct both short-term and long-term evaluation.

GOAL 16 (Implementation): Implement The Arkansas Cancer Plan.

Strategies.

- Identify priorities to be implemented first.
- Develop committees or taskforces to work on priority activities.
- Secure funding for priority activities.
- Implement priority activities.
- Evaluate implementation process.
- Identify second level of priority activities to be implemented and begin implementation cycle again after review of new knowledge in the field of cancer prevention and treatment, changes in recommendations and best practices, and cancer and evaluation data.

F. Evaluation

Evaluation is being built into the Arkansas Cancer Control Plan. Whenever possible measurable objectives have been used and baseline data are provided. However, there are objectives for which baseline data has not yet been compiled.

Arkansas moved ahead with the planning process even though there were no planning funds available. Because of the lack of funds to do survey work, some of the implementation goals and objectives contained in this Plan will require additional work from Taskforce members. The ARCP Taskforce, and by extension, the entire planning body, has decided to pursue a Plan through to the end, and now commit to have reasonable, measurable and time-bound objectives in all goal areas ready for implementation by November 1, 2001.

The focus of the evaluation in the first phase of implementation will be to measure progress toward our objectives and report back to the Taskforce membership successes and lessons learned in order to provide motivation to continue our work. Data sources exist for many of the objectives and will be monitored throughout the implementation phase.

GOAL 17 (Evaluation): Evaluate implementation of the Arkansas Cancer Plan to ensure that it continues to be useful and up-to-date.

Objective 17.1. Develop an evaluation plan for cancer control in Arkansas by Spring 2002.

Strategies.

- Identify and organize an evaluation committee.
- Hire contractor for evaluation of ARCP.
- Determine resources available for evaluation.
- Develop evaluation plan which will include who will implement the strategies and during what time frame.
- Conduct ongoing evaluation.
- Conduct periodic/annual reviews of the Evaluation Plan and revise if needed.
- Continue to encourage feedback from health care providers, policy makers, planners, researchers, and the general public so that subsequent editions of the Arkansas Cancer Plan meets the needs of Arkansans.
- Ensure that the ARCP is disseminated widely throughout the state and is available on the Internet.

Objective 17.2. Develop data sources for those objectives for which baseline data currently do not exist.

Strategies.

- Identify gaps in data.
- Determine potential data sources.
- Develop data sources as necessary.

APPENDICES

APPENDIX A
Terms and Acronyms

ACS. The American Cancer Society (ACS) Mid-South Division has been a partner in efforts to reduce the impact of cancer in Arkansas for many years. The ACS is a community-based voluntary health organization dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives from cancer and diminishing suffering from cancer, through research, education, advocacy, and service. ACS has played a key role in developing this Plan and has agreed to provide both monetary and human resource support to help with the Plan implementation.

Age-adjusted rate. An age-adjusted rate is a rate that controls for the age structure of different populations. Age-adjustment allows rates to be compared between population groups with different age distributions. All age-adjusted rates are expressed per 100,000 individuals per year.

ARBCCCP. Arkansas Breast and Cervical Cancer Control Program (ARBCCCP) is a statewide program that increases financial access to mammograms for low-income women; supports community coalitions to increase outreach and educational efforts; increases provider education regarding breast health; conducts media campaigns to increase awareness of the need for breast cancer screening; among other functions

ACCR. The Arkansas Central Cancer Registry (ACCR) seeks to reduce the morbidity and mortality due to cancer by providing cancer data for research and intervention programs.

BRFSS. The Behavioral Risk Factor Surveillance System (BRFSS)is the largest, continuously conducted telephone health survey in the world. It is conducted by each state under the guidance of the Centers for Disease Control and Prevention (CDC). The purpose of the survey is to uniformly collect data on a variety of behaviors and conditions that place adults at risk for chronic disease, injuries, and preventable infectious diseases that are the leading causes of morbidity and mortality in the U.S. Arkansas participated in 1991 and has been conducting this survey monthly since January 1993. Arkansas currently collects 3,000 interviews per year, or 250 interviews per month.

Cancer. A cancer is a population of abnormal cells showing a growth preference over their normal cellular counterparts.

Cancer cluster. The observation that an unusual number of a specific type of cancer case appears during a certain time period or in residents of a small, well-defined area, such as a street, school district, or in the path of exhaust from a polluting smokestack.

Cancer incidence. Cancer incidence is the number of newly diagnosed cases of cancer occurring in a population in a given period of time, usually one year. The incidence rate is the number of new cases of the disease expressed as a rate per 100,000 persons in the population.

Cancer mortality rate. Cancer mortality rates reflect the death rate specific to cancer or a particular type of cancer.

Carcinogen. A carcinogen is something that has been shown to cause, or linked with the development of, cancer. Carcinogens include the tar in cigarettes, asbestos, and ionizing radiation.

CDC. The Centers for Disease Control and Prevention (CDC) is an agency within the United States Department of Health and Human Services.

Chemotherapy. Chemotherapy is the use of cancer killing drugs to treat cancer.

Colonoscopy. A colonscopy is a colorectal cancer screening test consisting of an examination of the upper portion of the rectum with an elongated speculum.

CSHE. Comprehensive School Health Education.

HMO. Health Maintenance Organization

Incidence. Incidence is how many times something occurs in a given time period; for example, the number of times a new cancer is diagnosed in a defined population during a defined period of time, such as a year. New occurrence of a cancer is called an incident case.

Mammography. A screening test for breast cancer.

Mastectomy. Surgical removal of the entire breast.

Melanoma. Melanoma is the most serious type of skin cancer.

Metastasizing. A cancer that has spread from the original cancer site to other parts of the body is said to have metastasized.

Morbidity. Morbidity is the measurement of the extent of disease and disability.

NCI. The National Cancer Institute.

NIH. The National Institutions of Health.

Pap test. A Pap test is the screening test for cervical cancer developed by Dr. Papanicolaou.

PHN. Public Health Nurses (PHN) assist families and communities to prevent and control communicable diseases, help children with special needs, obtain services from specialty clinics, obtain care for the sick, and support families in stress.

PRAMS. Pregnancy Risk Assessment Monitoring System (PRAMS) is used to monitor health behavior among pregnant women.

PSA. The Prostate-Specific Antigen (PSA) blood test is used to screen for prostate cancer.

SEER. The Surveillance, Epidemiology, and End Results Program (SEER) is a National Cancer Institute network of population-based cancer registries that collects ongoing data on new cancer cased and patient survival rates.

Title X. Title X is a program that provides funding for low-income women to receive cervical cancer and other health screenings.

Appendix B
Summary of City Tobacco Ordinances for Arkansas

Alma	No smoking in city owned, leased and/or leased space in buildings and offices including elevators, stairways, hallways, rest rooms and break rooms. Signs must be posted. Smoking allowed in city vehicles with department head approval. Fines will be $25 for first offense, $50 for second, $100 for third, and $250 for subsequent offenses. Took effect (7/20/93).
Arkadelphia	Smoking prohibited in city buildings and vehicles owned or leased by the city. Fines not to exceed $50 will be levied against violators. Certain areas may be designated where city employees may smoke. These areas shall be at least 50 feet from any city owned or leased building. (8/24/95)
Ash Flat	Ban on use of tobacco products in City Hall during public meetings and city council meetings. (1/10/94)
Batesville	Working on in 1998/99
Blytheville	Bans all smoking in the City Hall building. Violation is a misdemeanor and punishable by a fine on not less than 425 and not more than $100. (11/21/95)
Brinkley	Smoking ordinance was only discussed and never passed.
Bryant	Smoking prohibited within any building occupied by the city or any of its political subdivisions or departments, except in areas so designated by the mayor or department head. Conspicuous signs must be placed. Fine not to exceed $100 plus court costs. (1/26/98)
Bull Shoals	Tobacco products use is prohibited within any city owned or leased buildings during public meetings. Fines not less than $5 or more than $100. (3/10/93)
Cabot	Smoking in the city buildings is prohibited. Conspicuous signs must be posted. Fines not to exceed $25. (5/10/93)
Camden	Municipal Building is designated as a nonsmoking facility. (12/12/95)
Clarksville	No smoking policy in all city-owned buildings. (2/8/93)

Corning	Smoking or use of tobacco products in city buildings or buildings occupied by city personnel is prohibited. Fine not less that $5 nor more than $25, and each offense shall be deemed a separate offense. (1/8/96)
Dumas	Prohibits the use of tobacco products within the Municipal Building. Fine not less than $25 and not more than $100 for each violation. (9/11/93)
El Dorado	NO ORDINANCE (Ordinance committee recommended no action be taken on 1/23/92)
Fayetteville	No person shall smoke in the following public places: health care facilities, except private rooms occupied by one or more patients who smoke; licensed child care facilities; except in areas in which children being cared for are never present; polling places; courtrooms and jury waiting and deliberation rooms; rooms, halls, or other places of public meetings in jurisdiction of the city (shall not apply to meetings of private organizations); drug stores, grocery stores, banks, libraries, and Laundromats; public transportation terminals; buses, taxis, airport limos operating in city limits; elevators accessible to the public; rest rooms, except where listed in subsection (d); and swimming pools owned or operated by the city. No person shall smoke in the following public places, except in designated smoking areas: facilities used for exhibiting any motion picture, lecture, musical recital, stage or similar performance, except when smoking in part of stage production; enclosed walkways in malls and shopping centers; hotels and motels; museums and galleries; bank and retail stores, except stores whose primary source of revenue is the sale of tobacco; restaurants in business on the date of enactment of ordinance (see ordinance for further details); and health spas, roller rinks, bowling alleys, and other indoor sports or other recreation facilities, except pool halls. See ordinance for shall not apply section and further details. (12/17/98)
Glenwood	Smoking prohibited in city buildings, except in designated smoking areas. Fine not to exceed $25 will be levied against violators. (5/1/95)
Gould	Prohibiting smoking in city hall, except in designated areas. Shall place "No Smoking" signs in conspicuous locations. The women's and men's bathrooms shall be designated areas for smokers. Fines not less than $25 and not more than $100. (8/17/93)
Helena	Prohibits smoking in all city owned buildings. (9/16/93)
Hot Springs	Prohibit smoking in owned or leased municipal buildings. "No Smoking" signs shall be placed in conspicuous locations. Fines not less than 425 and no more than $100. (4/2/94)

Hughes	City Hall designated a no smoking area and "No Smoking" signs shall be posted. (?/?/?)
Huntsville	City Administration Building is a smoke and tobacco free environment. Fines will be for first offense $50 - $100; second offense (within three years of first) $100 - $250; and third offense $250 - $1,000 (occurring within three years of the first) plus court costs. (6/6/94)
Jonesboro	WORKING ON IN 1998/99
Lavaca	No smoking in city owned, leased and/or leased space in buildings and offices including elevators, stairways, hallways, rest rooms, and break rooms. May be allowed in city vehicles with approval of mayor. Signs shall be posted for no smoking. Fines be maximum of $25 for first offense, $50 for second offense, $100 for third offense, and $250 for subsequent offenses, (1/8/96)
Little Rock	Regulation of smoking in public places. (5/5/87) No smoking within hospitals or within 25 feet of any entrance to hospitals. (5/3/87) Prohibit smoking in vehicles providing passenger service under franchise granted by the city. (2/3/98) (For more details, please see complete ordinances)
Magnolia	Use of tobacco products in city buildings is prohibited, except in designated smoking areas. (4/12/93)
Malvern	The use of tobacco products is prohibited in the City Hall, (2/12/96) Amended with a fine of $75 for each violation. (12/8/97)
McGhee	Ordinance regulating smoking within city limits, except in designated smoking areas. (Please see ordinance for all the details.) (1/6/87)
Morrilton	No smoking allowed in City Hall and Council Meeting rooms or Chambers. (1/9/95)
Murfreesboro	End all smoking in the Municipal Building. (5/8/95)
North LR	Smoking is prohibited in city buildings, except in designated smoking areas. Fines not to exceed $25 will be levied. (1/23/89) Regulation of smoking in public places ordinance was passed on August 10, 1992. (See Ordinance 6646 for further details.)
Searcy	Use of tobacco products is prohibited in public buildings or other enclosed structures owned or occupied by any agency or instrumentality of the city of Searcy, except in area designated as a smoking area. (8/12/97)

Siloam Springs-Smoking prohibited in the City Administration Building, except in areas designated by City Administrator. Fine shall be a minimum of $10 up to a maximum of $50. (11/19/91)

Texarkana Restricts smoking in city owned, operated, or managed facilities, except in designated smoking areas. This includes any motor vehicle owned or operated by the city. Does not include city parks. "Non-smoking Area" signs and "Designated Smoking Area" signs must be posted. The fine shall be $65. (5/17/93)

Warren The smoking of tobacco, or products containing tobacco, or of products other than tobacco in any form or by any method in the Warren Municipal Building, including, by not limited to, any room, hall, corridor, rest room, storeroom, or basement therein, in prohibited. Fine of not more than $100. (3/7/95)

West Helena No smoking in City Hall.

West Memphis-Smoking in city buildings is prohibited. Fines not to exceed $25. (2/16/95)

White Hall Smoking in city buildings is prohibited. Fines not to exceed $25. (9/13/93)

**Cities not listed do not have an ordinance to our knowledge or did not respond. American Cancer Society survey, 3/1/98.

APPENDIX C
National Cancer Prevention and Screening Guidelines Sources

American Cancer Society
1599 Clifton Road, NE
Atlanta, GA 30333
Telephone: 1-800-ACS-2345
Website: http://www.cancer.org

American Lung Association
1740 Broadway
New York, NY 10019
1-212-315-8700
Website: http://www.lung.usa.com

American Gastroenterological Association
7910 Woodmont Avenue, 7th floor
Bethesda, MD 20814
301-654-2055
Website: http://www.gastro.org

American Association of Dermatology
930 N. Meacham Road
Schaumburg, IL 60173
847-330-0230
888-462-3376
Website: http://www.aad.org

American College of Surgeons (ACoS)
Commission on Cancer
633 North Saint Clair Street
Chicago, IL 60611
Telephone: 312-202-5000
Website: http://www.facs.org

American Society of Clinical Oncology (ASCO)
1900 Duke Street, Suite 200
Alexandria, VA 22314
Telephone: 703-299-0150
Fax: 703-299-1044
Website: http://www.asco.org

Arkansas Cancer Research Center (ACRC)
4301 West Markham, Slot #519
Little Rock, AR 72205
Telephone: 501-686-5638

Cancer Information Service, Mid-South
2365 Harrodsburg Road, Suite A230
Lexington, KY 40504
Telephone: 859-219-9063
Fax: 859-219-2276
Website: http://cancer.uky.edu/cis
For Cancer Information call: 1-800-4-CANCER

Centers for Disease Control and Prevention (CDC)
Division of Cancer Prevention and Control
1600 Clifton Road, NE
Atlanta, GA 30333
Telephone: 404-639-3311
800-311-3435
Website: http://www.cdc.gov

Guide to Clinical Preventive Services, United States Preventive Services Task Force
Website: http://158.72.20.10/pubs/guidecps/default.htm

Agency for Health Care Research and Quality
Website: http://www.ahc.pr.gov/clinic/ppipix.htm

National Cancer Institute (NCI)
Surveillance Epidemiology & End Results Program (SEER)
Executive Plaza North, 343J
9000 Rockville Pike
Bethesda, MD 20892
Telephone: 301-496-8510
Fax: 301-402-0816
1-800-877-1319
Website: http://www.seer.ims.nci.nih.gov

National Comprehensive Cancer Network
50 Huntington Pike, Suite 200
Rockledge, PA 19046
Telephone: 888-909-6226
Fax: 215-728-3877
Website: http://www.nccn.org

North American Association of Central Cancer Registries (NAACCR)
2121 West White Oaks Drive, Suite C
Springfield, IL 62704-6495
Telephone: 217-698-0800
Fax: 217-698-0188
Website: http://www.naaccr.org